VILLAGE OF PEORIA HEIGHTS, IL

Water System Capital Improvement Plan

FY 2024 – 2043

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Village of Peoria Heights, IL
February 2023

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DEFINITIONS

BIL DWSRF	Bipartisan Infrastructure Law Drinking Water State Revolving Fund
CIP	Capital Improvement Plan
CMU	Concrete Masonry Units
FY	Fiscal Year
gpd	Gallons per Day
HP	Horsepower
HVAC	Heating, Ventilation, and Air-Conditioning
IDOT	Illinois Department of Transportation
IEPA	Illinois Environmental Protection Agency
IL SRF	Illinois State Revolving Fund
kW	Kilowatt
LSLI	Lead Service Line Inventory
LSLR	Lead Service Line Replacement
MG	Million Gallon
MGD	Million Gallons per Day
PER	Preliminary Engineering Report
PFAS	Per- and Polyfluoroalkyl Substances
PVC	Polyvinyl Chloride
SCADA	Supervisory Control and Data Acquisition
TDH	Total Dynamic Head
VFD	Variable Frequency Drive
WTP	Water Treatment Plant

1. INTRODUCTION

1.1 Purpose

The Village of Peoria Heights, Illinois (the Village) has contracted Woodard & Curran to develop a Capital Improvement Plan (CIP) for their water system. Woodard & Curran, following a detailed engineering evaluation of the Village's water system infrastructure, has developed this updated document which provides an effective infrastructure rehabilitation management and planning tool for continued use by the Village. By employing methodologies presented in this report for infrastructure replacement/rehabilitation, the Village can continue to efficiently and economically serve its customers over the next twenty years.

1.2 Goals of the Plan

The Village of Peoria Heights is committed to providing a safe, reliable, and adequate potable water supply to its customers. Currently, the Village produces a volume of water sufficient to meet consumer demands. The Village maintains control and operation of five groundwater supply wells and a water treatment plant. Supplemental water can be purchased from Illinois American Water in the event of an emergency. As such, the Village's system consists of water treatment, well pump stations, water storage tanks, and primary transmission and distribution water mains including appurtenances (i.e. valves, hydrants, service connections, etc.).

The goal of the Plan is to develop a comprehensive infrastructure plan for the Village's water system. This was accomplished by reviewing and evaluating the condition of each of the major system infrastructure components. Appropriately, a cost and schedule for implementing identified improvements or replacements was developed.

Generally, the Village will seek to pursue the most beneficial and reasonable method of financing while considering other factors including debt obligation and potential financial burden to the rate payers. It is primarily intended that any improvements in the form of rehabilitation and/or replacement continue to be completed through a program in which the water system is upgraded and maintained to ensure the present and future needs of the rate payers.

2. EXISTING WATER SYSTEM ASSESSMENT

In April 2022, Woodard & Curran, along with individuals from the Village, conducted a visual condition assessment of all major water system components including supplies, water storage tanks, pumping stations, and treatment facilities. The condition of the assets was assessed based on this on-site visual inspection combined with conversations with the Village of Peoria Heights staff.

2.1 Existing Water System Description

The Village has a groundwater system with five wells (Wells #7, #8, #9, #11, and #12) that draw water from the San Koty Aquifer approximately 150 – 200 feet deep. There is a 350 kW generator located east of Well #11 which can power Wells #11 and #12 and the associated feed equipment in the event of a grid power failure.

The WTP is located at 5411 Galena Road and has an average daily demand of 582,000 gallons per day (gpd) and a design capacity of 1,000,000 gpd. Water is drawn from the aquifer using five drilled wells. Phosphate is added to the water at each well before they join in a common raw water line at the Low-Level Pump Station. The Low-Level Pump Station is located at the WTP and houses the three high-service pumps, each rated for 1,750 gpm at 305 total dynamic head (TDH). Here, sodium hypochlorite and hydrofluosilicic acid are added to the water before it is discharged to the 1,000,000-gallon standpipe on site. Full backup power is provided through a backup 100 kW propane generator. The Village operations staff treats the water, verifies treatment through regular monitoring, conducts routine maintenance and repairs, and handles all chemicals associated with treatment.

The Village also has an existing emergency interconnect with Illinois-American Water located at 1500 E. Lake Street and an additional emergency interconnect to be constructed at the intersection of E Toledo Avenue and N Monroe Avenue.

Three high service pumps at the Low-Level Pump Station move water from the 1 MG standpipe to the two 500,000-gallon storage tanks that serve the main population of the Village.

Table 2-1 describes the water storage tanks serving the Village of Peoria Heights system.

Table 2-1: Water Storage Tanks

Tank	Type	Usable Capacity	Location
Low-Level Tank	Standpipe	1,000,000 gal	WTP
Observation	Standpipe	500,000 gal	Tower Park
Toledo	Elevated	500,000 gal	Toledo Ave

The water distribution system supplies water for both domestic use and fire protection. Table 2-2 provides an approximate overall inventory of the Village's water mains by pipe diameter. The Village's water distribution system includes approximately 194,000 feet of water main. Table 2-3 provides an approximate inventory of the Village's water mains by material.

Table 2-2: Water Mains by Pipe Diameter

Water Main Diameter (inch)	Total Length (feet)
2	3,145
4	70,081
6	72,547
8	23,373
10	8,188
12	11,387
16	2,133
Other	2,846

Table 2-3: Water Mains by Material

Water Main Material	Total Length (feet)
Cast Iron	149,845
Ductile	14,946
Plastic	27,247
Unknown	997
Other	629
Combination of Materials	36

2.2 Existing System Condition Assessment

Water system components were evaluated and classified according to the descriptions in the table below.

Table 2-4: Conditional Assessment Evaluation Criteria

Condition	Description
Excellent	• Sound physical condition. • Operable and well maintained. • Expected to perform adequately with routine maintenance for at least 50% of original life cycle.
Good	• Acceptable physical condition. • Shows some signs of minor wear that has little to no impact on performance with minimum short-term failure risk. • The potential for further deterioration or impaired performance over the next five years exists. • Some work required and component is serviceable.

Fair	• Functions but shows signs of wear and diminished performance. • Risk of failure exists. • Still serviceable but approaching end of useful life.
Poor	• Functions, but with high level of maintenance. • Failure has occurred or is imminent. • Reached end of expected service life.

A list of major facilities and components of the Village's Water System is included in Table 2-5: Summary of Principal System Components. A brief narrative presenting the general condition of each facility, its approximate age, and an estimate of remaining service life is provided. Condition surveys of these facilities resulting from field inspections are included in Appendix B.

In preparing this Plan, future needs were established from current system operating data, site visits and facility condition assessments, meetings with Water Department representatives, and generally accepted useful life estimates, as provided in Appendix 1 of the 2002 Rules and Regulations for Clean Water Infrastructure Plans. In addition, by employing proper routine maintenance along with replacement of critical items and "wear use" components, the useful life expectancy of a particular system component may be extended significantly.

Table 2-5: Summary of Principal System Components

Component	Condition – Description
Well #7	Peoria Heights Well #7 building is constructed of brick and is in good condition. Chemical feed equipment appears to be in good condition. This well recently had its motor rebuilt in early 2022 and is in good working condition. This is the Village's highest producing well.
Well #8	Peoria Heights Well #8 building is constructed of sheet metal and is in fair condition. The well building currently does not include a roof hatch to remove the well pump. Chemical feed equipment appears to be in good condition. Based on inspection records, the pumping capacity of this well has decreased since its installation. However, this is a very good producing well and is the Village's lowest producer of manganese.
Well #9	Peoria Heights Well #9 building is constructed of brick and is in good condition. Chemical feed equipment appears to be in good condition. The well was recently rehabbed between 2018 and 2019. This well recently began producing manganese and must be ran with another well for blending.
Well #11	Peoria Heights Well #11 building is constructed of sheet metal and is in fair condition. The well building currently does not include a roof hatch to remove well pump. Chemical feed equipment appears to be in good condition. Rehabilitation of the pump and pipe shaft occurred in 2015. Additional rehabilitation occurred in April 2019 to unclog the well screen. Well #11 is now in good working condition.
Well #12	Peoria Heights Well #12 building was installed in December 2011 and is in good condition. The well building is constructed of CMU blocks. Chemical feed equipment appears to be in good condition. This well has had issues with high

Component	Condition – Description
	manganese and has caused compliance issues with the IEPA. This well is typically ran with Well #8 and #11 for blending.
Low-Level Water Plant Chemical Feed System	The Low-Level Water Plant Chemical Feed System appears to be in good operating condition. The Village switched from disinfecting with chlorine gas to sodium hypochlorite in August 2019. Chemicals are stored within double-walled containers.
High Service Pump 1 High Service Pump 2 High Service Pump 3	The (3) high service pumps were installed sometime in the late 1970's. Due to their poor condition, they were completely rebuilt and modernized at the beginning of 2015. High Service Pump 1 and 2 are on soft starters while High Service Pump 3 is on a VFD. This VFD was installed around 2003. Typically, High Service Pump 1 is online while High Service Pump 2 and 3 are on backup. The Village does not cycle pumps and typically only runs High Service Pump 1
Low-Level Storage Tank (Standpipe)	The Low-Level Storage Tank (Standpipe) is in fair condition. It was last inspected in 2016 and painted in 2017. Due to its proximity to the forest reserve, the exterior is coated in dirt and grime. The tank currently does not have a mixer and the interior coating is beginning to thin.
Toledo Water Tower	The Toledo Water Tower is in fair condition. It was last inspected in 2016 and painted in 2017. The exterior and interior coatings are significantly thinning and there is visible cracking in the exterior coating. The tank currently does not have a mixer.
Observation Tower (Tower Park Standpipe)	The Observation Tower (Tower Park Standpipe) is in poor condition. It was last inspected in 2015 and painted in 2017. There are concerns surrounding the structural condition of the tower due to corrosion on the lower observation deck, mast supporting stairwell, and panels on the stairwell at the elevator shaft

Component	Condition – Description
	opening. This tank does not currently have a mixer and the interior and exterior coatings are in need of refinishing.
SCADA	The Village currently has the ability to control the Wells and High Service Pumps with on/off commands. The Village does not have the ability to control the chemical feed pumps remotely – the chemical feed pumps turn on automatically once the well pump is turned on. Security is a concern as the main computer is currently housed in Centennial Hall which is a multi-purpose building. Additionally, the computer is accessed by a general login and password which does not allow for identification of the individual which logs into the computer.
Water Distribution System	The Village's water mains vary in age and condition with the oldest water mains being installed as early as 1914. Sections of the Village's water mains experience frequent breaks caused by its poor condition which is due to its age being beyond its useful life. The Village has difficulty isolating sections of the water main due to the lack of valves located throughout the system.
Water Meters	The Village replaced all its water meters in 2013 with new Neptune smart meters. The water meters are still in good working condition. The anticipated useful life of the water meters is approximately 20 years.

2.3 Population and Water Demand Projections

The user base is not anticipated to expand significantly over the course of the CIP. Based on US Census data, the Village's population has experienced a slight decreasing trend over the last 20 years. Through conversations with the Village, there is potential for redevelopment of areas of Peoria Heights which would lead to the population increasing over the 20-year period. This potential redevelopment would increase the population density within the Village. Table 2-6 and Table 2-7 provide population data and projections for the Village's user base based on US Census data.

Table 2-6: United States Census Data

	Population Data												
	2000	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total Population	6,638	6,156	6,271	6,216	6,095	6,056	6,046	6,019	5,972	5,910	5,860	5,908	5,827
Sources: 2000: US Census 2000 2010: US Census 2010 2020: US Census 2020 2011-2019: U.S. Census Bureau, American Community Survey 5-Year Estimates													

Table 2-7: Future Population Estimates

	Population Estimate		
	2030	2040	2043
Total Population	5,479	5,106	4,995

*Population estimates determined using linear regression of historical population data

Although there is potential for redevelopment of the Village resulting in an increase in population, for the purposes of this CIP, the Village's water demand is not anticipated to increase over the course of the next 20 years. Through conversations with the Village and IEPA water system inspection records, the Village's water demand is as shown in Table 2-8.

Table 2-8: Village Water Demand

	Flow (GPD)
Average Day	400,000
Max Day	850,000
Peak Day	1,068,000

3. INFRASTRUCTURE IMPROVEMENT EXPENDITURE PLAN

3.1 Background – Infrastructure Improvement Needs and Expenditure Plan

The following discussion of system needs is based on the best information and assessments available at this time and may be adjusted as priorities change or as regulatory requirements dictate. Both the 5-year plan and a 20-year infrastructure replacement and expenditure plan for major system components are summarized in the following text. Proposed projects and estimated expenditures in the 20-year plan are less detailed than those of the 5-year plan as required per the Regulations.

3.2 5-Year Infrastructure Improvement Plan (FY 2024 – FY 2028)

The following sections outline Village's anticipated projects for the next five years. The projects in the five-year plan, for fiscal year (FY) 2024 through FY 2028, prioritize infrastructure that requires immediate attention.

The following sections outline the projects that the Village intends to complete in the next five years. Some of the projects span over several years due to the design and construction timelines. These projects are necessary for the Village to continue to maintain and improve their system. Projects included within the 5-year CIP are summarized in Appendix A while projects included in within the 20-year CIP are summarized in Appendix B. A project funding roadmap is provided in Appendix C.

3.2.1 FY 2024 Projects

Water Treatment Upgrades (Preliminary Engineering Report) - $150,000: This project includes the evaluation of alternatives for water treatment systems to improve the Village's water quality. The preliminary evaluation will primarily focus on filtration systems to reduce manganese levels in the Village's drinking water. The project will provide a cost benefit analysis for various manganese treatment alternatives and locations for filtration. The evaluation will also determine design benefits for the various treatment alternatives. Alternatives may include construction of individual filtration systems at the well sites or construction of a new greensand filtration plant located at the existing WTP. The Village received a compliance violation in 2021 and in 2022 for its manganese levels. The preliminary report will also evaluate potential treatment alternatives for emerging contaminants such as PFAS. This project will provide the background information for the Water Treatment Upgrades design in FY 2025 and construction in future years.

Flowmeters – Well #7, #8, #9, and #11 - $50,000: This project includes the installation of flowmeters in existing well houses to measure and record raw water production from each ground water well. Well #12 currently has a flow meter installed.

Lead Service Line Inventory - $40,000: This project includes completion of the Lead Service Line Inventory of the Village's service lines to identify all locations of Lead Service Lines. This information will be used to plan and complete the Lead Service Line Replacement project anticipated to continue through FY 2041.

Hydraulic Model - $75,000: This project will include the development of a hydraulic model for the Village's water system. The hydraulic model can be used to identify low pressure areas which will aid in system design and analysis.

Water Main Replacement – Lake Avenue (Engineering)– $126,000: This project includes the engineering for the replacement of the existing 6" cast iron water main with new 8" PVC water main under Lake Avenue from N Boulevard Avenue to N Prospect Road. The existing water main experiences frequent breaks and was originally installed between 1914 and 1930. Replacement of this water main is a high priority for the Village. This project will occur prior to roadway reconstruction. The water main along Lake Avenue from N Prospect Road to E Shady Oak Drive has been recently replaced.

3.2.2 FY 2025 Projects

Water Treatment Upgrades (Engineering) - $130,000*: This project includes the design of the selected alternative, from the Water Treatment Upgrades PER, to improve the Village's drinking water quality. The Water Treatment Upgrades PER will evaluate alternatives for manganese filtration as well as analyze treatment options for other emerging contaminates such as PFAS. The engineering cost shown is for engineering of an individual manganese filtration system at one of the well sites. The engineering cost is dependent on the selected alternative from the Water Treatment Upgrades PER as well as available grant funding. Construction of this project is anticipated to begin during FY 2027. The construction timeline of the project is dependent on the alternative selected from the Water Treatment Upgrades PER. The Village received a compliance violation in 2021 and in 2022 for its manganese levels. Manganese is considered an emerging contaminant and projects that address manganese are eligible for BIL DWSRF Emerging Contaminant Capitalization Grant. The IEPA anticipates prioritizing projects that address manganese. IEPA must provide 100% of this capitalization grant as principal forgiveness. Additional information on the potential grant can be seen in Appendix C.

Common Generator – Well #7 & Well #8 - $182,000: This project will include the installation of a new, shared generator to provide backup power for Well #7 and Well #8.

Observation Tower Evaluation - $31,000: This project includes a thorough inspection and evaluation of the Observation Tower, including a comprehensive report. The evaluation will include a site visit to Peoria Heights as well as a technical memo to summarize the Observation Tower upgrade recommendations. This evaluation will provide background information for the Observation Tower Rehabilitation project anticipated for FY 2029.

Lead Service Line Replacement - $403,000: This project includes the ongoing replacement of existing lead service lines identified in the Lead Service Line Inventory (LSLI). Based on the Village's initial LSLI, the Village has approximately 159 lead service lines and 1,528 unknown service lines. In accordance with the US EPA updated Lead and Copper Rule, the Village is required to replace 6% of the lead service lines per year (102 services per year). This project is anticipated to continue through FY 2041. This project cost represents the cost to the Village with assumed 49% Principal Forgiveness from the anticipated IL SRF loan.

Water Main Replacement – Route 29 (Engineering) - $228,000: This project includes the replacement of the existing 4" and 6" cast Iron water mains with a new PVC water main along Route 29 from east of E Lake Avenue to E Gardner Lane. IDOT is currently planning on reconstructing Route 29. This project will occur in conjunction with the roadway reconstruction and is anticipated to continue through FY 2027.

3.2.3 FY 2026 Projects

Lead Service Line Replacements (Continued) - $407,000: This project includes the ongoing replacement of existing lead service lines identified in the Lead Service Line Inventory (LSLI). Based on the Village's initial LSLI, the Village has approximately 159 lead service lines and 1,528 unknown service lines. In accordance

with the US EPA updated Lead and Copper Rule, the Village is required to replace 6% of the lead service lines per year (102 services per year). This project is anticipated to continue through FY 2041. This project cost represents the cost to the Village with assumed 49% Principal Forgiveness from the anticipated IL SRF loan.

Water Main Replacement – Lake Avenue (Construction)– $1,315,000: This project includes the construction for the replacement of the existing 6" cast iron water main with new 8" PVC water main under Lake Avenue from N Boulevard Avenue to N Prospect Road. The existing water main experiences frequent breaks and was originally installed between 1914 and 1930. This project will occur prior to roadway reconstruction. The water main along Lake Avenue from N Prospect Road to E Shady Oak Drive has been recently replaced.

Water Main Replacement – Prospect Road (Engineering) - $263,000: This project includes the replacement of the existing 10" Cast Iron water main with new PVC water main under N Prospect Road from E Kingman Avenue to E War Memorial Drive. Existing water pressures in this area are not sufficient to provide fire flow. This project will occur prior to roadway reconstruction.

3.2.4 FY 2027 Projects

Water Treatment Upgrades (Construction) - $1,395,000*: This project includes the construction of the Water Treatment Upgrades to improve the Village's drinking water quality. The project will primarily address lowering manganese levels to reduce water hardness but may also address treatment for other emerging contaminants. The cost shown is a ballpark estimate for construction of a manganese filtration system at a single well site. Costs shown for future FYs are for construction of a manganese filtration system at a single well site escalated to account for 3% inflation per year. These costs are estimates and could change based on the results of the Preliminary Engineering Report anticipated for FY 2024. Construction of this project is anticipated to begin during FY 2027. The construction timeline of the project is dependent on the alternative selected from the Water Treatment Upgrades PER. The construction costs are also dependent on available grant funding. Manganese is considered an emerging contaminant and projects that address manganese are eligible for BIL DWSRF Emerging Contaminant Capitalization Grant. The IEPA anticipates prioritizing projects that address manganese. IEPA must provide 100% of this capitalization grant as principal forgiveness. Additional information on the potential grant can be seen in Appendix C.

Lead Service Line Replacements (Continued) - $420,000: This project includes the ongoing replacement of existing lead service lines identified in the Lead Service Line Inventory (LSLI). Based on the Village's initial LSLI, the Village has approximately 159 lead service lines and 1,528 unknown service lines. In accordance with the US EPA updated Lead and Copper Rule, the Village is required to replace 6% of the lead service lines per year (102 services per year). This project is anticipated to continue through FY 2041. This project cost represents the cost to the Village with assumed 49% Principal Forgiveness from the anticipated IL SRF loan.

Water Main Replacement – Route 29 (Construction) - $2,276,000: This project includes the replacement of the existing 4" and 6" cast Iron water mains with a new PVC water main along Route 29 from east of E Lake Avenue to E Gardner Lane. IDOT is currently planning on reconstructing Route 29. This project will occur in conjunction with the roadway reconstruction.

Distribution System Isolation Valves - $30,000: This project includes the ongoing installation of isolation valves throughout the distribution system. Additional isolation valves will allow for sections of water main

to be shut down for repair while minimizing the number of services without water. This project is anticipated to continue through FY 2031.

3.2.5 FY 2028 Projects

Water Treatment Upgrades (Construction, Continued) - $1,433,000*: This project includes the construction of the Water Treatment Upgrades to improve the Village's drinking water quality. The project will primarily address lowering manganese levels to reduce water hardness but may also address treatment for other emerging contaminants. The cost shown is a ballpark estimate for construction of a manganese filtration system at a single well site. Costs shown for future FYs are for construction of a manganese filtration system at a single well site escalated to account for 3% inflation per year. These costs are estimates and could change based on the results of the Preliminary Engineering Report anticipated for FY 2024. Construction of this project is anticipated to begin during FY 2027. The construction timeline of the project is dependent on the alternative selected from the Water Treatment Upgrades PER. The construction costs are also dependent on available grant funding. Manganese is considered an emerging contaminant and projects that address manganese are eligible for BIL DWSRF Emerging Contaminant Capitalization Grant. The IEPA anticipates prioritizing projects that address manganese. IEPA must provide 100% of this capitalization grant as principal forgiveness. Additional information on the potential grant can be seen in Appendix C.

Lead Service Line Replacements (Continued) - $432,000: This project includes the ongoing replacement of existing lead service lines identified in the Lead Service Line Inventory (LSLI). Based on the Village's initial LSLI, the Village has approximately 159 lead service lines and 1,528 unknown service lines. In accordance with the US EPA updated Lead and Copper Rule, the Village is required to replace 6% of the lead service lines per year (102 services per year). This project is anticipated to continue through FY 2041. This project cost represents the cost to the Village with assumed 49% Principal Forgiveness from the anticipated IL SRF loan.

Water Main Replacement – Prospect Road (Construction) - $2,741,000: This project will include the replacement of the existing 10" Cast Iron water main with new PVC water main under N Prospect Road from E Kingman Avenue to E War Memorial Drive. Existing water pressures in this area are not sufficient to provide fire flow. This project will occur prior to roadway reconstruction.

Distribution System Isolation Valves (Continued) - $30,000: This project includes the ongoing installation of isolation valves throughout the distribution system. Additional isolation valves will allow for sections of water main to be shut down for repair while minimizing the number of services without water. This project is anticipated to continue through FY 2031.

3.3 20-Year Infrastructure Improvement Plan (FY 2029 – FY 2043)

The following sections outline the Village Water Department's anticipated projects in the next six to twenty-year planning horizon. The projects in the 20-year plan, for FY 2029 through FY 2043, address long-term replacement and rehabilitation that does not require immediate attention. While the 5-year plan focuses on water treatment upgrades to improve water quality, water main replacement, and lead service line replacement, the 20-year plan addresses additional tank rehabilitation, pump station rehabilitation/replacement, and further improvements to the distribution system.

The following sections outline the projects that the Village Water Department intends to complete in the next 20 years. Some of the projects span over several years due to the design and construction timelines.

These projects are necessary for the Village to continue to maintain and improve their system but are not an immediate need.

3.3.1 Water Treatment Plant Projects

Water Treatment Upgrades (Construction, Continued) - $4,529,000* (total): This project includes the construction of the Water Treatment Upgrades to improve the Village's drinking water quality. The project will primarily address lowering manganese levels to reduce water hardness but may also address treatment for other emerging contaminants. The cost shown is a ballpark estimate for construction of a manganese filtration system at a single well site. Costs shown for future FYs are for construction of a manganese filtration system at a single well site escalated to account for 3% inflation per year. These costs are estimates and could change based on the results of the Preliminary Engineering Report anticipated for FY 2024. Construction of this project is anticipated to begin during FY 2027. The construction timeline of the project is dependent on the alternative selected from the Water Treatment Upgrades PER. The construction costs are also dependent on available grant funding. Manganese is considered an emerging contaminant and projects that address manganese are eligible for BIL DWSRF Emerging Contaminant Capitalization Grant. The IEPA anticipates prioritizing projects that address manganese. IEPA must provide 100% of this capitalization grant as principal forgiveness. Additional information on the potential grant can be seen in Appendix C. This project cost represents the sum of costs for construction of three filtration systems, one at each of the remaining well sites, from FY 2029 to FY 2031.

WTP High Service Pump #1 Replacement - $78,000: This project includes the replacement of the existing 250 hp High Service Pump #1 at the WTP. Although this pump was completely rebuilt at the beginning of 2015, the pump was originally installed in the late 1970's and is past its useful life.

WTP High Service Pump #2 Replacement - $78,000: This project includes the replacement of the existing 250 hp High Service Pump #1 at the WTP. Although this pump was completely rebuilt at the beginning of 2015, the pump was originally installed in the late 1970's and is past its useful life.

WTP High Service Pump #3 Replacement - $78,000: This project includes the replacement of the existing 250 hp High Service Pump #1 at the WTP. Although this pump was completely rebuilt at the beginning of 2015, the pump was originally installed in the late 1970's and is past its useful life.

WTP Chemical Feed Equipment – Sodium hypochlorite & Fluoride - $14,000: This project will include the systematic replacement of aging chemical feed equipment at the Water Treatment Plant.

WTP Chemical Storage Equipment - $42,000: This project will include the systematic replacement of aging chemical storage equipment at the Water Treatment Plant.

WTP HVAC, Electrical Upgrades - $1,911,000 (total): This project includes replacement of the electrical distribution, electrical equipment, grounding, lightning protection, VFD, soft starters, lighting, HVAC replacement, and generator replacement at the WTP. This project can be phased as shown in Appendix B.

3.3.2 Water Wells Projects

Well House Replacement – Well #8 - $273,000: This project includes the replacement of the existing sheet metal well house with a new CMU well house. The new CMU well house will be similar to the Well #12 well house. The project cost shown includes engineering and construction.

Well House Replacement – Well #11 - $266,000: This project includes the replacement of the existing sheet metal well house with a new CMU well house. The new CMU well house will be similar to the Well #12 well house. The project cost shown includes engineering and construction.

Well #7 Pump/Motor Replacement - $164,000: This project includes the replacement of the existing 200 hp pump.

Well #8 Pump/Motor Replacement - $91,000: This project includes the replacement of the existing 60 hp pump.

Well #9 Pump/Motor Replacement - $91,000: This project includes the replacement of the existing 60 hp pump.

Well #11 Pump/Motor Replacement - $89,000: This project includes the replacement of the existing 60 hp pump.

Well #12 Pump/Motor Replacement - $93,000: This project includes the replacement of the existing 60 hp pump.

Additional Well - $1,015,000 (total): This project includes the drilling and construction of an additional raw water well near the Peoria Heights' existing well field. The project cost shown includes engineering and construction.

Chemical Feed Upgrades at Wells – Phosphate - $58,000: This project includes the systematic replacement of aging chemical feed equipment at each of the existing well sites. The project cost shown is a total estimate to replace the existing equipment at all well sites.

3.3.3 Water Storage Tank Projects

***WTP Storage Tank Cleaning and Painting - $590,000*:** This project includes the cleaning and painting of the existing 1 MG standpipe located by the WTP. Based on current coating systems thickness and adhesion, an overcoat is recommended. The standpipe was last cleaned and painted in 2017.

Toledo Elevated Storage Tank Cleaning and Painting - $1,040,000: This project includes the cleaning and painting of the existing 500,000-gal Elevated Storage Tank located along Toledo Avenue. Based on current coating thickness, adhesion, and condition, a full coatings removal is recommended. The tank was last cleaned and painted in 2017.

Water Storage Tank Mixer Replacement – $130,000: This project includes the systematic replacement of tank mixers in all three water storage tanks.

***Observation Tank Rehabilitation - $1,150,000*:** This project includes rehabilitation efforts for the Observation Tower, as identified in the Observation Tower Evaluation in FY 2025. Rehabilitation will likely include structural components in addition to tank cleaning and painting. This cost is an estimate and could change based on the results of the preliminary evaluation.

3.3.4 Distribution System Improvement Projects

***Lead Service Line Replacement (Continued) – $6,677,000 (total)*:** This project includes the ongoing replacement of existing lead service lines identified in the Lead Service Line Inventory (LSLI). Based on the

Village's initial LSLI, the Village has approximately 159 lead service lines and 1,528 unknown service lines. In accordance with the US EPA updated Lead and Copper Rule, the Village is required to replace 6% of the lead service lines per year (102 services per year). This project is anticipated to continue through FY 2041. This project cost represents the sum of cost to the Village from FY 2029 to FY 2041 with assumed 49% Principal Forgiveness from the anticipated IL SRF loan.

Water Main Loop – Old Brewery Area - $541,000 (total): This project includes the construction of a new water main to loop existing water mains near the Old Brewery. Looping of the water mains will assist with water age in the distribution system and eliminate areas of stagnant water.

Distribution Systems Isolation Valves - $90,000 (total): This project includes the ongoing installation of isolation valves throughout the distribution system. Additional isolation valves will allow for sections of water main to be shut down for repair while minimizing the number of services without water. This total is distributed over FY 2029 – FY 2031.

Water Wells Raw Water Header Replacement - $2,743,000 (total): This project will include the replacement of the existing 12-inch cast iron raw water header, which conveys flows from the ground water wells to the Water Treatment Plant, with a new PVC header. The existing raw water header was installed around 1946 and is past its useful life. The project cost shown includes engineering and construction.

Water Meter Replacement – $1,773,000 (total): This project includes the replacement of water meters system-wide. Water meters were last installed in 2013/2014 and have an estimated life of service of 20 years. This total cost is distributed over FY 2034 – FY 2036.

Disinfection Station by Toledo Elevated Storage Tank (total) - $312,000: This project includes the engineering and construction of the Disinfection Station to be located at the Toledo Elevated Storage Tank. The Village has commented on poor water quality in this area of the Village due to lack of disinfectant within the supplied water. The Disinfection Station will provide a boost in disinfectant within the distribution system.

Distribution System Pressure Management Station - $350,000* (total): This project includes the engineering and construction of a pressure management station within the Village's distribution system. The final project and project cost will be determined following completion of the hydraulic model.

Emergency Interconnect / Backup Supply - $372,000 (total): This total represents engineering and construction work for an emergency interconnect with Illinois American Water. The cost for this project may be shared depending on agreement with Illinois American Water.

4. WATER RATE ANALYSIS

4.1 Rate Analysis Overview

This section documents the process used in developing our water rate analysis and recommendations for the Village of Peoria Heights for the Fiscal Years 2024 through 2033. It was completed as part of the Village's Water System Capital Improvement Plan, and accounts for current budgets, historical reports documenting past rate performance, several years of billing records, and the capital projects identified in Sections 1 through 3 of this report.

4.2 Utility Background

The Village of Peoria Heights is located in Peoria County of Illinois. According to the U.S. Census 2022, the Village has a population of 5,827. Water service is provided throughout the Village to approximately 3,000 customers.

Water revenue in the Village of Peoria Heights is primarily generated from:

- Billed usage, or water "sales." This is a tiered rate per 1,000 gallons measured at the meter (except for certain customer classes who pay a flat fee, regardless of metered use).
- Water turn on/off fees, lien removal fees, and Infrastructure Maintenance Fees (though this fee is kept in a restricted fund dedicated to repay certain loans)

Water expenses include operational costs, capital projects, and debt service expenses. The water fund is a dedicated account, separate from the Village's General Fund. It is structured as a dedicated special revenue account, and it allows for surplus to be generated to build in a water reserves fund.

4.3 Current Billing Practices

The Village currently bills customers on either a quarterly or monthly basis. Residential, Social Security, and Apartment customers are all billed on a quarterly basis. Business, Schools, and Country Club customers are all billed monthly.

4.4 Rate Analysis Description

There are four specific tasks associated with the completion of this water system rate analysis:

1. Examine the recent historical performance of the existing water rate structure. This task allows Woodard & Curran to ensure that we understand the Village's billing system, ensure that we can replicate prior year's financial performance, and have a solid foundation for developing future rate projections.
2. Develop a rational projection of future operating budgets.
3. Evaluate the rate impacts of the recommended 5- and 20-year capital improvement program as identified in this report, including assessment of the relevant impact of debt financing or cash financing the capital program; and

4. Use both historical consumption and non-consumption revenue data to calculate water usage charges that generates revenues sufficient to fully fund the Village's water operations, make needed capital investments, and maintain adequate reserve fund balances.

The first phase (Tasks 1 through 3) of a rate analysis revolves around developing a full understanding of the Water Department's budget and expenditures and developing informed, defensible estimates of the true cost of providing water service to the Village of Peoria Heights. These estimates include the Department's operating budget, the cost of existing debt repayment, and the cost of all capital investments to be made over the 10-year projection period. The period for these estimates is from FY2024 through FY2033, providing a ten-year projection.

The second phase (Task 4) of the rate study is to review the Department's historical billing records and make projections of the volume of sales that are expected from the customer bases. Using these projections, the monthly/quarterly minimum and volumetric charges can be set in a manner that is expected to generate the funds needed to operate the Water Department and make needed investments to ensure the long-term adequacy of the infrastructure.

4.5 Water Rate Analysis

As discussed in the preceding section, the three phases in appropriately setting water rates are:

1. Developing defensible projections of the full costs associated with operating the Water Department.

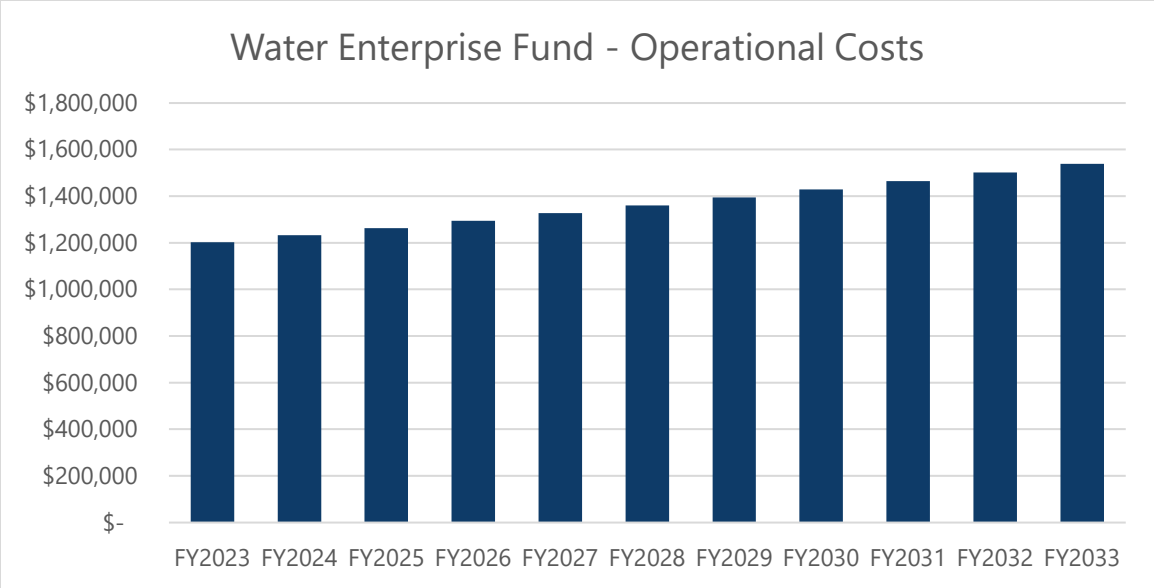
2. Reviewing multiple years of billed water consumption records and calculating the appropriate charges necessary to provide for the utility's long-term financial sustainability.

The results of these steps are detailed below.

4.5.1 Water Department Operating Budgets

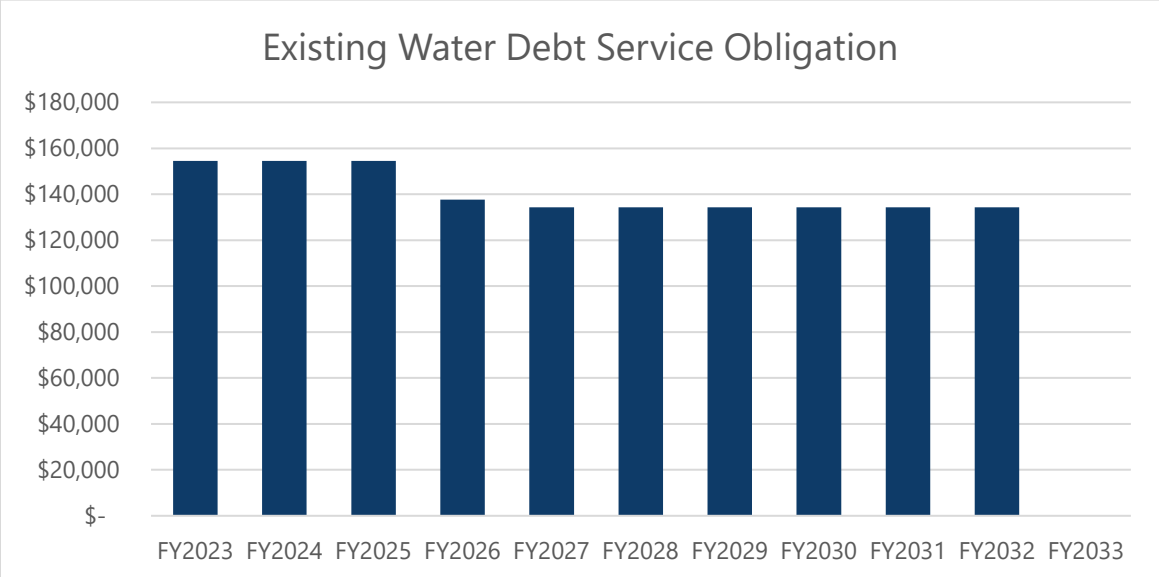
Woodard & Curran examined the past three years of the Water Department's budgets. Based on these budgets, a projection of the expected costs of running the Department were developed. As there have been no major changes to the level of service that is expected from the Department, the projection included in the rate model is based on Peoria Heights' FY2023 annual budget, escalated in line with industry standards.

As depicted in the chart below, we project that the water operating budget will increase from $1,202,437 in FY2023 to $1,539,221 in FY2033.



4.5.2 Water Department Debt Service

Like most water utilities, the Peoria Heights' Water Department has issued bonds and accessed loans to construct infrastructure and must repay to debtholders. A summary of these obligations was developed and is presented in the following chart. Note that these debt obligations exclude debt serviced by the INF Fund and only include obligations repaid by the Water Fund. Any debt taken on due to future capital projects is covered by the recommended rates.

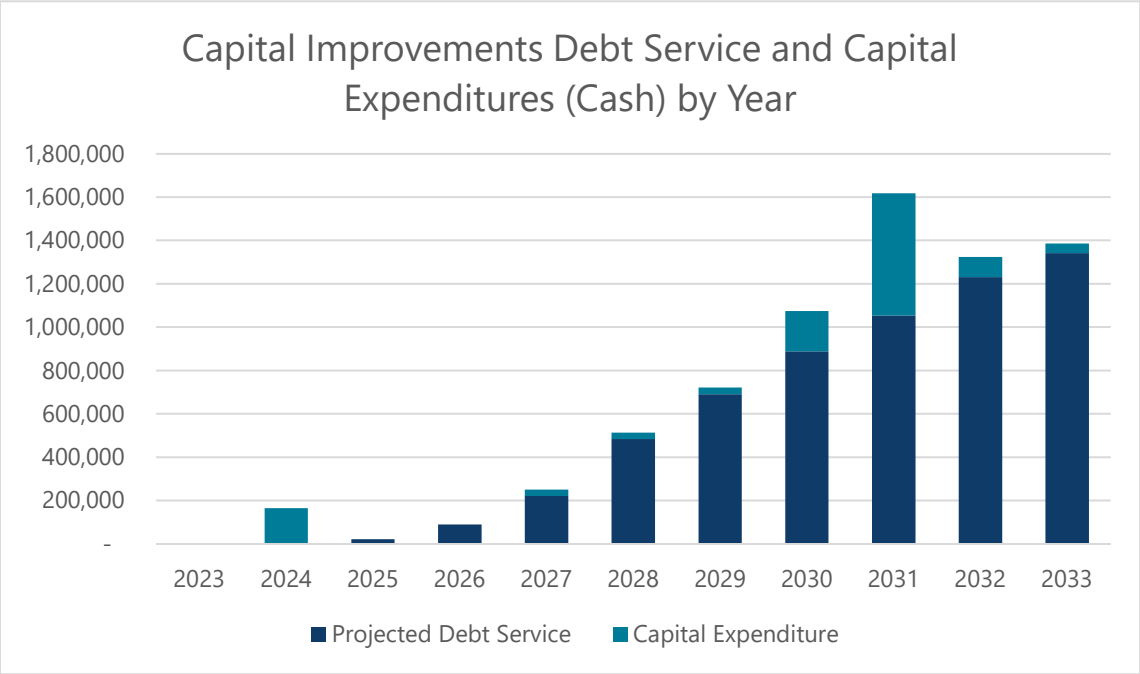


4.5.3 Water Department Capital Improvement Program

Working with the Village, Woodard & Curran has incorporated the list of capital improvement projects identified in this report into the rate analysis. Between FY2024 and FY2033, the list contains many new and recurring projects with FY2024 construction cost estimates totaling approximately $26,429,000. Taking the

full list of projects identified in the 20-year CIP, between FY2024 and FY2043, FY2024 construction cost estimates total approximately $36,483,000.

From the financial perspective, having a well-defined, comprehensive capital projects list is critical since the value, completion schedule, and manner of financing all have important impacts on the way the utility will experience the fiscal impacts of the capital program. Each of the projects has an associated value, a year of construction, and a manner of financing identified. Based upon this list of projects and completion schedule, a projection of the annualized costs of completing the Capital Improvement Plan was developed and is shown on the charts below.



Under expected debt financing plans traditionally used by enterprise funded utilities, the projects designed and constructed in FY2024/2025 will be financed (typically bonds) in FY2025 and will need to be repaid beginning in FY2026. As with some of the Water Department's current debt service obligations, it is anticipated that funding would be secured through the Illinois EPA's SRF program when appropriate. Other debt is assumed to be issued as general obligation bonds or as other loans following the process mentioned above. The projects in the analysis assumed to receive SRF loans, principal forgiveness, or grants are summarized in the list below. All SRF loans in the analysis have an estimated repayment period of 20 years and an interest rate of 2.5%.

- Water Treatment Upgrades – Engineering and Construction: SRF Loan
- Lead Service Line Inventory and Replacement: SRF Loan & 49% Principal Forgiveness
- Water Main Replacement – Prospect Road: SRF Loan & 50% Grant
- Water Main Replacement – Lake Avenue: SRF Loan
- Water Main Replacement – Route 29: SRF Loan

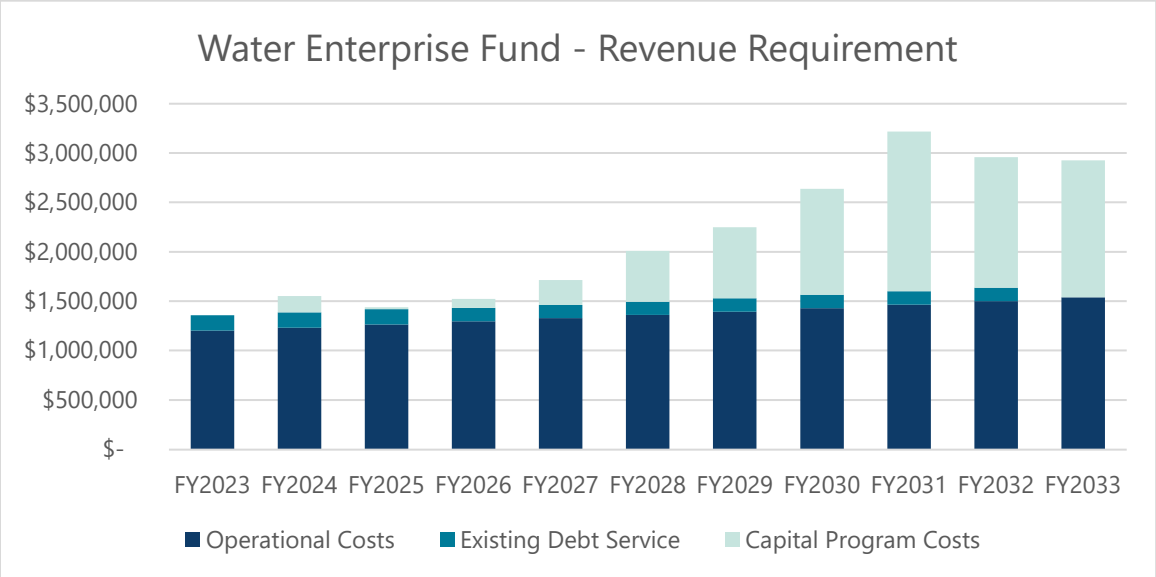
- Water Wells Raw Water Header Replacement: SRF Loan

4.5.4 Overall Water Cost of Service

Using the costs outlined in the sections above (operational budgets, debt service, and capital plan costs), an overall cost of service was projected through FY2033. The overall costs of service represent the annual amount of money which must be raised through available revenue streams in order for the Department to operate as a self-sustaining financial entity. This is depicted in the chart on the following page. The significant level of investment needed are moderated by the transition to utilizing debt-financed capital for investment in improvements.

Additional Fees and Charges

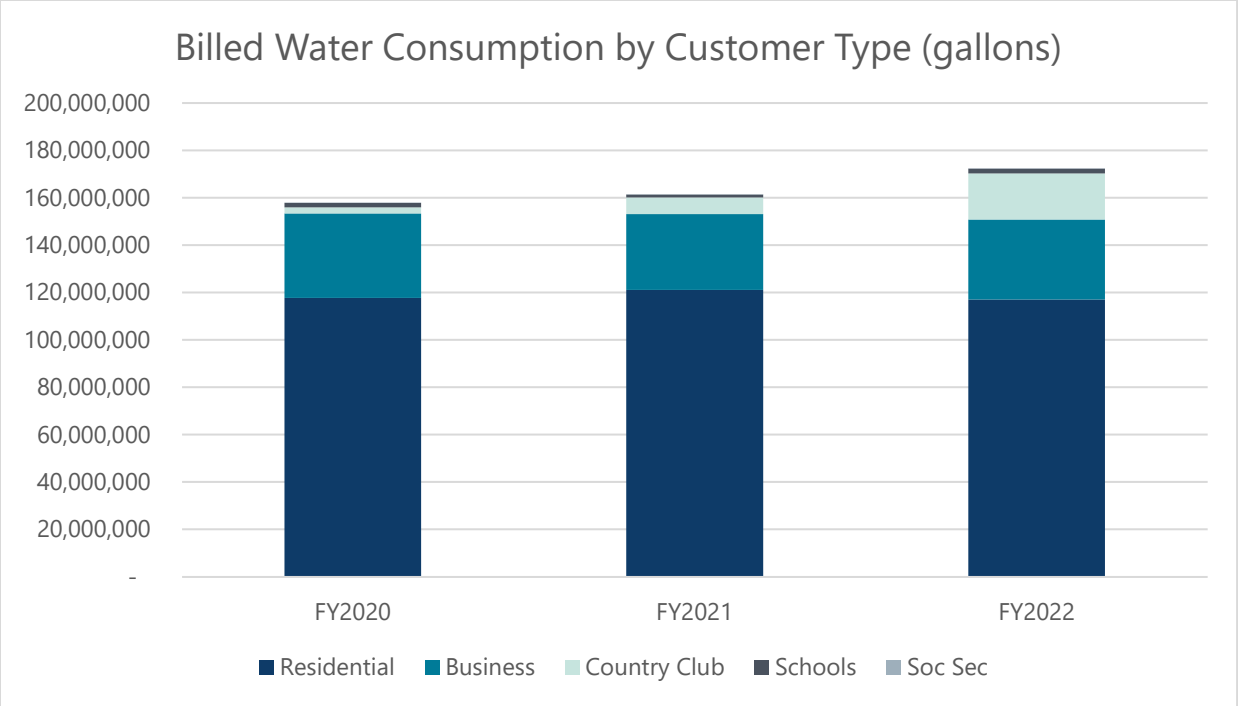
In addition to volumetric charges, the Water Department also gains revenue from turn on fees, lien file & removal fees, interest income, and infrastructure maintenance fees or INF (though INF revenues are restricted funds and not included in revenue projections). Where most of these practices are consistent with the costs for similar services in area communities, we propose no changes to the value or application of these charges.



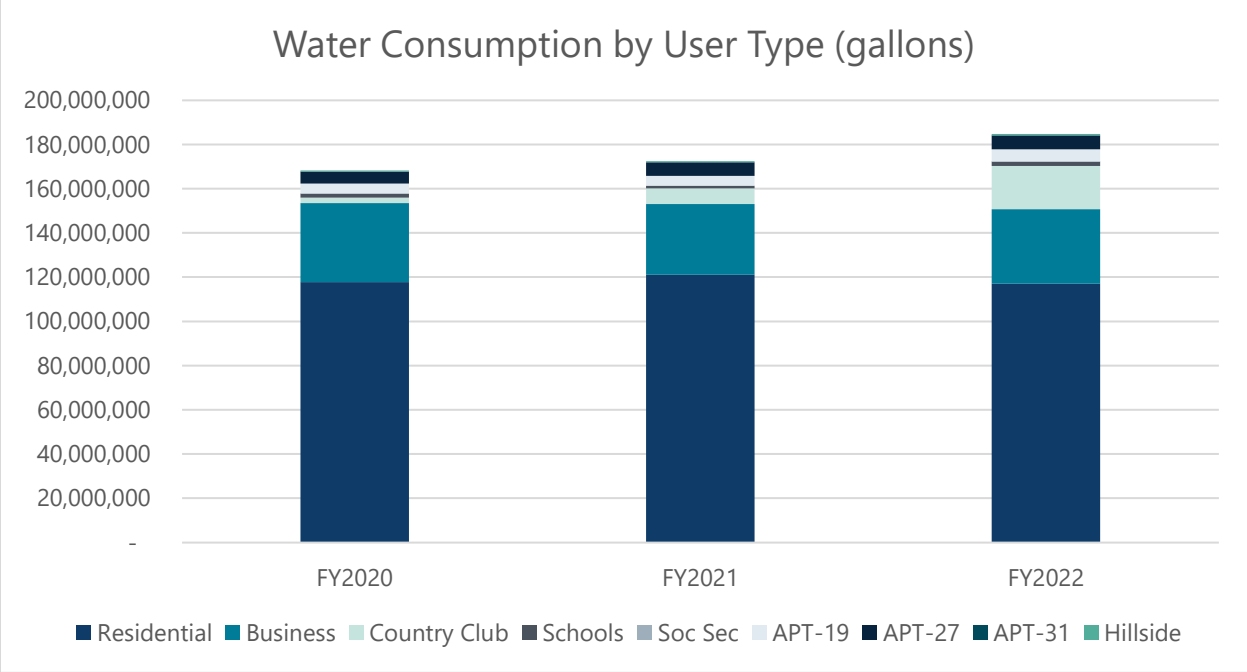
4.6 Billed Consumption Trends

Woodard & Curran conducted a review of billing data for the Village to determine the amount of water which the utility should expect to sell in the coming years. The chart below presents the annualized billed volumes (in gallons), excluding customer classes that are billed a flat fee.

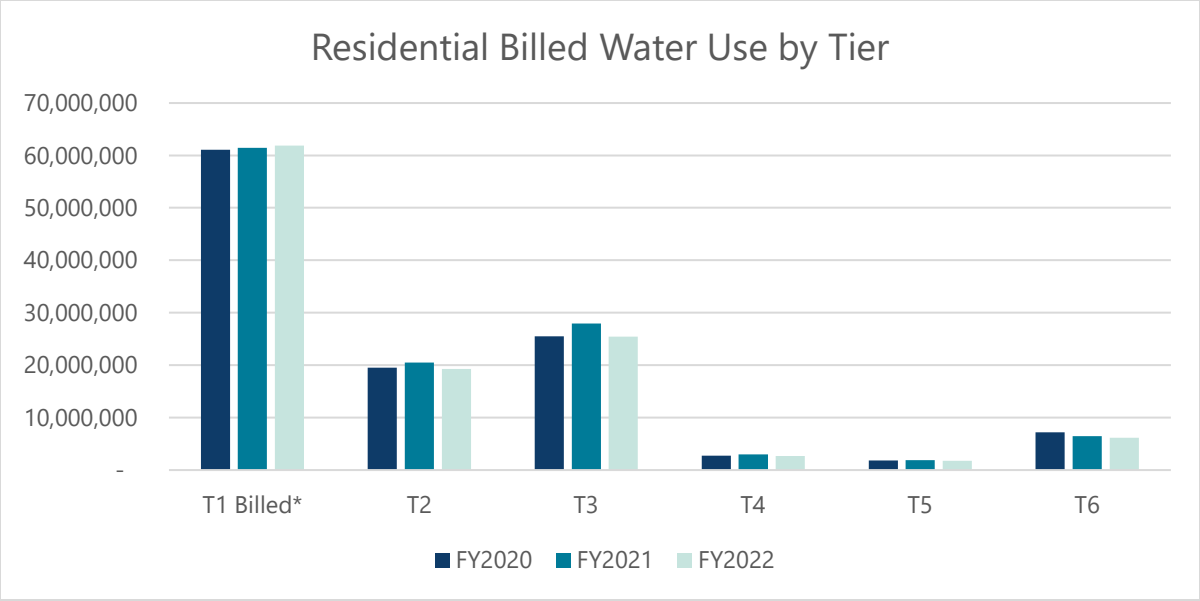
Based upon the FY2020 through FY2023 billing years, much of the billed water consumption in Peoria Heights is from Residential users. The rates recommended in this report are based upon assuming that future sales are equivalent to a level in line with the average of FY2020, FY2021, and FY2022 consumption.

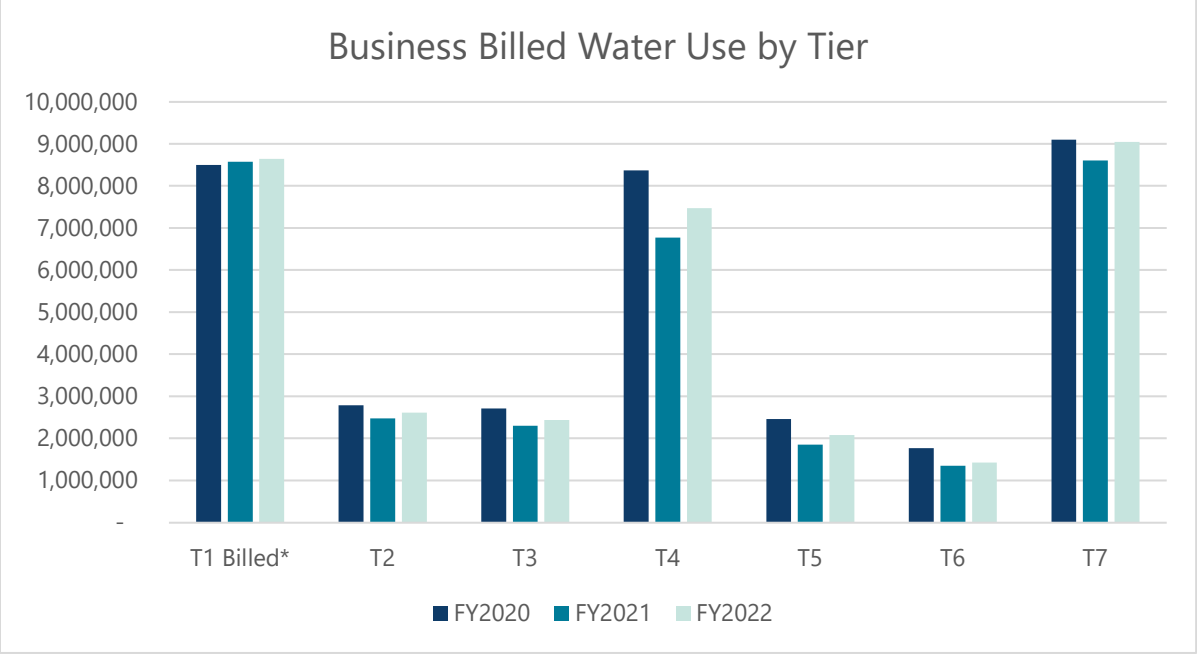


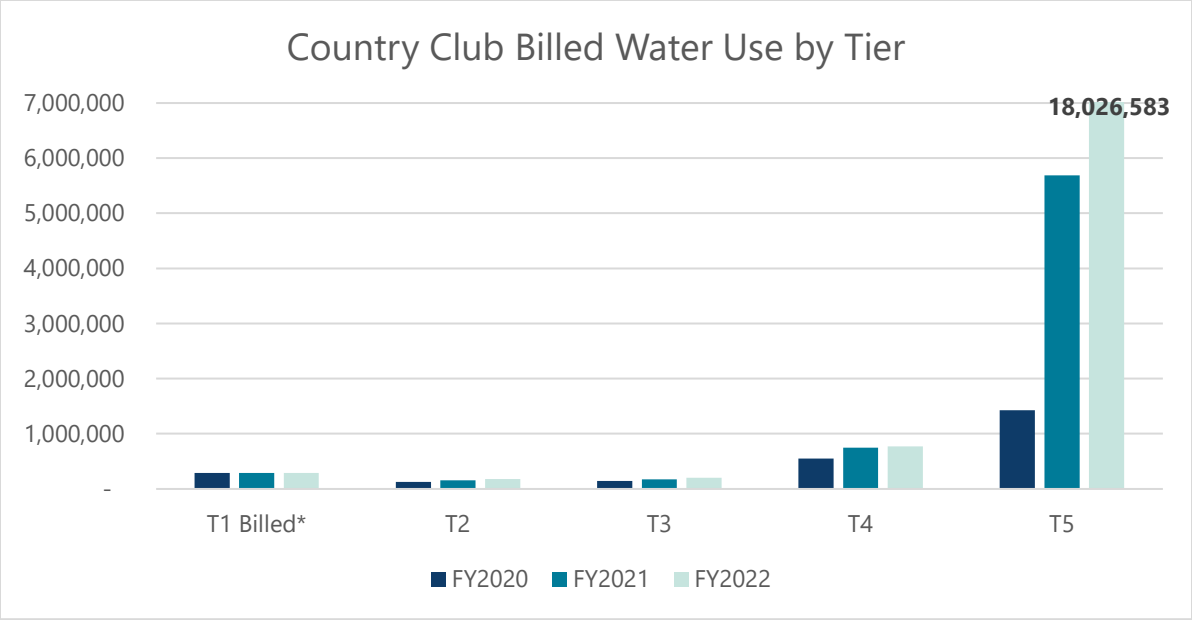
The chart below presents annualized volumes (in gallons) of all customer types, though the Apartments and Hillside customers are not billed based on their usage.

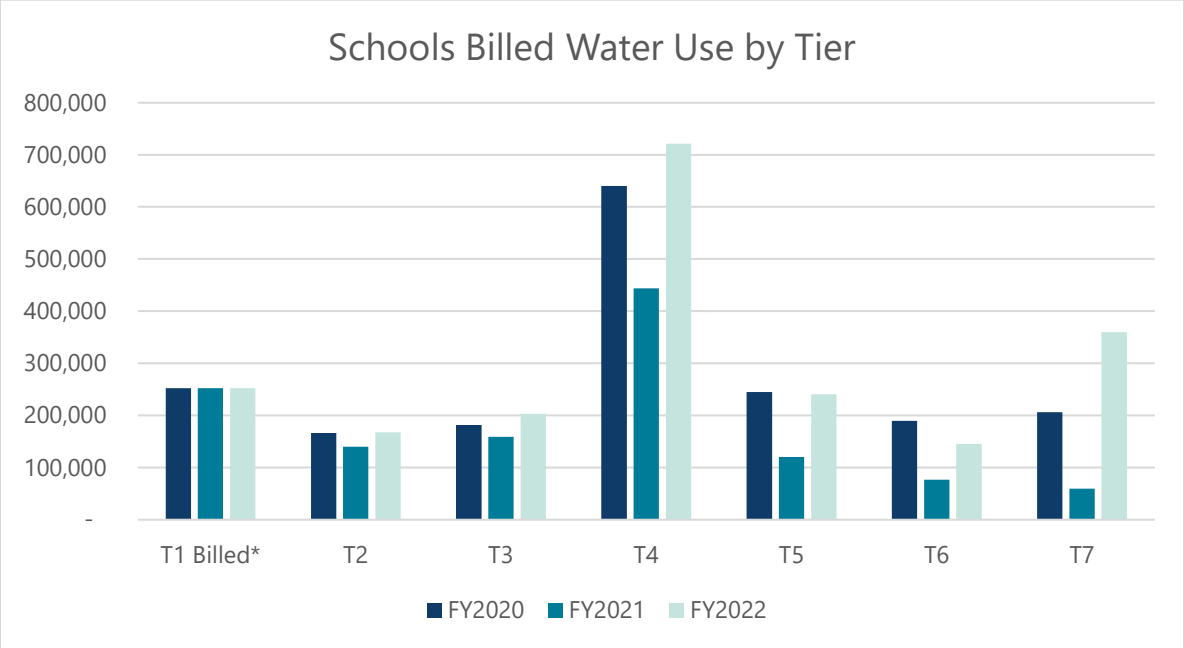


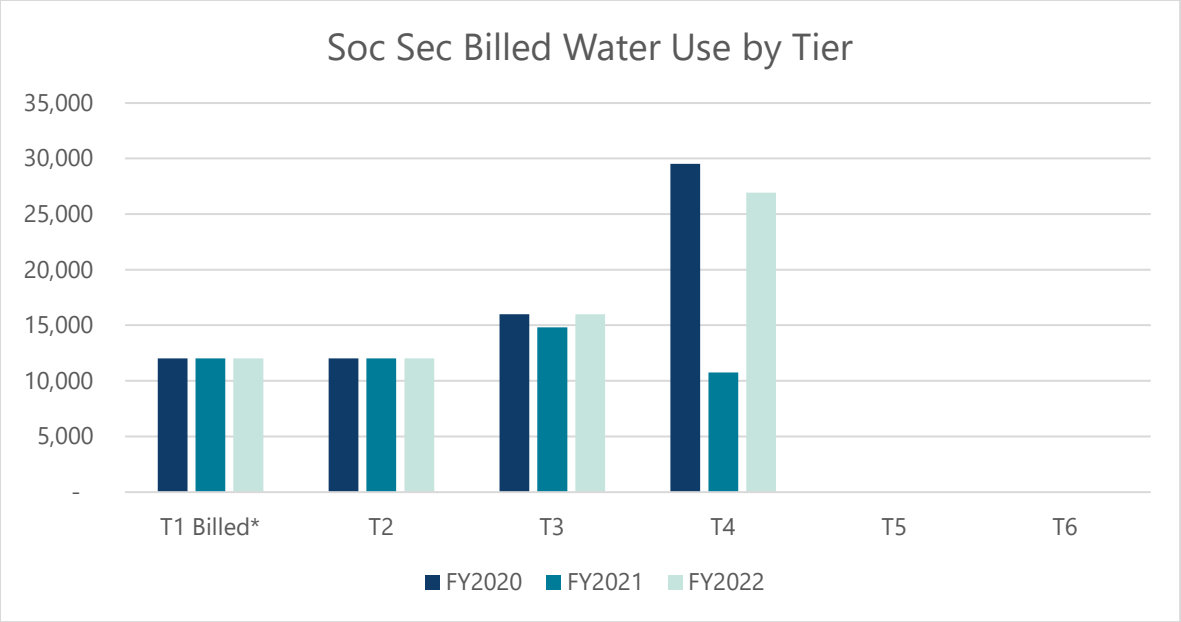
Additionally, the following charts present annual tiered water consumption for each billed customer class. Note that "T1 Billed*" reflects the amount of use billed for minimum charges (e.g. the quarterly residential minimum use is 6,000 gallons; if a customer only used 4,000 gallons in the quarter, they are still billed for 6,000 gallons, the minimum use.)


Residential Billed Water Use by Tier
70,000,000
60,000,000
50,000,000
40,000,000
30,000,000
20,000,000
10,000,000
-
T1 Billed*
T2
T3
T4
T5
T6
FY2020
FY2021
FY2022


Business Billed Water Use by Tier
10,000,000
9,000,000
8,000,000
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
-
T1 Billed*
T2
T3
T4
T5
T6
T7
FY2020
FY2021
FY2022


Country Club Billed Water Use by Tier
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
-
18,026,583
T1 Billed*
T2
T3
T4
T5
FY2020
FY2021
FY2022


Schools Billed Water Use by Tier
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
-
T1 Billed*
T2
T3
T4
T5
T6
T7
FY2020
FY2021
FY2022



4.7 Recommended Water Rates

The tables in Appendix D of this report present our recommendations for volumetric water rates each year through FY2033. These recommendations were developed with the intention of helping the Village meet the following goals:

1. Fully fund the Water Department's annual operating and capital investment programs;
2. Ensure that the Water Enterprise Fund builds adequate reserves to cover unanticipated emergency costs.

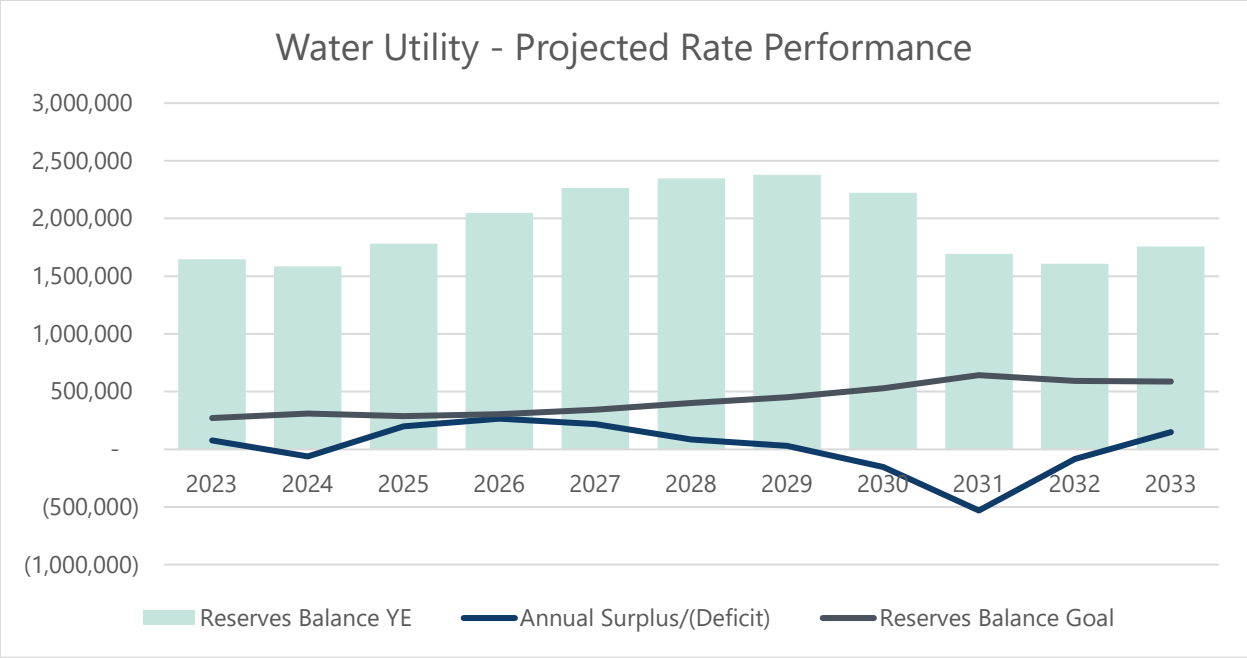
Keeping with the Village's current timing of rate changes, the rates presented are assumed to go into effect on December 1st of each year. As the Village's Fiscal Year begins on May 1st each year and the rate ordinances take effect on December 1st, there will be two different rates charged during any Fiscal Year period. The first will be carried over from the previous rate ordinance on December 1st of the last Fiscal Year and the second will be the new rate ordinance on December 1st of the current Fiscal Year, splitting the Fiscal Year into two rate bases, May 1st through November 30th, and December 1st through April 30th.

These rates will help achieve the Water Department's goals of covering the actual cost of service, ensuring the Department's long-term fiscal stability, and maintaining reserves funds balances adequate for a utility of this nature.

4.8 Impact on Reserve Fund Balances

In enterprise funded utilities, maintaining an adequate reserve fund balance is critical to ensure the utility's ability to absorb unanticipated expenses, comply with debt service coverage obligations, and cover other contingencies. While there is no one size fits all industry standard, it is recommended that a minimum goal for reserves should be approximately 20% of annual expenses. While the Village currently exceeds this minimum threshold, it is a prudent decision to continue building reserves given the degree of capital investment occurring throughout this forecast. Additionally, maintaining this level of reserves is

appropriate to ensure the utility will not need to fall back onto the Village as a source of funding in the event of unforeseen expenses or decline in water demand. The projected performance of recommended rates is presented on the chart below.



APPENDIX A: 5-YEAR CAPITAL IMPROVEMENT PLAN

VILLAGE OF PEORIA HEIGHTS, IL
5-YEAR CAPITAL IMPROVEMENT PLAN
FY 2024 - FY 2028

Project Title	Total Project Estimated Cost	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Water Treatment Plant Projects						
Water Treatment Upgrades - Preliminary Engineering Report	$150,000	$150,000				
Water Treatment Upgrades - Engineering and Construction	$2,958,000		$130,000*		1,395,000*	1,433,000*
Water Wells Projects						
Flowmeters - Well #7, #8, #9, & #11	$50,000	$50,000				
Common Generator - Well #7 & Well #8	$182,000		$182,000			
Water Storage Tank Projects						
Observation Tower Evaluation	$31,000		$31,000			
Distribution System Improvement Projects						
Lead Service Line Inventory and Replacement (with assumed 49% principal forgiveness)	$1,702,000	$40,000	$403,000	$407,000	$420,000	$432,000
Hydraulic Model	$75,000	$75,000				
Water Main Replacement - Lake Avenue	$1,441,000	$126,000		$1,315,000		
Water Main Replacement - Prospect Road	$3,004,000			$263,000		$2,741,000
Water Main Replacement - Route 29	$2,504,000		$228,000		$2,276,000	
Isolation Valves Distribution System	$60,000				$30,000	$30,000
FISCAL YEAR (FY) TOTAL CAPITAL IMPROVEMENTS:		$441,000	$974,000	$1,985,000	$4,121,000	$4,636,000

*cost will be based on preliminary evaluation

APPENDIX B: 20-YEAR CAPITAL IMPROVEMENT PLAN

VILLAGE OF PEORIA HEIGHTS, IL
20-YEAR CAPITAL IMPROVEMENT PLAN
FY 2029 - FY 2043

Project Title	Total Project Estimated Cost	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035	FY 2036	FY 2037	FY 2038	FY 2039	FY 2040	FY 2041	FY 2042	FY 2043
Water Treatment Plant Projects																
Water Treatment Upgrades - Construction	$4,529,000	$1,471,000*	$1,510,000*	$1,548,000*												
WTP High Service Pump #1 Replacement	$78,000			$78,000												
WTP High Service Pump #2 Replacement	$78,000			$78,000												
WTP High Service Pump #3 Replacement	$78,000			$78,000												
WTP Chemical Feed Equipment	$14,000							$14,000								
WTP Chemical Storage Equipment	$42,000												$42,000			
WTP HVAC, Electrical Upgrades	$1,911,000			$105,000	$551,000	$529,000	$726,000									
Water Wells Projects																
Well House Replacement - Well #8	$273,000			$25,000	$248,000											
Well House Replacement - Well #11	$266,000		$24,000	$242,000												
Well #7 Pump/Motor Replacement	$164,000										$164,000					
Well #8 Pump/Motor Replacement	$91,000			$91,000												
Well #9 Pump/Motor Replacement	$91,000			$91,000												
Well #11 Pump/Motor Replacement	$89,000		$89,000													
Well #12 Pump/Motor Replacement	$93,000				$93,000											
Additional Well	$1,015,000													$91,000	$924,000	
Chemical Feed Upgrades at Wells - Phosphate	$58,000											$58,000				
Water Storage Tank Projects																
WTP Storage Tank Cleaning and Painting	$590,000		$590,000													
Toledo Elevated Storage Tank Cleaning and Painting	$1,040,000						$1,040,000									
Water Storage Tank Mixer Replacement	$130,000		$42,000	$43,000		$45,000										
Observation Tower Rehabilitation	$1,150,000	$1,150,000*														
Distribution System Improvement Projects																
Lead Service Line Inventory and Replacement (with assumed 49% principal forgiveness)	$6,677,000	$446,000	$459,000	$473,000	$488,000	$502,000	$518,000	$533,000	$550,000	$567,000	$584,000	$602,000	$620,000	$335,000		
Water Main Loop - Old Brewery Area	$541,000							$54,000		$487,000						
Distribution System Isolation Valves	$90,000	$30,000	$30,000	$30,000												
Water Wells Raw Water Header Replacement	$2,743,000			$242,000		$2,501,000										
Water Meter Replacement	$1,773,000						$578,000	$591,000	$604,000							
Disinfection Station by Toledo Elevated Storage Tank	$312,000									$28,000	$284,000					
Distribution System Pressure Management Station	$350,000			$50,000*	$300,000*											
Emergency Interconnect / Backup Supply	$372,000												$45,000	$327,000		
FISCAL YEAR (FY) TOTAL CAPITAL IMPROVEMENTS:	$3,097,000	$2,744,000	$3,174,000	$1,680,000	$3,577,000	$2,862,000	$1,192,000	$1,154,000	$1,082,000	$1,032,000	$660,000	$707,000	$753,000	$924,000	$0	

*cost will be based on preliminary evaluation

APPENDIX C: 5-YEAR CIP FUNDING ROADMAP

VILLAGE OF PEORIA HEIGHTS, IL
5-YEAR CAPITAL IMPROVEMENT PLAN - FUNDING ROADMAP*
FY 2024 - FY 2028

Project Title	Total Project Estimated Cost	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	IEPA PWSLP	DCEO CDBG	IL State Earmark	Rebuild Illinois	ARPA[3]	EDA Public Works	USDA RD Water & Waste Disposal
Water Treatment Plant Projects													
Water Treatment Upgrades - PER[1]	$150,000	$150,000					✓						
Water Treatment Upgrades - Engineering & Construction	$2,958,000		$130,000**		1,395,000**	1,433,000**	✓		✓	✓	✓	✓	✓
Water Wells Projects													
Flowmeters - Well #7, #8, #9, & #11	$50,000	$50,000											
Common Generator - Well #7 & Well #8	$182,000		$182,000				✓		✓	✓	✓	✓	✓
Water Storage Tank Projects													
Observation Tower Evaluation	$31,000		$31,000										
Distribution System Improvement Projects													
Lead Service Line Inventory and Replacement (with assumed 49% principal forgiveness)	$1,702,000	$40,000	$403,000	$407,000	$420,000	$432,000	✓						✓
Hydraulic Model	$75,000	$75,000									✓		
Water Main Replacement - Lake Avenue	$1,441,000	$126,000		$1,315,000			✓		✓	✓	✓	✓	✓
Water Main Replacement - Prospect Road[2]	$3,004,000			$263,000		$2,741,000	✓	✓	✓	✓	✓	✓	✓
Water Main Replacement - Route 29	$2,504,000		$228,000		$2,276,000		✓		✓	✓	✓	✓	✓
Isolation Valves Distribution System	$60,000				$30,000	$30,000							
FISCAL YEAR (FY) TOTAL CAPITAL IMPROVEMENTS:		$441,000	$974,000	$1,985,000	$4,121,000	$4,636,000							

* This matrix assumes that annual projects costs <$100,000 will be funded through cash reserves.

** Cost will be based on preliminary evaluation.

[1] A Preliminary Engineering Report (PER) is considered part of planning expenses and is an eligible reimburseable expense, should the project receive a loan award. Initial payment of a PER must be paid through cash reserves.

[2] Exact project location and benefitted population information necessary before final determination whether project is eligible for DCEO CDBG program. Income survey may be required.

[3] If the Village has not otherwise allocated or earmarked them, ARPA funds (LFRF allocation of $786,433) may be used for SRF-eligible projects within the regulatory window. ARPA project funds would need to be obligated by December 31, 2024 and expended by close of 2026; therefore, ARPA funding may only be used in the first 3 years of the 5-year CIP. Design of Lake Avenue, Prospect Road, Route 29 or Water Treatment Upgrades must have funds obligated by end of 2027. Since it is the furthest out (2026), Prospect Road would need to guarantee that design could be completed and invoiced by December 31, 2026.

Note: Although individual projects may be eligible for programs such as IEPA PWSLP, State earmark, Rebuild IL, EDA Public Works, USDA RD they may not be competitive as stand alone components. It would be beneficial to combine projects into larger funding package requests to bolster competiveness.

APPENDIX D: RECOMMENDED RATE INCREASES BY CUSTOMER CLASS

VILLAGE OF PEORIA HEIGHTS, IL

RECOMMENDED RATE INCREASES BY CUSTOMER CLASS

RESIDENTIAL - Level Increase Rates - Water ($/unit)

Fiscal Year		2023	2024		2025		2026		2027		2028		2029		2030		2031		2032		2033	
FY Rate Period		12/01/2022 - 4/30/2023	05/01/2023 - 11/30/2023	12/01/2023 - 04/30/2024	05/01/2024 - 11/30/2024	12/01/2024 - 04/30/2025	05/01/2025 - 11/30/2025	12/01/2025 - 04/30/2026	05/01/2026 - 11/30/2026	12/01/2026 - 04/30/2027	05/01/2027 - 11/30/2027	12/01/2027 - 04/30/2028	05/01/2028 - 11/30/2028	12/01/2028 - 04/30/2029	05/01/2029 - 11/30/2029	12/01/2029 - 04/30/2030	05/01/2030 - 11/30/2030	12/01/2030 - 04/30/2031	05/01/2031 - 11/30/2031	12/01/2031 - 04/30/2032	05/01/2032 - 11/30/2032	12/01/2032 - 04/30/2033
Rate Ordinance Period		12/01/2022 - 11/30/2023	12/01/2023 - 11/30/2024		12/01/2024 - 11/30/2025		12/01/2025 - 11/30/2026		12/01/2026 - 11/30/2027		12/01/2027 - 11/30/2028		12/01/2028 - 11/30/2029		12/01/2029 - 11/30/2030		12/01/2030 - 11/30/2031		12/01/2031 - 11/30/2032		12/01/2032 - 11/30/2033	
Tier	Tier Size	0%	10%		10%		8%		8%		9%		9%		9%		7%		7%		7%	
1	First 6,000 (min)	12.731	12.731	14.004	14.004	15.405	15.405	16.637	16.637	17.968	17.968	19.585	19.585	21.348	21.348	23.269	23.269	24.898	24.898	26.641	26.641	28.505
2	6,000 - 10,000	6.966	6.966	7.663	7.663	8.429	8.429	9.103	9.103	9.831	9.831	10.716	10.716	11.681	11.681	12.732	12.732	13.623	13.623	14.577	14.577	15.597
3	10,000 - 30,000	4.749	4.749	5.224	5.224	5.746	5.746	6.206	6.206	6.702	6.702	7.306	7.306	7.963	7.963	8.680	8.680	9.287	9.287	9.938	9.938	10.633
4	30,000 - 40,000	2.192	2.192	2.411	2.411	2.652	2.652	2.865	2.865	3.094	3.094	3.372	3.372	3.676	3.676	4.006	4.006	4.287	4.287	4.587	4.587	4.908
5	40,000 - 50,000	2.080	2.080	2.288	2.288	2.517	2.517	2.718	2.718	2.936	2.936	3.200	3.200	3.488	3.488	3.802	3.802	4.068	4.068	4.353	4.353	4.657
6	> 50,000	1.890	1.890	2.079	2.079	2.287	2.287	2.470	2.470	2.667	2.667	2.908	2.908	3.169	3.169	3.454	3.454	3.696	3.696	3.955	3.955	4.232

BUSINESS - Level Increase Rates - Water ($/unit)

Fiscal Year		2023	2024		2025		2026		2027		2028		2029		2030		2031		2032		2033	
FY Rate Period		12/01/2022 - 4/30/2023	05/01/2023 - 11/30/2023	12/01/2023 - 04/30/2024	05/01/2024 - 11/30/2024	12/01/2024 - 04/30/2025	05/01/2025 - 11/30/2025	12/01/2025 - 04/30/2026	05/01/2026 - 11/30/2026	12/01/2026 - 04/30/2027	05/01/2027 - 11/30/2027	12/01/2027 - 04/30/2028	05/01/2028 - 11/30/2028	12/01/2028 - 04/30/2029	05/01/2029 - 11/30/2029	12/01/2029 - 04/30/2030	05/01/2030 - 11/30/2030	12/01/2030 - 04/30/2031	05/01/2031 - 11/30/2031	12/01/2031 - 04/30/2032	05/01/2032 - 11/30/2032	12/01/2032 - 04/30/2033
Rate Ordinance Period		12/01/2022 - 11/30/2023	12/01/2023 - 11/30/2024		12/01/2024 - 11/30/2025		12/01/2025 - 11/30/2026		12/01/2026 - 11/30/2027		12/01/2027 - 11/30/2028		12/01/2028 - 11/30/2029		12/01/2029 - 11/30/2030		12/01/2030 - 11/30/2031		12/01/2031 - 11/30/2032		12/01/2032 - 11/30/2033	
Tier	Tier Size		10%		10%		8%		8%		9%		9%		9%		7%		7%		7%	
1	First 3,000 (min)	11.333	11.333	12.466	12.466	13.713	13.713	14.810	14.810	15.995	15.995	17.434	17.434	19.003	19.003	20.714	20.714	22.164	22.164	23.715	23.715	25.375
2	3,000 - 6,000	8.640	8.640	9.504	9.504	10.454	10.454	11.291	11.291	12.194	12.194	13.291	13.291	14.488	14.488	15.792	15.792	16.897	16.897	18.080	18.080	19.345
3	6,000 - 10,000	6.962	6.962	7.658	7.658	8.424	8.424	9.098	9.098	9.826	9.826	10.710	10.710	11.674	11.674	12.725	12.725	13.615	13.615	14.568	14.568	15.588
4	10,000 - 30,000	4.479	4.479	4.927	4.927	5.420	5.420	5.853	5.853	6.321	6.321	6.890	6.890	7.510	7.510	8.186	8.186	8.759	8.759	9.373	9.373	10.029
5	30,000 - 40,000	2.912	2.912	3.203	3.203	3.524	3.524	3.805	3.805	4.110	4.110	4.480	4.480	4.883	4.883	5.322	5.322	5.695	5.695	6.094	6.094	6.520
6	40,000 - 50,000	2.079	2.079	2.287	2.287	2.516	2.516	2.717	2.717	2.934	2.934	3.198	3.198	3.486	3.486	3.800	3.800	4.066	4.066	4.350	4.350	4.655
7	> 50,000	1.890	1.890	2.079	2.079	2.287	2.287	2.470	2.470	2.667	2.667	2.908	2.908	3.169	3.169	3.454	3.454	3.696	3.696	3.955	3.955	4.232

VILLAGE OF PEORIA HEIGHTS, IL

RECOMMENDED RATE INCREASES BY CUSTOMER CLASS

COUNTRY CLUB - Level Increase Rates - Water ($/unit)																					
Fiscal Year		2023	2024		2025		2026		2027		2028		2029		2030		2031		2032		2033	
FY Rate Period		12/01/2022 - 4/30/2023	05/01/2023 - 11/30/2023	12/01/2023 - 04/30/2024	05/01/2024 - 11/30/2024	12/01/2024 - 04/30/2025	05/01/2025 - 11/30/2025	12/01/2025 - 04/30/2026	05/01/2026 - 11/30/2026	12/01/2026 - 04/30/2027	05/01/2027 - 11/30/2027	12/01/2027 - 04/30/2028	05/01/2028 - 11/30/2028	12/01/2028 - 04/30/2029	05/01/2029 - 11/30/2029	12/01/2029 - 04/30/2030	05/01/2030 - 11/30/2030	12/01/2030 - 04/30/2031	05/01/2031 - 11/30/2031	12/01/2031 - 04/30/2032	05/01/2032 - 11/30/2032	12/01/2032 - 04/30/2033
Rate Ordinance Period		12/01/2022 - 11/30/2023	12/01/2023 - 11/30/2024		12/01/2024 - 11/30/2025		12/01/2025 - 11/30/2026		12/01/2026 - 11/30/2027		12/01/2027 - 11/30/2028		12/01/2028 - 11/30/2029		12/01/2029 - 11/30/2030		12/01/2030 - 11/30/2031		12/01/2031 - 11/30/2032		12/01/2032 - 11/30/2033	
Tier	Tier Size		10%		10%		8%		8%		9%		9%		9%		7%		7%		7%	
1	First 3,000 (min)	11.333	11.333	12.466	12.466	13.713	13.713	14.810	14.810	15.995	15.995	17.434	17.434	19.003	19.003	20.714	20.714	22.164	22.164	23.715	23.715	25.375
2	3,000 - 6,000	7.722	7.722	8.494	8.494	9.344	9.344	10.091	10.091	10.898	10.898	11.879	11.879	12.948	12.948	14.114	14.114	15.102	15.102	16.159	16.159	17.290
3	6,000 - 10,000	6.210	6.210	6.831	6.831	7.514	7.514	8.115	8.115	8.764	8.764	9.553	9.553	10.413	10.413	11.350	11.350	12.145	12.145	12.995	12.995	13.904
4	10,000 - 30,000	4.208	4.208	4.629	4.629	5.092	5.092	5.499	5.499	5.939	5.939	6.473	6.473	7.056	7.056	7.691	7.691	8.229	8.229	8.806	8.806	9.422
5	> 30,000	1.725	1.725	1.898	1.898	2.087	2.087	2.254	2.254	2.435	2.435	2.654	2.654	2.893	2.893	3.153	3.153	3.374	3.374	3.610	3.610	3.862

SCHOOLS - Level Increase Rates - Water ($/unit)																					
Fiscal Year		2023	2024		2025		2026		2027		2028		2029		2030		2031		2032		2033	
FY Rate Period		12/01/2022 - 4/30/2023	05/01/2023 - 11/30/2023	12/01/2023 - 04/30/2024	05/01/2024 - 11/30/2024	12/01/2024 - 04/30/2025	05/01/2025 - 11/30/2025	12/01/2025 - 04/30/2026	05/01/2026 - 11/30/2026	12/01/2026 - 04/30/2027	05/01/2027 - 11/30/2027	12/01/2027 - 04/30/2028	05/01/2028 - 11/30/2028	12/01/2028 - 04/30/2029	05/01/2029 - 11/30/2029	12/01/2029 - 04/30/2030	05/01/2030 - 11/30/2030	12/01/2030 - 04/30/2031	05/01/2031 - 11/30/2031	12/01/2031 - 04/30/2032	05/01/2032 - 11/30/2032	12/01/2032 - 04/30/2033
Rate Ordinance Period		12/01/2022 - 11/30/2023	12/01/2023 - 11/30/2024		12/01/2024 - 11/30/2025		12/01/2025 - 11/30/2026		12/01/2026 - 11/30/2027		12/01/2027 - 11/30/2028		12/01/2028 - 11/30/2029		12/01/2029 - 11/30/2030		12/01/2030 - 11/30/2031		12/01/2031 - 11/30/2032		12/01/2032 - 11/30/2033	
Tier	Tier Size		10%		10%		8%		8%		9%		9%		9%		7%		7%		7%	
1	First 3,000 (min)	11.333	11.333	12.466	12.466	13.713	13.713	14.810	14.810	15.995	15.995	17.434	17.434	19.003	19.003	20.714	20.714	22.164	22.164	23.715	23.715	25.375
2	3,000 - 6,000	8.087	8.087	8.896	8.896	9.785	9.785	10.568	10.568	11.414	11.414	12.441	12.441	13.560	13.560	14.781	14.781	15.816	15.816	16.923	16.923	18.107
3	6,000 - 10,000	6.525	6.525	7.178	7.178	7.895	7.895	8.527	8.527	9.209	9.209	10.038	10.038	10.941	10.941	11.926	11.926	12.761	12.761	13.654	13.654	14.610
4	10,000 - 30,000	4.408	4.408	4.849	4.849	5.334	5.334	5.760	5.760	6.221	6.221	6.781	6.781	7.391	7.391	8.057	8.057	8.621	8.621	9.224	9.224	9.870
5	30,000 - 40,000	2.040	2.040	2.244	2.244	2.468	2.468	2.666	2.666	2.879	2.879	3.138	3.138	3.421	3.421	3.729	3.729	3.990	3.990	4.269	4.269	4.568
6	40,000 - 50,000	1.953	1.953	2.148	2.148	2.363	2.363	2.552	2.552	2.756	2.756	3.004	3.004	3.275	3.275	3.570	3.570	3.819	3.819	4.087	4.087	4.373
7	> 50,000	1.776	1.776	1.954	1.954	2.149	2.149	2.321	2.321	2.507	2.507	2.732	2.732	2.978	2.978	3.246	3.246	3.473	3.473	3.716	3.716	3.977

VILLAGE OF PEORIA HEIGHTS, IL

RECOMMENDED RATE INCREASES BY CUSTOMER CLASS

SOC SEC - Level Increase Rates - Water ($/unit)

Fiscal Year		2023	2024		2025		2026		2027		2028		2029		2030		2031		2032		2033	
FY Rate Period		12/01/2022 - 4/30/2023	05/01/2023 - 11/30/2023	12/01/2023 - 04/30/2024	05/01/2024 - 11/30/2024	12/01/2024 - 04/30/2025	05/01/2025 - 11/30/2025	12/01/2025 - 04/30/2026	05/01/2026 - 11/30/2026	12/01/2026 - 04/30/2027	05/01/2027 - 11/30/2027	12/01/2027 - 04/30/2028	05/01/2028 - 11/30/2028	12/01/2028 - 04/30/2029	05/01/2029 - 11/30/2029	12/01/2029 - 04/30/2030	05/01/2030 - 11/30/2030	12/01/2030 - 04/30/2031	05/01/2031 - 11/30/2031	12/01/2031 - 04/30/2032	05/01/2032 - 11/30/2032	12/01/2032 - 04/30/2033
Rate Ordinance Period		12/01/2022 - 11/30/2023	12/01/2023 - 11/30/2024		12/01/2024 - 11/30/2025		12/01/2025 - 11/30/2026		12/01/2026 - 11/30/2027		12/01/2027 - 11/30/2028		12/01/2028 - 11/30/2029		12/01/2029 - 11/30/2030		12/01/2030 - 11/30/2031		12/01/2031 - 11/30/2032		12/01/2032 - 11/30/2033	
Tier	Tier Size	*	10%		10%		8%		8%		9%		9%		9%		7%		7%		7%	
1	First 3,000 (min)	4.184	4.184	4.602	4.602	5.062	5.062	5.467	5.467	5.905	5.905	6.436	6.436	7.015	7.015	7.647	7.647	8.182	8.182	8.755	8.755	9.367
2	3,000 - 6,000	5.712	5.712	6.283	6.283	6.912	6.912	7.464	7.464	8.062	8.062	8.787	8.787	9.578	9.578	10.440	10.440	11.171	11.171	11.953	11.953	12.789
3	6,000 - 10,000	3.903	3.903	4.293	4.293	4.723	4.723	5.100	5.100	5.508	5.508	6.004	6.004	6.545	6.545	7.134	7.134	7.633	7.633	8.167	8.167	8.739
4	10,000 - 30,000	1.777	1.777	1.955	1.955	2.150	2.150	2.322	2.322	2.508	2.508	2.734	2.734	2.980	2.980	3.248	3.248	3.475	3.475	3.718	3.718	3.979
5	30,000 - 40,000	1.682	1.682	1.850	1.850	2.035	2.035	2.198	2.198	2.374	2.374	2.588	2.588	2.820	2.820	3.074	3.074	3.289	3.289	3.520	3.520	3.766
6	> 40,000	1.571	1.571	1.728	1.728	1.901	1.901	2.053	2.053	2.217	2.217	2.417	2.417	2.634	2.634	2.871	2.871	3.072	3.072	3.287	3.287	3.518

APT-19 UNITS - Level Increase Rates - Water ($/unit)

Fiscal Year		2023	2024		2025		2026		2027		2028		2029		2030		2031		2032		2033	
FY Rate Period		12/01/2022 - 4/30/2023	05/01/2023 - 11/30/2023	12/01/2023 - 04/30/2024	05/01/2024 - 11/30/2024	12/01/2024 - 04/30/2025	05/01/2025 - 11/30/2025	12/01/2025 - 04/30/2026	05/01/2026 - 11/30/2026	12/01/2026 - 04/30/2027	05/01/2027 - 11/30/2027	12/01/2027 - 04/30/2028	05/01/2028 - 11/30/2028	12/01/2028 - 04/30/2029	05/01/2029 - 11/30/2029	12/01/2029 - 04/30/2030	05/01/2030 - 11/30/2030	12/01/2030 - 04/30/2031	05/01/2031 - 11/30/2031	12/01/2031 - 04/30/2032	05/01/2032 - 11/30/2032	12/01/2032 - 04/30/2033
Rate Ordinance Period		12/01/2022 - 11/30/2023	12/01/2023 - 11/30/2024		12/01/2024 - 11/30/2025		12/01/2025 - 11/30/2026		12/01/2026 - 11/30/2027		12/01/2027 - 11/30/2028		12/01/2028 - 11/30/2029		12/01/2029 - 11/30/2030		12/01/2030 - 11/30/2031		12/01/2031 - 11/30/2032		12/01/2032 - 11/30/2033	
Tier	Tier Size	*	10%		10%		8%		8%		9%		9%		9%		7%		7%		7%	
1	any usage (flat fee)	1451.58	1451.58	1596.74	1596.74	1756.41	1756.41	1896.92	1896.92	2048.68	2048.68	2233.06	2233.06	2434.04	2434.04	2653.10	2653.10	2838.82	2838.82	3037.53	3037.53	3250.16

VILLAGE OF PEORIA HEIGHTS, IL

RECOMMENDED RATE INCREASES BY CUSTOMER CLASS

APT-27 UNITS - Level Increase Rates - Water ($/unit)

Fiscal Year		2023	2024		2025		2026		2027		2028		2029		2030		2031		2032		2033	
FY Rate Period		12/01/2022 - 4/30/2023	05/01/2023 - 11/30/2023	12/01/2023 - 04/30/2024	05/01/2024 - 11/30/2024	12/01/2024 - 04/30/2025	05/01/2025 - 11/30/2025	12/01/2025 - 04/30/2026	05/01/2026 - 11/30/2026	12/01/2026 - 04/30/2027	05/01/2027 - 11/30/2027	12/01/2027 - 04/30/2028	05/01/2028 - 11/30/2028	12/01/2028 - 04/30/2029	05/01/2029 - 11/30/2029	12/01/2029 - 04/30/2030	05/01/2030 - 11/30/2030	12/01/2030 - 04/30/2031	05/01/2031 - 11/30/2031	12/01/2031 - 04/30/2032	05/01/2032 - 11/30/2032	12/01/2032 - 04/30/2033
Rate Ordinance Period		12/01/2022 - 11/30/2023	12/01/2023 - 11/30/2024		12/01/2024 - 11/30/2025		12/01/2025 - 11/30/2026		12/01/2026 - 11/30/2027		12/01/2027 - 11/30/2028		12/01/2028 - 11/30/2029		12/01/2029 - 11/30/2030		12/01/2030 - 11/30/2031		12/01/2031 - 11/30/2032		12/01/2032 - 11/30/2033	
Tier	Tier Size	*	10%		10%		8%		8%		9%		9%		9%		7%		7%		7%	
1	any usage (flat fee)	2062.78	2062.78	2269.06	2269.06	2495.96	2495.96	2695.64	2695.64	2911.29	2911.29	3173.31	3173.31	3458.91	3458.91	3770.21	3770.21	4034.12	4034.12	4316.51	4316.51	4618.67

APT-31 UNITS - Level Increase Rates - Water ($/unit)

Fiscal Year		2023	2024		2025		2026		2027		2028		2029		2030		2031		2032		2033	
FY Rate Period		12/01/2022 - 4/30/2023	05/01/2023 - 11/30/2023	12/01/2023 - 04/30/2024	05/01/2024 - 11/30/2024	12/01/2024 - 04/30/2025	05/01/2025 - 11/30/2025	12/01/2025 - 04/30/2026	05/01/2026 - 11/30/2026	12/01/2026 - 04/30/2027	05/01/2027 - 11/30/2027	12/01/2027 - 04/30/2028	05/01/2028 - 11/30/2028	12/01/2028 - 04/30/2029	05/01/2029 - 11/30/2029	12/01/2029 - 04/30/2030	05/01/2030 - 11/30/2030	12/01/2030 - 04/30/2031	05/01/2031 - 11/30/2031	12/01/2031 - 04/30/2032	05/01/2032 - 11/30/2032	12/01/2032 - 04/30/2033
Rate Ordinance Period		12/01/2022 - 11/30/2023	12/01/2023 - 11/30/2024		12/01/2024 - 11/30/2025		12/01/2025 - 11/30/2026		12/01/2026 - 11/30/2027		12/01/2027 - 11/30/2028		12/01/2028 - 11/30/2029		12/01/2029 - 11/30/2030		12/01/2030 - 11/30/2031		12/01/2031 - 11/30/2032		12/01/2032 - 11/30/2033	
Tier	Tier Size	*	10%		10%		8%		8%		9%		9%		9%		7%		7%		7%	
1	any usage (flat fee)	2388.14	2388.14	2626.95	2626.95	2889.65	2889.65	3120.82	3120.82	3370.49	3370.49	3673.83	3673.83	4004.48	4004.48	4364.88	4364.88	4670.42	4670.42	4997.35	4997.35	5347.16

HILLSIDE - Level Increase Rates - Water ($/unit)

Fiscal Year		2023	2024		2025		2026		2027		2028		2029		2030		2031		2032		2033	
FY Rate Period		12/01/2022 - 4/30/2023	05/01/2023 - 11/30/2023	12/01/2023 - 04/30/2024	05/01/2024 - 11/30/2024	12/01/2024 - 04/30/2025	05/01/2025 - 11/30/2025	12/01/2025 - 04/30/2026	05/01/2026 - 11/30/2026	12/01/2026 - 04/30/2027	05/01/2027 - 11/30/2027	12/01/2027 - 04/30/2028	05/01/2028 - 11/30/2028	12/01/2028 - 04/30/2029	05/01/2029 - 11/30/2029	12/01/2029 - 04/30/2030	05/01/2030 - 11/30/2030	12/01/2030 - 04/30/2031	05/01/2031 - 11/30/2031	12/01/2031 - 04/30/2032	05/01/2032 - 11/30/2032	12/01/2032 - 04/30/2033
Rate Ordinance Period		12/01/2022 - 11/30/2023	12/01/2023 - 11/30/2024		12/01/2024 - 11/30/2025		12/01/2025 - 11/30/2026		12/01/2026 - 11/30/2027		12/01/2027 - 11/30/2028		12/01/2028 - 11/30/2029		12/01/2029 - 11/30/2030		12/01/2030 - 11/30/2031		12/01/2031 - 11/30/2032		12/01/2032 - 11/30/2033	
Tier	Tier Size	*	10%		10%		8%		8%		9%		9%		9%		7%		7%		7%	
1	any usage (flat fee)	687.59	687.59	756.35	756.35	831.98	831.98	898.54	898.54	970.43	970.43	1057.76	1057.76	1152.96	1152.96	1256.73	1256.73	1344.70	1344.70	1438.83	1438.83	1539.55