

# CAPITAL IMPROVEMENT PROGRAM

FY 2025-2026





# Table of Contents

➤ Our History .....	3	➤ Capital Purchases and Office Improvements .....	24-25
➤ Meet Our Board of Directors .....	4	➤ Capital Reserve Accounts.....	26-35
➤ Our Organization .....	5	• Water and Sewer Facilities	28-29
➤ Our Water System .....	6	• Water and Sewer Lines	30-31
➤ Our Wastewater System .....	7	• Replacement Project Maps	32-36
➤ Capital Improvement Program Executive Summary .....	8	➤ Future Capital Improvement Project Maps .....	37-45
➤ FY 2025-2026 Capital Improvements Listing .....	9-13	• Goodview Waterline – SML to Sycamore Ridge	38
• Water Projects	10	• Smith Mountain Lake – Phase 5 Waterline	39
• Sewer Projects – Central Wastewater	11-12	• Cottontown Road Waterline Loop	40
• Sewer Projects – Small Systems	13	• Everett Road Waterline Loop	41
➤ Capital Improvement Program Projects Listing FYE 26-28.....	14-15	• Goode Waterline Loop	42
➤ Projects with Outside Funding.....	16	• White House Road Waterline Loop	43
➤ Capital Improvement Program – Costs By Service Area.....	17	• Stewartsville-West Waterline Loop	44
➤ Water Projects .....	18-20	• Stewartsville Sewer	45
➤ Sewer Projects .....	21-22		
➤ Smith Mountain Lake Water Treatment Facility Projects .....	23		





# Our History

The Bedford Regional Water Authority (“Authority”) was created pursuant to the Water and Sewer Authorities Act Chapter 28, Title 15.1 code of Virginia of 1950, as amended. In accordance with the Reversion Agreement executed in August, 2012, the Authority was created by the Bedford County Board of Supervisors (“Supervisors”) by resolution dated November 14, 2012 and the Bedford City Council (“Council”) by resolution dated November 27, 2012.

Three of the initial members were appointed by the Supervisors on November 14,

2012, and three of the initial members were appointed by the Council on December 11, 2012. The State Corporation Commission approved the Articles of Incorporation on December 13, 2012. The first board meeting was held on December 18, 2012. The seventh board member was interviewed and recommended to the Supervisors and Council by the initial six board members at the January 22, 2013 board meeting. The seventh board member was approved by the governing bodies and sworn in prior to the February 26, 2013 board meeting.



## VISION



Clean Water.  
Healthy Environment.  
Thriving Community.



## MISSION



To provide high quality water  
and wastewater services to  
the community.



## VALUES



Collaboration.  
Adaptability.  
Results.  
Enthusiasm.  
Safety.



# Meet Our Board of Directors



Robert Flynn,  
Chair  
Term: 2024-2027



Jay Gray,  
Vice-Chair & Finance Committee  
Term: 2025-2028



Donald Barger,  
Policies and Projects Committee  
Term: 2023-2026



John Sharp,  
Personnel Committee  
Term: 2023-2026



Michael Moldenhauer,  
Personnel Committee  
Term: 2024-2027



Kevin Mele,  
Finance Committee  
Term: 2025-2028



Steve Rush,  
Policies and Projects Committee  
Term: 2025-2028



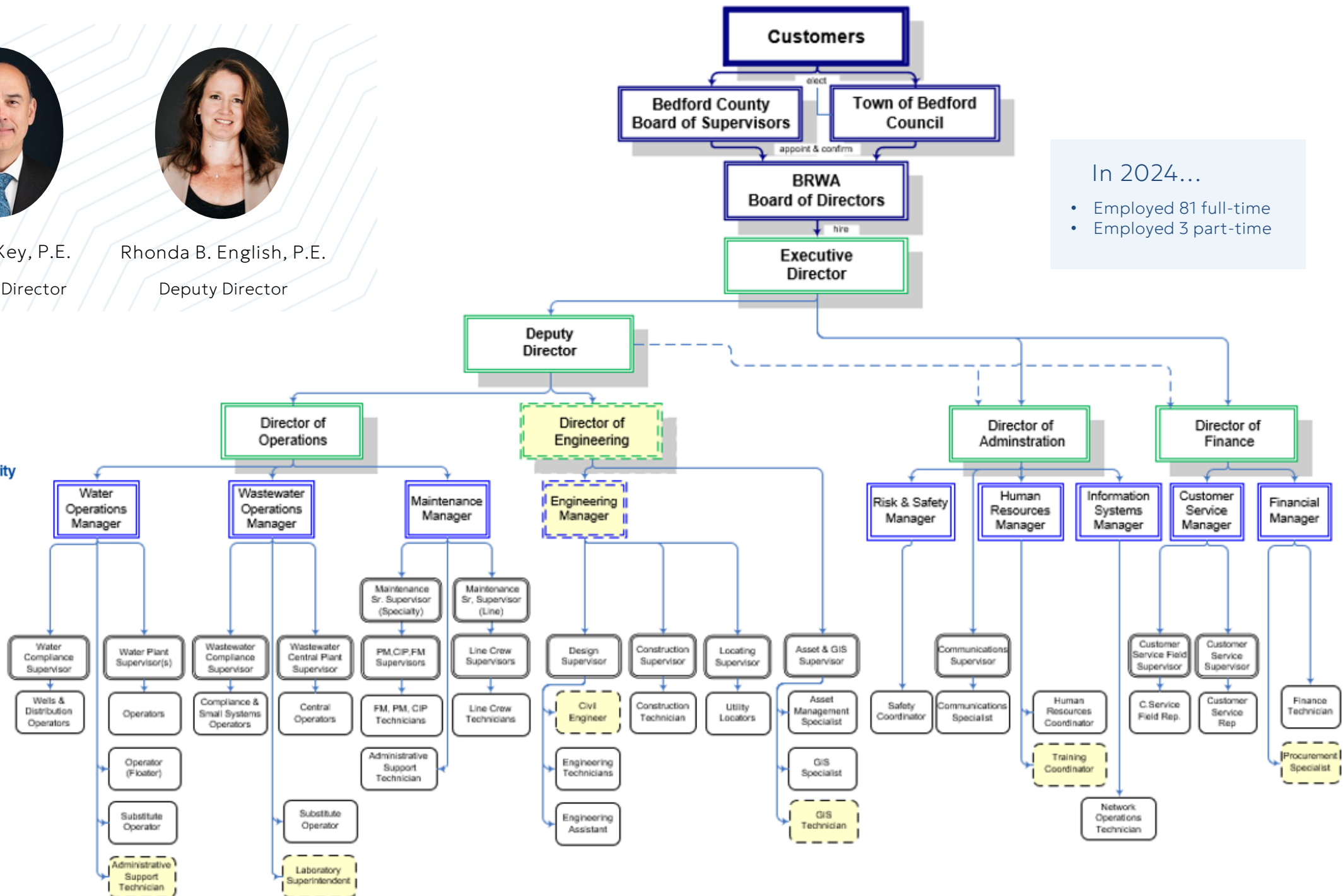
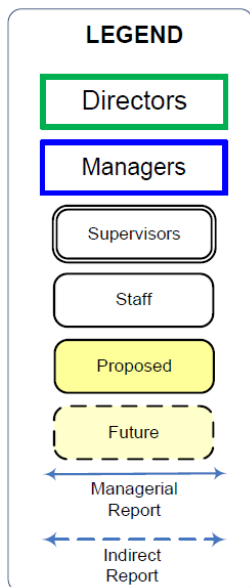
# Our Organization



Brian M. Key, P.E.  
Executive Director



Rhonda B. English, P.E.  
Deputy Director



In 2024...

- Employed 81 full-time
- Employed 3 part-time



# Our Water System



## In 2023-2024...

- Had 5 Water Treatment Plants
- Had 15 Water Storage Tanks
- Had 3 Water Pump Stations
- Produced 1.3 Billion Gallons
- Had 404 Miles of Water Line
- Had 15,529 Total Water Connections
- Added 183 new water connections

## Water Distribution Service Areas

- 1. Bedford Central:** The Authority provides water to the area inside and around the Town of Bedford through the Mountain Water Drive Treatment Plant. The plant uses a surface water reservoir located at the foothills of the Peaks of Otter. The Water Treatment Plant (“WTP”) has capacity to treat up to 3.0 million gallons per day (“MGD”), and is rated at 2.63 MGD based upon source capacities of the Stoney Creek Reservoir and the Big Otter River. The Town also receives water from the Smith Mountain Lake Water Treatment Facility.
- 2. Forest Central:** The Authority provides water to the Forest, New London, and Boonsboro areas of the County from the Smith Mountain Lake Water Treatment Facility and through purchasing water from the City of Lynchburg; the Authority then sends this water through the Authority’s distribution system. Water is treated by Lynchburg from the James River and the Pedlar Reservoir. While there is a minimum purchase requirement of 1 MGD, there is not currently a contract limit to the capacity of the water purchased from Lynchburg, and the City of Lynchburg WTPs are rated at a capacity of 26 MGD.
- 3. Lakes:** Jointly owned with Western Virginia Water Authority (“WVWA”), the Smith Mountain Lake Water Treatment Facility uses membrane technology to treat water that is withdrawn from Smith Mountain Lake (“SML”). This water provides the majority of the water for the Lakes Central system around the SML area while also providing water for Franklin County, the Town of Bedford, and Forest. The SMLWTF is rated at 4.0 MGD, and it can easily be expanded to 6.0 MGD. Of this rated capacity, 0.33 MGD is allocated to WVWA. The Authority also owns three (3) independent water systems that use wells as the source and are located in the Mountain View Shores, Valley Mills Crossing, and Paradise Point subdivisions.
- 4. Stewartsville:** The Authority owns a water system in the Stewartsville area where water is purchased from WVWA and then distributed by the Authority. The Water Sale and Purchase Agreement with WVWA allows the purchase of up to 1.0 MGD for this service area.



# Our Wastewater System



## Wastewater Collection Service Areas

- 1. Bedford Central:** The Authority provides sewer service inside and around the Town of Bedford using a Wastewater Treatment Plant (“WWTP”) located on Orange Street in Bedford. The Central WWTP is rated at 2.0 million gallons a day (“MGD”).
- 2. Forest Central:** The Authority provides sewer service to the Forest and New London areas of the County by collecting the wastewater and transmitting it to the Lynchburg Regional WWTP for treatment. The Authority owns 1.0 MGD capacity in the Lynchburg WWTP.
- 3. Lakes Central:** The Authority owns a WWTP in Moneta which provides sewer service to the Lakes community around the 122 corridor. The WWTP is rated at 0.5 MGD.
- 4. Montvale:** The Montvale WWTP is located behind the Elementary school. It is rated at 0.05 MGD and provides service to the Montvale Elementary School, the Montvale Library, the Montvale Center for Business, and the central Montvale community.

**5. Cedar Rock:** The Cedar Rock WWTP is located in the Cedar Rock subdivision in Forest, with a service area limited to the Cedar Rock subdivision. It is rated at 0.015 MGD.

**6. Mariners Landing:** The Mariners Landing WWTP and drain fields are located in the Mariners Landing subdivision in Huddleston, with a service area limited to the Mariners Landing community. The WWTP is rated at 0.090 MGD, and the drain fields are approved for approximately 0.2 MGD.

### In 2023-2024...

- Had 5 wastewater treatment plants
- Had 32 sewer pump stations
- Treated 606 million gallons
- Had 161 miles of sewer line
- Had 6,092 total sewer connections
- Added 79 new sewer connections



# Capital Improvement Program Executive Summary

The Bedford Regional Water Authority's Capital Improvement Program (CIP) is intended to ensure that capital improvements are coordinated, timed to maximize the Authority's financial resources, and promote a measured approach to long-range asset planning. The Capital Improvement Program is a planning document intended to provide an analysis of potential long-range funding needs, specifically addressing the upcoming two to three years in combination with fiscal expectations. Actual appropriations for projects occurring under the plan are made on an annual basis, and the CIP is reviewed annually to address changes in priorities and any funding issues or opportunities. Projects projected beyond FY 2025-2026 will be reviewed during the annual budget process for the given fiscal year and may be revised or rescheduled depending on preliminary cost estimates, changing priorities and the availability of funding in any particular year. Priority criteria will be utilized to further identify project and purchase priorities in the coming fiscal years as funding becomes available.

The Authority serves more than 15,500 customers, with more than 400 miles of water lines and 160 miles of sewer lines. Water and sewer services require extensive capital investment to maintain and periodically upgrade deteriorating infrastructure to support continued service to customers and allow for system growth. Some of the considerations in determining necessary projects and purchases include:

- Replacement and upgrades of deteriorating equipment essential for treatment processes and general facility maintenance.
- Processes and equipment that reduce or eliminate service interruptions
- Purchasing and upgrades of equipment to achieve efficient and reliable operations
- System improvements to address growing demand, potential operational savings, and other operational efficiencies
- Safety and security of facilities and personnel
- Regulatory requirements
- Strategic planning objectives

The Bedford Regional Water Authority has identified over \$70 million in capital improvement projects that are needed in its water and sewer systems, not including a large number of water and sewer replacement projects to be managed through separate reserve funding or larger projects underway with alternate funding sources. Some of these investments are crucial to supporting continued service to customers and allowing system growth. Other projects provide for the long-term reduction in operating costs, reduced manpower requirements for repairs, proactive replacements and upgrades, and more dependable and reliable service to the customers.

The proposed projects and purchases for the upcoming fiscal year are strategically aligned with the anticipated capital funds outlined in the Fiscal Year Operating Budget. The Authority has prioritized initiatives that address time-sensitive factors, including regulatory requirements, while also considering staff availability to ensure successful implementation. As the organization looks to future years, it is important to recognize that funding for these projects will necessitate careful consideration of rate adjustments based on current financial projections. Additionally, the Authority is actively exploring grant funding opportunities for several significant projects planned for the 2026-2027 fiscal year. By taking these steps, the aim is to enhance operational capabilities and ensure compliance with regulatory standards, ultimately supporting long-term sustainability and growth.



# FY 2025-2026 Capital Improvements Listing

Capital projects identified for FY 2025-2026 include items that have experienced failure and are critical to continued treatment operations, items that enable continuity in service during power failures, and items that have experienced partial failure or are anticipated to reach failure level shortly.



PROJECTS BY SERVICE AREA	2026	Critical Needs
Cedar Rock WWTP		
Cedar Rock WWTP - Restructure influent valve	\$ 10,000	\$ -
Central WTP		
Central WTP - Basin Valves replacement Phase 1	\$ 75,000	\$ 75,000
Central WWTP		
Central WWTP - Repair Primary Clarifier #2	\$ 50,000	\$ 50,000
Central WWTP - Replace grit collector #1	\$ 130,000	\$ 130,000
Central WWTP - Secondary clarifier 1 repair.	\$ 60,000	\$ 60,000
Central WWTP - Electric Pallet Lift	\$ 10,000	\$ -
Central WWTP - Filter feed pump	\$ 15,000	\$ -
Central WWTP - Install new raw grinder	\$ 15,000	\$ 15,000
Mariners WWTP		
Mariners WWTP - Replace chains and sprockets on both Bio-wheels	\$ 40,000	\$ -
Moneta WWTP		
Moneta WWTP - Replace chains and sprockets on Train A Biowheels	\$ 60,000	\$ 60,000
Paradise Point		
Generator for Paradise Point	\$ 15,000	\$ -
Paradise Point - Pipe and pump replacements	\$ 22,000	\$ -
Valley Mills		
Generator for Valley Mills	\$ 15,000	\$ -
Valley Mills - SCADA	\$ 30,000	\$ -
Moneta		
Moneta LS #1 - Wet Well Wizard / Blower System	\$ 40,000	\$ -
MVS		
Generators for Mountain View Shores	\$ 75,000	\$ -
Grand Total	\$ 662,000	\$ 390,000



# FY 2025-2026 Water Projects

Water projects identified for funding in the 2025-2026 fiscal year include items necessary to ensure continued clean water and quality service.

## Well Systems:

### Generators

- *The Mountain View Shores, Valley Mills, and Paradise Point well systems have experienced multiple power outages in recent years. With each system being at a significant distance from the Authority's other systems, appropriately sized generators with an automatic transfer switch allow for continued power to the systems upon operators and maintenance employees being notified of the outage and enable continued service to the customers.*

### Valley Mills SCADA

- *The Valley Mills system lacks remote monitoring capabilities. The system has previously experienced valve failures in the past, resulting in the emptying of the water storage tank and boil water notices to those customers. Remote monitoring capabilities through SCADA will provide notifications for low tank levels, enabling a prompt response and ability to maintain positive pressure in the subdivision.*

### Paradise Point Pipe and pump replacements

- *Galvanized piping inside the facility is in poor condition, with previous repairs made. Pressure pumps and the compressor are aged and in poor condition.*



PROJECTS BY SERVICE AREA	Fiscal Year 2026	Critical Needs
Central WTP		
Central WTP - Basin Valves replacement Phase 1	\$ 75,000	\$ 75,000
Paradise Point		
Generator for Paradise Point	\$ 15,000	\$ -
Paradise Point - Pipe and pump replacements	\$ 22,000	\$ -
Valley Mills		
Generator for Valley Mills	\$ 15,000	\$ -
Valley Mills - SCADA	\$ 30,000	\$ -
MVS		
Generators for Mountain View Shores	\$ 75,000	\$ -
Grand Total	\$ 232,000	\$ 75,000

## Central Water Treatment Plant

### Basin Drain Valve Replacements

- *Much of the facility and valves within the Central Water Treatment Plant are original to its 1968 construction, with the exception of improvements made to the facility over the last twelve years. As a result, many valves lack full functionality due to deterioration. The basin valves enable the exterior basins to be emptied and cleaned regularly, removing any growth on the basin walls and preventing sludge overload in the filtering basins. Of the four basin drain valves required for this process, one has failed and is leaking, and another is nearly inoperable.*





# FY 2025-2026 Sewer Projects – Central Wastewater

The critical sewer projects identified for the 2025-2026 fiscal year are primarily located at the Central Wastewater Treatment Plant. These projects are for repairs or replacements where equipment has completely failed.

## Railings and Chains on Primary Clarifier Basin #2

- *These items have experienced complete failure, rendering the basin out of service until replacements can be made. Repair costs exceeded available funding in FY 2024-2025.*



## Secondary Clarifier #1 Repair

- *The secondary clarifier is essential for treating increased volumes during higher flow events.*



## Grit Collector #1 and Grinder

- *The grinder and grit collectors are essential to trash removal ahead of treatment processes and protect equipment in downstream treatment processes. Both items have experienced complete failure. A new grinder was purchased in FY 2024-2025; installation is more complex than can be performed by Authority personnel and will require contracted services.*



## Filter Feed Pump

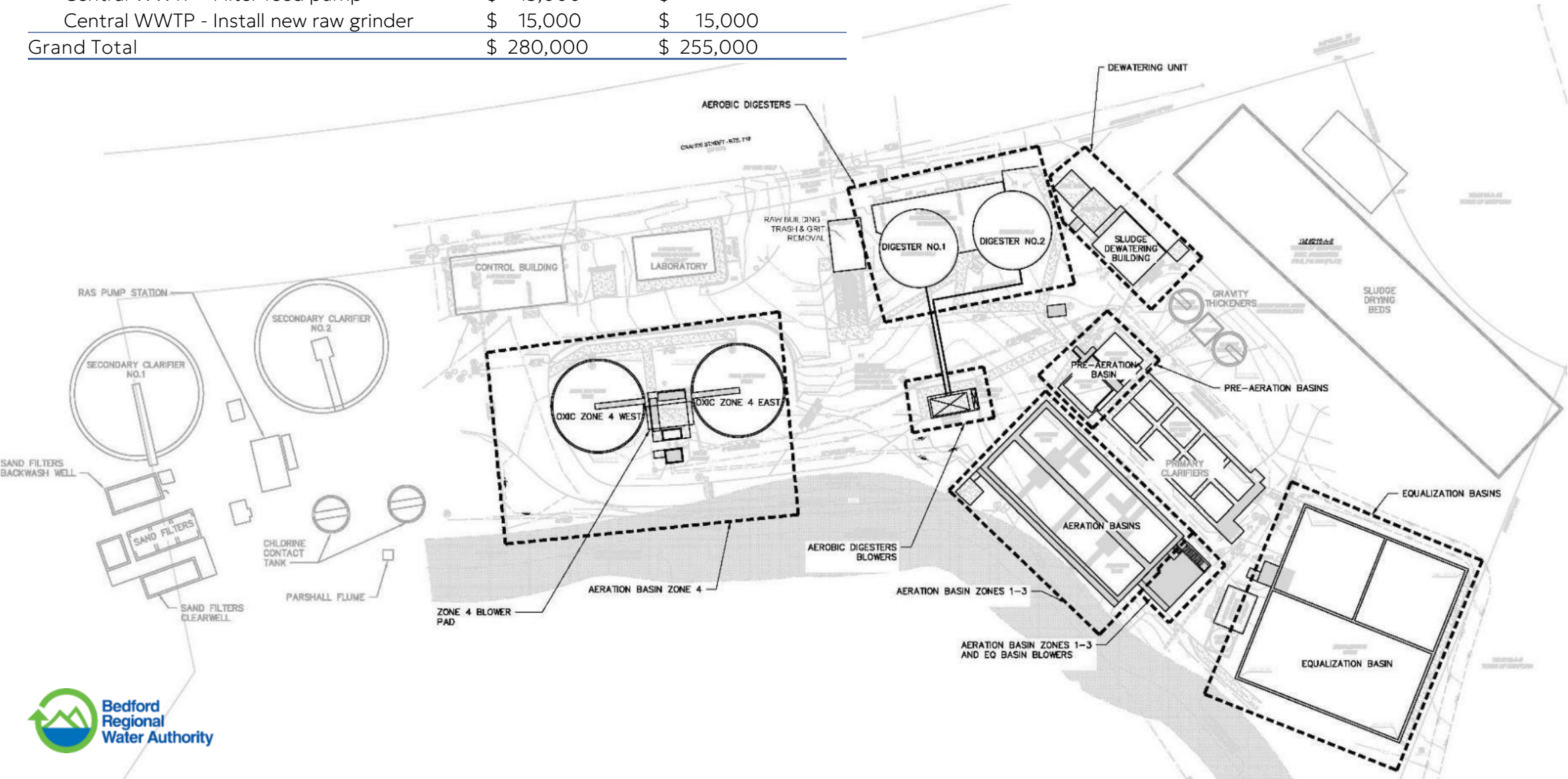
- *One of three filter feed pumps has completely failed. Two pumps are necessary during high-flow or rainfall events to prevent overflows from occurring at the plant.*





# FY 2025-2026 Sewer Projects – Central Wastewater

	2026	Critical Needs
Central WWTP		
Central WWTP - Repair Primary Clarifier #2	\$ 50,000	\$ 50,000
Central WWTP - Replace grit collector #1	\$ 130,000	\$ 130,000
Central WWTP - Secondary clarifier 1 repair	\$ 60,000	\$ 60,000
Central WWTP - Electric Pallet Lift	\$ 10,000	\$ -
Central WWTP - Filter feed pump	\$ 15,000	\$ -
Central WWTP - Install new raw grinder	\$ 15,000	\$ 15,000
Grand Total	\$ 280,000	\$ 255,000





# FY 2025-2026 Sewer Projects – Small Systems

PROJECTS BY SERVICE AREA	Fiscal Year 2026	Critical Needs
Cedar Rock WWTP		
Cedar Rock WWTP - Restructure influent valve	\$ 10,000	\$ -
Mariners WWTP		
Mariners WWTP - Replace chains and sprockets on both Bio-wheels	\$ 40,000	\$ -
Moneta WWTP		
Moneta WWTP - Replace chains and sprockets on Train A Bio-wheels	\$ 60,000	\$ 60,000
Moneta		
Moneta LS #1 - Wet Well Wizard / Blower System	\$ 40,000	\$ -
Grand Total	\$ 150,000	\$ 60,000

## Moneta WWTP and Mariners WWTP

### Bio-wheel Chains and Sprockets

- At Moneta WWTP, Train A is currently not operational due to failed chains and sprockets. This eliminates redundancy should Train B experience issues.
- At Mariners WWTP, it is unknown whether the chains and sprockets were ever been replaced prior to ownership transfer in 2020. Based on the experience of other Bio-wheel systems, these items typically have a life expectancy of 10 years or less and are a critical piece for continued plant operation.



## Moneta Lift Station #1

### Wet Well Wizard / Blower System

- Improvements are needed to significantly reduce the gasses in the system that are causing damage to the wet well and receiving lines. Various solutions were explored in FY 2024-2025, with the costs of the most effective solution exceeding the allocated funding.

## Cedar Rock WWTP

### Influent Valve Restructure

- Current access to the influent valve at the plant creates a safety concern. Relocation of this valve eliminates the concern for safe access.





# Capital Improvement Program Projects Listing FYE 26-28

PROJECTS BY SERVICE AREA	Fiscal Year 2026	2027	2028
<b>Central</b>			
<b>Central</b>			
Lead Service Line Inventory Potholing - Town		\$ 490,000	
<b>Central WTP</b>			
Central WTP - Security Alarms and Fire Alarm System			\$ 29,000
Central WTP - Phase 2 Electrical Upgrades		\$ 462,000	
Central WTP - Phase 3 Electrical Upgrades			\$ 143,000
Central WTP - Basin Valves replacement Phase 1	\$ 75,000		
Central WTP - Holding Pond Dredging			\$ 350,000
<b>Central WWTP</b>			
Central WWTP - Repair Primary Clarifier #2	\$ 50,000		
Central WWTP - Replace grit collector #1	\$ 130,000		
Central WWTP - Secondary clarifier 1 repair.	\$ 60,000		
Central WWTP - Electric Pallet Lift	\$ 10,000		
Central WWTP - Filter feed pump	\$ 15,000		
Central WWTP - Install new raw grinder	\$ 15,000		
<b>Forest</b>			
<b>Forest</b>			
Control Valve - Lynchburg Entry Point (Graves Mill Rd)			\$ 120,000
Control Valve - Lynchburg Entry Point (Hawkins Mill)			\$ 120,000
Lead Service Line Inventory Potholing - Forest		\$ 250,000	
<b>Lakes</b>			
<b>Moneta</b>			
Moneta LS #1 - Wet Well Wizard / Blower System	\$ 40,000		
<b>Moneta WWTP</b>			
Moneta WWTP - Replace chains and sprockets on Train A Biowheels	\$ 60,000		
<b>Various</b>			
<b>Various</b>			
Water - Sample hydrants - Phase 2B (7)			\$ 19,000
<b>Mariners</b>			
<b>Mariners Landing</b>			
Mariners Landing-SCADA for 2 pump stations. These are smaller stations.			\$ 20,000
<b>Mariners WWTP</b>			
Mariners WWTP - Install skimmer on clarifier 1 and 2			\$ 10,000
Mariners WWTP - Replace chains and sprockets on both Bio-wheels	\$ 40,000		



# Capital Improvement Program Projects Listing FYE 26-28

PROJECTS BY SERVICE AREA	Fiscal Year 2026	2027	2028
<b>Cedar Rock</b>			
<b>Cedar Rock WWTP</b>			
Cedar Rock WWTP - Restructure influent valve	\$ 10,000		
<b>SML (Shared with WWA)</b>			
<b>SML</b>			
SML - Raw Water Intake Generator		\$ 200,000	
SMLWTF GAC Pump and associated parts		\$ 130,000	
<b>Montvale</b>			
<b>Montvale</b>			
Fire Line Meter - Montvale Elementary			\$ 30,000
<b>Office / Administration</b>			
<b>Office</b>			
Annex Building Renovations			\$ 125,000
<b>Purchases</b>			
Phase 2 of Data Visualization		\$ 120,000	
Phase 3 of Data Visualization			\$ 85,000
CIP Crew - Portable Air Compressor			\$ 33,000
CIP Crew - Water Service Hog			\$ 9,000
Key System - Various Plants			\$ 30,000
Water & Sewer Master Plan		\$ 250,000	
Truck for Schools Wastewater Operator			\$ 46,000
CIP Crew - Straw Blower		\$ 12,000	
Line Crew - Department Asbestos Cutting Tools		\$ 10,000	
Line Crew #4 - John Deere 35G			\$ 64,000
Line Crew #4 - 16' 8 Ton Trailer			\$ 11,000
Yard - Stone and Cold Patch Pads			\$ 7,200
<b>Wells</b>			
<b>MVS</b>			
Generators for Mountain View Shores	\$ 75,000		
<b>Paradise Point</b>			
Generator for Paradise Point	\$ 15,000		
Paradise Point - Pipe and pump replacements	\$ 22,000		
<b>Valley Mills</b>			
Generator for Valley Mills	\$ 15,000		
Valley Mills - SCADA	\$ 30,000		
<b>Grand Total</b>	<b>\$ 662,000</b>	<b>\$ 1,924,000</b>	<b>\$ 1,251,200</b>



# Projects with Outside Funding

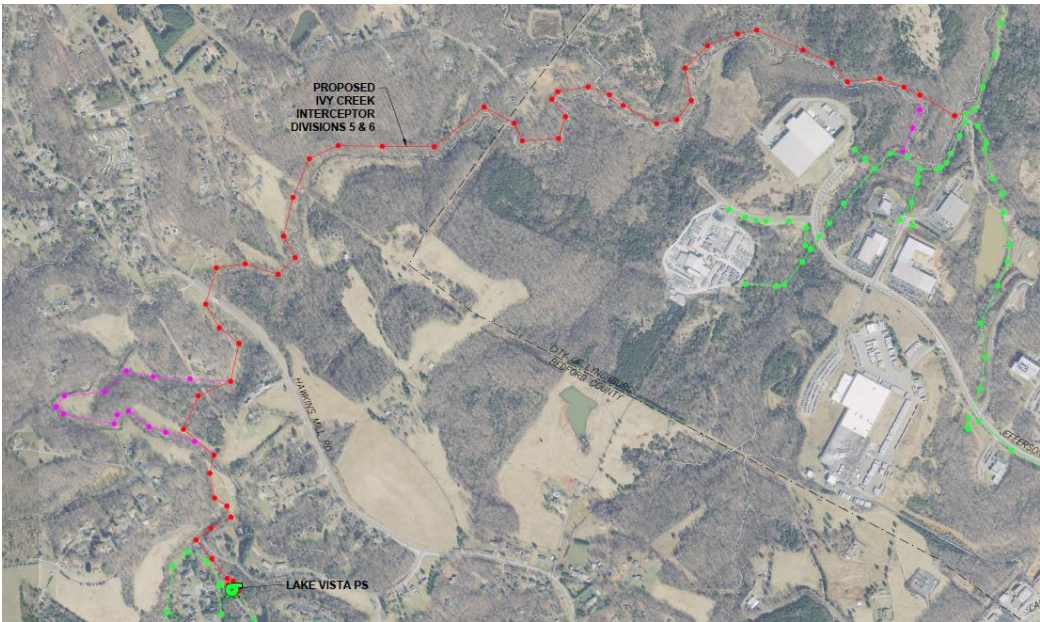
**Helm Street Tank:** With the American Rescue Plan Act (ARPA), funding was made available to localities for select improvements that had been previously identified, including those necessary for water and sewer infrastructure. In cooperation with the Town of Bedford, the Authority entered into a Grant Subrecipient Agreement on December 1, 2021 with the Town to utilize ARPA funds in addressing select projects, including the Helm Street Tank replacement.

The previous 1.22 million-gallon round water storage tank at Helm Street was taken out of service due to a failing coating system containing lead and a deteriorating concrete structure. With water storage that is central to the water system of significant importance to limit water age and disinfection byproducts, a new 1 million-gallon welded steel water tank was designed for this site. The project is underway and anticipated to be completed in Summer 2025.



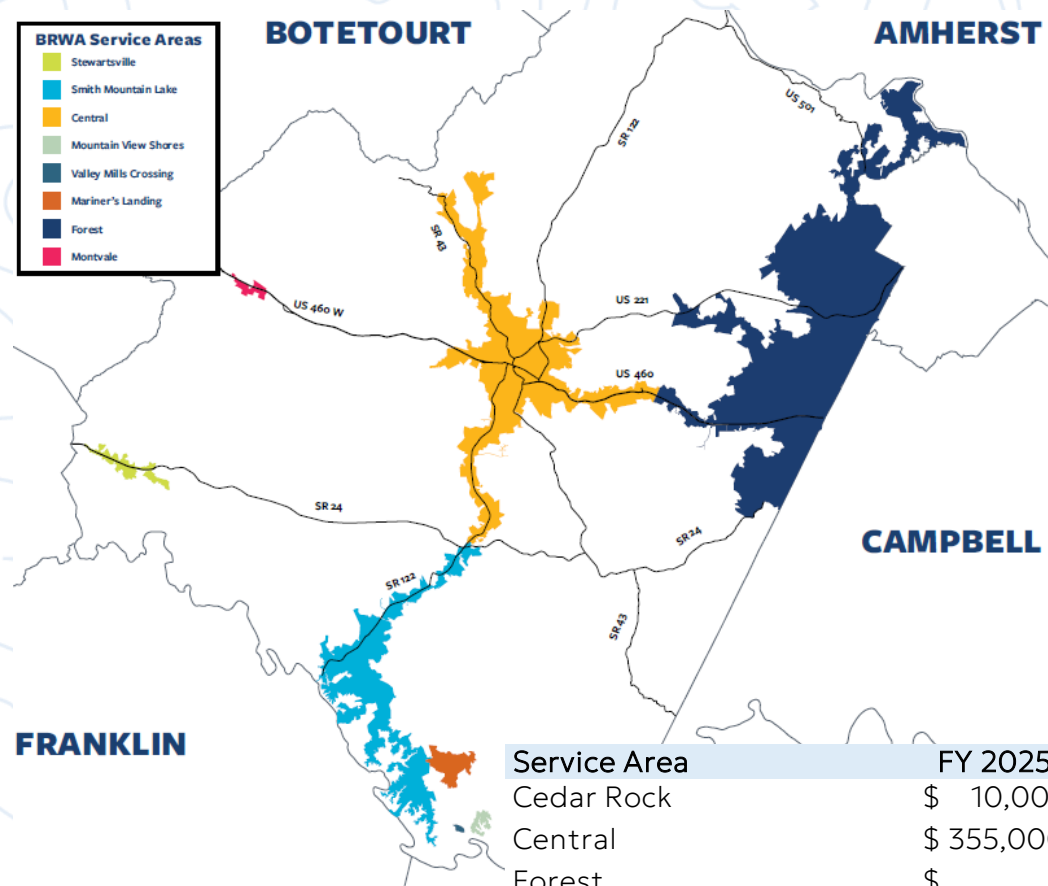
PROJECTS AND FUNDING SOURCES	Project Costs
Helm Street Tank Replacement	\$ 3,850,000
ARPA	\$ 3,418,244
Escrow	\$ 162,916
Reserves	\$ 268,840
Ivy Creek 5 & 6 Design, Construction & Capacity	\$ 15,551,975
County	\$ 1,500,000
Debt Service	\$ 14,684,610
Principal Forgiveness	\$ (632,635)
Grand Total	\$ 19,401,975

**Ivy Creek 5 & 6 Design, Construction & Capacity:** This gravity sewer extension into Lynchburg removes the operational requirements and capacity constraints at the Lake Vista Lift Station. The Station is experiencing numerous failures with temporary supplementary pumping arrangements in place. Along with Bedford County providing \$1.5 million over a period of three years, this project is being funded through Clean Water Revolving Loan funds at a minimal interest rate with some principal forgiveness included. This project is underway and anticipated for completion in December 2025.





# Capital Improvement Program – Costs By Service Area



Service Area	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	Future	Total
Cedar Rock	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ 20,000
Central	\$ 355,000	\$ 952,000	\$ 522,000	\$ 800,000	\$ 550,000	\$ 3,370,000	\$ 6,249,000
Forest	\$ -	\$ 250,000	\$ 240,000	\$ 120,000	\$ 400,000	\$ 11,145,000	\$ 12,155,000
Lakes	\$ 100,000	\$ -	\$ -	\$ -	\$ 60,000	\$ 23,250,000	\$ 23,410,000
Mariners	\$ 40,000	\$ -	\$ 30,000	\$ -	\$ -	\$ -	\$ 70,000
Montvale	\$ -	\$ -	\$ 30,000	\$ -	\$ -	\$ -	\$ 30,000
Office / Administration	\$ -	\$ 392,000	\$ 410,200	\$ 631,500	\$ 162,500	\$ 5,571,500	\$ 7,167,675
SML (Shared with WVWA)	\$ -	\$ 330,000	\$ -	\$ 30,000	\$ -	\$ -	\$ 405,000
Stewartsville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,400,000	\$ 20,400,000
Various	\$ -	\$ -	\$ 19,000	\$ 36,000	\$ -	\$ 20,000	\$ 75,000
Wells	\$ 157,000	\$ -	\$ -	\$ -	\$ 35,000	\$ -	\$ 192,000
Total	\$ 662,000	\$ 1,924,000	\$ 1,251,200	\$ 1,617,500	\$ 1,207,500	\$ 63,766,500	\$ 70,428,700



# Water Projects

Various water projects have been identified in the Forest, Central, and Lakes service areas to be addressed over the next few years, with some larger projects projected more into future years based upon anticipated funding. Several facility replacement projects are included within the capital improvement plan for larger projects, while the facility replacement reserve account continues to accrue sufficient funding. Continued efforts to finalize the Lead Service Line Inventory, as required by the Virginia Department of Health and Environmental Protection Agency, present a significant funding need in FY 2026-2027.

WATER PROJECTS BY SERVICE AREA	Fiscal Year Ending:					
	2026	2027	2028	2029	2030	Future
<b>Boonsboro</b>						
System Structures & Tanks						
Fox Runn Booster Station Upgrade					\$ 400,000	
<b>Central</b>						
Operational Needs						
Central Bulk Fill Station (Central WWTP)						\$ 40,000
Connect Bedford Lowe's to Town Distribution System						\$ 400,000
Bunker Hill Control Valve - Fencing						\$ 5,000
Stoney Creek Reservoir - Rehab Construction						\$ 1,420,000
Fire Line Meter - D-Day						\$ 20,000
Fire Line Meter - Hospital				\$ 20,000		
Fire Line Meter - Bedford Weaving (2)						\$ 40,000
Fire Line Meter - Lowes				\$ 20,000		
Fire Line Meter - Turning Point Road						\$ 20,000
Regulatory						
Lead Service Line Inventory Potholing - Town		\$ 490,000				
<b>Central WTP</b>						
Operational Needs						
Central WTP - Holding Pond Sewer						\$ 800,000
Central WTP - Upgrade chemical feeders to liquid chemical (others)						\$ 15,000
Central WTP - SCADA Head Loss Monitors for finish filters						\$ 150,000
Central WTP - Security Alarms and Fire Alarm System			\$ 29,000			
Central WTP - Phase 2 Electrical Upgrades		\$ 462,000				
Central WTP - Phase 3 Electrical Upgrades			\$ 143,000			
Central WTP - Underdrain air scour system						\$ 325,000
Central WTP - Basin Valves replacement Phase 1	\$ 75,000					
Central WTP - Holding Pond Dredging			\$ 350,000			
Central WTP - Hypo Relocation with GAC (Construction)				\$ 300,000		
<b>Purchases</b>						
Central WTP - John Deere Gator Side-by-Side				\$ 40,000		



# Water Projects

WATER PROJECTS BY SERVICE AREA	Fiscal Year Ending:					
	2026	2027	2028	2029	2030	Future
<b>Forest</b>						
Neighborhood Line Extensions (NLE)						
Blackburn Subdivision NLE						\$ 520,000
Operational Needs						
Control Valve - Lynchburg Entry Point (Graves Mill Rd)			\$ 120,000			
Control Valve - Lynchburg Entry Point (Hawkins Mill)			\$ 120,000			
Control Valve - Cottontown Road at Forest Road				\$ 120,000		
System Loops for Stability						
Waterline Loop - Cottontown Road: Riley Run to Autumn Run						\$ 1,000,000
Waterline Loop - Everett Road: Otterview to Walkers Crossing						\$ 900,000
Waterline Loop - Goode: Everett to Ashwood (Rt. 221)						\$ 4,000,000
System Structures & Tanks						
Altha Grove/Cottontown Tank - Mixer						\$ 25,000
Regulatory						
Lead Service Line Inventory Potholing - Forest		\$ 250,000				
<b>Lakes</b>						
Future System Growth						
Goodview Waterline - SML to Sycamore Ridge						\$ 5,500,000
MVS to Valley Mills Ext (Lochwood, Capewood, Trading Post)						\$ 1,200,000
SML Phase 5 to Mountain View Shores						\$ 7,200,000
System Loops for Stability						
Waterline Loop - Whitehouse Road						\$ 4,500,000
<b>Montvale</b>						
<b>Operational Needs</b>						
Fire Line Meter - Montvale Elementary			\$ 30,000			
<b>MVS</b>						
<b>Operational Needs</b>						
Generators for Mountain View Shores		\$ 75,000				
<b>Paradise Point</b>						
<b>Operational Needs</b>						
Generator for Paradise Point		\$ 15,000				
Paradise Point - Pipe and pump replacements		\$ 22,000				
<b>SCADA</b>						
<b>Operational Needs</b>						
SCADA Hatch Intrusion Switches for Water Tanks				\$ 36,000		





# Water Projects

WATER PROJECTS BY SERVICE AREA	Fiscal Year Ending:					
	2026	2027	2028	2029	2030	Future
<b>SML</b>						
Operational Needs						
SMLWTF GAC Pump and associated parts		\$ 130,000				
SML WTF (shared portion)						
Moneta LS #4 Upgrades - Ph 2 (Pumps)				\$ 30,000		
SML - Raw Water Intake Generator		\$ 200,000				
<b>Stewartsville</b>						
System Loops for Stability						
Stewartsville West Loop - Drewrys Hill Road						\$ 400,000
<b>Valley Mills</b>						
Operational Needs						
Valley Mills Building addition for chemical addition				\$ 35,000		
Generator for Valley Mills	\$ 15,000					
Valley Mills - SCADA	\$ 30,000					
<b>Grand Total</b>	<b>\$ 232,000</b>	<b>\$ 1,532,000</b>	<b>\$ 792,000</b>	<b>\$ 486,000</b>	<b>\$ 515,000</b>	<b>\$ 28,480,000</b>





# Sewer Projects

Various sewer projects have been identified in each service area to be addressed over the next several years, with some larger projects projected more into future years based upon anticipated funding. Several facility replacement projects are included within the capital improvement plan for larger projects, or while the facility replacement reserve account continues to accrue sufficient funding. Funding priorities in FY 2026-2027 are anticipated to focus on significant water project needs.

SEWER PROJECTS BY SERVICE AREA	Fiscal Year Ending:				
	2026	2028	2029	2030	Future
<b>Cedar Rock WWTP</b>					
Operational Needs					
Cedar Rock WWTP - Add handrailings at influent valve					\$ 10,000
Cedar Rock WWTP - Restructure influent valve	\$ 10,000				
<b>Central</b>					
Operational Needs					
Central Pump Station 4 Replacement & SCADA		\$ 450,000			
Central Pump Station 8 Replacement & SCADA			\$ 470,000		
<b>Central WWTP</b>					
Operational Needs					
Central WWTP - Digester Access Improvements (SAFETY)					\$ 100,000
Central WWTP - Electric Pallet Lift	\$ 10,000				
Central WWTP - Filter feed pump	\$ 15,000				
Central WWTP - Install new raw grinder	\$ 15,000				
Central WWTP - Move sandfilter controls from basement to control room					\$ 35,000
Central WWTP - Remove old boiler and equipment		\$ 50,000			
Central WWTP - Repair Primary Clarifier #2	\$ 50,000				
Central WWTP - Replace grit collector #1	\$ 130,000				
Central WWTP - Secondary clarifier 1 repair.	\$ 60,000				
<b>Forest</b>					
Future Growth - Capacity Purchases					
Ivy Creek 1-4 Capacity (1.5 MGD Avg / 3.75 Peak)					\$ 1,900,000
Lynchburg WWTP Capacity (2.4 MGD)					\$ 2,800,000
<b>Mariners Landing</b>					
Operational Needs					
Mariners Landing-SCADA for 2 pump stations. These are smaller stations.		\$ 20,000			





# Sewer Projects

SEWER PROJECTS BY SERVICE AREA	Fiscal Year Ending:				
	2026	2028	2029	2030	Future
<b>Mariners WWTP</b>					
Operational Needs					
Mariners WWTP - Install skimmer on clarifier 1 and 2		\$ 10,000			
Mariners WWTP - Replace chains and sprockets on both Bio-wheels	\$ 40,000				
<b>Moneta</b>					
Operational Needs					
Moneta LS #1 - Wet Well Wizard / Blower System	\$ 40,000				
<b>Moneta WWTP</b>					
Future System Growth					
Moneta WWTP Expansion to 1.0 MGD					\$ 4,100,000
Operational Needs					
Moneta WWTP - Composting sludge from Central Sewer & Moneta WWTP					\$ 100,000
Moneta WWTP - New Disk Filter Construction					\$ 650,000
Moneta WWTP - Replace chains and sprockets on Train A Biowheels	\$ 60,000				
<b>Stewartsville</b>					
Future System Growth					
Stewartsville Sewer					\$ 20,000,000
<b>Grand Total</b>	<b>\$ 430,000</b>	<b>\$ 30,000</b>	<b>\$ 500,000</b>	<b>\$ 470,000</b>	<b>\$ 29,695,000</b>





# Smith Mountain Lake Water Treatment Facility Projects

Projects and purchases directly related to the operation of the Smith Mountain Lake Water Treatment Facility reflect shared costs with Western Virginia Water Authority as the joint partner of the facility. Projects identified to assist with water system operation include the following:

- Increased pumping capacity at the receiving sewer lift station 4 to support a large volume of backwash discharge from the facility.
- Permanent standby generator for the raw water intake for improved reliability.
- Increased pumping capacity to send greater volumes through the granular activated carbon (GAC) vessels for improved organic removal; this project was previously funded, but found to be at a higher cost than estimated for funding.



PROJECTS BY SERVICE AREA	Fiscal Year Ending:	
	2027	2029
SML		
SML WTF (shared portion)		
SMLWTF GAC Pump and associated parts	\$ 130,000	
Moneta LS #4 Upgrades - Ph 2 (Pumps)		\$ 30,000
SML - Raw Water Intake Generator	\$ 200,000	
Grand Total	\$ 330,000	\$ 30,000





# Capital Purchases and Office Improvements

Capital purchases are identified in the coming years that will assist with better operational efficiencies, employee safety, and allow for the additional equipment necessary to maintain an expanding service area. Some of these purchases include equipment to enable work efficiencies and provide cost savings of completing more tasks internally, as well as consultant assistance in data integration for more effective data forecasting. A comprehensive water and sewer master plan is proposed in FY 2026-2027 to identify facility and line sizes necessary to support existing and future growth, which will also assist with replacement planning and prioritization. Internal improvements and upgrades are also included to assist with efficiencies and security, including continued implementation of a newer key system to provide improved site security options and improve appropriate accessibility.

PURCHASES AND OFFICE IMPROVEMENTS	Fiscal Year Ending: 2027	2028	2029	2030	Future
<b>Lakes</b>					
System Structures & Tanks				\$ 60,000	
High Point WTP - Remove Tanks				\$ 60,000	
<b>Various</b>					
<b>Operational Needs</b>		\$ 19,000			\$ 20,000
SCADA Communications Architecture Enhancements					\$ 20,000
Water - Sample hydrants - Phase 2B (7)		\$ 19,000			
<b>Office / Administration</b>					
<b>Administration</b>	\$ 120,000	\$ 115,000	\$ 220,000	\$ 150,000	\$ 55,000
Key System - Central WWTP			\$ 100,000		
Key System - Various Plants		\$ 30,000			
Key System - Various Sites			\$ 50,000	\$ 100,000	
Key System - Various Small Sites				\$ 50,000	
Phase 2 of Data Visualization	\$ 120,000				
Phase 3 of Data Visualization		\$ 85,000			
Phase 4 of Data Visualization			\$ 70,000		
Portable Water Station for Community Events					\$ 55,000
<b>Engineering</b>	\$ 250,000				
Water & Sewer Master Plan	\$ 250,000				



# Capital Purchases and Office Improvements

PURCHASES AND OFFICE IMPROVEMENTS	Fiscal Year Ending:				
	2027	2028	2029	2030	Future
<b>Office / Administration</b>					
Maintenance	\$ 22,000	\$ 124,200	\$ 285,500	\$ 12,500	\$ 856,500
CIP Crew - 18 - 20 Ton Excavator			\$ 211,000		
CIP Crew - Portable Air Compressor		\$ 33,000			
CIP Crew - Skid Steer Concrete Saw			\$ 30,000		
CIP Crew - Straw Blower	\$ 12,000				
CIP Crew - Track Dump Truck					\$ 202,000
CIP Crew - Track Loader					\$ 281,000
CIP Crew - Water Service Hog		\$ 9,000			
CIP Crew - Wheel Loader					\$ 116,000
Equipment - 2DH-2 Concrete Mixer 2 Cubic Yards					\$ 39,000
Equipment - 4-12 Inch Hot Tap Machine / Mueller			\$ 32,000		
Equipment - Asphalt Hot Box, Compactor and Roller					\$ 77,000
FM - Truck Mounted Welder				\$ 12,500	
Line Crew - Department Asbestos Cutting Tools	\$ 10,000				
Line Crew #4 - 16' 8 Ton Trailer		\$ 11,000			
Line Crew #4 - 6500 Chevy Dump Truck					\$ 110,000
Line Crew #4 - John Deere 35G		\$ 64,000			
Skid Steer - Forestry Kit 333G					\$ 13,000
Yard - Ductile Pipe Inventory Storage Rack					\$ 18,500
Yard - Paving of 1/4 Rear Parking Area			\$ 12,500		
Yard - Stone and Cold Patch Pads		\$ 7,200			
<b>Office Improvements</b>		\$ 125,000	\$ 126,000		\$ 4,660,000
Administration Offices in Conference Room			\$ 126,000		
Annex Building Renovations		\$ 125,000			
Heated Garage - additional bay					\$ 160,000
New Building - Construction					\$ 2,600,000
New Building - Design					\$ 170,000
Sewer Extension to Office Building					\$ 1,600,000
Yard - Pole Barn					\$ 130,000
<b>Operational Needs</b>		\$ 46,000			
Truck for Schools Wastewater Operator		\$ 46,000			
<b>Grand Total</b>	<b>\$ 392,000</b>	<b>\$ 429,200</b>	<b>\$ 631,500</b>	<b>\$ 222,500</b>	<b>\$ 5,591,500</b>





# Capital Reserve Accounts

The Authority has established several capital reserve accounts to address anticipated needs for large expenditures. These accounts allow funds to accumulate and carry over across fiscal years, and enable routine planning for continued improvements, replacements, or rehabilitation of equipment and infrastructure. Funding to each of these accounts is reviewed annually, taking into consideration existing balances within the accounts and the upcoming needs. Minimum balance requirements for each account are established in a Reserve Accounts policy to ensure enough funding remains available for emergencies or other needs that may arise with short notice. These accounts are funded monthly, allowing the Authority to make contribution adjustments should issues arise that require operational budget alterations.

Capital Projects and Reserve Setasides	Comparisons	
	Prior FY 2024-2025	Future FY 2026-2027
Vehicle and Equipment Replacements	\$ 40,000	\$ 480,000
Computer and SCADA Equipment Replacements	\$ 2,500	\$ 30,000
Meter Replacement (should be 10 year plan, per meter replacement policy)	\$ 25,000	\$ 300,000
Waterline Replacement (needed for older leaking systems)	\$ 33,000	\$ 396,000
Water Facility Set asides Plants and Pump Stations	\$ 12,500	\$ 150,000
Sewerline Replacement (required by consent order, needed in Center District)	\$ 28,000	\$ 336,000
Sewer Facility Set asides Plants and Pump Stations	\$ 12,500	\$ 150,000
Tank Rehabilitation	\$ 6,667	\$ 80,000
SML Facility Depreciation Reserve	\$ 17,500	\$ 210,000
Cell Tower Funds for Economic Development	\$ -	\$ -
Total Replacement Reserved Capital	\$ 2,132,000	\$ 2,725,000





# Capital Reserve Accounts

## **Meter Replacements:**

The Meter Replacement setaside account is used to allow for routine meter replacements throughout the service area. As a meter ages, accuracy slowly declines and the meter registers less flow. Routine replacement prior to significant accuracy decline assists with more accurate billing and water accountability, ensuring less revenue loss. In addition to meter replacements, this account also supports gateway antennas that are utilized for automated meter reading (AMR). For AMR meters within an antenna's signal, readings are captured remotely through software without the requirement for a Customer Service Representative to visit the area. Gateway antennas have initially been targeted at areas that are most remote to the system, or that may pick up the most customers. As the customer base expands, expansion of this remote capability eliminates the need for additional staff that would otherwise be necessary to read all meters.



## **Computer and SCADA Equipment (IT/OT) Replacements:**

Electronic equipment is essential to the daily operations of the organization. This includes computers, network servers, phones, printers, and programmable logic controllers (PLCs) that enable facilities to operate within stated parameters while providing remote viewing capabilities through Supervisory Control and Data Acquisition (SCADA) equipment. The Information Technology ("IT") and Operational Technology ("OT") setaside account provides for routine upkeep of these items that allow employees continued and efficient operation and facility monitoring.

## **Tank Rehabilitation:**

Water storage tanks require occasional rehabilitation to maintain quality water storage that is safely accessible for cleaning and maintenance. Rehabilitation projects may involve recoating the tanks, bringing safety equipment to current standards, updating visual and remote monitoring equipment, or other projects that provide for the continued service of the tanks. As these projects are less frequent but require high costs, the Tank Rehabilitation setaside account has been accruing in recent years to allow multiple projects to be completed most cost-efficiently as tank inspections identify rehabilitation needs.

## **Vehicle and Equipment Replacements:**

Vehicles and heavy equipment represent some of the largest operating costs for the Authority. The Vehicle and Equipment reserve setaside account assures the dependability of equipment and vehicles that daily operations and emergency response rely upon. This fund also provides for routine replacement of smaller equipment necessary for daily tasks. As items are replaced utilizing this fund, the items replaced are sold as feasible and proceeds from sales are added to the fund.



# Capital Reserve Accounts – Water and Sewer Facilities

In FY 2023-2024, replacement reserve accounts were initiated for water and sewer facility replacements. These will provide routine funding in the future for items necessary to keep treatment plants, booster stations, and lift stations properly and efficiently functioning. With minimal funding provided to these accounts in FY 2023-2024 and FY 2024-2025, these accounts will continue to accumulate funds for the majority of FY 2025-2026 until sufficient funding is available to perform some of the needed projects below while still maintaining the minimum account balance.

WATER FACILITY REPLACEMENT PROJECTS	Fiscal Year Ending:					Grand Total
	2027	2028	2029	2030	Future	
Central						
Central WTP						
Central WTP - Overhaul of WTP Elevator					\$ 350,000	\$ 350,000
Central WTP - Replace filter media / rebuild filters				\$ 30,000		\$ 30,000
Central WTP - Filter Control SCADA Interface				\$ 75,000		\$ 75,000
Central WTP - Inside filter system valves replacement Phase 2	\$ 160,000					\$ 160,000
Central WTP - Inside filter system valves replacement Phase 3			\$ 170,000			\$ 170,000
Central WTP - Upgrade drainage system from holding ponds to VPDES outfall				\$ 45,000		\$ 45,000
Central WTP - Basin Valves replacement Phase 2		\$ 200,000				\$ 200,000
Central WTP - Basin Valves replacement Phase 3				\$ 200,000		\$ 200,000
Lakes						
Lakes						
High Point WTP - Roof Replacement			\$ 52,000			\$ 52,000
Wells						
Paradise Point						
		\$ 35,000				\$ 35,000
Grand Total	\$ 160,000	\$ 235,000	\$ 222,000	\$ 350,000	\$ 350,000	\$ 1,317,000





# Capital Reserve Accounts – Water & Sewer Facilities

SEWER FACILITY REPLACEMENT PROJECTS	Fiscal Year Ending 2026	2027	2028	2029	2030	Grand Total
<b>Cedar Rock</b>						
<b>Cedar Rock WWTP</b>						
Cedar Rock WWTP - Recoat influent basin				\$ 10,000.00		\$ 10,000.00
<b>Central</b>						
<b>Central</b>						
Central Pump Station 10 - Replacement Pump #1		\$ 50,000.00				\$ 50,000.00
Central Pump Station 10 - Replacement Pump #2		\$ 50,000.00				\$ 50,000.00
Central Pump Station 3 - Replacement Pump #1			\$ 45,000.00			\$ 45,000.00
Central Pump Station 3 - Replacement Pump #2			\$ 45,000.00			\$ 45,000.00
Central Pump Station 3 - Replacement Pump #3			\$ 45,000.00			\$ 45,000.00
<b>Central WWTP</b>						
Central WWTP - New RAS Pump #2	\$ 55,000.00					\$ 55,000.00
Central WWTP - New RAS Pump #3	\$ 55,000.00					\$ 55,000.00
Central WWTP - Replace the air actuator valves to electric valves on sandfilters				\$ 60,000.00		\$ 60,000.00
Central WWTP - Replace transfer switch in belt press building		\$ 27,000.00				\$ 27,000.00
Central WWTP - Sand and repaint effluent clarifiers				\$ 50,000.00		\$ 50,000.00
Central WWTP - Sand and repaint thickener units				\$ 20,000.00		\$ 20,000.00
Central WWTP - Lab & Sludge Building Renovations Ph 1		\$ 17,000.00				\$ 17,000.00
Central WWTP - Lab & Sludge Building Renovations Ph 2					\$ 50,000.00	\$ 50,000.00
Central WWTP - Primary Basin 2- railings and chains replacement		\$ 30,000.00				\$ 30,000.00
<b>Lakes</b>						
<b>Moneta WWTP</b>						
Moneta WWTP - Replace magnetic ballasts & wiring harness			\$ 10,000.00			\$ 10,000.00
Moneta WWTP - Replace trunnions and stub axles					\$ 170,000.00	\$ 170,000.00
Moneta WWTP - Roof replacement			\$ 30,000.00			\$ 30,000.00
<b>Mariners</b>						
<b>Mariners WWTP</b>						
Mariners WWTP - Recoat train 1 & 2 influent basins				\$ 20,000.00		\$ 20,000.00
<b>Montvale</b>						
<b>Montvale WWTP</b>						
Montvale WWTP - Recoat influent basin at wastewater plant				\$ 10,000.00		\$ 10,000.00
<b>Grand Total</b>	\$ 110,000.00	\$ 174,000.00	\$ 175,000.00	\$ 170,000.00	\$ 220,000.00	\$ 849,000.00



# Capital Reserve Accounts – Water and Sewer Lines

As the Authority's water and sewer systems age, it is necessary to prepare for replacements of older lines to maintain continued service to customers. Water line and sewer line replacement or rehabilitation projects are currently covered through Capital Reserve set-asides accounts created for these purposes rather than through the Authority's Capital Improvement Plan. Funding to these accounts is regularly increased where feasible through the annual budget process. These accounts assist with unexpected emergency replacement projects that may arise, as well as allow for planned replacements through the Authority's Maintenance crews or contractors.

## ANTICIPATED PROJECTS BY FISCAL YEAR

### 2025-2026

- Baltimore / Walnut Avenue Waterline Replacement
- Shady Knoll Sewer Replacement
- Orange Street Training Center Meter
- Turkey Mountain Water Line Replacement - Services

### 2026-2027

- Baltimore / Walnut Avenue Waterline Replacement
- Mariners Landing PRV Replacement
- Route 43 Sewer Replacement Ph 2

### 2027-2028

- Sigh N Pines Waterline Replacement
- Western Hills Sewer Replacement
- Route 43 Sewer Replacement Ph 3

The majority of current line replacement projects are located within the Central service area. The Central water and wastewater systems have many older lines that have exceeded their normal life span and are a source of many repairs. Much of the current water focus is on replacement of small-diameter galvanized waterlines with larger and more durable lines to provide dependable, quality service to these areas and support fire suppression. Sewer line replacements remain primarily focused on older lines in the Central Pump Station 1 drainage area that require regular root treatment to prevent overflows, as well as beginning to address many undersized 6-inch gravity sewer lines within the Town service area.







# Capital Reserve Accounts – Water and Sewer Lines

A Consent Order was issued to the City of Bedford in 2010 to address overflows at the Central wastewater plant’s equalization basin, grit chamber, and Pump Stations 1, 2, and 3. As part of that Order, a minimum of \$100,000 must be appropriated each budget year towards efforts that result in the reduction of inflow and infiltration into the Central sewer system. Below is the summary of work reported to DEQ under the 2024 Consent Order Progress Report.

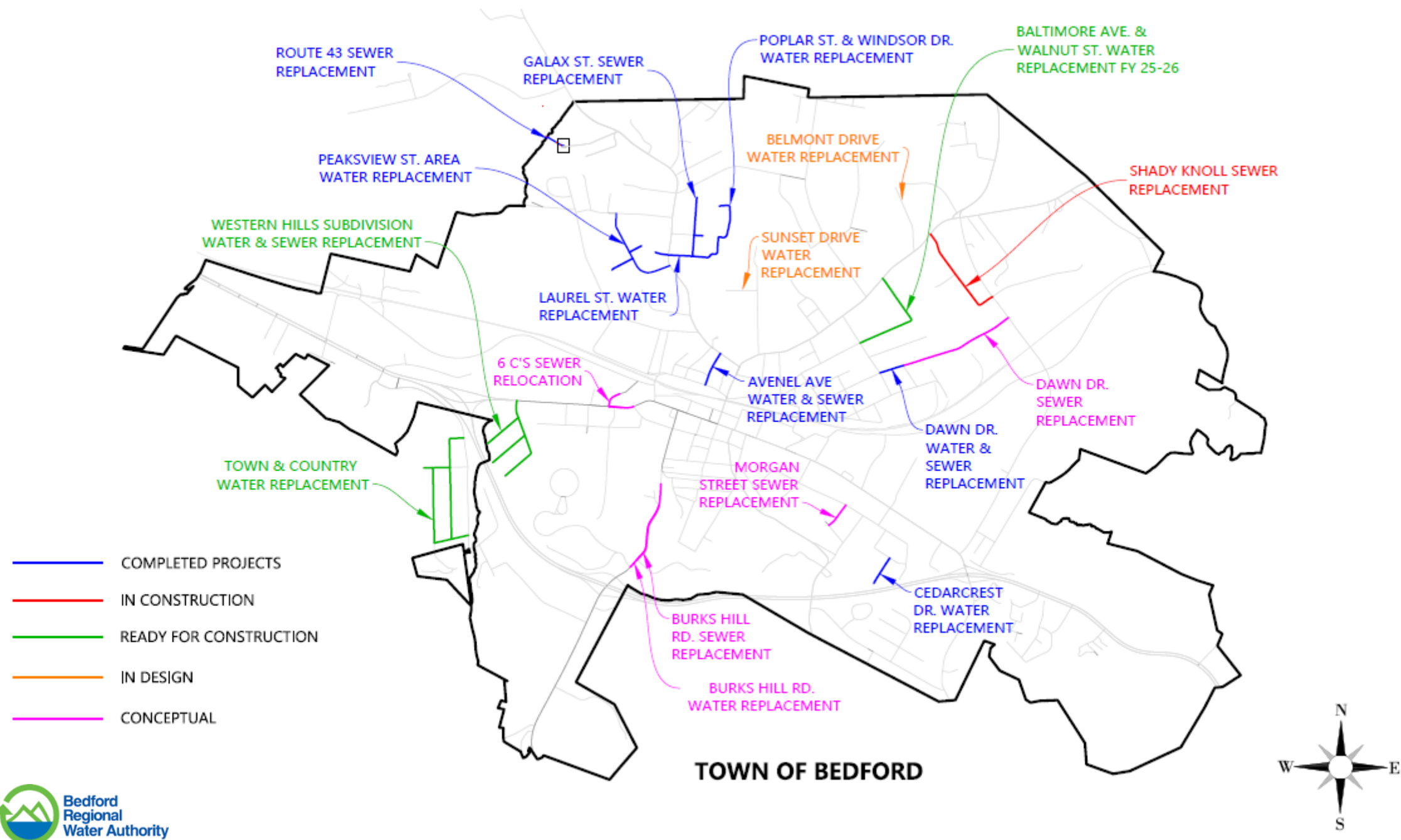
WORK	FY 2013-14	FY 2014-15	FY2015-16	FY2016-17	FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22	FY2022-23	FY2023-24
<i>Design Services</i>											
Design - Rt 43 Sewer Replacement	\$11,046.00	\$19,994.00	\$500.00								
Longwood / Burger King sewer design				\$1,970.00							
Western Hill Sewer Replacement Design										\$7,500.00	
Sewer Modeling Analysis for PS #1									\$9,414.30		
Western Hills Sewer Survey and design										\$7,500.00	\$46,500.00
Shady Knoll Sewer Survey and design											\$7,320.00
Central PS #1 & #2: Design & Procurement											\$3,250.00
<i>Construction Services</i>											
Construction - Rt 43 Sewer Replacement			\$219,375.90	\$12,546.10							
SCADA for Pump Station 1		\$11,763.00	\$11,127.00								
Bedford Avenue Sewer Replacement				\$181,117.00							
Link Road Sewer Replacement				\$104,119.00							
Field Trace Lane Sewer - Repair				\$40,000.00	\$78,800.00						
Longwood/Burger King sewer construction					\$44,438.00						
Campbell Home manhole replacement				\$8,480.00							
Macon Street Sewer Replacement (105')					\$10,898.00						
Windy Ridge Sewer Lining (400')					\$33,712.00						
Walmart Sewer Lining (385')					\$31,728.00						
Oakcrest Sewer Replacement (130')					\$18,910.00						
Longwood Ave Sewer Replacement					\$46,200.00						
Boxwood / Lowry St Sewer Replacement						\$142,076.00					
Pump around & paving for Boxwood Sewer						\$17,896.00					
Dawn Dr Sewer (Park to Broad)							\$86,280.00				
Paving for Dawn Dr Sewer							\$13,000.00				
Pump Station 5 Replacement								\$44,028.76	\$152,535.48		
Pump Station 7 Replacement									\$3,950.00	\$58,299.00	\$187,920.00
<i>Town &amp; Country Subdivision Sewer Replacement</i>											
CCTV Survey, design & as-builts								\$41,470.00	\$37,700.00	\$14,213.75	\$14,525.00
Construction (Town ARPA)										\$771,612.00	
Construction (DEQ ARPA SCS Program)										\$764,771.47	\$463,616.53
Construction (Operational Setasides)											\$347,458.42
Longwood/Burger King sewer easement					\$5,600.00						
<i>Root treatment*</i>		\$39,000.00	\$6,453.42	\$31,715.58	\$16,000.00	\$33,445.68		\$34,843.12	\$64,615.97	\$18,624.88	\$29,287.04
<i>BRWA Maintenance</i>											
Smoke testing materials	\$1,228.00										
Sewer replacement-equipment*	\$4,987.50	\$5,475.00	\$0.00	\$7,175.00		\$3,552.50				\$63,413.00	
Sewer replacement-materials	\$1,311.02	\$3,401.83	\$6,494.23	\$3,801.87	\$1,024.53	\$2,745.18	\$4,395.47	\$2,832.50	\$4,514.94	\$2,519.60	
Sewer replacement-contracted services		\$10,750.00	\$30,316.67			\$10,912.00	\$4,856.70	\$175.00	\$9,100.03	\$24,822.92	
Manhole rehabilitation - contracted services						\$35,450.75	\$69,262.25	\$35,197.50			
Tires for sewer camera		\$2,800.00									
Avenel Ave. Sewer Replacement								\$60,858.40	\$19,583.85		
Galax Street Sewer (materials, rentals, & paving)										\$23,245.00	\$37,717.00
<i>Recent Projects</i>											
<i>Western Hills Sewer</i>											
Central PS 1 & 2 Upgrades										\$40,875.00	\$21,123.00
<i>*PS #1 Drainage Area Flow Monitoring</i>											
<i>*Central WWTP ESCO Design and Construction</i>								\$1,105,155.74	\$3,064,695.35	\$1,261,102.91	
* Not included in total      Total Spent:	\$13,585.02	\$48,708.83	\$267,813.80	\$352,033.97	\$271,310.53	\$209,079.93	\$177,794.42	\$184,562.16	\$236,798.60	\$1,674,483.74	\$1,108,306.95

C  
A  
P  
I  
T  
A  
L  
  
I  
M  
P  
R  
O  
V  
E  
M  
E  
N  
T  
  
P  
R  
O  
G  
R  
A  
M  
  
P  
L  
A  
N



# Capital Reserve Accounts – Water and Sewer Lines

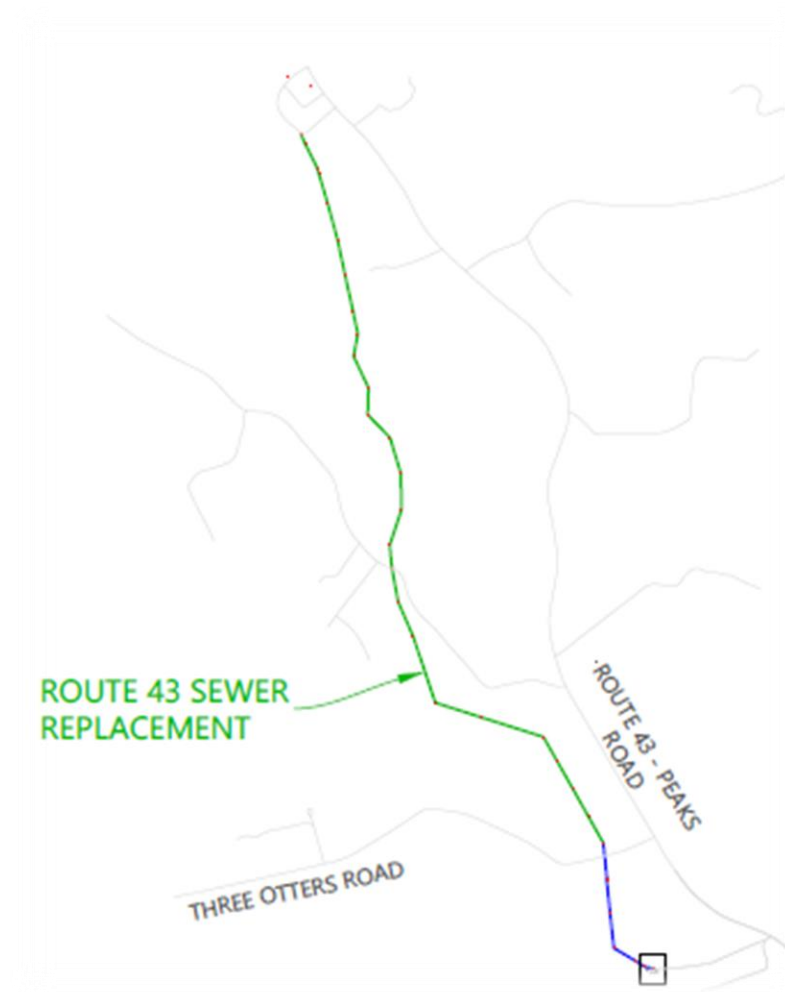
## Town of Bedford Water and Sewer Line Replacement Plan





# Capital Reserve Accounts – Water and Sewer Lines

## Bedford County Water and Sewer Line Replacement Plan







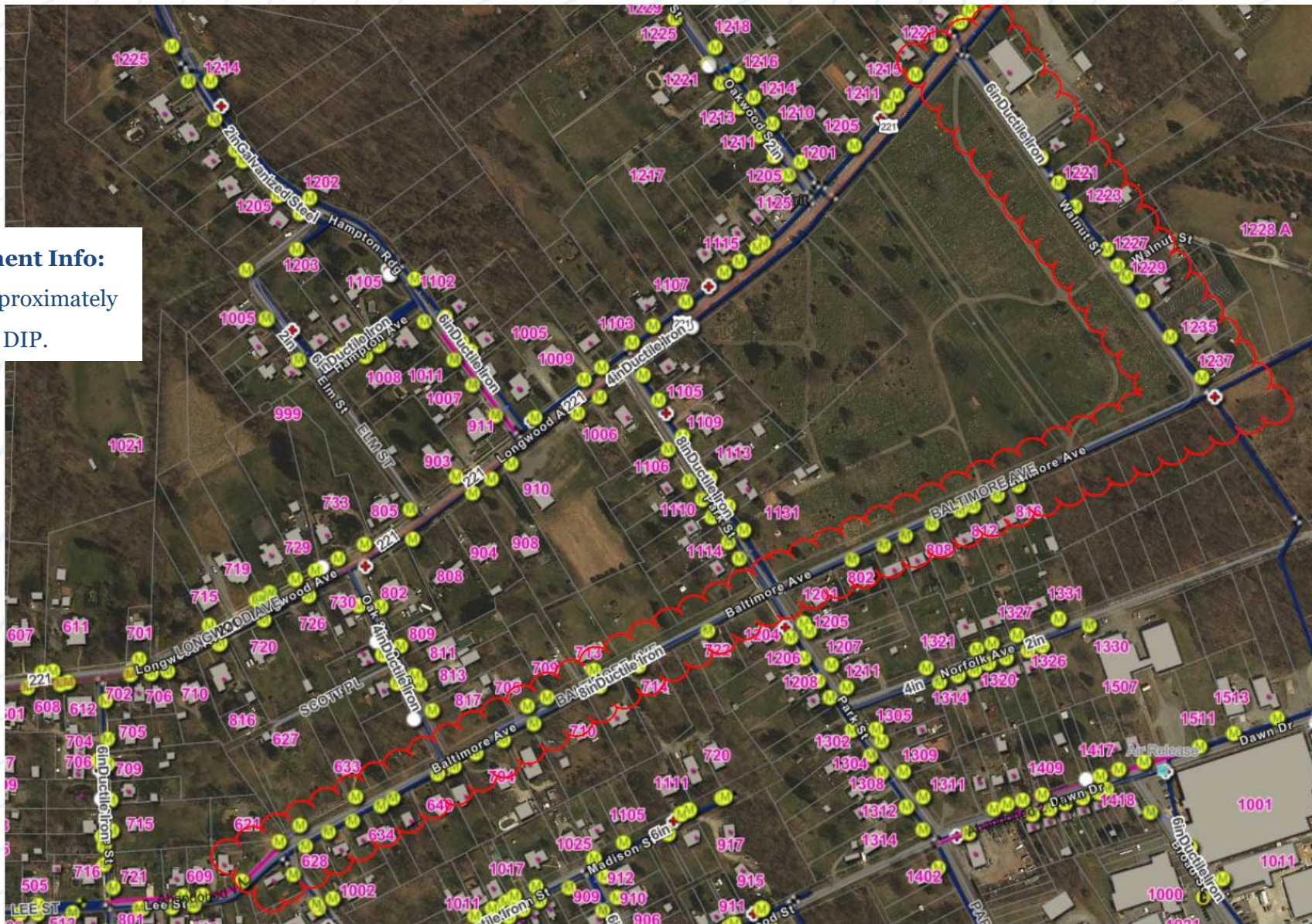


# Capital Reserve Accounts – Water and Sewer Lines

Project Map: Baltimore & Walnut Avenue Water Replacement Project

## Water Replacement Info:

Replacement of approximately  
2,350 LF of 8-inch DIP.





# Capital Reserve Accounts – Water and Sewer Lines

## Project Map: Western Hills Subdivision Water & Sewer Replacement Projects

### Water Replacement Info:

Replacement of approximately  
3,850 LF of 6-inch water line with  
approximately 72 connections.



### Sewer Replacement Info:

Replacement of approximately  
6,250 LF of sewer line,  
including 22 manholes.





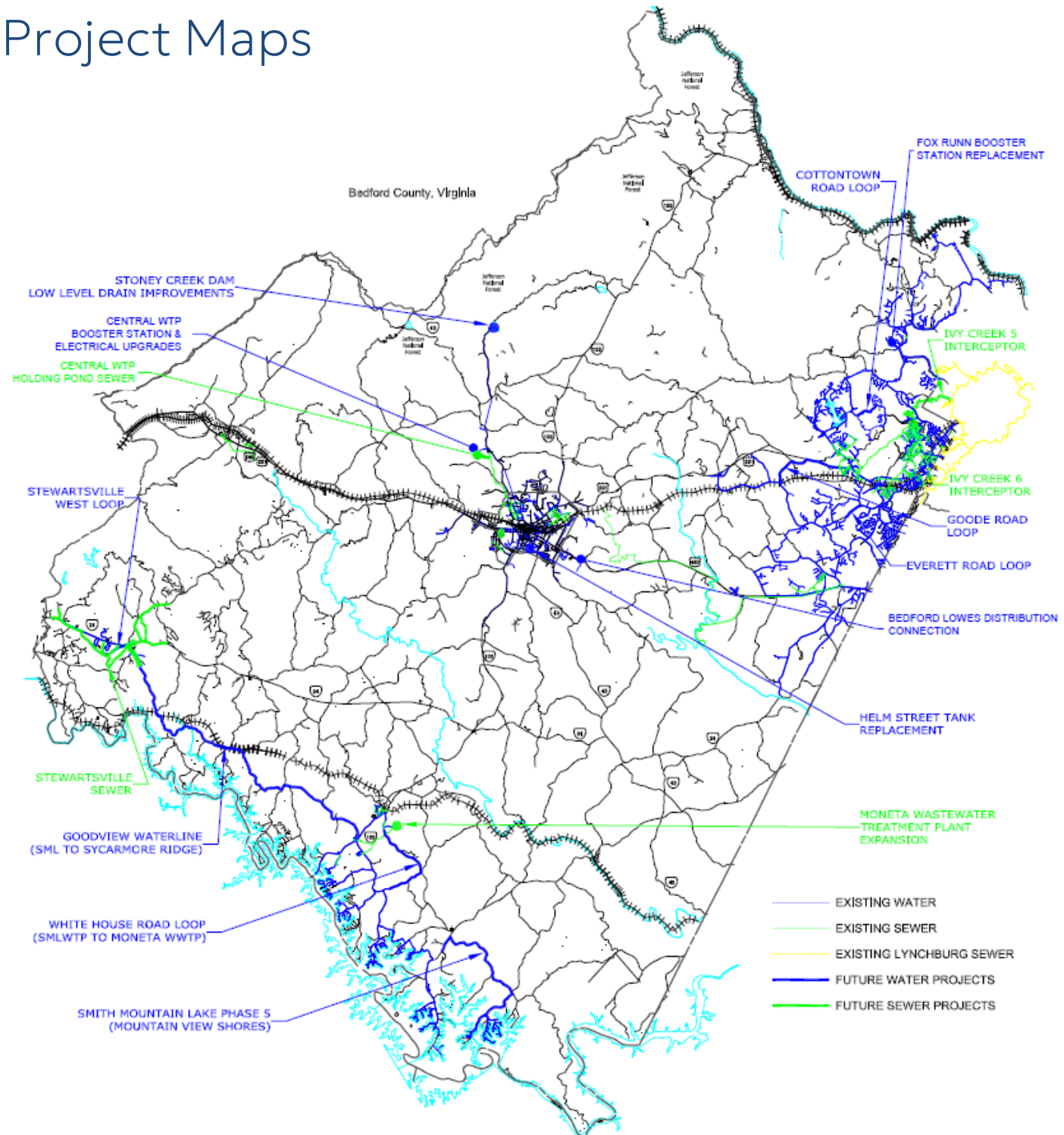
# Future Capital Improvement Project Maps

## Current CIP Projects Underway:

- Ivy Creek Sewer Phase 5 & 6 Interceptors
- Helm Street Tank Replacement
- Central WTP Booster Station & Electrical Upgrades

## Future CIP Projects (not yet funded):

- Stoney Creek Dam Low-Level Drain Improvements
- Moneta Wastewater Treatment Plant Expansion
- Fox Runn Booster Station Replacement
- Bedford Lowes Connection to Distribution
- Central WTP Holding Pond Sewer
- Goodview Waterline – SML to Sycamore Ridge
- Smith Mountain Lake – Phase 5 Waterline
- Cottontown Road Waterline Loop
- Everett Road Waterline Loop
- Goode Waterline Loop
- White House Road Waterline Loop
- Stewartville-West Waterline Loop
- Stewartville Sewer





# Goodview Waterline

## SML to Sycamore Ridge

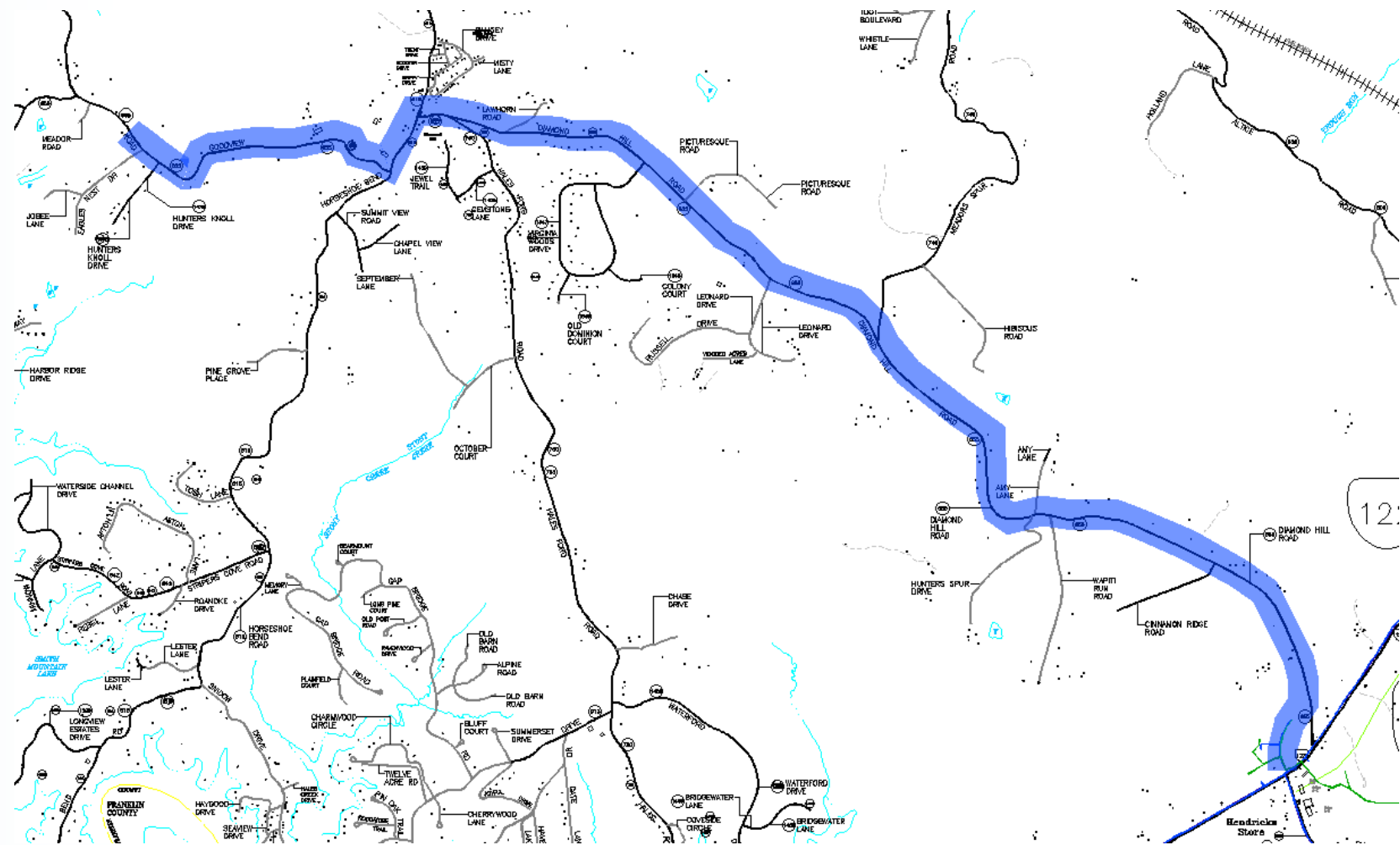
### Project Description:

This project will extend waterline from Moneta Road along Diamond Hill Road to Eagles Nest Drive at the Sycamore Ridge subdivision off of Goodview Road. Multiple requests have been made for the waterline extension by current well system owners in the Goodview area. This extension would provide public water to the area and make connections more feasible.

**Estimated Cost:** \$5,500,000

**Estimated Length/Size:** >5 miles of 12-inch

**Status:** Not yet funded





# Smith Mountain Lake Waterline – Phase 5

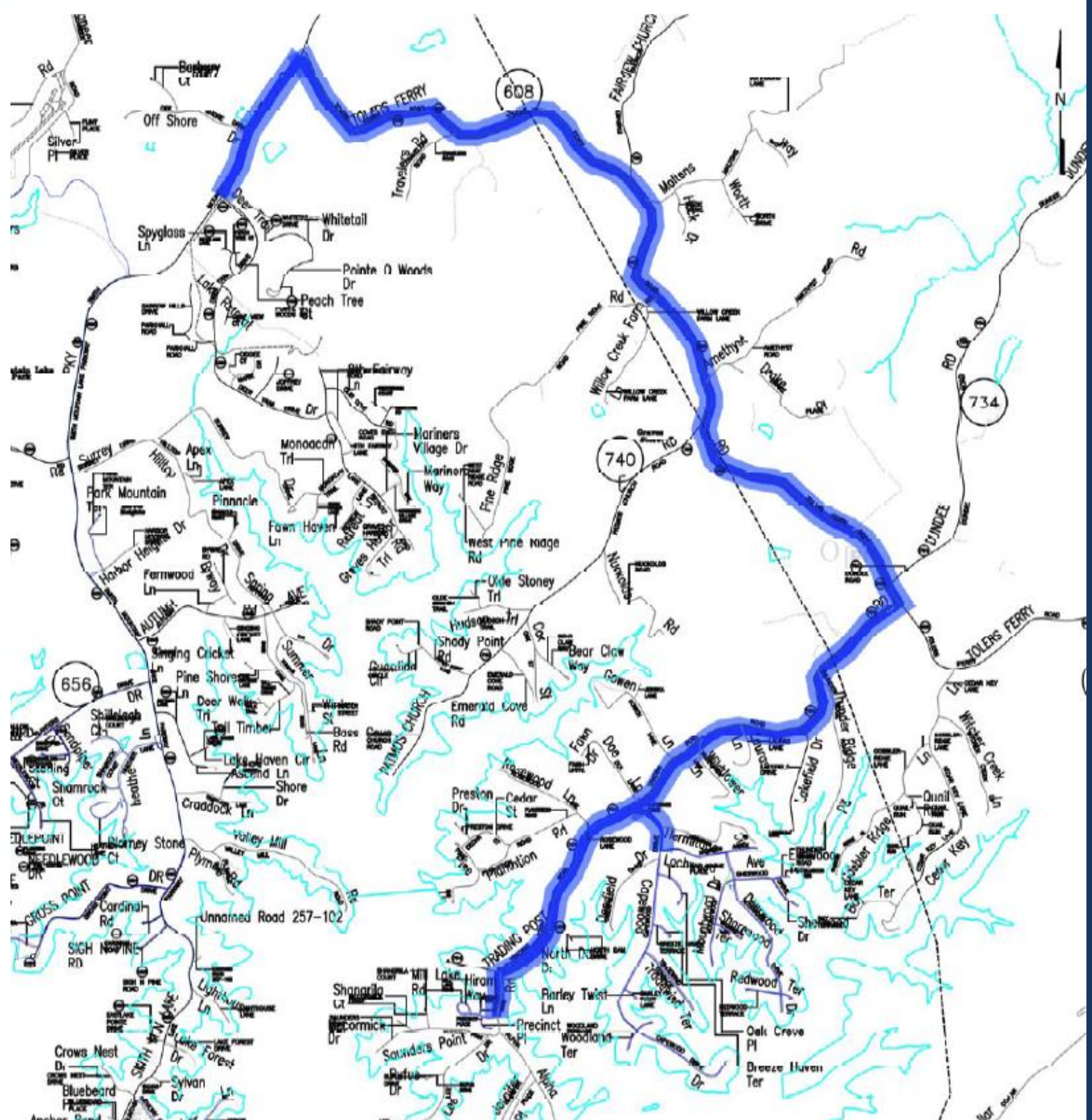
## Project Description:

Waterline extension from Smith Mountain Lake Parkway along Tolers Ferry Road and Trading Post Road to Saunders Point Road.

The BRWA currently operates well systems in the Mountain View Shores and Valley Mills subdivisions that are located in a remote location in comparison to other facilities. Serving these subdivisions through the Mountain View Shores water system would create more cost efficiencies in the Authority's operations, eliminating two well systems and connecting them to the Lakes Central Water System. This area of the County has seen the most growth over the last year, and providing water to the area can increase the growth and tax revenue to the County, making future development around the southeastern portion of Smith Mountain Lake Parkway more feasible.

**Estimated Cost:** \$7,200,000

**Estimated Length/Size:** >6.5 miles of 8"-12"





# Cottontown Road Waterline Loop

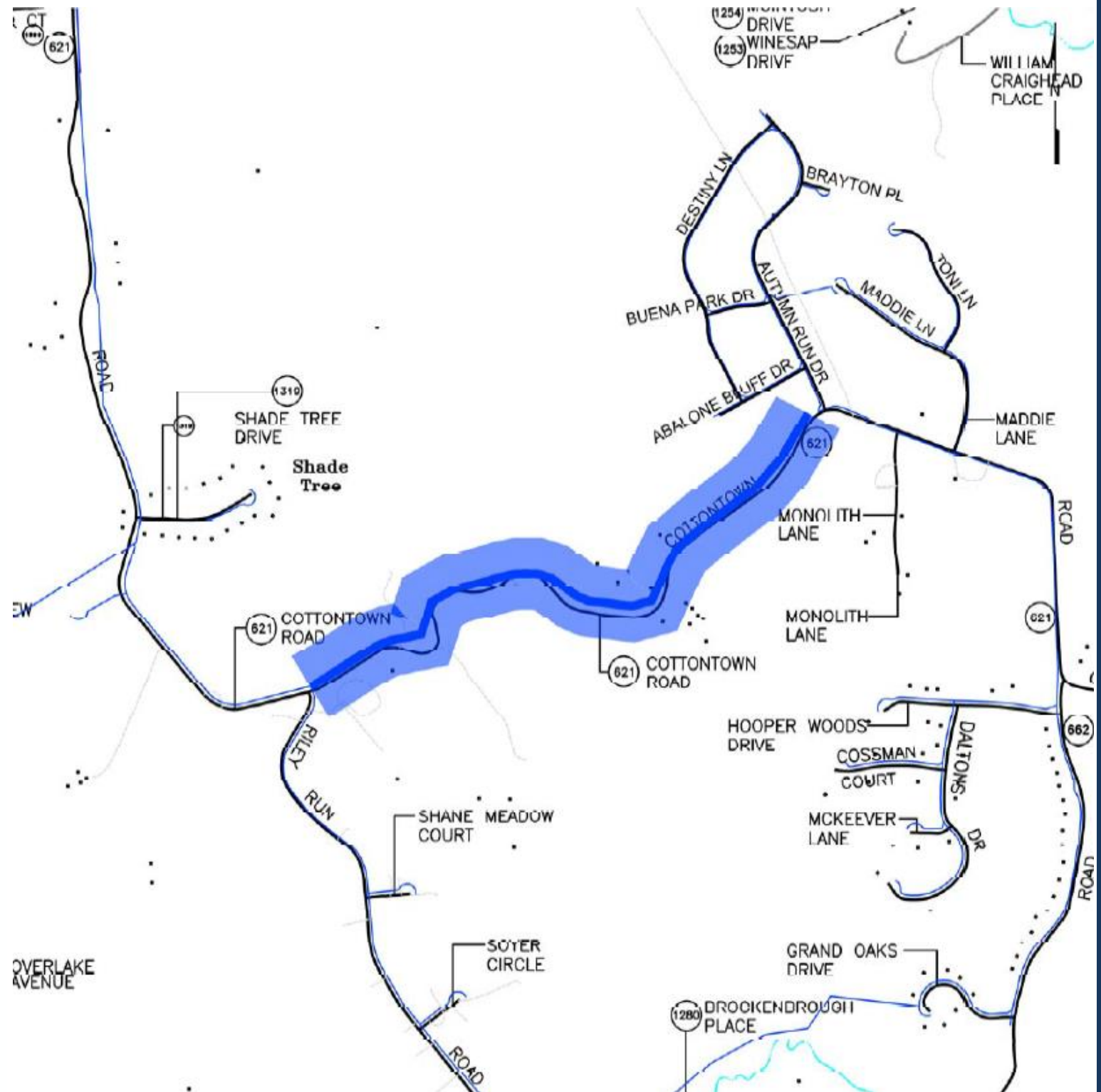
## Project Description:

This project will include a waterline extension along Cottontown Road from Riley Run Road to Autumn Run Drive. This water extension will consist of over 4,800 LF looping the existing 12-inch waterline providing more stable pressures, flow, and fire suppression for the surrounding community. This loop will provide water service availability to approximately 15 existing parcels, many with the potential to develop resulting in additional customers.

**Estimated Cost:** \$1,000,000

**Estimated Length/Size:** >4,800 LF of 12-inch

**Status:** Not yet funded





# Everett Road Waterline Loop

## Project Description:

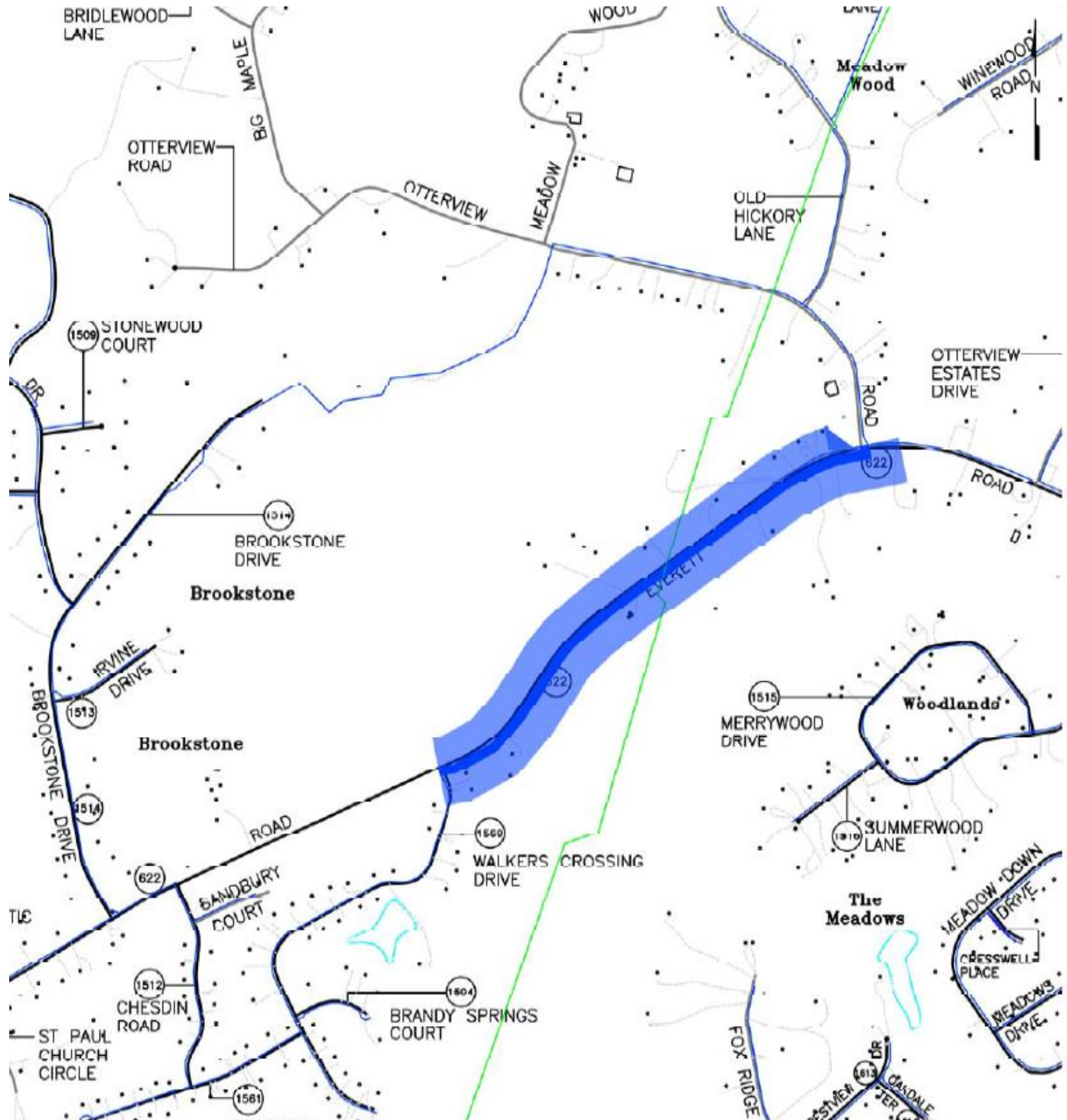
Connection of waterlines along Everett Road between Walkers Crossing Drive and Otterview Drive.

Waterlines have been extended from each direction, leaving a gap in this area along Everett Road. This project finishes a needed waterline loop for the system for greater stability. Currently there are only two water main feeds to this area, and if one must be closed for repair, additional loops are necessary to keep the system stable.

**Estimated Cost:** \$900,000

**Estimated Length/Size:** <4,000 LF of 12-inch

**Status:** Not yet funded





# Goode Waterline Loop

## Project Description:

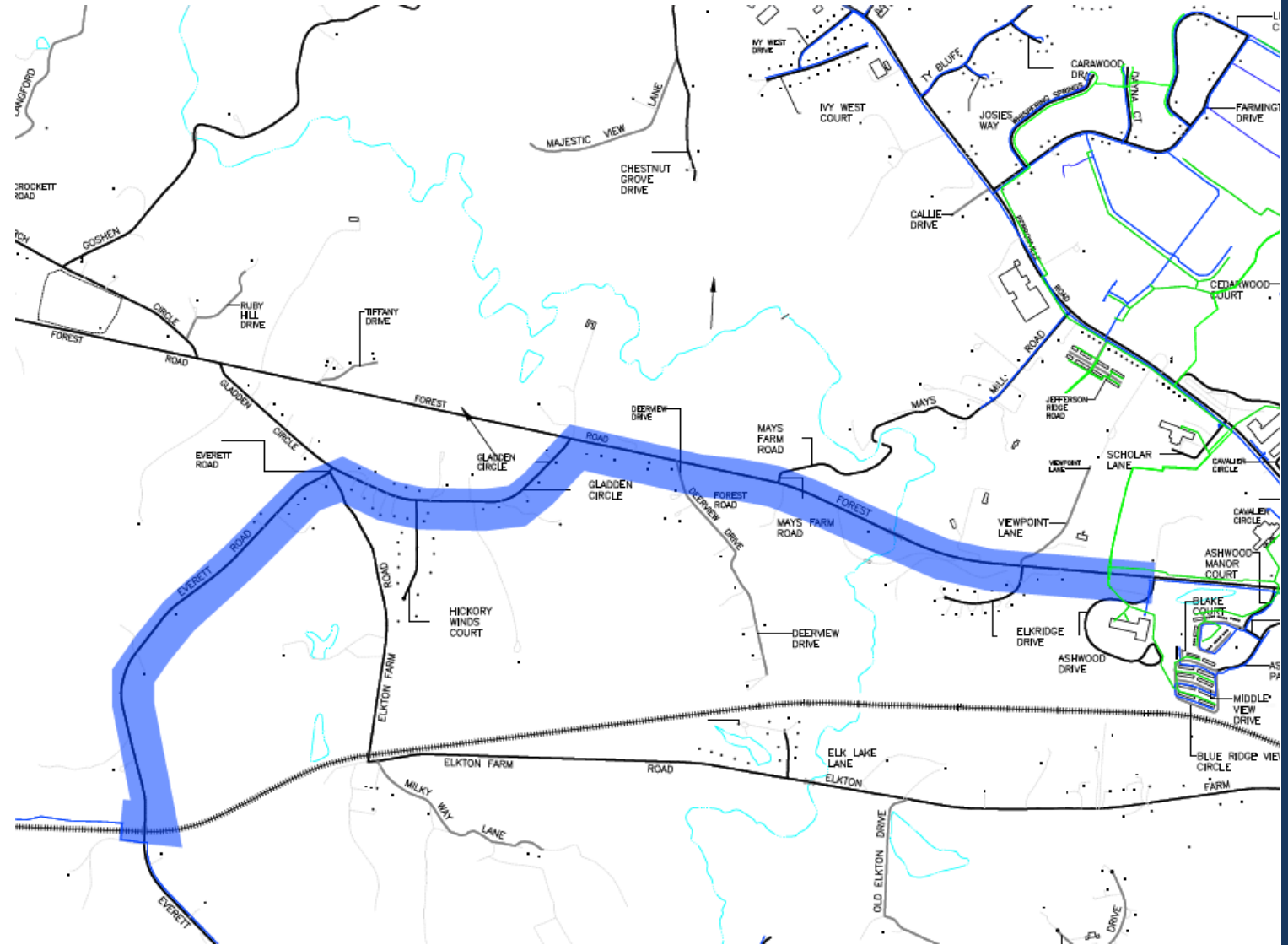
Looping waterlines at Everett Road and Canary Street to Ashwood Drive along Everett Road, Gladden Circle, and Forest Road (Route 221).

Waterlines have been extended from each direction, leaving a gap in this area along Everett Road. This project finishes a needed waterline loop for the system for greater stability. Currently there are only two water main feeds to this area, and if one must be closed for repair, additional loops are necessary to keep the system stable.

**Estimated Cost:** \$4,000,000

**Estimated Length/Size:** >3 miles of 12" – 16"

**Status:** Not yet funded





# White House Road Waterline Loop

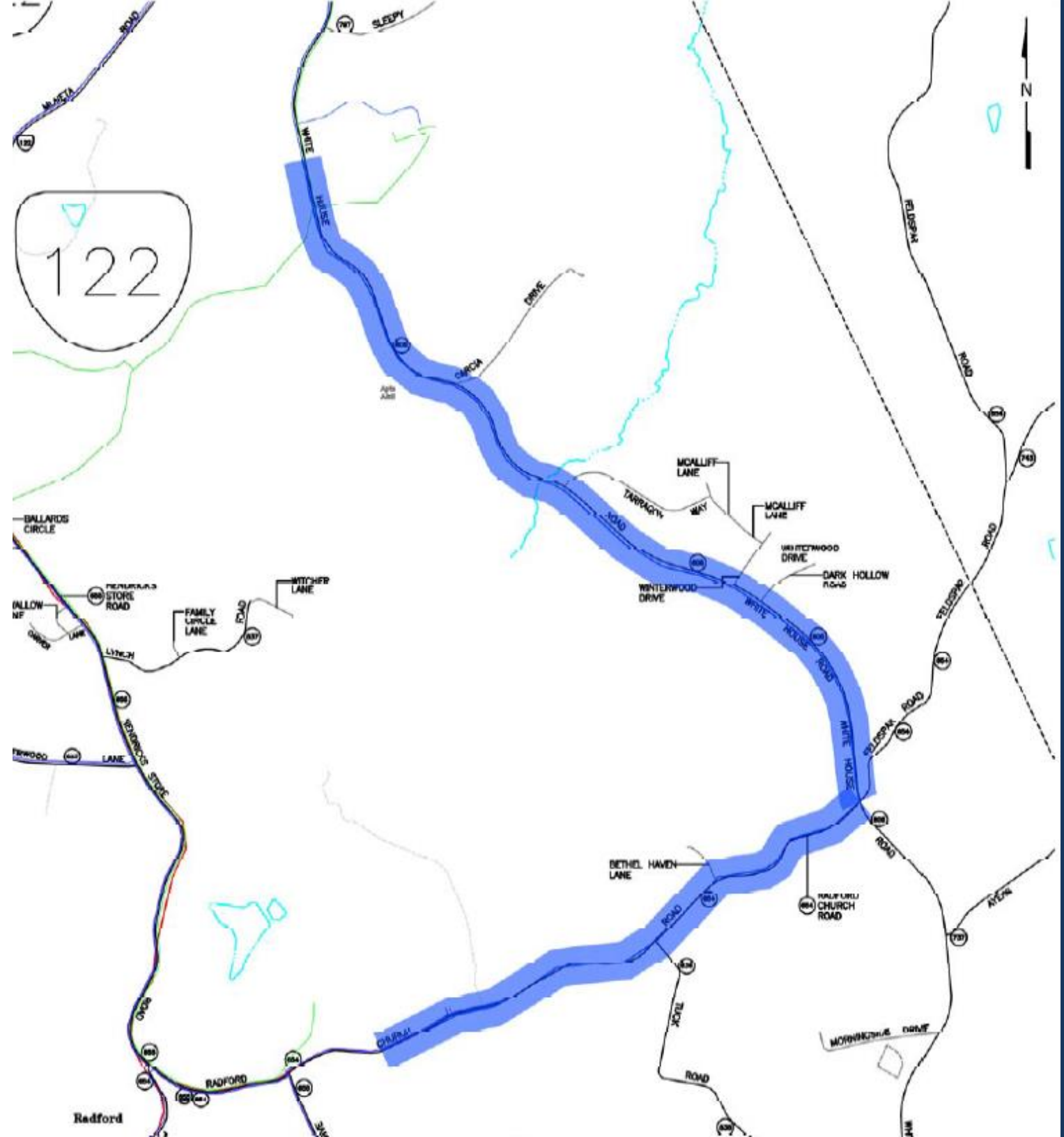
## Project Description:

This project will complete the waterline loop from the SMLWTP along Radford Church Road and White House Road to the Moneta WWTP near Moneta Road (Route 122). This waterline loop will provide water service availability to over 100 existing parcels. This loop will also allow for further looping south along White House Road to Smith Mountain Lake State Parkway.

**Estimated Cost:** \$4,500,000

**Estimated Length/Size:** >3.5 miles of 8-inch

**Status:** Not yet funded





# Stewartsville-West Waterline Loop

## Project Description:

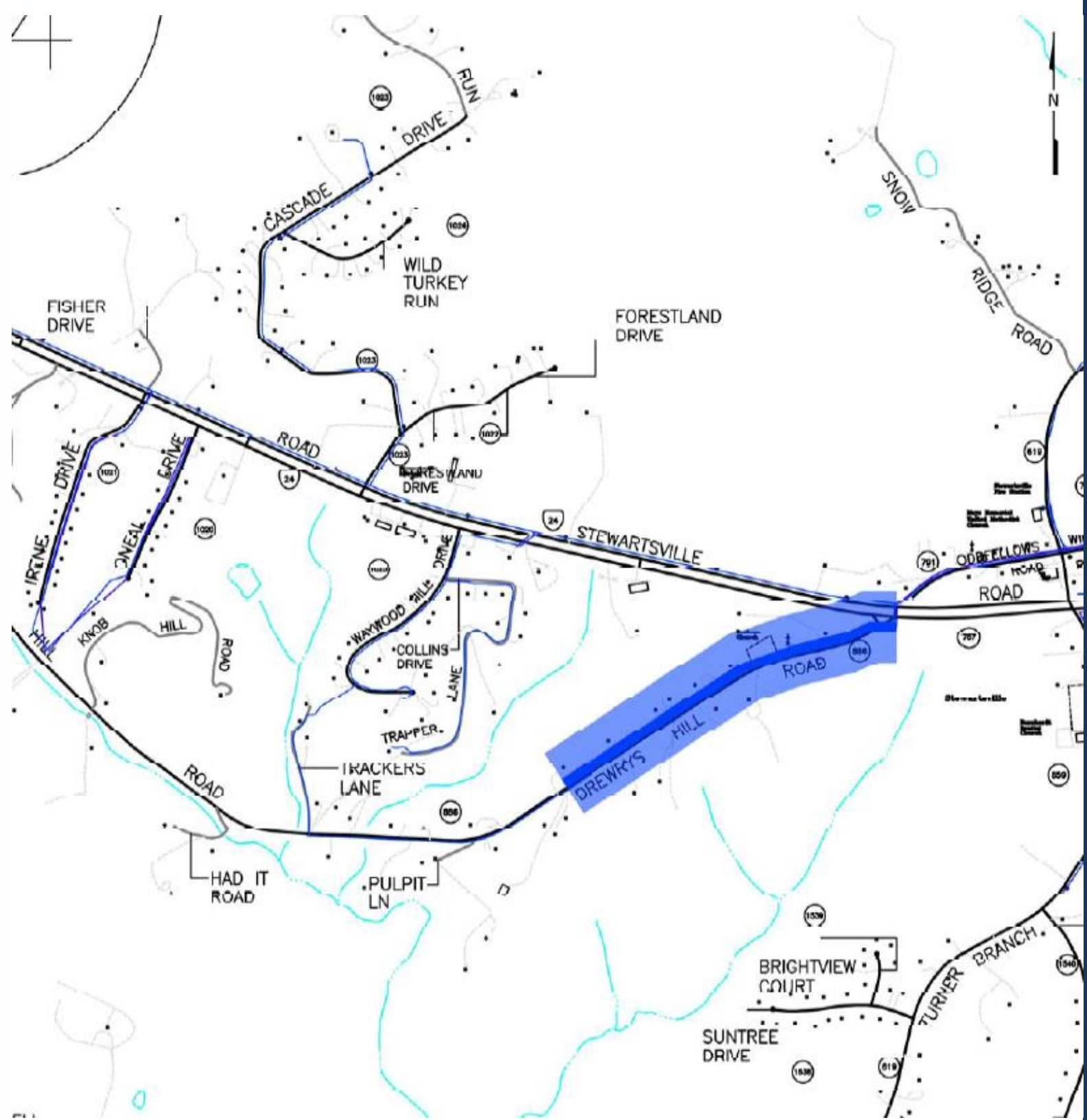
Waterline extension along Drewrys Hill Road from Pulpit Lane to Route 24 – Stewartsville Road.

This project will provide a system loop for the Waywood Hills waterline extensions. With a limited number of customers currently connected to the Stewartsville Consecutive water system, the loop is needed to assist with turnover in the lines and fresh water to the homes.

**Estimated Cost:** \$400,000

**Estimated Length/Size:** <2,400 LF of 6-inch

**Status:** Not yet funded





# Stewartsville Sewer

## Project Description:

This project would help promote growth of water and sewer customers in the Stewartsville and Goodview areas by providing sewer availability to rural areas currently on septic systems, including residential and commercial customers.

