



Washington County Service Authority

Capital Improvement Plan

FY 2025 - FY 2029



Capital Improvement Plan

The Capital Improvement Plan (CIP) is a key planning and budgeting process for WCSA. The plan provides a 5-year roadmap for creating, maintaining, upgrading, or replacing infrastructure needs. The Washington County Service Authority (WCSA) is pleased to provide this report on major Capital Improvement Projects which are planned to be completed in FY 2025 – FY 2029.

Introduction

WCSA's VISION is...

"To be the trusted public utility and community leader in Southwest Virginia."

WCSA's GOAL is...

"To maintain reliable infrastructure to meet or exceed the needs of our customers."

In an effort to ensure an adequate supply of drinking water to Washington County and to expand our wastewater collection and treatment systems over the next several years, WCSA has several capital improvement projects outlined in the CIP. The projects include upgrading our existing infrastructure as well as system expansion. These capital improvement projects are vital to maintain the reliability and integrity of our water and sewer systems.

WCSA is constantly taking steps to provide public water service to areas of Washington County relying on private wells, cisterns and springs, especially those that are bacteriologically contaminated or do not provide an adequate quantity of water. Each year we are able to expand our water system to provide safe and reliable public water to communities that have never before had access to this valuable resource.

WCSA is also working to expand sewer services to areas of the County that are experiencing aging and failing septic systems.



WCSA has a plan to invest in water and sewer of over \$50 Million thru current ongoing projects, projects outlined in CIP, other equipment, vehicles and needed assets to deliver essential services to Washington County.

It is an ongoing accomplishment, and privilege, to provide these important services to our County. We hope this report will demonstrate WCSA's commitment to meeting the water and sewer needs of Washington County, and that you will find it an informative update on the status of our capital projects.

Water Projects

In-House Replacement of Galvanized Line and Problematic Line

This project continues to replace galvanized line as it is discovered in the distribution system as well as problematic line. This project is being accomplished with WCSA water crew. This project will be from FY 25 – FY 29 with spending \$250,000/year or \$1,250,000.

Buffalo Pond Road Water Line Extension Project

This project involves a new water line construction of approximately 5,400 linear feet of 4-inch water line along Buffalo Pond Road which will provide water service for 11 new customers that are currently relying on wells and springs at a project cost of \$640,000.

Flatwood Acres Road Water Line Extension Project

This project involves a new water line construction of approximately 6,000 linear feet of 4-inch water line along Flatwood Acres Road which will provide water service for 9 new customers that are currently relying on wells and springs at a project cost of \$790,000.

Mendota Water Storage Tank Demolition

This project involves the demolition of a 20,000 gallon water storage tank that is being taken out of service. This tank is no longer needed since the completion of water line extension project that has allowed WCSA water to supply Mendota Road in lieu of Scott County. Project cost is estimated to be \$50,000.

Small Booster Pump Stations Install/Replacement

This project involves the installation/replacement of (3) small booster pump stations in the distribution system with a project cost of \$70,000.

Route 19 and Route 58 Booster Pump Station Improvements

This project involves the upgrade of pumps and controls at the Route 58 and Route 19 Pump Stations with a project cost of \$1,025,000.

Bleach Study and Implementation for Middle Fork, Taylor's Valley and Mill Creek Treatment.

This project involves the study and possible implementation of changing the from chlorine disinfection to bleach disinfection with a project cost of \$1,550,000.

Spoon Gap Road Water Line Extension Project

This project involves a new water line construction of approximately 1,400 linear feet of 2-inch water line along Spoon Gap Road which will provide water service for 4 new customers that are currently relying on wells and springs. If WCSA received funding for the project, WCSA plans to complete this project with its construction crew to reduce costs. Construction cost are estimated to be \$85,000.

Scott's Ridge Road Water Line Extension Project

This project involves a new water line construction of approximately 3,200 linear feet of 4-inch water line along Scott's Ridge Road which will provide water service for 10 new customers that are currently relying on wells and springs. If WCSA received funding for the project, construction costs are estimated to be \$550,000.

Potter Road Water Line Extension Project

This project involves a new water line construction of approximately 5,400 linear feet of 4-inch water line along Potter Road which will provide water service for 4 new customers that are currently relying on wells and springs. If WCSA received funding for the project, construction costs are estimated to be \$578,000.

South Monte Vista Drive WL Replacement Project

This project involves replacement of approximately 6,200 linear feet of 8-inch waterline that was installed around 1940. This waterline serves 55 customers. If WCSA received funding for the project, construction costs are estimated to be \$1,310,000.

Green Springs Church Road Transite WL Replacement Project

This project involves replacement of approximately 8,000 linear feet of 4-inch transite waterline with 8-inch waterline that was installed around 1945. This waterline serves 30 customers. If WCSA received funding for the project construction costs are estimated to be \$1,440,000.

Lake Road Transite WL Replacement Project

This project involves replacement of approximately 11,800 linear feet of 4-inch transite waterline with 6-inch waterline that was installed around 1957. This waterline serves 56 customers. If WCSA received funding for the project, construction are estimated to be \$2,008,000.

Lowery Hills Transite WL Replacement Project

This project involves replacement of approximately 8,100 linear feet of 4-inch transite waterline with 6-inch waterline that was installed around 1960. This waterline serves 58 customers. If WCSA received funding for the project, construction costs are estimated to be \$1,556,000.

King Mill Pike/Highpoint Transite WL Replacement Project

This project involves replacement of approximately 7,000 linear feet of 4-inch transite waterline with 6-inch waterline. If WCSA received funding for the project, construction costs are estimated to be \$870,000.

Wise Booster Pump Station Improvements

This project involves the upgrade of pumps and controls at the Wise Pump Station. Construction costs are estimated to be \$100,000.

Mill Creek Filter Cartridge Replacement Project

This project involves the replacement of the filter cartridges at Mill Creek. Replacement costs are estimated to be \$500,000.

North/South Benhams Road Transite WL Replacement Project

This project involves replacement of approximately 21,800 linear feet of 4-inch transite waterline with 6-inch waterline that has experienced several service disruptions. This waterline serves 154 customers. If WCSA received funding for the project, construction are estimated to be \$4,885,000.

Gate City Highway Transite WL Replacement Project

This project involves replacement of approximately 16,000 linear feet of 4-inch and 6-inch transite waterline with 8-inch waterline that has experienced several service disruptions. This waterline serves 140 customers. If WCSA received funding for the project, construction costs are estimated to be \$1,800,000.

Mid-Mountain (Zone 108) Water System Improvements Project

Over the past ten years, the Mid-Mountain Zone of WCSA's water distribution system has seen substantial growth, including notable customers such as Southwest Virginia Regional Jail, Johnston Memorial Hospital and Harmony Hills Adult Skilled Nursing Facility, each of which are priority sensitive customers due to the nature of the service they provide. In the event of a water outage, these three customers would be required to evacuate which would be detrimental to all of those involved. This same area is expected to see a great deal of additional growth over the next 40 years. Presently, WCSA's water storage for this Zone is near its desired capacity. Water main breaks result in undesirable pressure loss within the Zone and result in water storage levels lower than desired. For these reasons, WCSA wishes to resolve the undesirable water storage situation and the pressure issues it sometimes experiences.

WCSA proposes to install a new 1.0 Million Gallon water storage tank in the Mid Mountain Zone with associated line improvements. Currently this project is in the planning stages and does not have an anticipated advertisement date. Total estimated project costs are \$3,900,000.

**All water improvements projects are dependent on receiving funding assistance.

Wastewater Projects

Lee Highway Corridor Sewer Improvements Project

This project is under construction and will be complete in the winter of FY 25. The first phase of the project is referred to as the “backbone” of the Lee Highway Corridor Project. This phase will predominately be the conveyance system to convey sewer flow back to the Town of Abingdon for treatment. The project will provide sewer service along Lee Highway from Oak Park to Sugar Hollow. This initial project will serve approximately 140 new residential and commercial customers. Once the successful completion of the “backbone” is constructed, WCSA will begin to serve other outlying areas. The total investment made by the project is \$33 Million dollars.

Abingdon Steel Pump Station

This project has been identified to target wet well improvements for the sewer lift station. Project construction is expected to cost \$40,000.

Damascus Headworks Replacement

This project has been identified to replace the aging headworks at the Damasus Sewer Treatment Plant. Project construction is expected to cost \$220,000.

Hall Creek Water Reclamation Facility

This project has been identified to paint various components at the plant due to weathering. Painting will add longevity to the infrastructure. Project construction is expected to cost \$60,000.

Comprehensive Sewer Study

This study will provide a roadmap for ensuring adequate sewer capacity for the western end of Washington County. WCSA hold a sewer discharge permit to construct a sewer treatment plant on Boardwine Road, but further investigation needs to occur to determine if a treatment plant is needed. Study is expected to cost \$100,000.

Hall Creek Conveyance System Improvements

A study will be performed as part of this project to identify areas of concern specifically around the Emory area to ensure the conveyance system can carry flow from existing customers and future development. Identifying deficiencies in the existing line and correcting them will ensure there are no issues with conveyance. Cost of the study and the project is expected to cost \$2,000,000.

Larwood Acres Sewer Extension and Miller Hill/Dishner Valley Road

This project has been identified to serve over 90 residential connections in need of public sewer. A study was completed in 2015, but needs to be further looked at to determine most efficient and economical way to serve the area. The study will be completed in FY 25 with construction cost estimated to cost over \$3,000,000. Plan is to apply for funding in FY 26 with construction taking place in FY 27. Miller Hill and Disher Valley will also be part of the study and construction estimate indicates a construction cost of \$3,000,000 as well.

Hall Creek Water Reclamation Facility Grit Removal System

This project has been identified to replace the existing grit removal system at a estimated construction cost of \$900,000.

Lowry Hills North/South Sewer Extension

This project has been identified as a subdivision with aging septic systems. There are a total of 215 potential residential connections. WCSA will be gathering interest of the residents in public sewer in the future. Construction costs are estimated at \$5,440,000.

Exit 13 Wastewater System Phase 2B

The proposed project is Phase 2 of WCSA's overall plan to provide sewer service in the I-81 Exit 13 area. The majority of the proposed collection system will flow by gravity to the Spring Creek Pump Station. WCSA will own, operate and directly service this new collection system while the Town of Abingdon will receive and treat the wastewater collected.

The installation of Phase 2 will provide sewer service along U.S. Route 11 (Lee Highway) located to the north of I-81. In addition to providing service to existing residences and businesses promoting growth in the corridor, Phase 2 will provide the sewer mains necessary to convey wastewater from future collection system expansions along Lee Highway to the Spring Creek Pump Station which will further promote growth along Lee Highway.

The **Phase 2B** Project could proceed after Phase 2A. This project area spans Lee Highway from the Virginia Highlands Airport to the Abingdon town limits. It requires a pump station and involves 65 connections. WCSA has applied for project funding. If WCSA received funding, project costs are estimated at \$3,050,000.

**All sewer improvements projects are dependent on receiving funding assistance.