

Wastewater Management Capital Improvement Program

Fairfax County Planning Commission CIP Workshop FY 2020 – FY 2024

Department of Public Works and Environmental Services
Working for You!



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CIP Priority Treatment Projects

The Sanitary Sewers CIP program is on pages 180 – 186 of the FY 2020-FY 2024 Advertised CIP

- Regulatory Upgrades
 - Bio-Solids Program: The rehabilitation of the multiple hearth furnaces, additional air pollution control equipment.
- Reinvestments – Infrastructure Improvements
 - Filter facilities rehabilitation
 - Disinfection facilities replacement
 - Raw Pump Station rehabilitation
 - Primary and Secondary facilities rehabilitation

Bio-Solids Program



Facility: Bio Solids Processing Building

- Upgrade facility to meet new Air Quality Regulations
- Rehabilitate multiple hearth furnaces in order to extend useful life
- Last rehabilitation was in the 1990s
- Built in the 1970s
- TPE \$157.8 million

Filter Facility



- **Facility: Filter Facility Building**
 - Upgrade facility with improved, safer, and ease of operation technology
 - Built in the 1970s
 - TPE \$130 million

Disinfection facility - example



- Replacing existing chlorination/de-chlorination system with UV disinfection system
- TPE \$100 million

Pump Station Rehabilitation (Treatment)



- **Facility: Raw Wastewater**

Pumping Rehabilitation

- Rehabilitation of the B and B2 raw wastewater pumping facility
- Replace, refurbish, and rehab the 2 pump stations and related infrastructure.



- Built in the 1970s
- TPE \$106 million

Primary and Secondary Process Facilities



- **Facility: Primary and Secondary Process Facilities**
 - Rehabilitation of the primary clarifiers, secondary clarifiers, other related infrastructure
 - Built in the 1970s and 1980s
 - TPE \$516 million

Sewer Line Replacement and Rehabilitation (Collection)



Lake Thoreau floated sewer line FY 2016

- Replacement and Rehabilitation of the County's 3,200 miles of sewer lines, built between 1940's
 - Focus on Large Diameter (>15") for Replacement
 - Cured In Place Piping (CIPP) – average of 25 miles per year
- Built as early as the 1940s
- TPE \$30 million (annual)

Pump Station Rehabilitation (Collection)



- Rehabilitation of the County's pump stations to include the pumps, structures, piping, control centers, HVAC systems, and various other associated components
- Continuous funding for rehabilitating 4-5 pump stations per year
 - Pump Stations in Providence and Dranesville Districts as examples. Daily capacity is .4 to .6 million gallons (\$3.25M TPE)
- \$148 M over 10 years

Treatment by Contract (TbC)

Partners	FY2020-FY 2024 (\$000's)
Alexandria Renew Enterprises (ARenew)	100,830
DC Water (Blue Plains)	58,663
Arlington Treatment Plant	7,503
Upper Occoquan Service Authority (UOSA)	49,269

Additional Information

For additional information, please contact

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