

Wastewater Management Capital Improvement Program

Fairfax County Planning Commission CIP Workshop FY 18 – FY 22

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 158 – 164 of the FY 2018-FY 2022 Advertised CIP

- Regulatory Upgrades
 - Bio-Solids Program: The rehabilitation of the multiple hearth furnaces, additional air pollution control equipment and energy recovery system.
- Reinvestment 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: Disinfection Facility**

- Upgrade facility with improved, safer, and ease of operation technology
- Replacing existing chlorination/de-chlorination system with UV disinfection system
- Built in the 1970s
- TPE \$74.1 million

Wastewater Management Capital Improvement Program
Disinfection facility - example



Noman Cole Pollution Control Plant



- **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 from the screen building to the distribution center
 - Built in the 1970s
 - TPE \$77.8 million

Noman Cole Pollution Control Plant



- **Facility: Primary and Secondary Process Facilities**

- Rehabilitation of the primary clarifiers, secondary clarifiers, other related infrastructure
- Built in the 1970s and 1980s
- TPE \$237.4 million

CIP Priority Collection Projects

- Reinvestment Sewer Line Improvements

- Large Diameter Pipes: The rehabilitation of the sewer line 15” and larger.
- Cured In Place Piping Program: Average 25 miles of sewer pipes lined each year.

- Reinvestment Pump Station Improvements

- Difficult Run PS rehabilitation: This pump station will allow us to pump excess flows out of the Blue Plains sewer shed to the Noman Cole sewer shed. We are reaching our capacity at the Blue Plains Treatment facility.



27" Sewer Line Break



Lake Thoreau floated sewer line FY 2016

- **Sewer Line Rehabilitation Program**
 - Rehabilitation of the County's 3,200 miles of sewer lines
 - Built in the 1940s - 2010s
 - Continuous funding for rehabilitating sewer lines approximately \$15 million per year

Difficult Run Pump Station



- **Pump Station Rehabilitation Program**

- Rehabilitation of the County's pump stations
- Rehabilitation of the pumps, structures, piping, control centers, HVAC systems, and various other components associated with the pump station
- Continuous funding for rehabilitating 4-5 pump stations per year

Additional Information

For additional information, please contact

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