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!





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



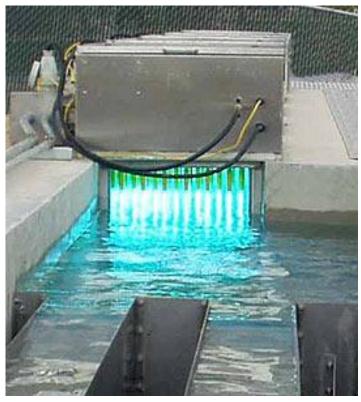
Facility: Disinfection Facility

- 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



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 Pains 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 RehabilitationProgram

- 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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