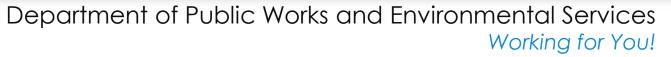
Wastewater Management Capital Improvement Program

Fairfax County Planning Commission CIP Workshop FY 2023 – FY 2027







A Fairfax County, VA, publication March 10, 2022

Development of CIP for Wastewater System

- Annually review asset management program
- Identify facilities in need of capacity expansion based on flow projections
- Identify projects to meet regulatory requirements
- Identify projects based on condition assessments of aging infrastructure
- Determine criticality of the infrastructure
- Identify consequences of failure of an asset
- Minimize business risk exposure
- Use weighted numerical rankings to prioritize projects
- Develop project cost estimates
- Use financial model to determine revenue requirements and impact on sewer rates
- Collaborate with DMB in developing a 10-year CIP program



Wastewater Management Capital Improvement Program Pages 208 – 214 of the FY 2023-FY 2027 Advertised CIP

- Locations of CIP Projects
 - County's Noman M. Cole, Jr. Treatment Plant,
 - County's Wastewater Collection System, and
 - Neighboring Jurisdictions Serving the County
- Noman M. Cole Plant
 - General Rehabilitation and Replacement
 - Biosolids facilities, Pumps, valves, HVAC, disinfection, electrical systems and other facilities
 - TOTAL

\$343.6M

\$343.6M



Wastewater Management Capital Improvement Program Pages 208 – 214 of the FY 2023-FY 2027 Advertised CIP

•	Wastewater	Collection	System
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•	Extension and Improvements	\$4.0M
	 Place holder to extend sewers to areas with failing septic systems 	
•	Gravity Sewer Capacity Improvements	\$115.4M
	 Increase size of sewers to accommodate increased flows 	
•	Gravity Sewer Conditional Improvements	\$77.6M
	 Inspect, repair and replace large diameter pipes 	
•	Sewer Metering Projects	\$1.0M
	 Rehabilitate metering stations for billing wholesale customers and conduct infiltration and inflow studies 	
•	Pumping Station Rehabilitation	\$100.2M
	 Improve aging pumping stations and provide odor control 	

• TOTAL

\$298.2M



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- Neighboring Jurisdictions Serving the County
 - Alexandria Renew Enterprises (ARenew) \$101.7M
 Repair, rehabilitation and wet weather flow mitigation projects
 Arlington Plant Upgrade \$14.1M
 Technology enhancement, clarifier upgrade, biosolids master plan, and relining a pipe
 DC Water (Blue Plains Treatment Plant) \$118.4M
 Repair, replacement, upgrade, and wet weather mitigation projects
 Upper Occoquan Service Authority (UOSA) \$105.3M
 Nutrient removal, filter replacement, and clarifier improvement projects



\$339.5M



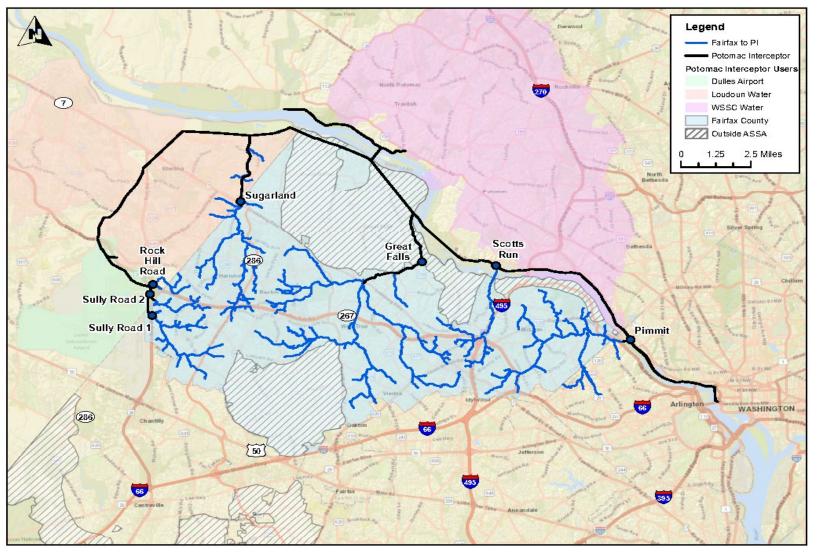
Capacity Related Projects

•	Projects in Planning:	
1.	Evaluation of DC Water's Potomac Interceptor	\$30/\$347K
2.	New Sugarland Pump Station and Force Main	\$40.0M
3.	New Tysons East Pump Station and Force Main	\$102.2M
4.	Modify & Increase Difficult Run Pump Station capacity	\$5.4M
•	Projects in Design:	
1.	Wastewater Utility Management Plan	\$3.7M
2.	Tysons West Pump Station, Force Main, and gravity sewer	\$115.4M
3.	Enlarge Accotink Interceptor from 30" sewer to 42"	\$33.0M
4.	Lakevale sewer project	\$2.2M
5.	Enlarge 12" sewer to 18" sewer in Merrifield	\$2.3M
6.	Enlarge and relocate gravity sewers along Route 1 BRT	\$29.5M
•	Project in Construction: Upsize Alexandria Renew line	\$58/615M
•	Total	\$391.73M

Total

6

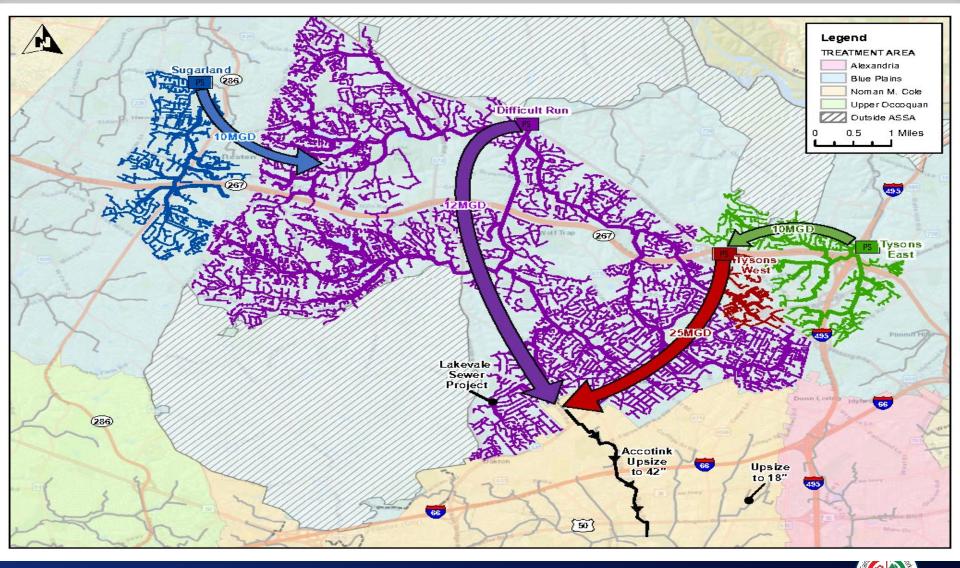
Potomac Interceptor Service Area





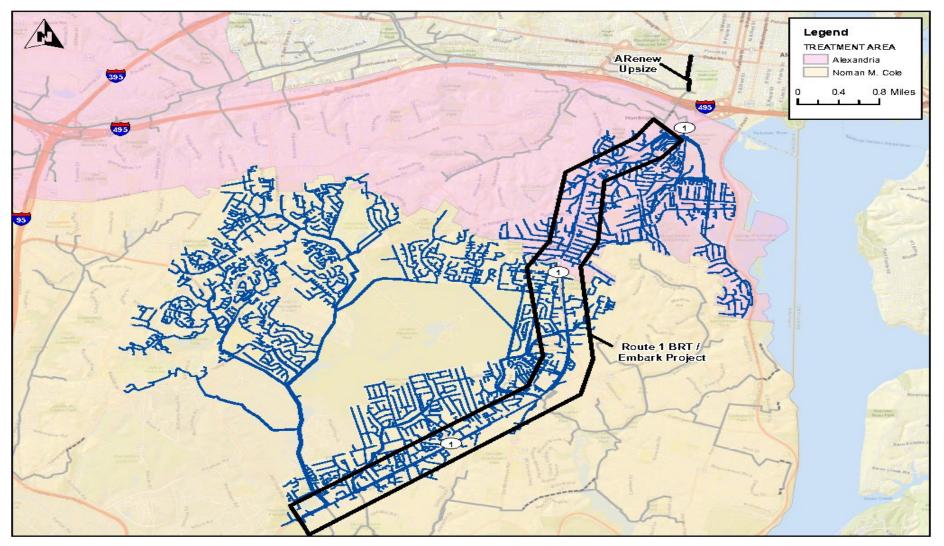
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Sugarland Run, Difficult Run and Tysons Pump Stations





Route 1 Corridor Alex Renew Service Area





Wastewater Management Capital Improvement Program
Additional Information

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Wastewater Management Program