

# Fund 69300: Sewer Construction Improvements

**Focus** Fund 69300, Sewer Construction Improvements, provides for wastewater management construction projects through a transfer of funds from Fund 69000, Sewer Revenue. All projects in Fund 69300 are fully supported by sewer system revenues.

Funding in the amount of \$85,000,000 is included in Fund 69300, Sewer Construction Improvements, in FY 2021. FY 2021 funding will provide for the following projects:



*Photo of the Noman M. Cole Jr. Pollution Control Plant*

## Pumping Stations

This project provides for the planned replacement of pumping stations throughout the County. FY 2021 funding of \$6,884,000 is included for the regularly scheduled repair, renovation, and replacement of pumping station equipment and facilities. There will be eight pumping stations in the design phase and five pumping stations in the construction phase in FY 2021.

## Integrated Sewer Metering

This project will provide for the planned replacement of sewer meters throughout the County. FY 2021 funding in the amount of \$878,000 is provided for the continuation of replacing sewer meters used for measuring wastewater flow to and from other jurisdictions for billing

and monitoring purposes as well as portable meters used in infiltration and inflow studies to measure wet weather flows.

## Extension and Improvement Projects

Funding in the amount of \$1,000,000 is included to satisfy the annual appropriation requirement for the County's Extension and Improvement (E&I) Program as approved by the Board of Supervisors on April 12, 2011. This policy adjusts the Connection Charges such that the future cost of the E&I Program is shared equally between the County's Sewer Fund and the property owners seeking public sewer service when the Health Department determines the properties' septic systems have failed.

## Collection System Replacement and Rehabilitation

This is a continuing project established to implement systematic rehabilitation of the County's approximately 3,250 miles of sanitary sewer lines. Rehabilitation includes, among other things, the use of trenchless technology to rehabilitate approximately 20 miles of sewer per year. FY 2021 funding in the amount of \$200,000 is included to continue the systematic rehabilitation of the County's sewer lines.

## Force Main Rehabilitation

This program began in FY 2014 and provides for the rehabilitation of the County's force mains. FY 2021 funding in the amount of \$1,000,000 is included to complete the rehabilitation of the following force mains: Waynewood I and II, Mount Vernon Terrace, Wellington I, Langley School, Ravenwood, Riverwood, and Little Hunting Creek Force Mains.

## Noman Cole Treatment Plant Renewal

This project provides for the continuation of systematic rehabilitation of structures and equipment at the Noman M. Cole, Jr. Pollution Control Plant (NMCPCP). FY 2021 funding in the amount of \$30,000,000 is included for the rehabilitation and replacement of pumps, gates, and valves; stormwater runoff improvements, and continuation of the rehabilitation of the motor control centers/distribution centers (MCC/DC) and raw wastewater pump station facility.

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### Arlington Wastewater Treatment Plant Rehabilitation

This project will provide funding for Fairfax County's share of the plant upgrades at the Arlington Wastewater Treatment Plant. FY 2021 funding in the amount of \$1,173,000 is included for annual repair and rehabilitation work for various facilities as scheduled in Arlington County's Capital Improvement Program. The County is responsible for 3.0 mgd of the 40 mgd or 7.5 percent of the capacity at the Arlington Wastewater Treatment Plant.

### Alexandria Renew Enterprises Upgrade, Replacement and Renewal

This project funds the County's share of the upgrades to the Alexandria Renew Enterprises (AlexRenew) Treatment Plant. Funding supports the design and construction of a state-of-the-art Nitrogen Upgrade Program (SANUP) for nitrogen removal. FY 2021 funding in the amount of \$5,707,000 is included for engineering design, construction management, landscape architecture and engineering services during construction to comply with the nutrient discharge limits. The County is responsible for 32.4 mgd of the 54 mgd or 60 percent of the capacity at the AlexRenew Treatment Plant.

### Blue Plains Upgrade Replacement and Rehabilitation

This project funds the County's share of upgrades to the DC Water's Blue Plains Treatment Plant. FY 2021 funding in the amount of \$10,379,000 is included for facility improvements to comply with nutrient discharge limits. Projects supporting the Enhanced Nitrogen Removal Program include providing an additional 40 million gallons of new anoxic reactor capacity for nitrogen removal, a new post aeration facility, pump station, and other new facilities to store and feed methanol and alternative sources of carbon. In addition, funding will also provide for the Clean Rivers Project to prevent combined storm and sanitary overflows during major storm events by storing the overflow in tunnels until the plant has capacity to fully treat the water. This project is currently under construction. The County is responsible for 31 mgd of the 370 mgd or 8.38 percent of the capacity at the Blue Plains Treatment Plant.

### Sewer Sag Program

This project funds the condition assessment of 166 segments of 8 to 15-inch gravity sewer lines and provides recommendations for the rehabilitation and/or replacement alternatives. FY 2021 funding in the amount of \$1,000,000 will provide for the next phase of this program, which includes construction work.

### Large Diameter Pipe Rehabilitation and Replacement

This project supports the condition assessment of 49 miles of sewer lines with a diameter of 15 inches or larger and provides recommendations for the rehabilitation and/or replacement alternatives. FY 2021 funding in the amount of \$1,000,000 will provide for the next phase of this program, which includes construction work.

### Gravity Sewers

This project funds the inspection, repair, and replacement of gravity sewers within the wastewater collection system. FY 2021 funding in the amount of \$10,167,000 will provide for the closed-circuit television (CCTV) inspection of more than 200 miles of sewer and rehabilitation of over 35 miles of sewer using cured-in-place-pipe (CIPP). In addition, funding is provided for the repair and replacement of defective and aging gravity sewers, including emergency repair work. New initiatives for FY 2021 include detailed inflow and infiltration and creek bed investigations.

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### Gravity Sewers Capacity Improvements

This project funds the installation of sewer lines to provide the needed capacity to serve new development within the County. As areas develop, more strain is placed on the sanitary sewer system serving the area. FY 2021 funding in the amount of \$15,612,000 will provide for increasing the size of the gravity sewer or installing parallel gravity sewers.

### **Changes to FY 2020 Adopted Budget Plan**

*The following funding adjustments reflect all approved changes in the FY 2020 Revised Budget Plan since passage of the FY 2020 Adopted Budget Plan. Included are all adjustments made as part of the FY 2019 Carryover Review, and all other approved changes through December 31, 2019.*

#### **Carryover Adjustments**

**\$56,507,050**

As part of the FY 2019 Carryover Review, the Board of Supervisors approved funding of \$56,507,050 due to the carryover of unexpended project balances.

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### FUND STATEMENT

Category	FY 2019 Actual	FY 2020 Adopted Budget Plan	FY 2020 Revised Budget Plan	FY 2021 Advertised Budget Plan
<b>Beginning Balance</b>	\$41,227,814	\$0	\$56,355,117	\$0
<b>Transfer In:</b>				
Sewer Revenue (69000)	\$70,000,000	\$75,000,000	\$75,000,000	\$85,000,000
<b>Total Transfers In</b>	\$70,000,000	\$75,000,000	\$75,000,000	\$85,000,000
<b>Total Available</b>	\$111,227,814	\$75,000,000	\$131,355,117	\$85,000,000
<b>Total Expenditures<sup>1</sup></b>	\$54,872,697	\$75,000,000	\$131,355,117	\$85,000,000
<b>Total Disbursements</b>	\$54,872,697	\$75,000,000	\$131,355,117	\$85,000,000
<b>Ending Balance<sup>2</sup></b>	\$56,355,117	\$0	\$0	\$0

<sup>1</sup> In order to account for expenditures in the proper fiscal year, an audit adjustment in the amount of \$151,932.54 has been reflected as an increase to the FY 2019 Total Expenditures. This impacts the amount carried forward and results in a decrease of \$151,932.54 to the *FY 2020 Revised Budget Plan*. The project affected by this adjustment is WW-000009, Noman Cole Treatment Plant Renewal. The audit adjustment has been included in the FY 2019 Comprehensive Annual Financial Report (CAFR). Details of the audit adjustment will be included in the FY 2020 Third Quarter package.

<sup>2</sup> The capital projects in this sewer fund are budgeted based on the total project costs. Most projects span multiple years, from design to construction completion. Therefore, funding for capital projects is carried forward each fiscal year, and ending balances fluctuate, reflecting the carryover of these funds.

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### SUMMARY OF CAPITAL PROJECTS

Project	Total Project Estimate	FY 2019 Actual Expenditures	FY 2020 Revised Budget	FY 2021 Advertised Budget Plan
Alexandria WWTP Upgrades and Rehab (WW-000021)		\$10,437,613.24	\$14,387,102.78	\$5,707,000
Arlington WWTP Upgrades and Rehab (WW-000020)		373,023.00	4,587,379.00	1,173,000
Blue Plains WWTP Upgrades and Rehab (WW-000022)		7,745,085.48	11,625,435.60	10,379,000
Colfax Gravity Sanitary Sewer Line Project (WW-000027)		18,267.02	1,171,374.93	0
Collection System Replacement and Rehab (WW-000007)		8,624,451.10	7,372,329.01	200,000
Dogue Creek Rehabilitation and Replacement (WW-000002)	22,838,600	0.00	344.13	0
Extension and Improvement Projects (WW-000006)		67,118.60	4,968,640.02	1,000,000
Force Main Rehabilitation (WW-000008)		1,067,378.42	5,974,026.76	1,000,000
Gravity Sewer Capacity Improvements (WW-000032)	24,212,000	0.00	8,600,000.00	15,612,000
Gravity Sewers (WW-000028)		1,520,240.21	17,979,759.79	10,167,000
Integrated Sewer Metering (WW-000005)	3,460,906	122,044.18	1,219,834.96	878,000
Large Diameter Pipe Rehabilitation and Replacement (WW-000026)		1,086,966.90	3,114,184.47	1,000,000
Laurel Hill Adaptive Reuse (WW-000023)	650,000	70,592.51	79,407.49	0
Noman Cole Treatment Plant Renewal (WW-000009)		21,270,840.15	30,592,732.65	30,000,000
Pumping Station Rehabilitation (WW-000001)		2,094,853.64	15,338,138.25	6,884,000
Robert P. McMath Facility Improvements (WW-000004)	2,425,000	84,423.03	716,792.71	0
Sewer Sag Program (WW-000024)		286,049.21	3,289,384.94	1,000,000
Wastewater Facility Share (WW-000030)	132,000	0.00	132,000.00	0
Wastewater Operations & Maintenance (WW-000031)	210,000	3,750.00	206,250.00	0
<b>Total</b>	<b>\$53,928,506</b>	<b>\$54,872,696.69</b>	<b>\$131,355,117.49</b>	<b>\$85,000,000</b>