

Fund 40170: I-95 Refuse Disposal

Mission

The Fairfax County Solid Waste Management Program (SWMP) is dedicated to keeping Fairfax County clean by preventing pollution and other contamination associated with the improper disposal of refuse. This is achieved by providing environmentally sound and economically viable management of refuse and recyclables through the operation of the I-95 Landfill Complex in Lorton, Virginia. The primary activity performed is the landfilling of ash generated from the combustion of waste at the Energy/Resource Recovery Facility (E/RRF). The following activities are conducted at this location:

- The Covanta combustion process generates ash, which is landfilled on site by County employees. Ash from a similar Covanta facility serving the City of Alexandria, Arlington County, and the Noman Cole Plant, is disposed of at the I-95 Ash Landfill.
- Brush is ground into mulch for reuse.
- Leaves and grass are transported to composting facilities in Prince William and Loudoun Counties where they are processed into a soil amendment.
- Landfill gas generated at the closed landfill generates methane captured and processed for power production.
- Staff and equipment from the I-95 facility are used to respond to emergencies by providing debris removal during emergencies and disasters, including snow and ice control in winter months.
- Other programs conducted at the I-95 facility include operation of a Recycling and Disposal Center (RDC) for residents and small businesses, Household Hazardous Waste, and recycling of electronics, motor oil, antifreeze, cooking oil, latex paint, automotive batteries, and scrap metal.
- The SWMP manages environmental control programs for the closed portion of the landfill as required by federal and state regulations. Systems to control landfill gas and groundwater and stormwater impacts attributed to waste disposal are operated and maintained by County staff.

Focus

The County has operated the I-95 Landfill Complex for more than 25 years. It was previously owned and operated by the District of Columbia from 1970 to 1995. It has not accepted municipal waste since December 1995 and only accepts ash generated by the combustion of waste.

The ash landfill was designed in four phases and meets federal and state standards for the construction of new landfills, which requires a double liner with a leachate collection system for the prevention of groundwater degradation. Phases I and II have reached capacity and have been covered with an intermediate cover system. Phase III is currently being used for ash disposal and has at least five years of capacity remaining. Phase IV has not yet been constructed.

Covanta's suite of pollution control equipment includes a dolomitic lime system that chemically treats the ash to reduce the potential of mobilizing metals that may leach from the ash after landfilling. The ash is tested twice per year using the Toxicity Characteristic Leaching Procedure (TCLP), as specified in federal regulations. During FY 2017, analysis of the ash by a certified laboratory found

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the ash to be non-hazardous, demonstrating that all parameters analyzed are within the limits for all regulated constituents.

This facility is responsible for the management of the closed portion of the municipal solid waste landfill including landfill gas control, groundwater monitoring and remediation, storm water management and leachate control. These activities ensure compliance with the facility's state-issued permit (SWP103) and applicable environmental regulations administered by the Virginia Department of Environmental Quality (VDEQ).

The ash disposal fee in FY 2022 received by Fund 40170, I-95 Refuse Disposal, from Fund 40150, Refuse Disposal, is \$27.50 per ton to fund the ash disposal operation. Covanta Fairfax, Inc. pays SWMP \$1.70 per ton to transport ash debris from the E/RRF facility to the landfill. The landfill's Post-Closure Reserve is required for a 30-year period after the ash landfill is closed as mandated by federal and state regulations. The FY 2022 Post-

Closure Reserve is projected to be \$28.2 million or 63 percent of the required \$44.9 million. Increased maintenance needs require additional funding to ensure the landfill remains in compliance with its many permits.

Performance measures for Solid Waste are displayed at a program-wide level. Please refer to the Solid Waste Management Program Overview in Volume 2 of the [FY 2022 Advertised Budget Plan](#) for those items.

Pandemic Response and Impact

For the Solid Waste Management Program, major challenges include employee safety precautions and efforts to maintain social distancing. Standard operating procedures (SOPs) were revised to include enhanced personal protection equipment (PPE) practices. In FY 2022, the SWMP will continue focusing on employee safety procedures including virtual meetings, temperature screening, frequent disinfection of surfaces and vehicles, providing additional cleaning supplies, and PPE for employees. To enhance social distancing, the SWMP will also continue staggering shift schedules to maintain social distancing. Additionally, the SWMP Outreach team has limited the in-person activities and tours in an effort to promote public safety. The action plans by the SWMP will be continuously reevaluated and revised based on the evolving situation with the pandemic.

Organizational Chart



Budget and Staff Resources

Category	FY 2020 Actual	FY 2021 Adopted	FY 2021 Revised	FY 2022 Advertised
FUNDING				
Expenditures:				
Personnel Services	\$4,035,305	\$4,177,195	\$4,177,195	\$4,139,575
Operating Expenses	2,532,684	2,000,000	2,405,032	2,530,883
Capital Equipment	369,919	2,300,000	2,631,385	1,610,000
Capital Projects	508,451	2,800,000	10,075,643	0
Total Expenditures	\$7,446,359	\$11,277,195	\$19,289,255	\$8,280,458
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	42 / 42	42 / 42	42 / 42	42 / 42

FY 2022 Funding Adjustments

The following funding adjustments from the FY 2021 Adopted Budget Plan are necessary to support the FY 2022 program:

Personnel Services **(\$45,447)**

A decrease of \$45,447 in Personnel Services is due to a projection based on actual expenditure requirements from prior fiscal years.

Other Post-Employment Benefits **\$7,827**

An increase of \$7,827 in Personnel Services reflects required adjustments associated with providing Other Post-Employment Benefits (OPEBs) to retirees, including the Retiree Health Benefits Subsidy. For more information on Other Post-Employment Benefits, please refer to Fund 73030, OPEB Trust, in Volume 2 of the FY 2022 Advertised Budget Plan.

Operating Expenditures **\$530,883**

An increase of \$530,883 in Operating Expenses is due to an increase in costs for automotive repair and maintenance and subcontracting services.

Capital Equipment **(\$690,000)**

Funding of \$1,610,000 in Capital Equipment reflects a decrease of \$690,000 from the FY 2021 Adopted Budget Plan. Of this amount, \$450,000 is for the replacement of one wheel-loader, \$60,000 is for one utility truck, \$100,000 is for one small backhoe/loader, \$80,000 is for two pick-up trucks, \$420,000 is for one dump truck, and \$500,000 is for one bulldozer. These items have exceeded their useful life and are required to be replaced based on the overall age and condition of the equipment.

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Capital Projects **(\$2,800,000)**

A decrease of \$2,800,000 in Capital Projects reflects no additional funding required in FY 2022 to support capital improvement and environmental compliance projects at the I-95 Landfill Complex.

**Changes to
FY 2021
Adopted
Budget Plan**

The following funding adjustments reflect all approved changes in the FY 2021 Revised Budget Plan since passage of the FY 2021 Adopted Budget Plan. Included are all adjustments made as part of the FY 2020 Carryover Review, FY 2021 Mid-Year Review, and all other approved changes through December 31, 2020:

Carryover Adjustments **\$8,012,060**

As part of the *FY 2020 Carryover Review*, the Board of Supervisors approved funding of \$8,012,060, including \$372,015 in encumbered funding in Operating Expenses, \$331,385 in encumbered funding in Capital Equipment, and \$7,308,660 in unexpended Capital Projects.

Position Detail

The FY 2022 Advertised Budget Plan includes the following positions:

I-95 REFUSE DISPOSAL – 42 Positions			
1	Engineer V	1	Lead Refuse Operator
1	PW Environmental Services Manager	9	Heavy Equipment Operators
3	PW Environmental Services Specialists	2	Motor Equipment Operators
1	Sr. Environmental Specialist	1	Welder
1	Constr/Mnt Project Manager II	1	Maintenance Supervisor
1	Senior Engineer III	1	Senior Maintenance Worker
1	Engineering Technician III	4	Maintenance Workers
3	Engineering Technicians II	1	Equipment Repairer
1	Engineering Technician I	1	Administrative Assistant IV
1	Safety Analyst	1	Administrative Assistant III
1	Financial Specialist II	1	Administrative Assistant II
4	Asst. Refuse Superintendents		

A Fund Statement and a Summary of Capital Projects are provided on the following pages. The Summary of Capital Projects may include some projects without a Total Project Estimate amount. These projects are considered "continuing" projects or projects for which funding is necessary on an ongoing basis (e.g., a contingency or planning project).

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FUND STATEMENT

Category	FY 2020 Actual	FY 2021 Adopted Budget Plan	FY 2021 Revised Budget Plan	FY 2022 Advertised Budget Plan
Beginning Balance	\$37,576,946	\$31,309,139	\$40,760,799	\$31,787,794
Revenue:				
Interest on Investments	\$414,684	\$300,000	\$300,000	\$357,342
Refuse Disposal Revenue	10,150,962	9,861,250	9,861,250	10,405,200
Sale of Equipment	145,902	341,000	341,000	300,902
Miscellaneous Revenue ¹	104,664	0	0	
Total Revenue	\$10,816,212	\$10,502,250	\$10,502,250	\$11,063,444
Total Available	\$48,393,158	\$41,811,389	\$51,263,049	\$42,851,238
Expenditures:				
Personnel Services	\$4,035,305	\$4,177,195	\$4,177,195	\$4,139,575
Operating Expenses ¹	2,532,684	2,000,000	2,405,032	2,530,883
Capital Equipment	369,919	2,300,000	2,631,385	1,610,000
Capital Projects ¹	508,451	2,800,000	10,075,643	0
Total Expenditures	\$7,446,359	\$11,277,195	\$19,289,255	\$8,280,458
Transfers Out:				
General Fund (10001) ²	\$186,000	\$186,000	\$186,000	\$186,000
Total Transfers Out	\$186,000	\$186,000	\$186,000	\$186,000
Total Disbursements	\$7,632,359	\$11,463,195	\$19,475,255	\$8,466,458
Ending Balance³	\$40,760,799	\$30,348,194	\$31,787,794	\$34,384,780
Reserves				
Environmental Reserve ⁴	\$3,261,532	\$3,034,819	\$2,543,691	\$2,750,782
Capital Equipment Reserve ⁵	4,068,560	2,427,856	3,171,261	3,438,478
Post-Closure Reserve ⁶	33,430,707	24,885,519	26,072,842	28,195,520
Unreserved Ending Balance	\$0	\$0	\$0	\$0

¹ In order to account for revenues and expenditures in the proper fiscal year, audit adjustments have been reflected as an increase of \$24,664.69 to FY 2020 revenues and an increase in \$7,103.49 to FY 2020 expenditures to record revenues and expenditures in the appropriate fiscal year. These audit adjustments were included in FY 2020 Comprehensive Annual Financial Report (CAFR). Details of the audit adjustments were included in the FY 2021 Mid-Year Package.

² Funding in the amount of \$186,000 is transferred to the General Fund to partially offset central support services supported by the General Fund, which benefit Fund 40170. These indirect costs include support services such as Human Resources, Purchasing, Budget and other administrative services.

³ Ending balance fluctuations are a result of operating and revenue requirements that change annually. Funding is carried forward each fiscal year to provide flexibility given the uncertainty of market conditions and expenditure requirements.

⁴ The Capital Equipment Reserve provides for the timely replacement of equipment required to operate the I-95 Ashfill. Funds are transferred from Ash Disposal Revenue to equipment reserve as are proceeds from the sale of equipment. The reserve requirement is based on a replacement schedule composed of yearly payments to the reserve, which are based on the useful life of the equipment and vehicles.

⁵ The Environmental Reserve assures that the County has funds to implement, or at least start to implement, unplanned actions to protect the environment or meet regulatory requirements. Specific examples of future environmental projects are likely to include: Landfill Gas Control Projects, Stormwater Management, Wastewater (Leachate) Management, and Groundwater protective measures.

⁶ The Post-Closure Reserve is required for a 30-year period after the ashfill closes and is mandated by federal and state regulations. The projected reserve of \$28.20 million for FY 2022 represents 62.8 percent of the estimated requirement of \$44,864,134 and is not sufficient to cover all identified costs. Additional funds will be set aside in future years.

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SUMMARY OF CAPITAL PROJECTS

Project	Total Project Estimate	FY 2020 Actual Expenditures	FY 2021 Revised Budget	FY 2022 Advertised Budget Plan
I-95 Landfill Closure (SW-000019)	\$2,440,098	\$5,131.74	\$2,433,512.37	\$0
I-95 Landfill Environmental Compliance (SW-000016)	1,559,536	182,840.24	930,588.96	0
I-95 Landfill Leachate Facility (SW-000018)	4,310,478	57,248.55	460,589.60	0
I-95 Landfill Lot B Redesign (SW-000020)	1,750,000	197,225.90	1,552,774.10	0
I-95 Landfill New Service Road (SW-000027)	1,500,000	42,600.00	1,434,800.00	0
I-95 Methane Gas Recovery (SW-000014)	2,309,232	23,404.47	300,430.01	0
I-95 Operation Building Renovation (SW-000015)	498,952	0.00	462,947.55	0
I-95 Transfer/Materials Recovery Fac. (SW-000022)	2,500,000	0.00	2,500,000.00	0
Total	\$16,868,296	\$508,450.90	\$10,075,642.59	\$0