

Worksession

MEMORANDUM

February 22, 2023

TO: Transportation & Environment Committee

FROM: Keith Levchenko, Senior Legislative Analyst

SUBJECT: **Amendments to the FY23-28 Capital Improvements Program – Recycling and Resource Management (RRM) CIP¹**

NOTE: Expenditures in the RRM CIP are funded with Solid Waste Disposal Fund Current Revenue and Revenue Bonds with the debt service paid for with Solid Waste Disposal Fund Current Revenue. Therefore, expenditures in the RRM CIP do not affect the County's Spending Affordability Guidelines for General Obligation Bonds or General Current Revenue.

Summary

- Total Approved FY23-28 Six-Year CIP is \$49.5 million (a combination of Solid Waste Disposal Fund Bonds and Current Revenue)
- The Executive is recommending an amendment to the Full Upgrade of the Existing Recycling Center Complex to recognize substantial cost increases for machinery and equipment (+\$7.3 million)
- The Executive is recommending technical adjustments to reflect slightly lower costs for the now completed Transfer Station Fire Detection and Suppression System
- The Gude Landfill Remediation is moving into construction (Update to be provided by DEP)

Meeting Participants

- Vicky Wan, Acting Deputy Director, Department of Environmental Protection (DEP)
- Willie Wainer, Chief, Recycling and Resource Management (RRM), DEP
- Anthony Skinner, Chief, Business Operations, Deputy Director Office, RRM, DEP
- Jamie Foster, Sr. Engineer, Resource Conversation Section, RRM, DEP
- Rich Harris, Fiscal and Policy Analyst, Office of Management and Budget

Attachments to this Memorandum

- Excerpts from the County Executive's Recommended FY24 Capital Budget and Amendments to the FY23-28 Capital Improvements Program (©1-5)
- Approved FY23-28 RRM CIP Project Description Forms (©6-11)
- Gude Landfill Remediation Update Slide Deck (©12-25)

¹ Key words: #GudeLandfillRemediation, DEP, Recycling and Resource Management

Summary

The Approved FY23-28 CIP for Recycling and Resource Management (RRM) consists of three projects:

- Full Upgrade of Existing Recycling Center Complex (Approved project description form (PDF) on ©6-7)
- Gude Landfill Remediation (Approved PDF on ©8-9)
- Transfer Station Fire Detection and Suppression Systems (Approved PDF on ©10-11)

As shown below, the approved total cost for these projects is \$88.1 million with \$49.5 million in expenditures included in the Approved RRM FY23-28 CIP. The expenditures are funded entirely from within the Solid Waste Disposal Fund with a combination of current revenue and revenue bonds.

Table #1: Approved FY23-28 CIP: RRM Expenditures and Funding (in 000s)

Expenditures	Through		Six-Year						
	Total	FY22	Total (000s)	FY23	FY24	FY25	FY26	FY27	FY28
Approved Expenditures	88,096	38,578	49,518	20,120	12,105	10,687	5,858	748	-
Approved Funding									
Current Revenue: SWDF	29,510	27,488	2,022	2,022					
Revenue Bonds	58,586	11,090	47,496	18,098	12,105	10,687	5,858	748	

The Executive is recommending an amendment to the Full Upgrade of Existing Recycling Center Complex project to address significant cost increases for equipment (+\$7.3 million). Technical adjustments are also included for the Transfer Station Fire Detection and Suppression Systems project. Overall, the Executive's recommended amendment and adjustments result in an increase in the RRM CIP of \$7.8 million to \$57.3 million as shown below.

Table #2: RRM CIP Approved and CE Amended Expenditures (in 000s)

Expenditures	Through		Six-Year						
	Total	FY22	Total (000s)	FY23	FY24	FY25	FY26	FY27	FY28
FY23-28 Approved CIP	88,096	38,578	49,518	20,120	12,105	10,687	5,858	748	-
FY23-28 CE Amended	95,199	37,897	57,302	20,624	19,385	10,687	5,858	748	-
change from approved	7,103		7,784	504	7,280	-	-	-	-
percent change from approved	0		0	2.5%	60.1%	0.0%	0.0%	0.0%	n/a

Project Review

Full Upgrade of the Existing Recycling Center Complex (Recommended PDF on ©3-4)

Expenditures	Through		Six-Year						
	Total	FY22	Total (000s)	FY23	FY24	FY25	FY26	FY27	FY28
FY23-28 Approved	20,350	11,900	8,450	8,450					
Amended	27,630	11,900	15,730	8,450	7,280				
change from approved	7,280	-	7,280	0	7,280				
percent change from approved	35.8%	0.0%	86.2%	0	n/a				

This project was approved two years ago as an amendment to the FY21-26 CIP. The Approved FY23-28 CIP assumed no cost increase nor change in scope or timing. The source of funds for the project is Solid Waste Disposal Fund current revenue (\$810,000) for the planning, design, and supervision and Solid Waste Disposal Fund Revenue Bonds (\$19,540,000) for the construction/equipment costs.

Project design is expected to be finalized in July 2022 with construction bids going out in August/September and a contract award in November/December. Project completion is assumed in late FY23.

The project scope includes new equipment for the Materials Recovery Facility (MRF) that will substantially increase the processing capacity of the facility (from 80 tons per day to 200-240 tons per day) while also improving the quality of the recyclable material products. Minor modifications to the existing building are also included to increase storage capacity for both incoming and baled material.

The criticality of this project was noted in the [May 7, 2020 Recommendations of the Aiming for Zero Waste Task Force](#). For more details on the project and its justification, please see the [May 12, 2021 Council Staff Report](#).

The Executive is recommending an amendment to this project (and FY24 appropriation) to address cost increases in the project (+\$7.3 million, funded with Solid Waste Disposal Fund Revenue Bonds). The cost increase reflects a more recent cost estimate based on actual design work. DEP Staff have noted that:

“The original cost estimate of \$20.4 million was developed in 2020 as a preliminary cost estimate for budgetary purposes and based on similar projects being built at that time. The cost was revised in 2022 to \$27.63 million based on the more advanced Basis of Design and actual cost of construction materials and equipment fabrication.”

DEP provided the latest project schedule:

- *The Basis of Design (BOD) is 90% completed. The engineering contractor is working on the last set of design comments and possible equipment additions.*
- *Current construction schedule (subject to change based on BOD completion date):*
 - *Demolition of existing equipment: 12/11/2023*
 - *Building modifications: 03/24/2024*
 - *Equipment Installation: 10/28/2024*

The latest schedule above assumes a completion date two years later than noted in the approved project. DEP has identified the following factors for this delay:

The “procurement process to obtain the services of the engineering firm, the unforeseen requirements of having to conduct building scans and geotechnical surveys of the facility due to lack of as-built drawings, design modifications and expected delays in equipment fabrication due to supply-chain issues.”

Given the critical need to upgrade and increase the capacity of this facility, Council Staff recommends approval of the amendment as transmitted by the County Executive.

Transfer Station Fire Detection and Suppression Systems (Recommended PDF on ©5)

Expenditures	Through		Six-Year	FY23	FY24	FY25	FY26	FY27	FY28
	Total	FY22	Total (000s)						
FY23-28 Approved	6,000	5,823	177	177					
Amended	5,823	5,142	681	681					
change from approved	(177)	(681)	504	504					
percent change from approved	-3.0%	-11.7%	284.7%	284.7%					

This project provides for the design and construction of new fire detection and suppression systems at the Transfer Station. The project is funded with Solid Waste Disposal Fund Current Revenue. The project began construction in FY21 and was completed in December 2022.

The project was first approved as an amendment to the FY21-26 CIP in November 2020 to address fire safety concerns at the Transfer Station. For more information on the project need and scope, please see the [November 10, 2020 Council Staff Report](#).

In his January 17, 2023 amendment package transmittal, the County Executive noted that this project had some excess funding and appropriation (-\$177,000) which should be removed.

Council Staff recommends approval of the Executive’s technical adjustments to the project.

Other Projects

Gude Landfill Remediation Expenditure Schedule (Approved PDF on ©8-9)

Expenditures	Through		Six-Year	FY23	FY24	FY25	FY26	FY27	FY28
	Total	FY22	Total (000s)						
Expenditures	61,746	20,855	40,891	11,493	12,105	10,687	5,858	748	
Funding									
Current Revenue: SWDF	22,700	20,855	1,845	1,845					
Revenue Bonds	39,046		39,046	9,648	12,105	10,687	5,858	748	

This project provides for the planning and construction of a toupee cap (capping the top area) at the closed Gude Landfill to remediate low-level environmental contamination as well as some passive reuse amenities. The County and the Maryland Department of the Environment entered into a consent order in May 2013 involving landfill assessment and remediation. For more background on the project, please see the [April 21, 2020 Council Staff Report](#) from the FY21-26 CIP review process.

The approved total project cost is \$61.7 million. The source of funds is a mix of Solid Waste Disposal Fund Current Revenue and Revenue Bonds. According to DEP staff, the remediation work is on schedule for completion in FY27, with the passive reuse amenities completed by June 2028.

The Executive did not recommend any changes to this project. However, since the project is moving into construction of Phase S-1, Council Staff asked DEP staff to provide a brief update on the remediation work and the future passive reuse amenities (see presentation slides on ©12-25).

No Council action is required on this project.

Attachments

County Hub Collaborative to locate a new cold storage unit to facilitate their food distribution programs for the community. This project supports our community partners and leverages non-County resources.

Sidewalk and Curb Replacement

Historically, this project budgeted \$500,000 per year in private contributions to pay for work done on private property. Recent experience has shown that homeowners are not taking advantage of this option, so those funds are being removed from the project. A funding switch between Contributions and Land Sale Proceeds is also reflected.

MCPS Bus Depot and Maintenance Relocation

Based on community feedback, the Recommended CIP is removing construction funding from this project and adding \$250,000 in Current Revenue: General funding to pursue alternative site options.

Facility Planning: MCG

The Recommended CIP adds a project to conduct County Space Planning analysis so the County can maximize the efficient use of existing County real estate. This work would be done within the existing budget since studies for future transit depots have been funded in other projects.

Core County Infrastructure Projects

The Executive Office Building, the Judicial Center, and the 4th District Police Station are in dire need of a comprehensive replacement of all mechanical and electrical systems needed to support both the heating and cooling portions of the HVAC systems. Due to long supply chain delays, I am requesting supplementals in the EOB HVAC Renovation (\$3,972,000) and HVAC/Elec Replacement: MCG (\$9,737,000) projects so that equipment can be ordered as soon as possible. Core functions are carried out in these buildings, and we cannot afford to have mechanical equipment failures.

The Full Upgrade of the Existing Recycling Center Complex project is needed to increase commingled processing capacity to 200 – 240 tons per day. The upgrade will increase operation uptime, while also producing a higher quality product with higher resale prices. Machinery and equipment costs have increased by \$7,280,000 since last year.

As previously noted, cost increases to maintain current County facilities and operations or to complete previously funded new facilities that are far along in development are also included in the Recommended CIP. Cost increases are recommended for the following projects: 6th District Police Station (\$5.9 million); Public Safety Communications Center, Phase II, Electrical

**FY 23-28 Biennial Recommended CIP
January Budget Amendments Summary (\$000s)
17-Jan-23**

Project #	Project Name	Explanation of Adjustment	FY23-28 Change (\$000s)	Funding Sources
P502203	Burtonsville Park and Ride Improvements	Added State Aid funding in FY24.	4,500	State Aid
P501603	Purple Line	Increased scope to acquire easements for culverts and for supervision costs due to Purple Line project delays. Funding switch to allocate prior year GO Bond Premium.	570	G.O. Bonds, G.O. Bond Premium
P501111	Silver Spring Lot 3 Parking Garage	Cost decrease recognizes prior year project savings for this pending closeout project.	0	Current Revenue: Parking - Silver Spring
P502006	Davis Mill Road Emergency Stabilization	Decreased funding reflects savings taken prior to project closeout. Unused appropriation transferred to Dennis Ave Bridge.	0	G.O. Bonds
P500717	Montrose Parkway East	Funding reduced to reflect savings captured prior to closeout. Unused appropriation transferred to Dennis Ave Bridge.	0	G.O. Bonds
P501200	Platt Ridge Drive Extended	Funding switch from GO Bonds to Intergovernmental to reflect additional expenditures reimbursable by WSSC. Decreased funding reflects savings taken prior to project closeout. Unused appropriation transferred to Dennis Ave Bridge.	0	G.O. Bonds, Intergovernmental
P507310	Public Facilities Roads	Reduced prior year funding to reflect savings.	0	G.O. Bonds
P802201	Full Upgrade of Existing Recycling Center Complex	Reflects machinery and other equipment cost increases.	7,280	Revenue Bonds, Current Revenue: Solid Waste Disposal
P802101	Transfer Station Fire Detection and Suppression System	Excess funding and appropriation was removed from the project and expenditures shifted into the six-year period to reflect actual project schedule.	504	Current Revenue: Solid Waste Disposal
P640902	High School Wellness Center and Expanded Wellness Services	Cost increase reflects additional project scope to support design and construction of Centers at eight high schools and design only for a ninth. Project schedule adjusted to reflect MCPS' planned construction for schools with projects programmed in the MCPS CIP and invoicing practices.	3,419	Current Revenue: General, G.O. Bonds
P602202	Martha B. Gudelisky Child Development Center Sewer Improvements	Adjustment recognizes prior year cost savings and WSSC Water refund.	0	Recordation Tax Premium (MCG)
P711502	Library Refurbishment Level of Effort	Damascus Library refurbishment cost increases.	950	G.O. Bonds
P800700	Stormwater Management Facility Major Structural Repair	Cost increase reflects \$1.7 million in CR: WQP needed for total contract cost of Lake Hollowell Dredging project and \$1.1 million in Long-Term Financing needed for Railroad Branch Dam emergency work.	2,800	Contributions, Current Revenue: Water Quality Protection, Long-Term Financing
P760900	Burtonsville Community Revitalization	Prior year project costs reduced by \$48,000 to reflect final expenditures.	0	G.O. Bonds, PAYGO
Montgomery County Public Schools				
P076506	Building Modifications and Program Improvements	Board of Education requested scope increase and acceleration of expenditures in GO Bonds for \$4,349,000 from FY23 into FY22.	5,651	G.O. Bonds
P652114	Damascus HS - Major Capital Project	Updated State Aid assumptions.	0	G.O. Bonds, State Aid



Full Upgrade of Existing Recycling Center Complex (P802201)

Category	Recycling and Resource Management	Date Last Modified	01/11/23
SubCategory	Recycling and Resource Management	Administering Agency	Environmental Protection
Planning Area	Rockville	Status	Under Construction

	Total	Thru FY22	Rem FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
EXPENDITURE SCHEDULE (\$000s)											
Planning, Design and Supervision	810	7	803	-	-	-	-	-	-	-	-
Construction	26,820	-	11,090	15,730	8,450	7,280	-	-	-	-	-
TOTAL EXPENDITURES	27,630	7	11,893	15,730	8,450	7,280	-	-	-	-	-

FUNDING SCHEDULE (\$000s)											
Current Revenue: Solid Waste Disposal	810	7	803	-	-	-	-	-	-	-	-
Revenue Bonds	26,820	-	11,090	15,730	8,450	7,280	-	-	-	-	-
TOTAL FUNDING SOURCES	27,630	7	11,893	15,730	8,450	7,280	-	-	-	-	-

APPROPRIATION AND EXPENDITURE DATA (\$000s)				
Appropriation FY 24 Request		7,280	Year First Appropriation	FY22
Cumulative Appropriation		20,350	Last FY's Cost Estimate	20,350
Expenditure / Encumbrances		528		
Unencumbered Balance		19,822		

PROJECT DESCRIPTION

This project will update the existing Material Recycling Center (MRF) with state-of-the-art equipment to increase commingled processing capacity to 200 - 240 tons per day (TPD). This includes a minor modification of the existing MRF building to increase storage capacity for both incoming and baled material. Equipment will be substantially replaced because the existing equipment is incompatible with modern recycling processing technology. An updated facility will have higher operation uptime (90% rather than the current 83%) and produce higher quality product that can receive higher prices in the market.

Features of the renovated facility include removing glass at the beginning of sorting to reduce wear and tear on equipment, improved sorting screens, optical sorting, high efficiency electric motors, and reduced reliance on labor for sorting. An upgrade to the facility's electrical capacity may be added if it is determined that the current facility cannot handle the load needed after the renovation. This design will allow for the future addition of single stream processing equipment within the existing facility to receive and process recyclables from other jurisdictions, if expansion to a regional concept is supported in an effort to improve the recycling program's cost-benefit ratio.

LOCATION

16103 Frederick Road, Derwood, MD

ESTIMATED SCHEDULE

The project will begin in Spring FY22 and is scheduled for completion in FY25.

COST CHANGE

Increase reflects machinery and other equipment cost increases.

PROJECT JUSTIFICATION

The current commingled processing system at the Recycling Center (MRF) was installed in 1991 and upgraded in 2002 to process 10 tons per hour (TPH) or 80 tons per day (TPD). Due to increased population, expanded material mix, and increased resident participation, the MRF currently receives 130 - 150 TPD of commingled material, almost double the current capacity. To keep up with the incoming volume, the MRF must export 40 - 45% of the commingled material received at an annual cost of approximately \$1.2 million.

After almost 30 years of operation, the majority of the current system components have operated beyond their useful life, causing frequent downtime and high repair and maintenance costs. Replacement parts are increasingly difficult to source for some equipment. This project's improvements will reduce operating costs, increase revenue from the sale of recyclables, increase processing efficiency, and continue to provide high quality recycling services to the County.

FISCAL NOTE

The Solid Waste Enterprise Fund is self-supporting through user fees, and revenue from the Solid Waste Enterprise Fund will be the source of repayment of the Solid Waste Revenue Bonds.

COORDINATION

CE Recommended (FY23-28 Amended CIP)

Maryland Environmental Service, Department of Permitting Services. Special Capital Projects Legislation [Bill No. 23-21E] was adopted by Council June 29, 2021.



Transfer Station Fire Detection and Suppression System (P802101)

Category	Recycling and Resource Management	Date Last Modified	12/30/22
SubCategory	Recycling and Resource Management	Administering Agency	Environmental Protection
Planning Area	Gaithersburg and Vicinity	Status	Ongoing

	Total	Thru FY22	Rem FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
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EXPENDITURE SCHEDULE (\$000s)

Construction	5,823	5,142	-	681	681	-	-	-	-	-	-
TOTAL EXPENDITURES	5,823	5,142	-	681	681	-	-	-	-	-	-

FUNDING SCHEDULE (\$000s)

Current Revenue: Solid Waste Disposal	5,823	5,142	-	681	681	-	-	-	-	-	-
TOTAL FUNDING SOURCES	5,823	5,142	-	681	681	-	-	-	-	-	-

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 24 Request	(177)	Year First Appropriation	FY22
Cumulative Appropriation	6,000	Last FY's Cost Estimate	6,000
Expenditure / Encumbrances	5,823		
Unencumbered Balance	177		

PROJECT DESCRIPTION

This project provides for the comprehensive design and installation of a new fire detection and suppression systems at the Shady Grove Processing and Transfer Facility. This project will include the installation of detection and suppression systems to replace the existing detection and suppression systems that are beyond their useful life. The project will also address other fire detection and suppression deficiencies and violations as identified by the County's Fire Department and Department of Permitting Services (DPS). The construction project will span approximately two years.

LOCATION

16101 Frederick Road, Derwood, Maryland

ESTIMATED SCHEDULE

The construction for the new fire detection and suppression systems began FY21 and was completed in December 2022 (FY23).

COST CHANGE

Project is complete and excess funding and appropriation was removed from the project.

PROJECT JUSTIFICATION

On February 13, 2020, the Department of Environmental Protection (DEP) received a Notice of Violation (Case No. 418905) from the County's Department of Permitting Services (DPS). This Notice of Violation cited a NFPA1-System Restore Violation for Case No. 418905. The Department is currently working through the Northeast Waste Disposal Authority with contractors to complete a design for the fire detection and suppression systems to address the Notice of Violation and the concerns posed by the County's insurance provider (FM Global). Therefore, this project completion is essential to remain DPS compliant, to mitigate frequent fires, and to eliminate health and safety concerns associated with having a deficient fire detection and suppression systems for solid waste operations.

FISCAL NOTE

Design of this project was funded in the operating budget using \$1.0 million in funds appropriated in FY19 and encumbered for this purpose. A FY21 supplemental appropriation added \$4.7 million in Current Revenue: Solid Waste Disposal.

COORDINATION

Northeast Maryland Waste Disposal Authority (NMWDA), Maryland Department of the Environment (MDE), Department of Permitting Services, FM Global, Covanta Energy, and County social service agencies, and adjacent property owners.



Full Upgrade of Existing Recycling Center Complex

(P802201)

Category	Recycling and Resource Management	Date Last Modified	01/05/22
SubCategory	Recycling and Resource Management	Administering Agency	Environmental Protection
Planning Area	Rockville	Status	Final Design Stage

EXPENDITURE SCHEDULE (\$000s)

Cost Elements	Total	Thru FY21	Est FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
Planning, Design and Supervision	810	-	810	-	-	-	-	-	-	-	-
Construction	19,540	-	11,090	8,450	8,450	-	-	-	-	-	-
TOTAL EXPENDITURES	20,350	-	11,900	8,450	8,450	-	-	-	-	-	-

FUNDING SCHEDULE (\$000s)

Funding Source	Total	Thru FY21	Est FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
Current Revenue: Solid Waste Disposal	810	-	810	-	-	-	-	-	-	-	-
Revenue Bonds	19,540	-	11,090	8,450	8,450	-	-	-	-	-	-
TOTAL FUNDING SOURCES	20,350	-	11,900	8,450	8,450	-	-	-	-	-	-

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 23 Request	8,450	Year First Appropriation	FY22
Appropriation FY 24 Request	-	Last FY's Cost Estimate	20,350
Cumulative Appropriation	11,900		
Expenditure / Encumbrances	-		
Unencumbered Balance	11,900		

PROJECT DESCRIPTION

This project will update the existing Material Recycling Center (MRF) with state of the art equipment to increase commingled processing capacity to 200 - 240 tons per day (TPD). This includes a minor modification of the existing MRF building to increase storage capacity for both incoming and baled material. Equipment will be substantially replaced because the existing equipment is incompatible with modern recycling processing technology. An updated facility will have higher operation uptime (90% rather than the current 83%) and produce higher quality product that can receive higher prices in the market.

Features of the renovated facility include removing glass at the beginning of sorting to reduce wear and tear on equipment, improved sorting screens, optical sorting, high efficiency electric motors, and reduced reliance on labor for sorting. An upgrade to the facility's electrical capacity may be added if it is determined that the current facility cannot handle the load needed after the renovation. This design will allow for the future addition of single stream processing equipment within the existing facility to receive and process

recyclables from other jurisdictions, if expansion to a regional concept is supported in an effort to improve the recycling program's cost-benefit ratio.

LOCATION

16103 Frederick Road, Derwood, MD

ESTIMATED SCHEDULE

The project will begin in Spring FY22 and is scheduled for completion in FY23.

PROJECT JUSTIFICATION

The current commingled processing system at the Recycling Center (MRF) was installed in 1991 and upgraded in 2002 to process 10 tons per hour (TPH) or 80 tons per day (TPD). Due to increased population, expanded material mix, and increased resident participation, the MRF currently receives 130 - 150 TPD of commingled material, almost double the current capacity. To keep up with the incoming volume, the MRF must export 40 - 45% of the commingled material received at an annual cost of approximately \$1.2 million.

After almost 30 years of operation, the majority of the current system components have operated beyond their useful life, causing frequent downtime and high repair and maintenance costs. Replacement parts are increasingly difficult to source for some equipment. This project's improvements will reduce operating costs, increase revenue from the sale of recyclables, increase processing efficiency, and continue to provide high quality recycling services to the County.

FISCAL NOTE

The Solid Waste Enterprise Fund is self-supporting through user fees, and revenue from the Solid Waste Enterprise Fund will be the source of repayment of the Solid Waste Revenue Bonds.

COORDINATION

Maryland Environmental Service, Department of Permitting Services. Special Capital Projects Legislation [Bill No. 23-21E] was adopted by Council June 29, 2021.



Gude Landfill Remediation

(P801801)

Category	Recycling and Resource Management	Date Last Modified	01/04/22
SubCategory	Recycling and Resource Management	Administering Agency	Environmental Protection
Planning Area	Upper Rock Creek Watershed	Status	Ongoing

EXPENDITURE SCHEDULE (\$000s)

Cost Elements	Total	Thru FY21	Est FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
Planning, Design and Supervision	6,955	2,619	678	3,658	932	905	877	854	90	-	-
Site Improvements and Utilities	192	96	96	-	-	-	-	-	-	-	-
Construction	54,599	72	17,294	37,233	10,561	11,200	9,810	5,004	658	-	-
TOTAL EXPENDITURES	61,746	2,787	18,068	40,891	11,493	12,105	10,687	5,858	748	-	-

FUNDING SCHEDULE (\$000s)

Funding Source	Total	Thru FY21	Est FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
Current Revenue: Solid Waste Disposal	22,700	2,787	18,068	1,845	1,845	-	-	-	-	-	-
Revenue Bonds	39,046	-	-	39,046	9,648	12,105	10,687	5,858	748	-	-
TOTAL FUNDING SOURCES	61,746	2,787	18,068	40,891	11,493	12,105	10,687	5,858	748	-	-

OPERATING BUDGET IMPACT (\$000s)

Impact Type	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
Maintenance	1,431	-	-	-	-	711	720
Program-Staff	-	-	-	-	-	-	-
Program-Other	-	-	-	-	-	-	-
NET IMPACT	1,431	-	-	-	-	711	720
FULL TIME EQUIVALENT (FTE)		-	-	-	-	-	-

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 23 Request	23,598	Year First Appropriation	FY18
Appropriation FY 24 Request	-	Last FY's Cost Estimate	61,746
Cumulative Appropriation	20,855		
Expenditure / Encumbrances	7,444		
Unencumbered Balance	13,411		

PROJECT DESCRIPTION

This project provides for the remediation of low-level environmental contamination at the Gude Landfill. The Maryland Department of the Environment (MDE) approved an Assessment of Corrective Measures (ACM) report for Gude Landfill in July 2016 which specifically outlines the approved Corrective Measure Alternative (CMA) for this remediation project. The MDE approved CMA will include toupee capping (regrading and capping the top of the landfill and selected slope areas with a synthetic liner and two feet of soil) and increased gas collection through the installation of additional gas extraction wells. These remediation measures will reduce infiltration of rainwater into the landfill resulting in the generation of less leachate, fewer leachate seeps, and better control of landfill gas migration.

LOCATION

600 E. Gude Drive, Rockville, Maryland

ESTIMATED SCHEDULE

The Gude Landfill Remediation project construction will begin in Fall FY23 and is scheduled to be completed in FY27.

PROJECT JUSTIFICATION

The County and MDE entered a consent order in May 2013 which outlined requirements for assessing low-level groundwater contamination, gas migration, and other problems at the Gude Landfill. The Consent Order included provisions requiring a Work Plan and schedule to be established for assessing potential risks to human health and the environment, and development of an ACM report and implementation schedule. After consultation with industry experts, community groups, MDE, and County government leadership, the Department of Environmental Protection's (DEP) initial proposal to MDE in 2014 addressed the low-level groundwater contamination at the site with installation of bioremediation wells on the property. MDE's assessment of this bioremediation corrective measure in April 2015 determined that additional corrective measures would need to be included in the bioremediation approach to address all of MDE's requirements. A revised ACM report was submitted to MDE in April 2016 addressing all MDE's comments and selecting corrective measures consisting of a toupee cap, additional landfill gas collection, and stormwater drainage improvements. The County has been mandated to perform work outlined in the consent order. Moving forward with the remediation of Gude Landfill, as required by MDE, will also address concerns raised by the adjacent community and allow planning for future reuses of the property.

FISCAL NOTE

Solid Waste (Disposal Fund) Revenue Bonds will be issued to support this project. A mid-FY21 amendment reduced Current Revenue: Solid Waste Disposal by \$6,000,000 and increased Revenue Bonds by \$6,000,000.

COORDINATION

Northeast Maryland Waste Disposal Authority (NMWDA), Maryland Department of the Environment (MDE), Department of Permitting Services, Health and Human Services, the Maryland-National Capital Park and Planning Commission, the U.S. Army Corps of Engineers, the Gude Landfill Concerned Citizens (GLCC), County social service agencies, and adjacent property owners. Special Capital Projects Legislation [Bill No. 16-19E] was adopted by Council on October 20, 2020.



Transfer Station Fire Detection and Suppression System

(P802101)

Category	Recycling and Resource Management	Date Last Modified	01/12/22
SubCategory	Recycling and Resource Management	Administering Agency	Environmental Protection
Planning Area	Gaithersburg and Vicinity	Status	Ongoing

EXPENDITURE SCHEDULE (\$000s)

Cost Elements	Total	Thru FY21	Est FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
Construction	6,000	160	5,663	177	177	-	-	-	-	-	-
TOTAL EXPENDITURES	6,000	160	5,663	177	177	-	-	-	-	-	-

FUNDING SCHEDULE (\$000s)

Funding Source	Total	Thru FY21	Est FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
Current Revenue: Solid Waste Disposal	6,000	160	5,663	177	177	-	-	-	-	-	-
TOTAL FUNDING SOURCES	6,000	160	5,663	177	177	-	-	-	-	-	-

APPROPRIATION AND EXPENDITURE DATA (\$000s)

Appropriation FY 23 Request	-	Year First Appropriation	FY22
Appropriation FY 24 Request	-	Last FY's Cost Estimate	6,000
Cumulative Appropriation	6,000		
Expenditure / Encumbrances	4,700		
Unencumbered Balance	1,300		

PROJECT DESCRIPTION

This project provides for the comprehensive design and installation of a new fire detection and suppression systems at the Shady Grove Processing and Transfer Facility. This project will include the installation of detection and suppression systems to replace the existing detection and suppression systems that are beyond their useful life. The project will also address other fire detection and suppression deficiencies and violations as identified by the County's Fire Department and Department of Permitting Services (DPS). The construction project will span approximately two years.

LOCATION

16101 Frederick Road, Derwood, Maryland

ESTIMATED SCHEDULE

The construction for the new fire detection and suppression systems began FY21 and is scheduled to be completed in FY23.

PROJECT JUSTIFICATION

On February 13, 2020, the Department of Environmental Protection (DEP) received a Notice of Violation (Case No. 418905) from the County's Department of Permitting Services (DPS). This Notice of Violation cited a NFPA1-System Restore Violation for Case No. 418905. The Department is currently working through the Northeast Waste Disposal Authority with contractors to complete a design for the fire detection and suppression systems to address the Notice of Violation and the concerns posed by the County's insurance provider (FM Global). Therefore, this project completion is essential to remain DPS compliant, to mitigate frequent fires, and to eliminate health and safety concerns associated with having a deficient fire detection and suppression systems for solid waste operations.

FISCAL NOTE

Design of this project was funded in the operating budget using \$1.0 million in funds appropriated in FY19 and encumbered for this purpose. A FY21 supplemental appropriation added \$4.7 million in Current Revenue: Solid Waste Disposal.

COORDINATION

Northeast Maryland Waste Disposal Authority (NMWDA), Maryland Department of the Environment (MDE), Department of Permitting Services, FM Global, Covanta Energy, and County social service agencies, and adjacent property owners.

GUDE LANDFILL REMEDIATION UPDATE

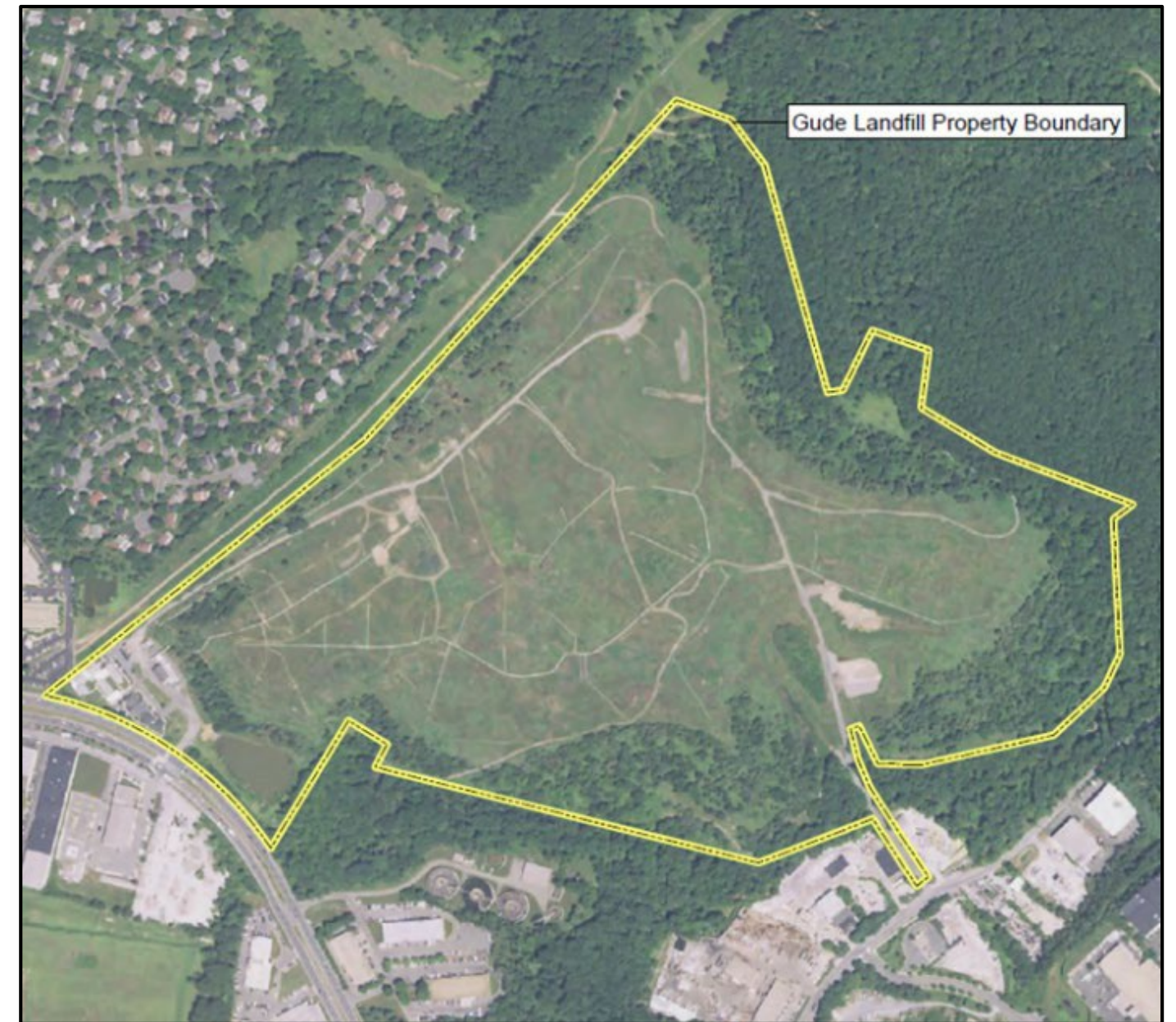
Transportation and Environment (T&E) Committee Meeting

February 27, 2023



LANDFILL BACKGROUND

- **Landfill Operated: 1964 to 1982.**
- **Maryland Department of the Environment (MDE) directed DEP to initiate comprehensive site investigations to characterize groundwater quality in 2008.**
- **The County and MDE entered into a consent order in May 2013 to formalize requirements for the landfill assessment and remediation.**



LANDFILL CAPPING & ADDITIONAL LANDFILL GAS COLLECTION

- Installation of a geomembrane cap over the flatter, grassed area of the landfill to reduce infiltration of rainwater and the potential for groundwater contamination and leachate seeps.
- Installation of additional landfill gas extraction wells to reduce landfill gas migration.

MEADOW HABITAT +
RECREATIONAL
ENTITIES



VEGETATIVE
SUPPORT SOIL



GEO-SYNTHETICS



SUB-SOIL CAP

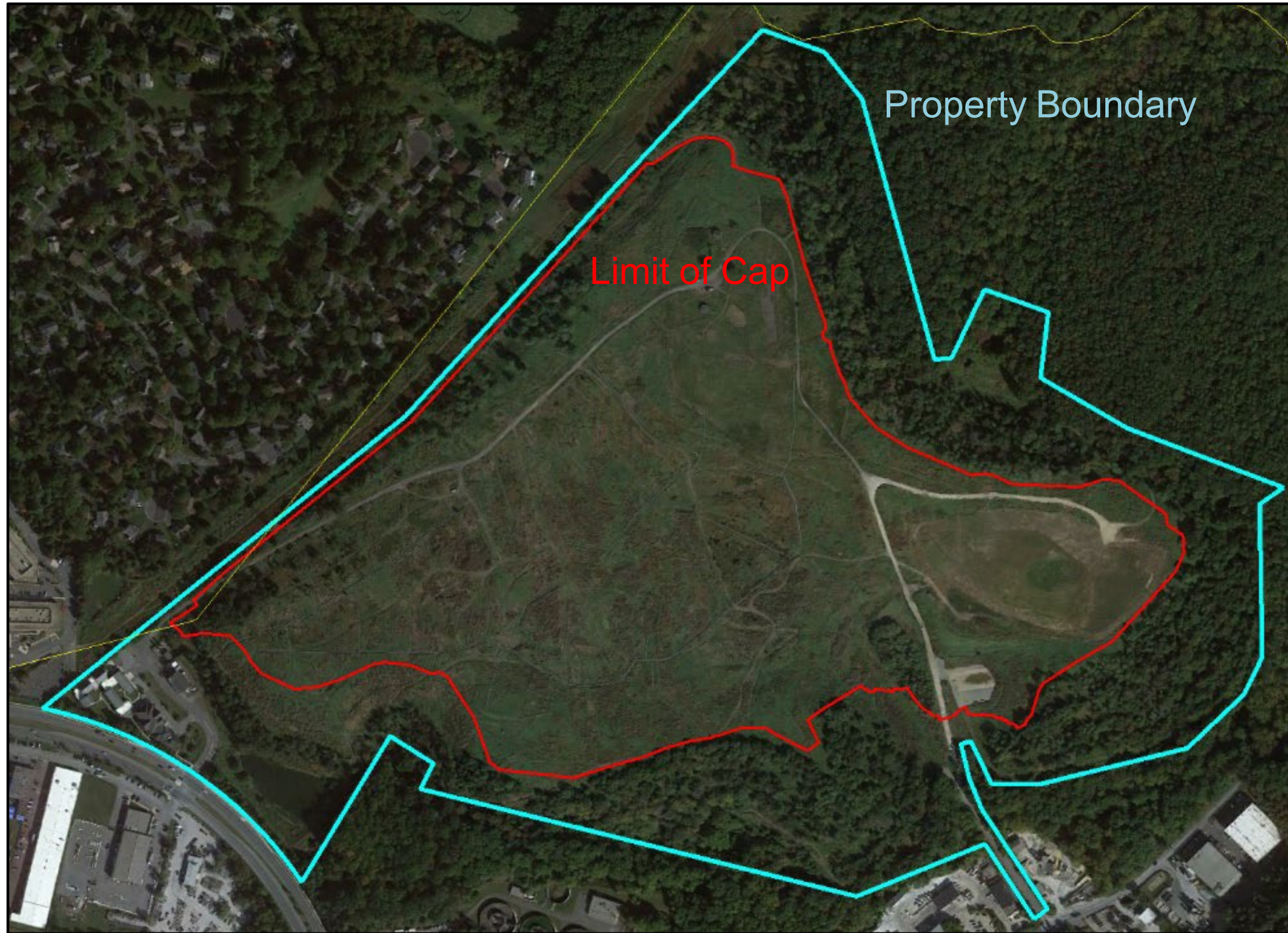


REGRADED EXISTING
WASTE AND COVER
SOIL



®

LANDFILL CAPPING & ADDITIONAL LANDFILL GAS COLLECTION



Construction Schedule

Anticipated Project Duration: February 2023 – June 2028

Phase S-1 and Phase S-2 are along the NW property boundary adjacent to Derwood Station Community. The anticipated construction schedule for the NW property boundary is indicated below in red.

	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	
S-I																						
S-II																						
S-III																						
F-I																						
F-II																						

Dust Control Plan

Onsite traffic and construction work can generate fugitive dust. The following measure will be implemented to prevent this dust from traveling into adjacent properties as required:

- Spraying the road with water

Odor Control Plan - Perimeter Control Measures

Odor Control Granular:

Atmos Granular Sleeves will be placed every 10 feet along the perimeter fence of the Northwest Slope work area and refreshed as needed with new granules.

Odor Control Mist:

Atmos' Perimeter Misting System is approximately 1000 feet long and will have nozzles every 50 feet. The system will run during waste excavation and grading as necessary.

Odor Control Plan - Direct Cover

Odor Control Foam:

Atmos AC-667 Foam will be applied as needed and can be used for active, overnight and during excavation.

Odor Control Blanket:

Flexterra matting will be applied as needed.

Noise Suppression Plan



The following measures be implemented to reduce the noise that is generated by construction activities:

- The equipment onsite may have white noise backup alarms as needed.
- Construction traffic will be limited to the Incinerator Lane entrance to further reduce negatively impacting noise levels near the adjacent residential neighborhood.
- Moving parts shall be well lubricated to avoid unnecessary noise from squeaking parts.

Time of Day	Residential Noise Limit
Weekday: 7 a.m. to 5 p.m. (exempted hours)	75 dBA (85 dBA with a Noise Suppression Plan)
Weekday: 5 p.m. to 9 p.m. (daytime hours)	65 dBA
Weekday: 9 p.m. to 7 a.m.	55 dBA
Weekends and Holidays** : 9 a.m. to 9 p.m. (daytime hours)	65 dBA
Weekends and Holidays** : 9 p.m. to 9 a.m. (nighttime hours)	55 dBA
Saturdays: 7 a.m. to 9 p.m. (with an Approved Noise Waiver Permit)	65 dBA
Sundays: 7 a.m. to 9 p.m. (with an Approved Noise Waiver Permit)	65 dBA

DESTINATIONS



ACCESS POINT



DOG PLAY



HIGH POINT OVERLOOK



DISC GOLF



CHILDREN'S PLAY



ART INSTALLATION

TRAILS



DERWOOD TRAIL



BIRDWATCHER'S WAY



POLLINATOR LOOP



VISTA TRAIL



RAPTOR WAY



SHORTCUT TRAIL



SERVICE ROAD (NO ACCESS)



REGIONAL NETWORK



CHILDREN'S NATURE PLAY - VISUALIZATION



RECREATION TRAIL AND WAYSTATION - VISUALIZATION



ENVIRONMENTAL ART - VISUALIZATION



COUNTY CONTACTS & INFORMATION



- **Jamie Foster – County Project Manager**
 - **Senior Engineer, RRMD**
 - **240-777-6574; Jamie.Foster@montgomerycountymd.gov**
- **Gude Landfill Remediation Web page**
 - **<http://www.montgomerycountymd.gov/sws/facilities/gude/>**
- **For any concerns or questions during construction:**
 - **240-777-0311**

