



Committee: T&E
Committee Review: Completed
Staff: Keith Levchenko, Senior Legislative Analyst
Purpose: To make preliminary decisions – straw vote expected
Keywords: #SolidWaste and Solid Waste Management Plan

AGENDA ITEM #4
September 21, 2021
Worksession

SUBJECT

Worksession: Comprehensive Solid Waste Management Plan 2020 - 2029

EXPECTED ATTENDEES

- Adam Ortiz, Director, Department of Environmental Protection (DEP)
- Patty Bubar, Deputy Director, DEP
- Willie Wainer, Chief, Recycling and Resource Management Division, DEP
- Rich Harris, Office of Management and Budget

DESCRIPTION/ISSUE

- On February 8, 2021 the County Executive transmitted his recommended Comprehensive Solid Waste Management Plan 2020-2029. A public hearing was held on March 16, 2021 at 1:30 pm.
- The current plan (2012 – 2023) was approved by the Council in March 2015.
- Pursuant to Sections 9-503 and 9-515 of the Environment Article of the Annotated Code of Maryland, the County's Solid Waste Plan is required to be reviewed/updated every three years.
- The current update was delayed pending the completion of a ["Aiming for Zero Waste" review of the County's solid waste programs and facilities by a consultant](#). This work included an evaluation of the current solid waste system; a benchmarking of the County with other jurisdictions; identification of options to increase reuse, recycling, and diversion; assessment of the County's existing waste management facilities; and an analysis of managing the remaining waste.
- The consultant's work was reviewed by the "Aiming for Zero Waste Task Force." [The Task Force's recommendations](#) were transmitted to the Executive and the Council in April 2020.
- The T&E Committee received a [briefing](#) on the "Aiming for Zero Waste" Task Force's recommendations and status of the Comprehensive Solid Waste Plan Update on December 7, 2020. T&E Committee worksessions were held on March 22 and July 19, 2021.

T&E COMMITTEE RECOMMENDATIONS

- At its July 19 meeting, the T&E Committee recommended approval with changes of the Comprehensive Solid Waste Management Plan 2020-2029 transmitted by the County Executive. These text changes are noted on the chart on ©28-31.
- The most significant text changes clarify that further analysis by DEP is needed before the Council can consider (through a future amendment to the Plan) the closure of the Resource Recovery Facility. Text regarding the potential consolidation of Subdistrict B into Subdistrict A is also revised. Please see the attached Council Staff memorandum for more details regarding the Executive's transmittal and the Committee's review.

This report contains:

September 16, 2021 Council Staff Memorandum and Attachments 1-©31

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Worksession

M E M O R A N D U M

September 16, 2021

TO: County Council

FROM: Keith Levchenko, Senior Legislative Analyst

SUBJECT: **Worksession:** Comprehensive Solid Waste Management 10 Year Plan - 2020 – 2029

PURPOSE: To discuss the 10 Year Plan transmitted by the County Executive and the T&E Committee's Recommendations

Expected Participants

Adam Ortiz, Director, Department of Environmental Protection (DEP)
Patty Bubar, Deputy Director, DEP
Willie Wainer, Chief, Recycling and Resource Management Division, DEP
Rich Harris, Office of Management and Budget

Attachments

- Excerpts from the Executive's Recommended Comprehensive Solid Waste Management 10 Year Plan: 2020 – 2029
 - Executive Summary ©1-5
 - Pages 5-10 and 5-11: Section 5.2.4 Resource Recovery Facility ©6-7
 - Page 5-33 and 5-34: Section 5.6.7 Responsible Management of Materials ©8-9
 - Collection Enhancements
- DEP Presentation Slides – March 2021 ©10-27
- Edits to the Executive's Recommended Comprehensive Solid Waste Management Plan 2020-2029 ©28-31

NOTE: For more background please see the [March 22, 2021 T&E Committee Staff Report](#) which includes the following attachments:

- **CE Transmittal Letter**
- **Draft Resolution**
- **Complete Draft of the Comprehensive Solid Waste Management Plan 2020 – 2029**
- **DEP Presentation Slides – March 2021**

Background

On February 8, 2021, the County Executive transmitted the Comprehensive Solid Waste Management 10 Year Plan – 2020 -2029 which is an update of the current (2012-2023) Solid Waste Management Plan.¹ A public hearing was held on March 16. Written testimony from the hearing is available [here](#). The T&E Committee was briefed on the Draft Plan and held its first worksession on March 22, 2021.

Legal Requirements and Background

State law (Sections 9-503 and 9-515, Environment Article, of the Maryland Code) requires the governing body of each County to adopt and submit to the Maryland Department of the Environment (MDE) a ten-year plan dealing with solid waste disposal systems, solid waste acceptance facilities, and the systematic collection and disposal of solid waste.

The Environment Article further requires each County to review its solid waste management plan at least every three years. The current plan was adopted in March 2015 via [Council Resolution 18-86](#). As noted in the draft resolution included in the CE's transmittal (see ©2-4 of the attachments in the [March 22 T&E Committee Staff Report](#)), DEP had previously requested and received an extension of time from MDE pending completion of the Aiming For Zero Waste planning effort and the development of a strategic plan to address food waste diversion and recycling/composting (as required by Bill 28-16; Strategic Plan to Advance Composting, Compost Use, and Food Waste Diversion). The current pandemic led to further delays in the development of the Draft Plan.

The Draft Plan includes a substantial amount of information on the legal and regulatory environment for Solid Waste management (Chapter 1) updated demographic information (Chapter 2) and background on the County's solid waste programs and facilities (Chapters 3 and 4). Council Staff has reviewed these sections of the Plan and has identified some minor errata and areas where additional or updated information would be helpful. Council Staff is working with DEP to incorporate these changes into the Final Plan.

Also, pursuant to Senate Bill 370, Environment – Recycling – Office Buildings signed into law in May 2019, the Department of Environmental Protection developed a Recycling Plan for Office Buildings. This is incorporated into the Comprehensive Solid Waste Management Plan 2020 – 2029 as Appendix F.

T&E Committee Review

At the first worksession on March 22, the Committee received a briefing from DEP (presentation slides attached on ©10-27) and focused its discussion on several major issues noted in Chapter 5 of the Draft Plan, "Solid Waste Management System Plan of Action." The issues discussed included: Food

¹ The current 2012-2023 Solid Waste Management Plan is available for download at:
<http://www.montgomerycountymd.gov/council/Resources/Files/REPORTS/Comprehensive10yrPlan.pdf>

Waste composting/diversion², the Materials Recovery Facility³ (i.e., MRF or Recycling Center), Construction and Demolition (C&D) Debris, “Pay as you Throw,” the potential expansion of Subdistrict A into Subdistrict B, and the Executive’s support for the closure of the Resource Recovery Facility (RRF; trash incinerator).

At its second worksession on July 19, the Committee further discussed the Subdistrict B issue and the potential closure of the RRF and how these issues should be reflected in the Plan Update. Both items involve major potential changes to the County’s solid waste collection and disposal processes and will require further analysis and review after adoption of the Draft Plan. Both items are discussed further below.

Subdistrict B

The Aiming for Zero Waste Task Force recommended that the County consolidate Subdistrict B (where property owners contract directly with haulers) into Subdistrict A (where the County contracts with trash haulers to serve single-family homes) to have a uniform waste and recycling system in the county that optimizes recovery potential. This issue was also reviewed in the [Office of Legislative Oversight \(OLO\) Report 2019-17](#), which included a recommendation for the County to initiate a ballot process so residents in each Subdistrict B collection area could vote on whether to transfer into Subdistrict A. The report also recommended the County develop strategies to encourage small haulers to compete for County collection contracts.

The Draft Plan (see ©8-9) includes text supporting expansion of County trash collection into Subdistrict B (as well as other potential changes in collection practices). The Draft Plan notes that expanding Subdistrict A countywide would provide the County with more control “to implement additional diversion programs and incentivize residents to participate.”

The Council has not discussed the potential expansion of County trash collection into Subdistrict B. At the July 19 Committee meeting, Council Staff recommended that the T&E Committee schedule a worksession on this issue with Executive Branch and Office of Legislative Oversight staff for later this year. The Committee needs to get further information from the Executive as to how the expansion of County trash collection into Subdistrict B would improve the County’s solid waste programs going forward. The Committee should also hear from interested parties (such as haulers, property owners, and environmental advocates) and discuss the OLO report’s suggested ballot approach.

Given the above suggested schedule, Council Staff recommended revising the language in Chapter 5 of the Plan Update that recommends expansion of trash services into Subdistrict B to instead note that the County is considering expansion of County trash services into Subdistrict B. The T&E Committee concurred.

Resource Recovery Facility (RRF)

² DEP is initiating a residential food scraps collection pilot during FY22. Information on this effort is available on the DEP website [here](#). DEP’s commercial food waste diversion program started last year. There are 19 commercial businesses in the program (with 4 new partners expected to join in October) and over 265 tons of food waste has been collected to date. Further information on the commercial food waste program is available [here](#).

³ This past spring, the Council approved a \$20.4 million capital project to upgrade the MRF. The project will substantially increase the MRF’s capacity to process commingled materials and eliminate the costs currently being incurred to bypass a substantial amount of these materials to a recycling facility out of state.

County Executive's Interest in Closing the RRF

During the Aiming for Zero Waste planning process, the County Executive expressed support for closing the RRF potentially as early as 2026 when the current contract extension with the Northeast Maryland Waste Disposal Authority expires. The County Executive's goal of closing the RRF is also noted in the Draft Plan (see ©7).

Aiming for Zero Waste Task Force and Consultant Work

The Aiming for Zero Waste Task Force identified several key items for further study if the County were to consider closing the RRF and moving to landfilling waste including: environmental impacts, health, social justice issues, and the potential impact on solid waste charges. These issues are also noted in the Draft Plan on ©7.

The [consultant work](#) by HDR prepared during the Aiming for Zero Waste planning process compared the lifecycle costs per ton of waste (including both capital and operating costs) for keeping the RRF open through 2040 compared with three options for landfilling starting in 2026 (at nearby Site 2, long haul rail, and long haul truck) through 2040. The consultant found that keeping the RRF open through 2040 or utilizing Site 2 as a landfill in 2026 were close in cost (about \$60 per ton). The long-haul rail scenario was about \$88 per ton and the long-haul truck scenario was about \$106 per ton.⁴

The consultant also looked at greenhouse gas emissions for the various options using the US EPA WARM v15 model. The greenhouse gas emissions from the truck/rail transport to landfill options are all substantially higher than under continued operation of the RRF per the WARM model.⁵

Beyond Incineration Report

Shortly before the T&E Committee's March 22 meeting, the Council received the "Beyond Incineration" Report ([available here](#)) from Zero Waste Montgomery County underwritten by the Sugarloaf Citizens Association which analyzed the pros and cons of incineration versus landfilling for Montgomery County's waste. The report concludes that out-of-County landfilling (in combination with other waste reduction and diversion initiatives) is a more cost-effective and environmentally preferred approach compared to the continued incineration of County trash.

DEP has met with the Zero Waste Montgomery County representatives and is currently reviewing the Beyond Incineration report and its assumptions.

Next Steps

The closure of the RRF would represent a fundamental change in the County's solid waste management system and would require approval of an amendment to the Solid Waste Plan. At the July 17 Committee meeting, Council Staff noted that the Council should consider such a change only after

⁴ See Pages 62-64 of the Aiming for Zero Waste Task 9 Consultant Report available [here](#).

⁵ The US EPA WARM model does not count CO₂ emissions from biogenic waste (such as food waste) that is burned at the RRF. The WARM model counts greenhouse gas emissions that occur due to human activity (such as burning fossil fuels for energy or landfilling biogenic waste which generates CO₄ (methane)). CO₂ emissions occur as part of the natural carbon cycle of biogenic materials and therefore are not counted in the WARM model when these emissions are sped up through incineration.

further analysis by DEP of the issues identified by the Aiming for Zero Waste Task Force and the development of a detailed plan by the County Executive to transition from trash incineration to landfilling.

DEP is planning to put out a “Request for Information” (RFI) shortly to commercial businesses on processing technologies available as well as existing landfills in operation that can accept the county’s waste. The responses are expected to provide information on costs for processing, transporting and landfill disposal of the county’s waste, the environmental impacts, as well as information on environmental and social justice criteria for the communities receiving the waste.

Based on the July 17 Committee discussion, Council Staff suggests the following revisions and additional language in Chapter 5 in the Draft Plan. In addition to collecting further information on a landfilling option (which DEP is already pursuing with its RFI), the following language also calls for further analysis by DEP of the option of continuing to utilize the RRF. This information can then inform any future amendments to the 10 Year Plan involving long-term decisions regarding the disposition of waste.

NOTE: Underlined text is new text. Strikethrough text is recommended for deletion.

Page 5-10 and 5-11 of the Plan Update

5.2.4 Resource Recovery Facility

As mentioned in Chapter 4, a physical assessment of County-owned facilities, including the RRF, was carried out in 2019; the recommendations of that assessment constitute the Plan of Action for the RRF to ensure it is reliable while in operation. In addition to the improvement projects, DEP will continue:

- *To monitor the performance of all contractors related to the operations of the RRF.*
- *To strive to increase revenues from the sale of electricity and recovered metals.*
- *The recycling and beneficial reuse of ash as alternate daily cover, road base construction material, and other specialized products.*
- *To continue efforts to recover additional metals from ash.*
- *To pursue feasible efficiencies in RRF operation and environmental performance.*

The current disposal path for waste is through the County's Resource Recovery Facility. That facility is expected to remain open through April 2026. ~~Given the County Executive's goal of closing the facility, the County is evaluating necessary changes to meet those goals. The additional analysis includes the costs and benefits of changing the County's primary waste disposal facility as well as the environmental impact of continued use of the RRF and other forms of disposal as well as the health and social justice issues related to potential alternatives to the RRF.~~ The County Executive has expressed an interest in closing the RRF. Prior to Council consideration of an amendment to this Plan that would support the closure of the RRF, the County Executive will provide to the County Council an analysis by the Department of Environmental Protection which compares the short and long-term costs, environmental and public health impacts, racial equity and social justice implications, facility impacts, operational concerns, and other major issues of keeping the RRF open versus changing the County's primary waste disposal from the RRF to landfilling. After the completion of this analysis, the County Council will consider potential amendments to this Plan from the County Executive regarding the future disposal path for waste.

Summary of T&E Committee Recommendation

As noted at the T&E Committee's meeting in March, Council Staff believes the Plan as written generally provides good direction for the County moving forward, especially regarding facility needs (such as the MRF), food waste diversion, and other strategies to maximize waste reduction, reuse, and recycling. These recommendations were informed by the work done by the Aiming for Zero Waste Task Force and involve major initiatives that represent big challenges going forward, many of which will need to come back to the Council in some form after further analysis.

Council Staff found some minor errata and sections requiring clarification or update, none of which require further Committee or Council discussion. Council Staff will work with DEP to incorporate these items into the final version of the Plan acted on by the County Council.

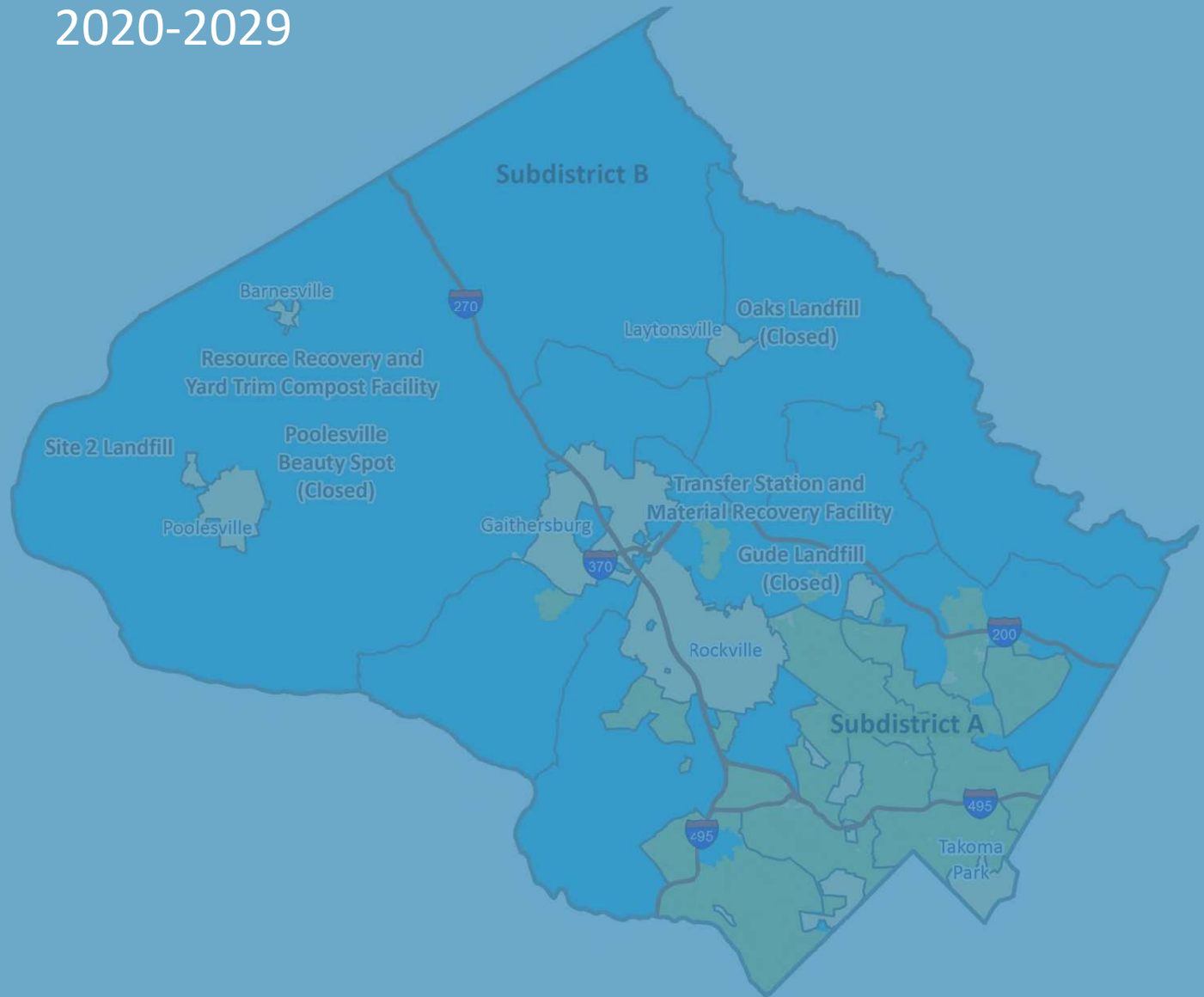
As discussed earlier, the T&E Committee concurred with Council Staff's revised/additional Plan language recommendations regarding the Council's review of issues associated with Subdistrict B and the potential closure of the Resource Recovery Facility.

Council Staff has included a chart on ©28-31 which presents the technical and substantive text changes to the Executive's Draft Plan consistent with the Committee's work to date. The T&E Committee recommends approval of the Comprehensive Solid Waste Management Plan 2020-2029 with these changes and transmittal of this Plan to the Maryland Department of the Environment for its review.

Attachments

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Comprehensive Solid Waste Management Plan 2020-2029



MONTGOMERY COUNTY, MARYLAND

Final Draft October 2020



EXECUTIVE SUMMARY

The Montgomery County, Maryland, Comprehensive Solid Waste Management Plan for the Years 2020 - 2029 has been prepared in accordance with Title 9, Subtitle 5 of the Environment Article, Annotated Code of Maryland, and the Code of Maryland Regulations (COMAR) 26.03.03. The Plan has been adopted by the Montgomery County Council Resolution XXXX and approved by the Maryland Department of the Environment (MDE).

The Annotated Code of Maryland requires the County to review and update the Solid Waste Management Plan at least once every three years. DEP requested an extension of time from MDE, in early 2018, to submit the County's revised Solid Waste Management Plan, due to the County's undertaking of two main initiatives:

1. Montgomery County Bill 28-16 required DEP to develop a strategic plan to reduce food generation, reuse food that would otherwise be wasted, and increase the amount of food and other organic materials that can be composted; and
2. The Development of the *Aiming for Zero Waste Plan, A Vision for Sustainable Materials Management in Montgomery County*.

The Solid Waste Management Plan 2020 -2029 incorporates the results of the initiatives mentioned above, including the Task Force recommendations¹ given to the County Executive and County Council. DEP Staff developed the main recommendations of the Strategic Plan for reducing food generation in conjunction with stakeholder working groups. They are included in Section 5.6.4 of Chapter 5 of the Plan. The capabilities and capacities of the County's solid waste facilities were evaluated as well as multiple options to reduce waste and to increase recycling. These options are selected for implementation or further evaluation, based on the ability to increase diversion of more materials from disposal. These options present a comprehensive waste management strategy that supports the County's effort to reach a carbon-neutral operation. The County continues to review all options to identify the best course of action. Therefore, Chapter 5 of this Plan is subject to revisions. The current disposal path for waste is through the County's Resource Recovery Facility. That facility is expected to remain open through April 2026. Given the County Executive's goal of closing the facility, the County is evaluating the necessary changes to meet that goal.

As the County makes decisions and the implementation phase begins, the County will notify MDE and update this Ten-Year Plan as needed. To develop an efficient and effective Action Plan, the County will:

¹ <https://www.montgomerycountymd.gov/SWS/Resources/Files/master-plan/task-force-recommendations.pdf>
Montgomery County Comprehensive Solid Waste Management Plan 2020 - 2029

- Undertake studies, pilot programs, cost analyses, review procurement options to select the best options for implementation.
- Conduct feasibility studies of initiatives, including extending trash collection services to Sub-district B.
- Develop specific timelines, identify participating agencies, staff assignments, and budget definition.
- Secure food waste processing capacity while the County develops its organics processing infrastructure.
- Implement low-cost, low-effort options such as waste reduction and reuse and enhancing regulations.

The following amendments, changes, additional appendices, and other pertinent documents are included in this Plan:

Chapter 1 provides an overview of the laws, regulations, and government agencies that are a part of this Comprehensive Solid Waste Plan. Changes to this chapter include:

- Applicable laws and regulations were updated.
- County Executive Regulation 1-15, "Residential and Commercial Recycling," supersedes Executive Regulation 15-04 AM.
- County Council Bill 41-14, "Food Service Products – Packaging Materials – Requirements," was added to Chapter 48 of the County Code.
- County Council Bill 28-16, "Strategic Plan to Advance Composting, Compost Use, and Food Waste Diversion," was added to Chapter 48 of the County Code.

Chapter 2 provides an overview of population and employment trends and land use considerations that impact present and future solid waste management considerations. Changes to this chapter include:

- Dates and population/employment numbers.
- Household Growth Projection for 2030 by policy area.
- Updated maps.

Chapter 3 provides detailed data on waste generation and descriptions of waste collection and acceptance facilities. Changes to this chapter include:

- Dates and waste generation tonnages.
- Repositioned tables to follow text references.
- Chapter subsections were rearranged, avoiding repetitions, and improving readability.

- Updated Maps.
- A summary table about County Collection Services.
- A summary of Materials Management in Incorporated Cities and Municipalities.
- A summary of the number of households served and tons managed by district (CY17).
- Pursuant to Senate Bill 370, *Environment – Recycling – Office Buildings*, a Recycling Plan for Office Buildings, was added.
- The latest adopted Montgomery County's Ten-Year Comprehensive Water Supply and Sewerage Systems Plan (2018-2027 update) was used to bring up-to-date information about biosolids and septage management.
- Updated information about each County-owned facility.
- The summary table of solid waste acceptance facilities in the County was updated.
- The closed landfills section was removed from this chapter.
- A table listing the solid waste leaving the County for processing, recovery, and disposal was added.

Chapter 4 assesses solid waste management needs to address waste generation issues and acceptance facility constraints. Changes to this chapter include:

- Updated waste generation and recycling data.
- The latest adopted Montgomery County's Ten-Year Comprehensive Water Supply and Sewerage Systems Plan (2018-2027 update) was used to determine the current conditions and constraints as well as the Needs Assessment and Plan Direction for the biosolids and septage management mentioned in Chapter 4.
- A new planning direction towards exploring food waste composting is indicated, including efforts to establish best management practices through the use of demonstration projects.
- Updated topography, soil types, geological conditions, aquifers, and surface water maps.
- Rearranged chapter subsections to avoid repetition and improve readability.
- Constraints of County-owned acceptance facilities.
- A list of County facilities needing processing capacity increment during the term of this Plan.
- Advances of the implementation of County Council Bill 28-16, "Strategic Plan to Advance Composting, Compost Use, and Food Waste Diversion."

Chapter 5 provides a Plan of Action to address solid waste generation issues, materials management, and solid waste acceptance facility needs. Changes to this chapter include:

- Each county-owned facilities have an updated Plan of Action to improve safety and increase productivity.
- Composting and recycling processing capacity needed.
- Closed landfills section was removed from this chapter.
- Updated current Plan of Action of solid waste generation and maximize recycling.

- Updated biosolids' Plan of Action.
- Enhanced Plan of Action for Reduction of Solid Waste Generation and Maximize Recycling.
- Impacts of recommended options to reduce waste and increase recycling were identified.
- The summary Plan of Action table was updated and expanded.
- Financial Management System addresses in-depth the role of Chapter 48, the Montgomery County Code, and the Master Authorization in the financial management of the solid waste enterprise fund. In anticipation of the upcoming financial needs to implement strategies, programs, and infrastructure to reduce waste and increase recycling described in Chapter 5 of the Plan.

Appendices

Added the following documents

Appendix B is updated to provide a material flow diagram and recycling calculations for a new base year that is Calendar Year 2017.

Appendix C provides a copy of County Executive Regulation 1-15, "Residential and Commercial Recycling."

Appendix D provides a copy of the County Council Bill 28-16, "Strategic Plan to Advance Composting, Compost Use, and Food Waste Diversion."

Appendix E provides a copy of the County Council Bill 41-14, "Food Service Products – Packaging Materials – Requirements."

Appendix F contains the Recycling Plan for Office Buildings. Pursuant to Senate Bill 370, *Environment – Recycling – Office Buildings*.

- Expansion of paper receiving building.
- Upgrades to scanning and screening systems.

The Capital Refurbishment projects will help to improve operations and increase the throughput capacity of the existing facility. Still, the existing site will continue to be undersized for the current and future projected tonnages.

5.2.3 Yard Trim Composting Facility

An on-going structural maintenance program will continue at the Montgomery County Composting Facility, including scheduled replacement of portions of the paved pad and regular inspections and preventative maintenance to its on-site stormwater management system. To assure the on-going ability of the County to recycle its end products at the lowest net cost to the County, DEP will strive to increase the market share of finished compost products produced at the facility. For the immediate future, DEP will:

- Monitor annual tonnages of yard trim processed at the Composting Facility and sources of that tonnage.
- Continue aggressive promotion, education, and training for grasscycling and backyard or on-site composting.
- Maintain back-up contracts for yard trim composting capacity above the facility cap of 77,000 tons per year.
- Contingency contracts may be renewed or replaced from time to time to assure that there is no lapse in contingency coverage. Contingency contract tonnage provided for any fiscal year should provide for no less than a seven percent surge as compared to the most recently completed fiscal year.

5.2.4 Resource Recovery Facility

As mentioned in Chapter 4, a physical assessment of County-owned facilities, including the RRF, was carried out in 2019; the recommendations of that assessment constitute the Plan of Action for the RRF to ensure it is reliable while in operation.

In addition to the improvement projects, DEP will continue:

- To monitor the performance of all contractors related to the operations of the RRF.
- To strive to increase revenues from the sale of electricity and recovered metals.
- The recycling and beneficial reuse of ash as alternate daily cover, road base construction material, and other specialized products.
- To continue efforts to recover additional metals from ash.
- To pursue feasible efficiencies in RRF operation and environmental performance.

The current disposal path for waste is through the County's Resource Recovery Facility. That facility is expected to remain open through April 2026. Given the County Executive's goal of closing the facility, the County is evaluating necessary changes to meet those goals. The additional analysis includes the costs and benefits of changing the County's primary waste disposal facility as well as the environmental impact of continued use of the RRF and other forms of disposal as well as the health and social justice issues related to potential alternatives to the RRF. This analysis will include a modified transportation system to ship County waste to an alternative disposal site.

5.2.5 Out-of-County Landfill Contract / Ash Recycling

DEP will continue utilizing the existing contract for beneficial recycling and reuse of ash, while it continues to seek better options for the reduction of the waste stream. The ash contract has a term through June 30, 2024, with a seven-year renewal term at DEP's option. As described in Chapter 3, the DEP will also continue to utilize the Covanta contract for disposal of C&D material while the DEP seeks diversion and recycling options for the C&D material.

The DEP will consider:

- Encourage private sector recycling of construction and demolition materials and other non-processible solid waste rather than landfilling.
- Recycle more construction and demolition materials received at the transfer station.
- Continue to recycle RRF ash.

5.2.6 Solid Waste Transportation System

The solid waste transportation system primarily consists of moving the solid waste from the Transfer Station to the RRF, from the RRF to the out-of-county landfill, and from the Transfer Station to the out-of-County landfill, or to recycling facilities.

DEP will monitor the performance of all transportation contractors to ensure reliability. DEP will enforce all contractual service standard requirements to ensure reliable and uninterrupted movement of wastes and build contingency capacity to ensure waste transport.

5.2.7 Land Reserved for Potential Future In-County Landfill

The County currently owns 820 acres of land in Dickerson, Maryland, to serve as a potential future in-County landfill as an alternative to the RRF and/or a contingency in the event economic conditions change. This location is along Wasche Road and is known as "Site 2"

5.6.7 Responsible Management of Materials - Collection Enhancements

The following sections discuss how materials can be collected to divert more materials and disposed of in a fiscally and environmentally sound manner. These recommendations are intended to enhance the County's collection system as it changes with the implementation of new programs and services. There are opportunities for a more efficient collection of materials through changes to how and where materials are collected. Some of these changes will also encourage participation in diversion programs. The extension of the trash collection services to Subdistrict B is core to the success of other programs. Office of Legislative Oversight published a report on Trash and Recycling Collection⁵ with a detailed analysis of the services and possible alternatives.

CHALLENGES/ OPPORTUNITIES

- The County currently only provides trash collection services to Sub-district A; extending this service to Sub-district B will give more control to the County to implement additional diversion programs and incentivize residents to participate. This is a critical element of a successful implementation of new diversion programs and changes to other programs.
- The County currently has 13 service areas with several collection contracts. Reducing service areas and contracts will reduce the administrative burden and allow the County more flexibility in making changes to programs.
- Franchising would reduce the number of collection vehicles in the County, collecting waste from the multi-family and non-residential sectors and would provide more control to the County. This is a contentious issue and would require more analysis and consultation.
- County only collects HHW and electronics at the Shady Grove site. Mobile collection of these materials could be considered to increase diversion.
- Separate collection of organics and yard trim will be more expensive with new containers and collection vehicles but is anticipated to result in higher participation and more flexibility/control of processing.
- Once a curbside organics program is in place, there is an opportunity to move to every other week collection of trash, and potentially recycling, which would encourage participation in the diversion programs offered by the County

⁵[Trash and Recycling Collection: An Evaluation of Current Policies Report Number 2019-17. November 12, 2019](#)

RECOMMENDED OPTIONS TO ENHANCE COLLECTION

- Provide trash collection services to Sub-district B.
- Convert to every other week collection of trash and recycling, alternating with organics collection.
- Reduce the number of collection areas and contracts.
- Consider franchising if the County requires more control over the waste collection from the multi-family and non- residential sectors.
- Mobile collection of HHW and electronics.
- On-going education, outreach and enforcement, and targeted campaigns.

DIVERSION POTENTIAL: ~2,000 tpy (for expansion of trash collection to Sub-district B). Diversion potential for every other week collection is already accounted for in the estimates of organics and recyclables diverted.

ANNUAL GHG REDUCTION POTENTIAL: -4,700 MTCO₂e

TIMEFRAME: Implement in the short-term, maintain over the mid- to long-term.

5.6.8 Supporting Mechanisms

There are several supporting mechanisms to increase diversion, create opportunities for new markets supporting the circular economy, and create some efficiencies in service delivery.

Supporting Waste Reduction, Reuse, and Recycling

CHALLENGES/OPPORTUNITIES

- Recognition programs for recycling or sustainability efforts made by businesses can encourage residents to shop local and support these businesses.
- Continue to work with businesses to support efforts to reduce or recycle waste and provide grants/incentives to support programs.
- The County could support businesses/individuals waste reduction, reuse, or recycling efforts through provision of space, materials, or resources for pilots.
- Most neighboring jurisdictions are facing the same waste management issues as the County and are working individually to find solutions.
- Markets need to be developed to encourage the recycling of materials.

T&E Committee Briefing



March 2021



DEPARTMENT OF
**ENVIRONMENTAL
PROTECTION**
MONTGOMERY COUNTY • MARYLAND

Ten Year Comprehensive Solid Waste Management Plan 2020-2029

March 2021

1. Introduction and Purpose
2. Background Information
3. Plan Content
4. Changes and Updates to the 2012 – 2023 Comprehensive Solid Waste Management Plan
5. Chapter 5 Plan of Action
 - 5.1 Infrastructure
 - 5.2 Programmatic Initiatives to Increase Recycling and Reduce Waste
 - 5.3 Policies - Regulations - Legislation

Ten Year Comprehensive Solid Waste Management Plan 2020-2029



Introduction and Purpose

Under the Environment Article of the Annotated Code of Maryland Sections 9-503 and 9-515

“Each County is required to adopt and submit to the Maryland Department of the Environment (MDE) a ten-year plan dealing with solid waste disposal systems, solid waste acceptance facilities, and the systematic collection and disposal of solid waste.”

The Environment Article also requires each County to review its solid waste management plan at least every three years.

Code of Maryland Regulations

Sec. 26.03.03.03. Plan Content



Introduction

- Chapter 1:** Overview of the laws, regulations, and government agencies part of this Comprehensive Solid Waste Plan.
- Chapter 2:** Overview of population and employment trends and land use considerations impacting present and future solid waste management considerations.
- Chapter 3:** Detailed data on waste generation and descriptions of waste collection and acceptance facilities.
- Chapter 4:** Assesses solid waste management needs to address waste generation issues and acceptance facility constraints.
- Chapter 5:** Provides a Plan of Action to address solid waste generation issues, materials management, and solid waste acceptance facility needs.

Changes and Updates to the 2012-2023 Comprehensive Solid Waste Management Plan

- Subsections of chapters were revised to remove repetitive sections.
- Information was condensed, creating a more logical flow improving readability.
- 2020 – 2029 Plan is 229 pages. 2012-2023 plan was 376 pages
- All five chapters and appendices contain updated data, figures, maps, and analysis
- 2012-2023 Plan includes a Recycling Plan for Office Buildings that have 150,000 square feet or greater office space (Appendix F) in compliance with **Senate Bill 370, *Environment – Recycling – Office Buildings***

Chapter 5. Plan of Action

5.1 Infrastructure:

- MRF Upgrade
- Food Scraps Processing Facility
- Transfer Station Updates
- Ecopark at Shady Grove Facility
- Final Disposal Options (What's Left)

5.2 Programmatic Initiatives Proposed to Increase Recycling and Reduce Waste

5.3 Policies - Regulations - Legislation

Infrastructure - MRF Upgrade

- Engineering study determined a full re-design with replacement of all processing equipment is needed to meet demand.
- New MRF equipment will include:



Optical Sorters



Robotic Sorters



Ferrous Metal Separation



Non-Ferrous Metals

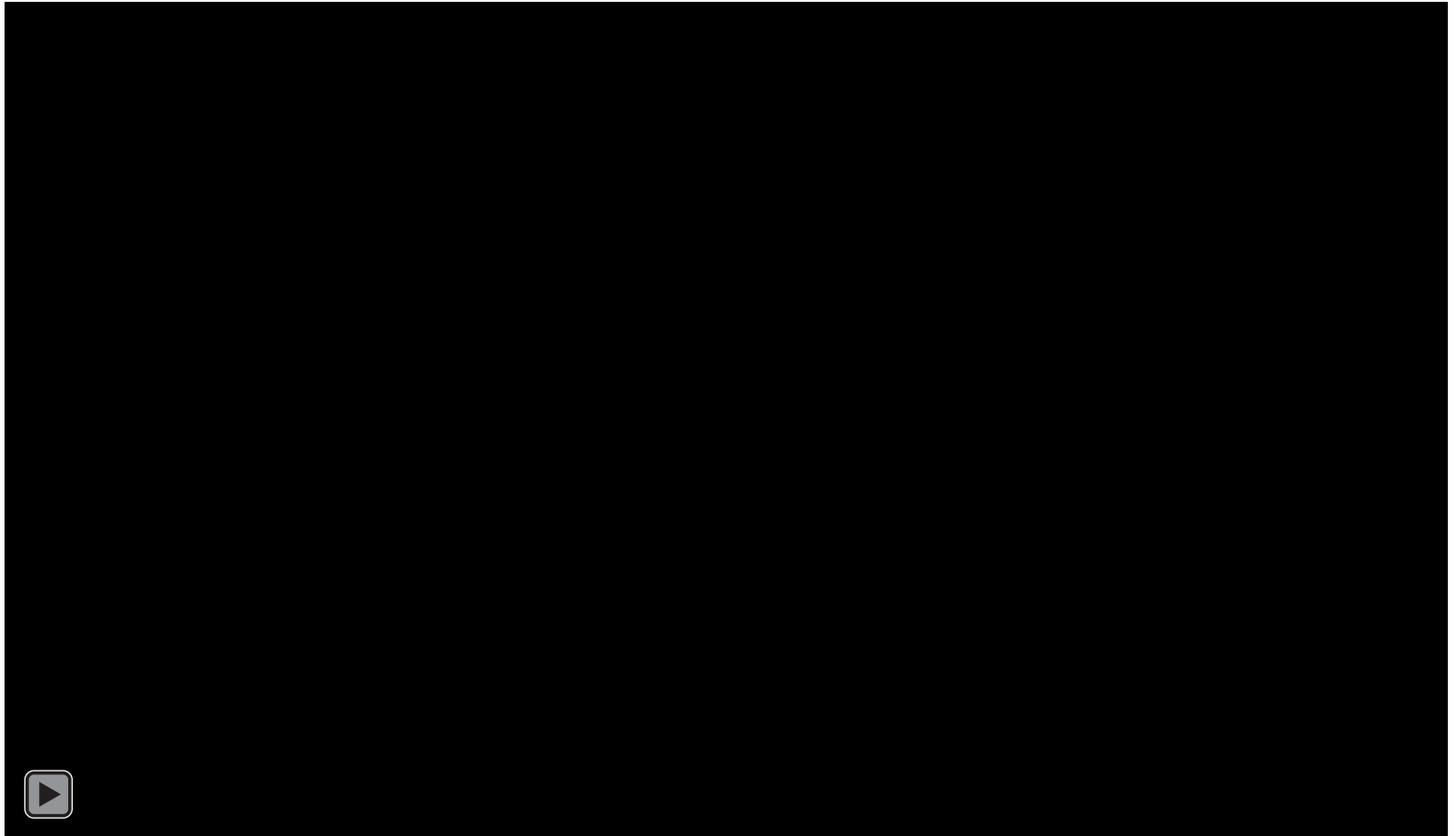


Glass Separation

- Benefits: increased production, improved material quality and reduced labor costs

Robotic Sorting Included in MRF Upgrade

Increased Production, High Efficiency, Reduced Labor Costs



Food Scrap Processing Options

- **Option 1:** Utilize existing composting facility
- **Option 2:** New composting facility
- **Option 3:** County secures land, builds facility, with 3rd party operation or Public-Private partnership
- **Option 4:** Continue partnership with Prince George's County or future facilities.

Technology / Infrastructure Options for Food Scrap Recycling

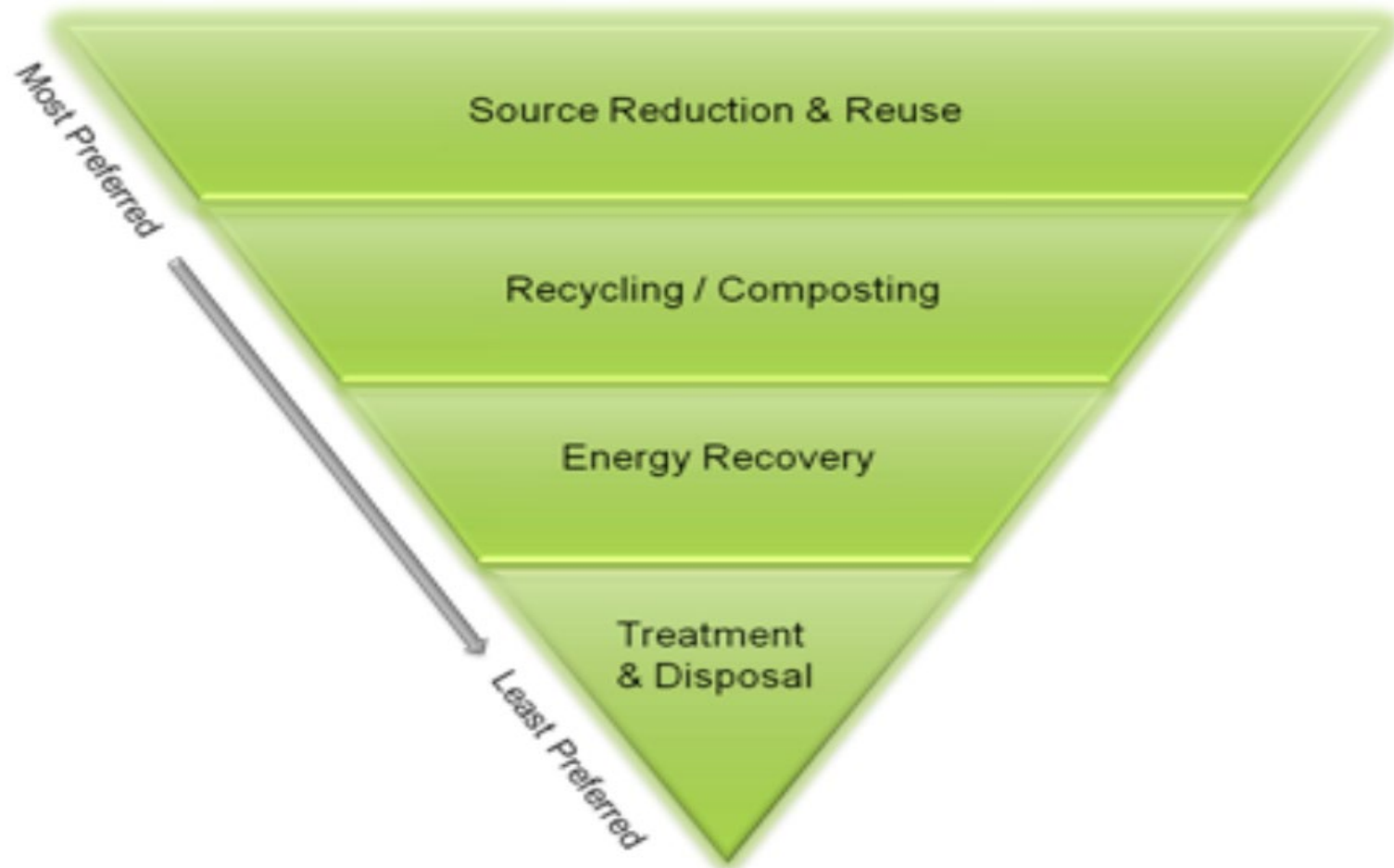
Develop RFI/RFP to determine process best suited for the County's organics.

Review of Available Organics Technologies:

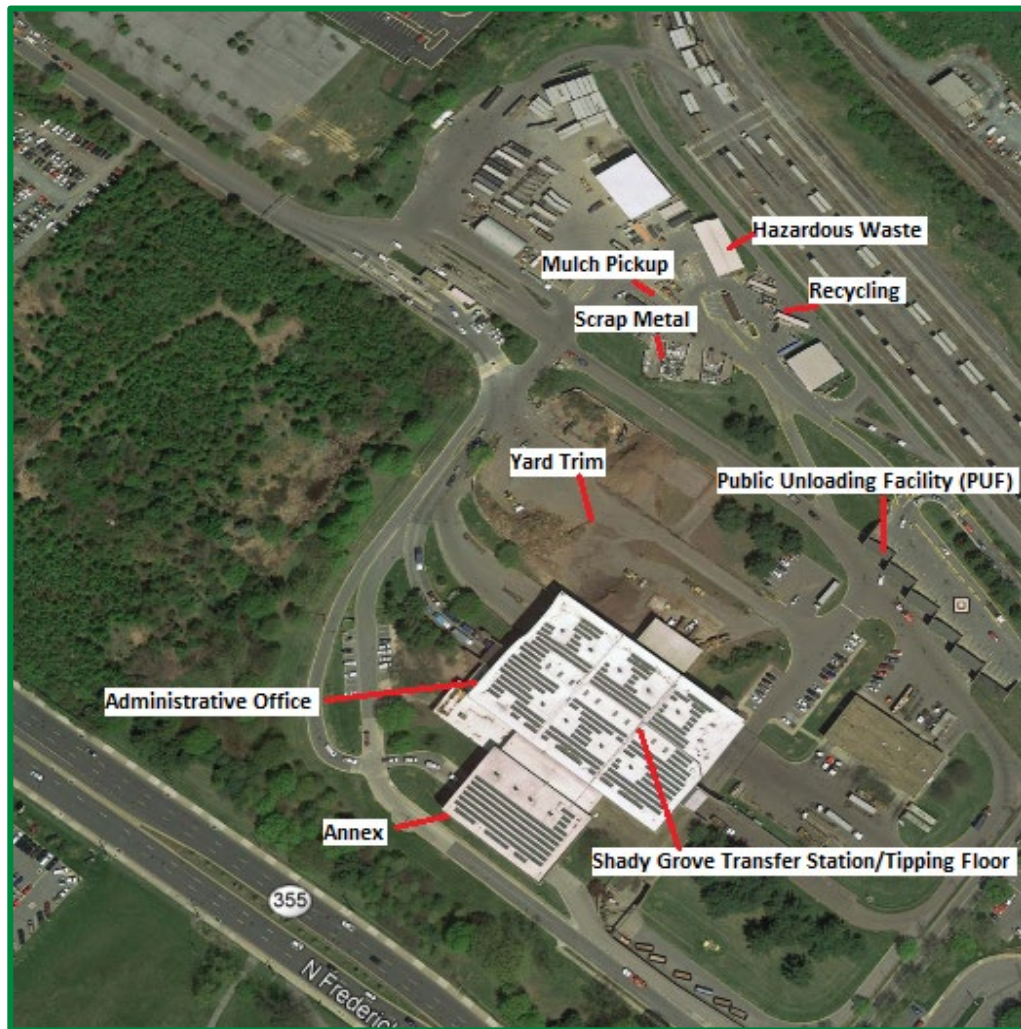
- **Anaerobic Digestion – (AD)**
 - Ideal for high moisture materials like food scraps.
- **Aerobic Composting**
 - MDE permit requirements for food scraps requires covered aerated static pile composting systems.



EPA Waste Management Hierarchy: The Basis for Programmatic Initiatives Proposed to Increase Recycling and Reduce Waste



Infrastructure Ecopark at Shady Grove Facility



Current Constraints

- Small Footprint for Current Activities
- Safety Concerns
- No Available Capacity for New Recycling Programs
- No Room for Additional Infrastructure

Proposed Solution

- Additional Property being Evaluated

Undergoing Further Analysis: Dealing with What's Left

Options to Consider in Comparison to Current Path:

- Disposal at an Out-of-State Landfill
- Build Landfill on Site 2
- Evaluate new Disposal Technologies

Issues to Consider:

Environmental Justice

Environmental Impacts (GHGs)

Costs

Programmatic Initiatives Proposed to Increase Recycling and Reduce Waste

Vetted by the AFZW Task Force and SWAC

Ongoing Programmatic Options FY 2021	Programmatic Options Proposed for FY 2022	Programmatic Options Proposed for FY 2023
Commercial food scraps recycling program	Extension phase one: Single-Family Residential food scraps collection and recycling	Extension phase two: Single-Family Residential food scraps collection and recycling
Reducing contamination in curbside recycling	Food waste reduction education campaign	Textiles Collection and Recycling
Review of tipping fees for C&D and roofing materials	Diversion of Food Scraps from Schools	Carpet recycling
Pilot single-family residential food scrap recycling collection	Recycling bins for Bethesda & Silver Spring	Mattress Recycling
Post-consumer food scrap recycling in MoCo cafeterias (EOB, COB, PSHQ)	Support Reuse Events	Opportunities for Material Exchange
Recycling bins for Wheaton	Sharing Libraries	Community composting
Incorporate residential curbside collection of e-waste in RFP for collections in Areas 9 through 13	Develop Feasibility on Model for Fix-It/Repair Clinics	Reduce bulky trash collection



Organics – Commercial Food Scrap Recycling

- Secured processing capacity at Western Branch
- Commercial food scrap collection began on May 29, 2020 with 3 partners
- As of March 2021, providing food scrap collection service to 12 partners
- County staff provides training, education, containers, compostable bags and monthly data



**Over 100 tons of food scraps
recycled through March 2021**

Organics

Residential Food Scrap Recycling Pilot

- Identified two (2) single-family routes
- Routes selected have higher recycling participation rates and higher population density
- Developing plan to solicit households to participate; prepare educational materials & select a collection service
- Collect food scraps from 850 single-family households in both routes; total of 1,700 participating households

Policies / Regulations / Legislations

Description	
Advocate for Extended Producer Responsibility (EPR) of other materials	Expand County trash collection services to Subdistrict B
Reduce single-use plastic containers and single-use plastic film packaging	Feasibility study to expand County trash collection services to Subdistrict B
Ban single-use plastic shopping bags	SAYT feasibility study using a standard container
Advocate for including C&D materials under the Maryland Recycling Act	SAYT pilot program and full implementation
Banning the use of single-use water bottles in all Montgomery County offices	IgCC review for increased diversion of C&D materials. Evaluate deposit programs for developers
Advocate for: standardized food labels, development of food donation programs, liability protection to individuals and State tax credits to businesses that donate food	Mandatory Commercial Food Scraps Recycling (once processing capacity issue is resolved)
Evaluate every-other week trash/recycling collection	Revisit ordinances to explore how to expand and include more material bans (single-use food ware, Styrofoam® etc.)

Questions?

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DEPARTMENT OF
ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY • MARYLAND

Recommended Edits to the Executive's Recommended Comprehensive Solid Waste Management Plan 2020-2029

Section/Page #/Paragraph #	Type of Edit	Recommended Edit
Global: No reference to the pandemic in the document	Additional Text	Add text noting that the Plan Update review schedule was affected by the pandemic and that the pandemic is not assumed to affect the planning assumptions going forward.
Executive Summary/End of Second to Last Paragraph	Additional Text	Add the following text: "Prior to Council consideration of an amendment to this Plan that would support the closure of the RRF, the County Executive will provide to the County Council an analysis by the Department of Environmental Protection which compares the short and long-term costs, environmental and public health impacts, racial equity and social justice implications, facility impacts, operational concerns, and other major issues of keeping the RRF open versus changing the County's primary waste disposal from the RRF to landfilling. After the completion of this analysis, the County Council will consider potential amendments to this Plan from the County Executive regarding the future disposal path for waste.
Chapter 1/Page 1-2/Goals, Objectives, and Policies Section/third bullet	Revise Text	Change "The County will continue current disposal practices until 2026" to "The County will continue current disposal practices at least until 2026.
Chapter 1/Page 1-4/County Government Structure Section/First Paragraph	Additional Text	Add the following text after the first sentence, "In 2020, County voters approved a ballot initiative to increase the size of the County Council to eleven members. This

		increase will take effect with the 2022 general election."
Chapter 1/Page 1-7/Other Agencies That Manage Solid Waste Section/First Paragraph	Technical Update	Add "February 12, 2021" as the dates the Council requested comments from WSSC Water and M-NCPPC
Chapter 1/Page 1-7/Other Agencies That Manage Solid Waste Section/WSSC Section	Technical Update	Globally Change all "WSSC" references in the Plan to "WSSC Water"
Chapter 1/Page 1-21/Montgomery County Code and Regulations Section	Technical Update	Add solid waste-related bills enacted by the Council in 2020 including Bill 33-20 and Bill 32-20
Chapter 2/Page 2-11/ Comprehensive Land Use Plan Section, Paragraph 2	Technical update	Update text noting the County Council's current review of the Planning Board's Draft of the Thrive Montgomery 2050 General Plan Update
Chapter 3/Wastewater Treatment Biosolids Section/Page 3-7 and 3-8	Technical Update	Add text noting that WSSC Water has a new AD/CHP facility at its Piscataway WRRF under construction with a completion date of August 2024
Global	Technical Update	Globally Change all "Wastewater Treatment Plan" and WWTP references to "Water Resource Recovery Facility" and "WRRF"
Chapter 3/In-County Solid Waste Acceptance Facilities, Materials Recovery Facility Section /Page 3-25	Technical Update	Add text noting the Council recently approved a capital project to upgrade and increase the capacity of the MRF
Chapter 3/ In-County Solid Waste Acceptance Facilities, Resource Recovery Facility Section/Page 3-27	Additional Text	Include clarification that the closure of the RRF would require an amendment to the Plan.
Chapter 4/Special Waste Streams Management Needs, Wastewater Treatment Biosolids Section/Page 4-24	Technical Update	Add text noting that WSSC Water has a new AD/CHP facility at its Piscataway WRRF under construction with a completion date of August 2024
Chapter 4/ Assessments of Constrains of Current Solid Waste Acceptance Facilities/MRF /Page 4-28	Technical Update	Add text noting the Council recently approved a capital project to upgrade and increase the capacity of the MRF

Chapter 5/Biosolids Management/Page 5-3	Technical Update	Add text noting that WSSC Water has a new AD/CHP facility at its Piscataway WRRF under construction with a completion date of August 2024
Chapter 5/MRF Section/Page 5-9 and 5-10	Technical Update	Add text noting the Council recently approved a capital project to upgrade and increase the capacity of the MRF
Chapter 5/Yard Trim Composting Facility Section/Page 5-10	Additional Text	Note that as part of the County's efforts to increase capacity for food waste diversion, the County is considering options for retrofitting the Yard Trim Composting Facility to accept food waste. This change, if pursued, would require renegotiation of the existing use agreement with the Sugarloaf Citizens Association.
Chapter 5/RRF Section/Page 5-11	Revised Text	Revise the text to read, "The current disposal path for waste is through the County's Resource Recovery Facility. That facility is expected to remain open through April 2026. Given the County Executive's goal of closing the facility, the County is evaluating necessary changes to meet those goals. The additional analysis includes the costs and benefits of changing the County's primary waste disposal facility as well as the environmental impact of continued use of the RRF and other forms of disposal as well as the health and social justice issues related to potential alternatives to the RRF. The County Executive has expressed an interest in closing the RRF. Prior to Council consideration of an amendment to this Plan that would support the closure of the RRF, the County Executive will provide to the County Council an analysis by the Department of Environmental Protection which compares the short and long-term costs, environmental and public health impacts, racial equity and

		<u>social justice implications, facility impacts, operational concerns, and other major issues of keeping the RRF open versus changing the County's primary waste disposal from the RRF to landfilling. After the completion of this analysis, the County Council will consider potential amendments to this Plan from the County Executive regarding the future disposal path for waste.</u>
Chapter 5/MRF and Mixed Paper Processing Facility Section/Page 5-12	Technical Update	Update the text, given the current capital project for the MRF
Chapter 5/Regulatory Options Section/Page 5-25	Additional Text	Spell out "Extended Producer Responsibility" before using the abbreviation EPR
Chapter 5/Strategic Plan to Advance Composting Section /Page 5-29, Paragraph 6	Technical Update	Add revised text based on the status of the food waste pilot under development
Chapter 5/Recommended Options to Manage C&D Materials Section/Page 5-31	Technical Update	Update the text to note that the County increased its C&D tipping fees for FY22 and that the Transfer Station is no longer accepting shingles or roofing materials.
Chapter 5/Recommended Options to Disincentivize Trash Section /Page 5-32	Technical Update	Add revised text based on the status of the PAYT pilot under development
Chapter 5/Recommended Options to Enhance Collection Section /Page 5-34	Revised Text	Modify the recommendation to provide trash collection services to Subdistrict B to "the County should consider providing trash collection services to Subdistrict B."