

CHAPTER 5 PLAN OF ACTION

This SWMP is a dynamic planning document that the County government may amend in accordance with the requirements of Section 9-503(c) of the Environment Article, Annotated Code of Maryland. Section 9-515(b) of the Environment Article requires the County to review and update the SWMP at least once every three years, according to the MDE established schedule. COMAR 26.03.03 details the scope and content requirements for the Plan.

The mission of the DEP is to enhance the quality of life in our community by protecting and improving Montgomery County's air, water, and land in a sustainable, innovative, inclusive, and industry-leading way while fostering smart growth, a thriving more sustainable economy, and healthy communities. DEP is focused on continuously improving the County's materials management system as part of this mission.

The County is undertaking a robust analysis of alternative options for recycling and managing solid waste materials, expanding current recycling efforts, and developing new recycling and waste diversion programs as part of its ongoing "Aiming for Zero Waste" (AZW) initiative. The intent of the MSW Management System Analysis is to assist the County with achieving the following goals:

- Manage its solid waste materials in an environmentally and socially responsible manner;
- Continue to provide exceptional, reliable, and cost-effective solid waste management and recycling services to the County now and in the future; and
- Modernize and improve our solid waste materials management system.

This analysis will provide the County with the information required to make informed, data-driven decisions to develop and implement a solid waste management system designed to meet the County's needs for the next 20-30 years. The analysis will provide a clear understanding of financial costs, environmental and public health impacts, racial and social justice implications, facility impacts, and operational concerns. Specifically, the analysis will:

- Identify viable alternative solid waste processing technologies in operation in other parts of the County that have a demonstrated successful track record of being effective in diverting materials from residual waste and adaptable to the County's waste processing system. This will also include a cost-benefit analysis of the technology;
- Provide the County with alternative waste processing systems – essentially combinations of the viable processing technologies identified above – from which the County will be able to select a preferred alternative system. This will include a comprehensive analysis of the costs, benefits, and impacts of each alternative system processing system and "end-of-life" disposal methods (i.e., disposal of residual

materials ultimately left in the waste stream following implementation of all diversion programs and technologies); and

- Establish a framework for a future set of procurement solicitations for identified alternative waste processing systems to maximize waste diversion while minimizing the amount of waste that requires disposal, moving the County forward on a path toward zero waste.

In addition to providing a foundation for decision-making on the future of the County's solid waste management system, the MSW Management System Analysis will be used to inform budget and resource planning, procurement strategy, and solicitations. It will also serve as the foundation for any future County SWMP amendments. The County will also inform residents and interested stakeholders of changes and additions to its solid waste management operations.

Chapter 5 – The Plan of Action has seven subsections:

- 5.1 Aiming for Zero Waste Initiatives
- 5.2 General Solid Waste Management Policies
- 5.3 County-Owned Solid Waste Infrastructure
- 5.4 Potential New County-Owned Infrastructure
- 5.5 Potential New Private Facilities
- 5.6 Current Plan of Action for Reduction of Solid Waste Generation and to Maximize Recycling
- 5.7 Financial Management System

5.1 Aiming for Zero Waste Initiative

5.1.1 Overview

The County is committed to serving as a model for the state and country by continuously improving its solid waste management system. To this end, the County is taking steps to evaluate measures and develop a systematic process to close the RRF and change how the County manages its solid waste and recycling materials through the ongoing efforts of the AZW initiative.

5.1.2 Programs and Projects

The AZW initiative consists of various programs and projects at different stages of development and implementation. The programs and projects encompass waste diversion and reduction considerations, recycling and composting, facility upgrades and operational modifications, education and outreach, and associated policy and programmatic changes. This SWMP is a critical element of the AZW initiative as it provides a foundation for the plan of action over the succeeding 10-year planning period. The current programs and projects of the AZW initiative are summarized below.

- Commercial Food Scraps Recycling Partnership Program
 - The Commercial Food Scraps Recycling Partnership Program was initiated in 2020 and focuses on businesses that generate larger quantities of pre-consumer food scraps to recycle commercial food scraps. Through this program, the County provides technical assistance, training, education, and support to collect, transport, and process food scraps into compost or energy. Becoming a partner allows access to the following resources: food scraps recycling collection carts, compostable liners, limited duration of food scraps recycling collection service, transportation of food scraps to a processing facility, and staff training and educational materials. After a period, the County will assist partners with establishing collection services with private collection providers to continue food scraps recycling.
 - The County plans to continue this program and identify opportunities to enhance its implementation to support food scraps recycling by commercial businesses in the County.
- Residential Food Scraps Pilot Program
 - The Residential Food Scraps Pilot Program was initiated in 2021 and currently services single-family households across three (3) collection routes in Bethesda/Rockville, Potomac, and Silver Spring. This pilot program is voluntary and requires the resident to register for the program with the County.
 - Food scraps are separated by the resident (i.e., source separated), and a private-sector hauler collects the material curbside with final transport to the Prince George's County Organics Composting Facility.
 - This pilot program was implemented to assess and demonstrate the feasibility of adding curbside food scrap collection county-wide.
 - The County plans to continue this pilot program until the phased implementation of the Save-As-You-Throw Program.
- Save-As-You-Throw Program
 - The County is evaluating the implementation of a Save-As-You-Throw (SAYT) Program that aims for source reduction and increased recycling and waste diversion by providing financial incentives to each single-family household that is served by curbside collection of trash, recycling (dual stream for commingled containers and mixed paper/cardboard), and yard trim recycling. The financial incentive is focused on decreasing trash generation (e.g., source reduction) curbside, which will, in turn, increase recycling and promote source reduction and waste diversion.
 - The program is anticipated to include the co-collection of food scraps and yard trim for single-family households to support the County's existing composting program.
 - The County anticipates a phased implementation of the SAYT Program to address questions and concerns by residents, refine education and outreach materials, and confirm the proper size of new containers for trash, recycling, and the co-collection of food scraps and yard trim to support the future county-wide program.

- Edible Food Recovery Program
 - To strive towards achieving the County's zero waste and climate action goals, DEP has continued its "Food Is Too Good to Waste" education campaign to prevent wasted food. DEP's educational efforts also include recognizing and promoting "Food Waste Prevention Week" each year, as well as collaborating with the County's Edible Food Recovery Working Group and the county-wide Community Food Rescue network. These collaboration efforts aim to develop recommendations and implementation measures to increase edible food donations to those in need.
 - County residents and businesses are encouraged to participate in "Food Waste Prevention Week" by learning about reducing wasted food. This includes:
 - Donating consumable foods to food rescue organizations, food pantries, and shelters;
 - Creating a shopping list and buying only what is needed;
 - Serving smaller portion sizes;
 - Using leftovers in planning future meals; and
 - Storing foods correctly to reduce spoilage and learning more about food expiration dates.
 - The County plans to continue the education campaigns and collaboration efforts with food rescue organizations to address food insecurity throughout the County.
- Organics Management Facility Development
 - The County owns and contracts the operation for their existing MCYTCF. This facility can accept Tier 1 feedstocks that consist of organic plant waste derived from gardening, landscaping, and tree trimming activities, including leaves, garden waste, lawn cuttings (e.g., grasses), weeds, and prunings. Tier 2 feedstocks, such as source-separated organics (e.g., food scraps), cannot currently be accepted at this facility.
 - The development of a County-owned Organics Management Facility that can accept food scraps and non-recyclable/compostable paper will support the SAYT Program, promote waste diversion, recycling, and composting, reduce the amount of waste requiring disposal, and assist with meeting the GHG reduction goals of the County's Climate Action Plan.
 - The County plans to continue evaluating alternative options to develop an Organics Processing Facility that can accept the referenced Tier 1 and Tier 2 feedstocks. The County has an approved Capital Improvement Program budget, and project activities are underway.
- Materials Recovery Facility Upgrades
 - The County currently owns and contracts the operation for its existing MRF, which was constructed in 1991 and received a processing line update in 2002. Given the success of the County's dual-stream recycling program over time and the current longevity of its operation, the existing MRF requires a processing system upgrade for

- its commingled containers as well as other building and building system improvements.
- The MRF Upgrades will be designed to allow for more efficient recycling progress to accommodate a more automated commingled processing system, resulting in higher operational run time and throughput, better recovery rates, and higher quality commodities that can receive higher prices in the market. The County has an approved Capital Improvement Program budget, and project activities are underway.
 - MSW Management System Analysis
 - The MSW Management System Analysis was initiated in 2023. It will evaluate alternative waste diversion and waste processing technologies that, in combination, will provide for source reduction, increased recycling, enhanced energy production, and decreased residual waste that requires final disposal in landfills. The analysis will include a variety of evaluation factors for proposed MSW management systems that include, but are not limited to: waste diversion potential, GHG emissions, environmental justice and social equity indicators, and life cycle costs, as well as considerations for compatibility with existing County solid waste management facility sites (such as the Transfer Station and RRF).
 - This effort will create a plan to modernize our Solid Waste Management System, making it more efficient and environmentally responsible.
 - The MSW Management System Analysis will provide the County with the information required to make informed, data-driven decisions to develop and implement a solid waste management system designed to meet the County's needs for the next 20-30 years. The analysis will provide a clear understanding of financial costs, environmental and public health impacts, racial and social justice implications, facility impacts, and operational concerns.
 - The MSW Management System Analysis Report is anticipated to be completed in 2025. The analysis will evaluate alternatives to the existing solid waste management system. The analysis will also establish a framework for future procurement solicitations for identified alternative waste processing systems that maximize waste diversion while minimizing the amount of waste that requires disposal.
 - Construction and Demolition Debris Recycling
 - To assist with waste diversion and the amount of solid waste received at the Transfer Station, the County is evaluating existing programs, policies, regulations, and partnership structures for local government jurisdictions that have implemented construction and demolition debris recycling programs. The evaluation may also include best management practices or legislation for segregating materials at work sites or the receiving solid waste processing or recycling facility. In addition, modifications to existing County hauler licensing or permitting procedures will be evaluated.

- One additional way for the County to reduce C&D waste, is the Incentive Zoning Density program that allows developers to increase density in the CR and Employment zones by providing public benefits using the optional method of development. The menu of public benefits available for awarding additional density is designed to help the County achieve stated goals, including environmental sustainability. The Planning Department is currently updating the Incentive Density program to align with Thrive Montgomery 2050 and the Climate Action Plan. Among the public benefits that may be accepted for increased density in the updated Incentive Density program are adaptive re-use of buildings, which will reduce waste materials from building demolition, and achieving higher levels of sustainable building certifications such as LEED that require waste reduction actions as part of the rating process.
- Subdistrict B Consolidation
 - The County is divided into two primary areas for curbside collection services, Subdistrict A and Subdistrict B. In Subdistrict A, the County provides trash, dual-stream recycling, and yard trim collection through contracted services with private collectors. In Subdistrict B, the County provides dual-stream recycling collection through contracted services with private collectors.
 - Single-family households, multi-family units, and commercial residential units in Subdistrict B and other municipalities within the County obtain waste collection services through private collectors independently of the County.
 - The County will continue to evaluate the feasibility of expanding trash collection services in Subdistrict B, enabling source reduction and waste diversion programs across a greater geographic area of the County.

To support the AZW initiative, additional programs and projects may be evaluated for implementation over the succeeding 10-year planning period.

5.1.3 Climate Action Plan Reporting

The CAP was developed in 2021 and serves as the County's strategic plan to reduce GHG emissions by 80% by 2027 and 100% by 2035 compared to 2005 levels. The County produces annual reports each year documenting progress towards the various CAP goals. The AZM initiative is anticipated to reduce GHG emissions associated with solid waste management and recycling activities through the implementation of various programs and projects. DEP will submit documentation on the proposed GHG emission reductions associated with AZW programs and projects to support the County's CAP annual reporting.

The Montgomery County Planning Department adopted a protocol for implementing the requirements of Bill 3-22 including a new Quantitative Assessment tool and Climate Assessment Report template. The Quantitative Assessment tool, which has been in use since the spring of 2023, includes estimates of greenhouse gas emissions associated with building waste generated by building construction and waste generated by the occupants of commercial

and residential buildings created by growth within master plan area boundaries. Initial analysis of the Quantitative Tool results indicates that emissions associated with building waste are a significant source of greenhouse gas emissions. The AZW initiative actions outlined in the SWMP should help reduce these emissions.

5.2 General Solid Waste Management Policies

The sustainability principles of the economy, society, and the environment shall guide the County's solid waste management preferences and practices. Actions taken today should be judged as least likely to make life more difficult for future generations. In keeping with this principle, the County adopted the solid waste hierarchy, where waste reduction is the most preferred solid waste management technique, followed by reuse and recycling (including composting).

The County is responsible for building and maintaining solid waste acceptance and disposal facilities primarily to accommodate municipal solid waste generated in the County. The design capacity of the County's solid waste acceptance and disposal facilities was based on the projected volumes of solid waste generated in the County. To conserve capacity, the use of the County's solid waste acceptance and disposal facilities is restricted to solid waste generated in the County.

5.2.1 General Refuse Collection Policy

County Code, Section 48-29, and its implementing regulations establish the entire County as a collection and disposal district. The collection and disposal districts are divided into Subdistrict A and Subdistrict B. Chapter 3 covers the County's recycling and trash collection services. The DEP is evaluating changes in the County-provided trash collection services, including the expansion of trash collection in Subdistrict B and the way trash collection is paid for by single-family homes.

5.2.2 Biosolids Management

Biosolids are nutrient-rich organic materials resulting from the treatment of domestic wastewater treatment facilities. Of all the wastewater generated in Montgomery County, approximately 80% is treated at the Blue Plains WRRF in Washington, DC. The biosolids generated at the Blue Plains treatment facilities undergo an advanced treatment process, producing Class A pathogen-free biosolids that are used as agricultural fertilizer. Only about 20% of the total wastewater generated in the County is treated at local treatment facilities, including Seneca WRRF, Damascus WRRF, Hyattstown WRRF, and the Town of Poolesville WRRF.

However, the current biosolids management practice in Montgomery County is in the process of undergoing major changes. The grand opening of the WSSC Water Bioenergy Project took place on October 30, 2024. A major biosolids processing facility, at its Piscataway WRRF in

Prince George's County. This biosolids processing facility will transform how the biosolids generated from the County's WRRFs are processed and managed. Using advanced technology, the new facility will significantly reduce the amount of biosolids left over from the treatment process, thus reducing costs to haul and dispose of the product. The biosolids produced will be considerably cleaner "Class A" biosolids, making the disposal process much easier and allowing the final product to be distributed and used as fertilizer. WSSC Water will, through this process, generate methane gas that will be cleaned and used to power the plant, reducing WSSC Water's greenhouse gas emissions.

Per and Polyfluoroalkyl substances, or PFAS, often referred to as forever chemicals, are a group of thousands of manmade compounds that have been used in common household and commercial products since the 1940s. They are heat, stain, and water resistant, making them popular additions to cookware, clothing, carpets, cosmetics, and furniture, but they are very hard to degrade naturally. PFAS are everywhere, including inside nearly every person, because of our society's use of PFAS-containing products.

WSSC Water does not produce or use PFAS in its wastewater treatment process. However, due to the continued manufacturing and use of PFAS-laden products, PFAS ends up in the wastewater stream, and eventually in biosolids. Cooking with non-stick cookware, washing water-resistant clothing, or wearing water-resistant cosmetics provides PFAS a path to the wastewater stream. Concentrations of PFAS in wastewater and biosolids tend to reflect the consumer behavior in the surrounding communities. PFAS levels are extremely low in both WSSC Water and DC Water's biosolids compared to other sources of PFAS and exposure pathways, such as direct use of PFAS-containing products. To lower the PFAS levels in biosolids further, WSSC Water is developing a program to prevent the industrial use and discharge of PFAS before it comes to WSSC Water facilities for treatment. WSSC Water is also collaborating regionally and nationally in biosolids research to use the best technologies to detect PFAS and implement best practices.

WSSC Water continues to follow regulatory developments closely and advocates for controlling PFAS at the source, placing the burden of protecting consumers and the environment on those who manufacture or use PFAS products.

5.2.3 Septage Management

Due to concerns about trucks stacking on the public road waiting to unload and the possibility of increased truck traffic from future County's septic regulations, which may require all homes to pump their septic systems more frequently, WSSC Water is in the process of designing an expansion and improvements to the Muddy Branch facility. Construction is expected to begin in Spring 2026.

5.2.4 Hazardous Wastes

The State of Maryland regulates hazardous waste transportation, treatment, storage,

and disposal. As a matter of policy, the County Zoning Ordinance does not permit hazardous waste disposal facilities within the County. The County will continue to provide an environmentally responsible disposal option for household hazardous waste and businesses and institutions that generate small quantities of hazardous waste.

5.2.5 Administration of the Plan

The SWMP, including the Plan of Action presented in this Chapter, is developed and administered by the Director of DEP under the direction of the County Executive. DEP's Recycling and Resource Management Division (RRM) assists the Director in developing the Plan and is responsible for its implementation and management. The RRM Division conducts ongoing solid waste management planning and analysis in response to changes in waste flows, demographics, and economic conditions. The Plan of Action reflects the County's assessment of its current solid waste system and projects the changes and improvements to the system needed over the next ten years. The County Executive and the County Council may alter, extend, or modify the Plan of Action.

Under the direction of the DEP Director, the RRM Division implements all aspects of the SWMP as described herein, including but not limited to:

1. Formulates the County SWMP. As needed, revisions and amendments to the SWMP are developed with recommendations for the County Executive;
2. Conducts research and extensive planning functions to develop and recommend capital improvements and operating budgets to the County Executive;
3. Monitors technical developments and innovations in solid waste management; Conducts research and technical evaluations to determine whether changes, modifications, or adjustments should be pursued to enhance waste efficiency and sustainability;
4. Analyzes, reviews, and identifies potential solid waste management facilities sites and prepares and submits requests for appropriate permits, permit updates, revisions, and modifications;
5. Reviews and comments on solid waste refuse disposal permit applications, modifications, revisions, and amendments for solid waste facilities submitted to the State; and
6. Oversees the design, construction, and operation of solid waste management facilities needed to implement the Plan. These efforts may include the procurement of appropriate investigations and studies, contract development, selection and supervision of contractors, and compliance with local, state, and federal permits.

5.2.6 Coordination

1. M-NCPPC provides requested information regarding population, growth forecasts, planning factors, and other developmental criteria specified by the County Council or County

Executive.

2. MDE implements and enforces State laws in the County and regulates solid waste acceptance and certain recycling/composting facilities.
3. WSSC Water provides requested information regarding engineering, design, present and future capacities, and fiscal elements of biosolids management facilities and programs.
4. Title 26.03.03.02B of COMAR provides that "the Plan includes all, or part of the subsidiary plans of the towns, municipal corporations, sanitary districts, privately owned facilities, and local, state, and federal agencies having existing, planned, or programmed development with the County to the extent that these inclusions shall promote public health, safety, and welfare." The County has approved no subsidiary solid waste management plans for inclusion in this SWMP.

5.2.7 Public Participation

DEP coordinates public participation in solid waste management planning and provides administrative support and information to committees created by the County Council or the County Executive to advise on solid waste issues.

1. Solid Waste Advisory Committee – SWAC is a legislatively created advisory committee comprising 15 voting members and one nonvoting member representing the Maryland National Capital Park and Planning Commission, all appointed by the County Executive and approved by the County Council. The committee membership represents the broad geographic areas of the County, the solid waste industry, businesses, the County Chapter of the Maryland Municipal League, and the public. SWAC members serve three-year terms. The committee is advisory to the County Council and the County Executive on all matters relating to solid waste management within the County.
2. Dickerson Area Facilities Implementation Group – DAFIG is a citizen advisory group created by Council Resolution 13-1498 to advise the County on issues of concern to the community affected by the County's solid waste operations in the Dickerson area. DAFIG consists of 12 voting members appointed by the County Executive and approved by the County Council. The facilities under the purview of the DAFIG include the RRF, the MCYTCF, Site 2 Landfill properties, and properties associated with the original Matthews Farm. It is intended that the DAFIG will be advisory to the County for the life of the facilities at Dickerson.
3. Ad Hoc Committees—From time to time, the County Executive appoints ad hoc committees to address specific issues related to solid waste. Such committees serve at the pleasure of the County Executive and are established to represent particular community interests as the need arises.
4. Public Hearings – The County Council holds a public hearing on the proposed SWMP

and any revision thereof. State law requires a 30-day notice of a public hearing to the WSSC Water and the Planning Department. A ten-day notice of the hearing date must be provided by publication in a newspaper or newspapers of general circulation in Montgomery County.

5. Stakeholders' involvement—DEP regularly engages key stakeholders and the public through stakeholder meetings, working groups, focus groups, online surveys, etc., to present information on existing, expanded, and new solid waste initiatives, programs, and services, obtain input and feedback, assess interest, gather ideas on and garner support for additional strategies to reduce waste, and increase recycling.

6. DEP continues to provide input related to solid waste management to the Climate Workgroup, which is currently working on the Climate Action and Resilience Plan (CARP). Once the CARP is finished, it will help make decisions in this Plan of Action.

5.2.8 Legal Matters

1. County Code Amendments – The Director of DEP, in coordination with the Office of the County Attorney (OCA), prepares and recommends to the County Executive appropriate amendments to Chapter 48 (Solid Wastes) of the Montgomery County Code and other relevant provisions of the County Code.

2. Executive Regulations – In coordination with the OCA, the Director of DEP prepares and recommends to the County Executive regulations appropriate to implement and manage County solid waste programs and policies.

3. County Legislation – The Director of DEP reviews and recommends to the County Executive a response to the County Council on proposed legislation about solid waste management. This response includes testimony to the Council, Council's Transportation & Environment (TE) Committee or other of the six (6) standing committees.

4. Legislative Awareness—The Director of DEP is aware of legislation related to solid waste management under consideration by the State of Maryland Legislature and provides testimony to legislative committees as appropriate.

5. Legal Support – The OCA provides legal advice and assistance in all legal matters related to solid waste management.

6. Regulatory Compliance – DEP and sister agencies work cooperatively to ensure that the County complies with all federal and state regulatory requirements relating to the management of solid waste facilities (Section 1.4 of this Plan).

5.2.9 Solid Waste Data Management and Reporting

The County gathers solid waste data from various sources to determine disposal rates, waste reduction activity, reuse initiatives, recycling rates, and other key measures. Certain solid waste data are readily attainable from in-country sources. Tonnages from County facilities are

available for input into a data management system. For example, the tonnages of MSW processed at the Transfer Station and the recyclables handled at the MRF are weighed and recorded on-site.

Other data points must be determined by less direct means. County Executive Regulation 5-13 AM requires haulers and collectors to report, semiannually, on the amount and disposition of materials collected (i.e., tonnage, by type, and the acceptance facility, including non-County facilities). Reporting required under ER 1 - 15 complements this data and is used to reconcile sector-relative recycling and disposal tonnages. An annual study is conducted to capture additional recycling tonnages, particularly in the commercial sector, which are not captured via any other reporting mechanisms. Specialized studies monitor some minor waste streams that were not reported by the preceding means. Periodically, the DEP analyzes the composition of the disposed waste stream ("Tip and Sort"), involving statistical sampling of the waste delivered for disposal at the Transfer Station. In addition to providing comprehensive support for tracking progress toward the recycling goal and guiding future efforts, these studies also ensure that system benefit charges are properly allocated (see Section 5.7.2).

DEP will report annually to the County Council, typically via the budget process, regarding the status of the County's solid waste management system. Annual reporting will include:

1. The overall County waste diversion and recycling rate calculated on a calendar year basis once approved by MDE will be posted on the DEP website;
2. Progress reports on the implementation of recycling programs, including a description of major initiatives planned for the upcoming year necessary to implement the policies included in this SWMP, which may be included in the Recycling Plan Update. In addition to annual reports, DEP briefs the County Council, as requested, regarding the implementation of this Plan and the operation of the County's solid waste management system.

DEP maintains its detailed solid waste databases, including disposal tons and recycling tons at County facilities and elsewhere, per capita and per employee waste generation rates, waste diversion and recycling rates, source reduction trends, waste stream composition, and per ton waste processing costs. The County will seek to improve data gathering from external sources, particularly regarding refuse and recyclables processed at non-County facilities.

Each calendar year, per County Council Resolution 17-566, DEP calculates its recycling and waste diversion rates according to the Maryland Recycling Act methodology and guidelines. DEP may also calculate recycling progress and achievement using additional indicators.

5.3 County-Owned Solid Waste Infrastructure

As mentioned before, the County is undertaking a robust analysis of alternative options for managing solid waste materials. The analysis of different technologies will focus on those that reduce the residual waste that would need to be disposed of by the County.

This analysis will provide the County with key information needed to make informed, data-driven decisions as it develops and implements its solid waste management system for the next 20-30 years. The analysis will provide a clear understanding of financial costs, environmental and public health impacts, racial and social justice implications, facility impacts, and operational concerns. DEP will create a plan to modernize the County's solid waste management system to be more efficient and environmentally responsible. As a result of those analyses, DEP foresees major changes in how the County manages and processes its solid waste; thus, this SWMP will probably be amended or replaced after the approval of the County Council.

Considering the current planning status, this section describes only the upgrades identified for county-owned facilities and potential new facilities.

5.3.1 Shady Grove Processing Facility and Transfer Station

The Transfer Station serves to receive, process, and transfer MSW. The current operations contract expires on April 1, 2026. The County (pending County Council approval) is executing a short-term extension of the current Service Agreement with Reworld Montgomery under emergency procedures for up to five (5) additional years with the County retaining the right to early termination.

The County's Review of Existing Processing Facilities Report includes several recommended Capital Improvement Projects (CIP). The CIP projects include tipping floor and roof repairs, upgrades to the Recycling Center facility and processing equipment, removal of the existing scale house and construction of a new modular scale house, replacement of the compactors, HVAC systems, an electrical upgrade, and underground piping for the site, implementing new scale systems for the weighing of incoming material, purchasing rolling stock, and replacing rail cars and containers. Future plans at the Transfer Station include:

- With the expansion of diversion and recycling programs proposed in this chapter, the County expects that the average annual tonnage of MSW received at the Transfer Station will not exceed its permit capacity of 821,500 tons.
- Using the Resource Recovery Park (RRP) concept for the public drop-off area expansion, the County will continue to provide receptacles at the Transfer Station for generators to unload self-hauled recyclables, white goods, scrap metal, bikes, textiles, and electronics.
- The County may modify the drop-off services as needed to reflect changes in the collection program or market conditions.
- Maximize the materials sold as mulch to minimize tonnage sent for processing.
- Set yard waste tip fee per Section 5.7.2.
- Evaluate the relocation of yard trimmings grinding operation.

5.3.2 Materials Recovery Facility (MRF) and Mixed Paper Processing Facility

A retrofit of the commingled processing equipment is required, and improvements to the paper processing are needed to process the quantity of material the County intends to receive reliably. The refurbishment projects include:

- New scales that were installed in FY 2022.
- New scale processing and communication system for either attended, unattended, or remote operations of the MRF scales and processing of incoming and outgoing materials and commodities.
- A professional engineering firm has conducted a conditions assessment before progressing to the planning stage of the facility upgrade.
- The MRF electrical service has been inspected as part of the commingled line upgrade, and it has been determined that an increase in service capacity is needed for the new system. This is included in the design's basis and will be included in the MRF upgrade.
- The existing commingled processing line will be removed and replaced with state-of-the-art equipment, including robotic and optical sorting, ballistic sorting, updated screening systems, improved metering of material into the processing system, reduced manual labor, repair, and maintenance costs, as well as changes to process flow to pull glass at the front of the process, increasing the value of recycled commodities sold. The commingled building will be expanded slightly, increasing baled material storage capacity.
- Improvements to sewer service and stormwater system.
- Expansion of paper receiving building.
- Upgrades scanning and screening systems to identify potential radiation material entering the facility.

In May 2021, the County Council approved a capital project to upgrade and increase the MRF's capacity. This facility upgrade project will modernize the equipment processing system for commingled containers and recyclables, improve operational efficiency, and increase the MRF's throughput capacity. Facility design, permitting, and construction for the upgrades are anticipated to occur from FY 2025 to FY 2027.

5.3.3 Yard Trim Composting Facility

An ongoing structural maintenance program will continue at the MCYTCF, including the scheduled replacement of portions of the paved pad and regular inspections and preventative maintenance of its on-site stormwater management system. DEP will strive to increase the market share of finished compost produced at the facility. For the immediate future, DEP will:

- Monitor annual tonnages of yard trim processed at the MCYTCF and sources of that tonnage.

- Continue aggressive promotion, education, and training for grasscycling and backyard or on-site composting.
- Maintain backup 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 ensure that there is no lapse in contingency coverage. Contingency contract tonnage for any fiscal year should provide no less than a seven percent surge compared to the most recently completed fiscal year.
- As part of the County's efforts to increase capacity for food waste diversion, the County is considering options for retrofitting the MCYTFC to accept food waste. If pursued, this change would require renegotiating the existing use agreement with the SCA and County Council approval.

5.3.4 Resource Recovery Facility

The County's Resource Recovery Facility is the waste management option for most of its processible waste. As discussed in Section 5.1.1, the County is taking steps to evaluate alternative waste disposal systems. It is implementing a systematic process to close the RRF and change how the County manages materials. The current operations contract expires on April 1, 2026. The County (pending County Council approval) is executing a short-term extension of the current Service Agreement with Reworld Montgomery under emergency procedures for up to five (5) additional years with the County retaining the right to early termination.

As part of its analysis, the County plans to compare 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 in-County or out-of-County landfilling, combined with other waste processing systems. After the County completes its analysis, it may consider potential amendments to the SWMP regarding the future disposal path for waste.

As the County evaluates options outlined in the finalized Solid Waste Management System Analysis, it will concurrently explore feasible waste diversion and disposal alternatives while advancing efforts toward the closure of the RRF.

Chapter 4 mentions a physical assessment of County-owned facilities, including the RRF. 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 selling electricity and recovered metals.
- The recycling and beneficial reuse of ash as alternate daily cover, road-based 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.

5.3.5 Out-of-County Landfill Contract / Ash Recycling

DEP will continue utilizing the existing contract for beneficial recycling and reuse of ash while seeking additional and expanded options for reducing the waste stream. As described in Chapter 3, the DEP will also continue to utilize the Reworld Waste (previously Covanta) contract for the disposal of C&D material while seeking diversion and recycling options for the C&D material. The DEP will consider:

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

5.3.6 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 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.

5.3.7 Land Reserved for Potential Future In-County Landfill

The County owns 820 acres of land in Dickerson, Maryland, to serve as a potential future in-county landfill alternative to the RRF and/or a contingency if economic conditions change. This location is along Wasche Road and is known as "Site 2." It has an MDE permit, No. 2019-WMF-0237. The County continues to allow this site to be used for agricultural purposes until a landfill is needed.

The County may commence construction of the landfill at any point after receiving final MDE permits, as it determines that such action is in the interest of public health, safety, and welfare, according to the terms and conditions of the landfill's Refuse Disposal Permit and any applicable court orders or consent orders. This site remains an option for evaluating an alternative for the RRF.

The development of Site 2 has been contested in the past, and in 2002, an order of dismissal regarding the judicial review of MDE Permit No. 1995-WSF-0237-0 was issued. As part of a 1998 letter of understanding, the County agreed to give 12 months' notice of its desire to

construct a landfill at Site 2. Petitioners have 30 days from the date of the County's notice to file a new judicial review of the permit.

5.4 Potential New County-Owned Infrastructure of the Solid Waste System

With the limitations mentioned earlier, the County has identified the need to invest in two new facilities, one to process organic materials and a Resource Recovery Park that could house these facilities and take advantage of efficiencies and economies of scale.

5.4.1 Organics Processing Facility

The County has developed an organics management strategy, but the region's lack of organic processing capacity has hampered its implementation. Given this insufficient regional processing capacity, the County will move forward with plans to process source-separated organic materials (SSO) in-county. An in-county facility presents the best opportunity to increase organics diversion significantly. The technologies available to manage approximately 65,000 tons of food scraps, non-recyclable paper, and the required amendment (e.g., leaf and yard trim) were examined. Based on this evaluation, covered aerated static pile technology was recommended, and further assessment continues.

The County is evaluating different processing technologies and sites as part of the overall evaluation of options. Including but not limited to:

- Modifying operations at the County's existing MCYTCF to manage higher volumes of yard trim and accept SSO (prior County Council approval);
- Siting a processing facility at Site 2 or the Transfer Station (pending consideration of relocation of some of its current operations);
- Acquiring land for the siting of a processing facility or
- Issuing a Request for Proposal for a private-sector project developer who could develop an organics facility on private or County-owned land through a procurement process such as a Design/Build/Operate (DBO), Design/Build/Operate/ Maintain (DBOM), or some variation thereof.

Some of the benefits of developing a County-owned Organics Processing Facility include:

- Providing County control of processing and operations;
- Reducing risk related to final material end use;
- Ensuring adequate processing capacity to meet County needs and support waste diversion goals and programs;
- Generating revenue from compost and electricity sales;
- Reducing hauling distances; and

- Lowering GHG emissions in comparison to landfill disposal.

5.4.2 Resource Recovery Park

The County's Shady Grove Processing Facility and Transfer Station site, including its public drop-off areas for recyclable and reuse materials, can be considered a resource recovery park that provides several functions within a very constrained space. This facility will be more difficult to operate as new stations are added to expand the County's recycling options. As the County moves forward with plans to develop new infrastructure, it may be possible to site these residential recycling stations at a new location and develop a new resource recovery park. This recovery park will relieve the strain on the Transfer Station site.

The County is evaluating the siting of multiple facilities on one site. This facility could co-house processing facilities to provide a network of facilities to develop innovations in waste processing and develop circular economy opportunities. Benefits of developing a Resource Recovery Park include:

- Co-locating facilities can provide efficiencies in collection, transport, and processing;
- Would minimize nuisance impacts as facilities would be consolidated;
- Capability to create an education center where training opportunities would be housed;
- May allow for new facilities such as reuse centers or other drop-off facilities;
- Potential to develop an "innovation" park to create new markets and products; and,
- Contribute to a circular economy.

5.5 Potential New Private Facilities

5.5.1 In-County Infrastructure

Private persons who wish to operate solid waste disposal facilities in the County may only do so with a State solid waste disposal permit. The State will only issue a permit if the site is consistent with this SWMP.

Concerning private sites:

1. The County will review and comment on solid waste disposal permit applications submitted to the State; the site and any facility on the site must comply with all County laws and with relevant parts of this SWMP.
2. As part of its review of permit applications, the County will designate materials that private facilities can process. These designations will be made at the time of application according to public solid waste flow control needs and may change from application to application.

3. When a property owner applies for a State solid waste refuse disposal permit, the County will review the permit application following Section 9-210 of the Environment Article to determine the proposed private facility's conformity with County land use, zoning, and solid waste laws, regulations, and plans.
4. The County Zoning Ordinance limits privately owned transfer stations, landfills, and incinerators to the IH heavy industrial zone. These facilities are permitted in the IH zone only if the County Board of Appeals grants a special exception, determining that the specific IH parcel is suitable for a transfer station, landfill, or incinerator following the standards outlined in the Zoning Ordinance. The Zoning Ordinance allows the construction of a recycling facility in a Rural Service Zone if the facility meets special development standards outlined in Chapter 59, Section 3.6.9 of the County Zoning Ordinance. This section of the County Zoning Ordinance covers minimum standards for lot size, road frontage, distance to an interstate interchange, building setback, and on-site screening and landscaping. This section also requires the facility to have a construction debris recycling permit that satisfies the materials handling and reporting requirements. The Zoning Ordinance allows private recycling facilities in select industrial zones.
5. DEP will explore the interests and roadblocks to the private sector's development of nearby recycling facilities for materials such as yard trim and food scraps. DEP will also continue to review and possibly modify existing regulations to promote expanding the private recycling infrastructure within the County.
6. C&D Recovery, located at 24120 Frederick Rd, Clarksburg, is expected to continue to serve C&D generators during the planning period.
7. The state has permitted a new Tier 2 composting facility, Compost Crew, at Wasche Farm in the Dickerson area, with a planned capacity of 20,000 tons per year.
8. There are two other composting yard trimming facilities in the County: ACME Biomass Reduction Inc., located in Brookville, and Aspen Nursery Facility, located in Silver Spring. They have a capacity of 19,000 tons per year and 1,250 tons per year, respectively.

5.5.2 Out-of-County Infrastructure

There are many other options outside the County where collectors may choose to take C&D and MSW. Other privately owned facilities outside Montgomery County accept land clearing, hazardous wastes, medical wastes, dead animals, automobiles, and tires.

In CY2022, a small fraction (74,000 tons) of MSW was managed by private facilities. As detailed in Chapter 3, in the same calendar year, private facilities handled 50% of the rubble, land clearing, and C&D generated in the County.

Concerning the food scraps processing facility, organic materials generated in the County

have been sent mainly to three (3) Maryland facilities: Prince George's County Organics Compost Facility, Veteran Compost, and recently, Bioenergy Devco.

The Prince George's County Organics Compost Facility is in Upper Marlboro, Maryland. This 16-acre facility utilizes a Cover Aerated Static Pile System. It has a permitted capacity to process 69,000 tons of organic materials per year. The finished product from residential food scraps and yard trim is marketed under the brand Leafgro GOLD® by MES. It is available as a finished compost product primarily in bulk markets. Bulk compost sales include up to 5 cubic yards to residents available at the County facility. The facility also produces Leafgro® from grass clippings and leaves through windrowing.

Veteran Compost, located in Aberdeen, Maryland, is a Tier II small food scraps/manure and wood chips processing facility with a permitted capacity to process 24,000 tons of organic materials per year. It is a privately and veteran-owned company that produces compost from residential and commercial food scraps and wood chips, processed via vermicomposting or aerated static piles systems. Finished compost products are typically sold for bulk pickup, but bagged products are available for nationwide shipping. Veteran Compost has another Tier II small food scraps, manure, and wood chips permitted facility in Anne Arundel, Maryland, with a planned capacity of 24,000 tons per year.

In 2021, Bioenergy Devco opened its door as the newest organics recycling facility in Maryland on the Maryland Food Center campus in Jessup. It is the first anaerobic digester of its scale in the state. The facility can recycle 110,000 tons per year of organics to produce approximately 312,000 MMBtu of renewable natural gas for energy and 16,575 tons of soil amendment for agricultural and other land use. The County has sent some food scraps collected from the commercial food scraps program to this facility.

5.5.3 Potential Regional Facilities

While the County is not currently considering the development of a Regional Facility, this may be considered in the future. Collaborating with nearby municipalities to investigate the feasibility of developing a Regional Organics Facility or other facility to provide additional regional processing capacity may be considered.

5.6 Current Plan of Action for Reduction of Solid Waste Generation and Maximize Recycling

The residents and businesses of Montgomery County have achieved a recycling rate of approximately 40% and a waste diversion rate of 45% in CY 2022. This section describes the mechanisms for managing each waste stream identified in COMAR 26.03.03.03 §D(1). **Table 5.1** summarizes whether there are changes and, if so, the section on this SWMP where the changes are addressed.

Table 5.1 Mechanism for Managing the Waste Stream according to 26.03.03.03 §D(1)

Waste Category 26.00.01	Plan of Action Section #
MSW Residential	5.6
MSW Commercial	5.6
Industrial (solids, liquid, etc.)	No changes
Institutional (schools, hospitals, etc.)	No changes
Land clearing and demolition debris (rubble)	5.1.2 Page 5-7
Controlled hazardous substance (CHS)	No changes
Dead animals	No changes
Bulky or special wastes	No changes
Vehicle tires	No changes
Wastewater treatment plant sludges	5.2.2 Page 5-7
Septage	5.2.3 Page 5-8
Asbestos	No changes
Concrete/Brick	No changes
Special medical waste	No changes
Household Hazardous Waste & Eco-Wise	No changes
Soil	No changes
Wood waste	No changes
Paint	No changes

To manage the above waste streams, DEP will continue with the efforts described in Chapters 3 and 4 of this SWMP and enhance them as follows:

5.6.1 Strategic Plan to Advance Composting, Compost Use, and Food Scraps Diversion in Montgomery (County Bill 28-16)

Continue developing, implementing, and managing initiatives, programs, and recommendations of the Strategic Plan to Advance Composting, Compost Use, and Food Scraps Diversion in Montgomery.

Reducing or eliminating the amount of food being wasted is the most effective and highest-priority waste management tool. Increasing the amount of food scraps separated from other waste and recycled is critical to reaching the County's goal of zero waste. The Strategic

Plan provides a framework for the six (6) focus areas described below. Implementation plans have been or are to be developed for each focus area:

1. Reducing Wasted Food/Channeling Food to Others: Expanded and targeted education of donors to understand what is "acceptable" in donating foods to others can reduce the amount of food wasted and disposed of as trash. The County works to decrease the amount of food thrown away and address food insecurity through efforts such as:

- Educating food producers, wholesalers, and retailers on managing food to reduce the amount of leftover food waste created. The Strategic Plan provides the direction, framework, and strategies for reducing food waste to balance food production with food demand.
- Providing food that would otherwise be wasted to food assistance organizations that serve people in need and expanding the education of donors to understand what is "acceptable" in donating food to others.

2. In-Home, Backyard, and Community-Scale Composting: The County developed and implemented a program to test and evaluate the effectiveness of rodentproof backyard compost bins for residents to compost food scraps in their backyards. The County is also working to reduce the volume of food scraps currently disposed of through increasing at-home, backyard, and community-scale composting programs.

3. On-Site Institutional and On-Site Business Composting: DEP has identified several businesses and organizations with on-site composting programs for food scraps and/or other organic materials recycled on-site. DEP supports expanding on-site composting at businesses, commercial properties, and certain multi-family properties to manage materials at the source and minimize the amount of food scraps requiring preparation, collection, transport, handling and entering the County's solid waste stream.

4. On-Farm Composting: DEP works with the County's Office of Agriculture Services to support and promote properly managed on-farm composting to reduce the volume of food scraps entering the County's solid waste stream.

5. Composting Capacity to Serve Montgomery County and Recycling of Food Scraps in the Commercial Sector: More recently, processing facilities in the regional market have increased the availability of food scraps to be accepted and processed for recycling. DEP has secured limited capacity at a food scraps composting facility, the Prince George's County Organics Compost Facility in Upper Marlboro, Maryland. DEP has implemented its Commercial Food Scraps Recycling Partnership Program, through which DEP offers stable food scraps recycling capacity to large generators of food scraps in Montgomery County and provides technical assistance, as well as financial and other incentives to expand the number of County businesses that implement programs to source separate their food scraps for recycling. These businesses

continue their efforts to recycle food scraps by securing food scraps recycling collection services from various other service providers. At the same time, DEP is encouraging the development and expansion of processing facilities to increase capacity for additional tonnages of food scraps for recycling.

6. Strategies to Maximize Food Scraps Collection at the Curb: DEP began its pilot program in CY 2022 to provide single-family residential curbside recycling collection of food scraps and other acceptable organic material in three areas of the County. Two are within Subdistrict A, and the other is in Subdistrict B. DEP contracted out a food scraps recycling collector to collect the food scraps and deliver them to the Prince George's County Organics Compost Facility for processing. Data is collected from each household and from the facility's scale when loads of material are delivered to provide the weights of food scraps recycled. In addition, participant surveys have been conducted every three months to obtain feedback and input. DEP also performs focus group research with pilot participants after a 12-month duration for general feedback on the pilot program, to examine program participants' perceived advantages (drivers) and disadvantages (barriers) to participating, to obtain feedback on specific program elements (e.g., the starter kit provided to participants, containers, etc.), and to evaluate the educational and instructional materials DEP developed for the program. All data, information, and feedback will be used as DEP plans for the future Countywide program for all approximately 220,000 single-family homes.

Food Scraps Recycling Program: When adequate recycling processing capacity is achieved, DEP will continue developing, proposing, and implementing mandatory food scraps recycling requirements.

DEP will continue to offer year-round farmers' drop off locations strategically located throughout the County where residents may drop off their food scraps for recycling during an established schedule.

5.6.2 Reduction and Reuse

1. **Create Fix-It/Repair Clinics:** DEP will develop initiatives to divert things away from the waste stream and foster the reuse of items and materials from single-family and multi-family residents by researching, developing, planning, coordinating, and implementing fix-it and repair clinics (providing education, training, coaching, and hands-on guidance) for items such as clothing, small household appliances, electronics, mobile devices, and other household goods.
2. **Materials Exchange Programs:** DEP will create materials exchange programs to increase the exchange of excess materials from businesses/organizations or individuals with those needing a supply of these excess materials.

- Research, development, and planning, including identification of a suitable location for a warehouse for storage of materials to be exchanged; staffing storage warehouse; coordinating delivery and pick-up of materials for exchange; program monitoring and data collection.
- Another potential initiative is to create and implement a virtual or online materials exchange program via the website to facilitate direct exchange of materials between parties (donors of excess materials and users in search of materials).

3. **Sharing/Lending Libraries:** DEP will develop sharing or lending libraries for single-family and multi-family residents to borrow, use, and return items that may be useful temporarily but not so often used as to warrant permanent purchase, such as tools, lawnmowers, etc., to help residents reduce waste.

5.6.3 Supporting Waste Reduction, Reuse, and Recycling

1. Continue to provide education, outreach, training, technical assistance, and guidance to single-family and multi-family residents, multi-family property owners, managers, condominium and common ownership community boards, and businesses, including business owners, managers, commercial property owners, property management companies, employees, commercial janitorial and building service providers, and refuse and recycling collection companies to increase further participation in waste reduction, reuse, recycling, and buying recycled programs.

2. Continue to provide comprehensive outreach, education, training, technical assistance, and site-specific recommendations to businesses and multi-family properties to implement, improve, and expand on-site recycling programs using on-site visits by County staff.

3. The County plans to develop and implement an educational campaign to further corrugated cardboard recycling in CY 2025.

4. Expand efforts to implement cooperative recycling and refuse collection programs among businesses in the Central Business Districts. Data has shown that when businesses that generate similar types of waste contract their recycling and refuse collection services with one collection service provider and share a common set of recycling and refuse collection containers, the businesses increase the number of materials they recycle and the quantity. Due to collection efficiencies, most participating businesses experienced decreased monthly recycling and refuse collection service costs.

5. **New Education Methods:** DEP continues to appraise the effectiveness of alternative education and outreach strategies and focus its efforts on initiatives that are quantifiably demonstrated to have a measurable positive effect on recycling performance. DEP develops the County Executive's annual operating budget submission for recycling programs based on

findings of participation studies, focus groups, surveys, and other means used to evaluate the effectiveness of alternative techniques. These findings justify and support the specific outreach, education, training, and technical assistance proposed for funding in the upcoming fiscal year.

6. **Mixed-Use Development Recycling Guidelines:** DEP is performing research, benchmarking, and evaluating and will work with stakeholders to develop and potentially recommend guidelines for meeting recycling and solid waste management requirements in mixed-use developments.
7. **Continue supporting the Montgomery County Public Schools SERT team** to implement and improve recycling in Public Schools, according to 3.3 of this SWMP.
8. **Continue supporting private educational institutions** throughout the County to implement, maintain, and improve recycling in private schools.
9. **The State "Recycling- Apartment Buildings and Condominiums (2012) Act".** Montgomery County intends to continue its current multi-family recycling program, which complies with this Act, as described in Section 3.3 of this SWMP.
10. **Consistent with State Bill SB370, Environment – Recycling Office Buildings,** the County will continue implementing the Recycling Plan for Office Buildings.

5.6.4 Regulatory Options to Encourage Waste Reduction and Reuse

1. **Extended Producer Responsibility Regulations:** DEP will continue to research, benchmark, and evaluate the feasibility of developing, proposing, and implementing extended producer responsibility requirements on manufacturers of items or materials (particularly ones that are challenging to manage) to implement sustainable management of these items or materials for proper recycling, reuse or disposal using methods not dependent on local government.
2. **Material Disposal Bans:** DEP continues to assess materials to potentially develop, recommend, and implement new/enhanced regulations, legislation, and procedures to increase waste reduction, reuse, and recycling in the single-family, multi-family, and commercial sectors by developing and proposing additional materials banned from disposal (such as food scraps when adequate recycling processing capacity exists).
3. **Continue to develop, recommend, and implement new/enhanced/expanded regulations** to increase recycling in the single-family, multi-family, and commercial sectors with additional materials mandated for recycling.
4. **Continue dedicated enforcement of the County's recycling regulation,** Montgomery County Executive Regulation 1- 15, as it pertains to businesses and multi-family properties by

thoroughly investigating cases of non-compliance and judiciously using progressively stronger enforcement techniques.

5. Continue dedicated enforcement of the County's companion recycling regulation, ER 18-04, which requires haulers and collectors of solid waste, together with ER 1-15, which implements the County's ban on disposal of targeted and mandated recyclables.

6. Continue dedicated enforcement of the County's legislative bans on the use, provision, or sale of polystyrene food service ware and requirements to use reusable, compostable, or recyclable alternatives instead.

5.6.5 Recycling Other Materials

1. Target Additional Materials for Reuse: As opportunities arise, the County will target additional types of materials for reuse programs. The County will refine waste generation and waste reduction measurement techniques, document the results of waste reduction activities, and develop cost/benefit assessments for new waste reduction initiatives. The County will continue to work cooperatively with regional organizations to promote waste reduction, including supporting legislative initiatives.

2. Target Additional Materials for Recycling: The DEP will continue to explore any practical opportunity to expand the range of material types that can be recycled, whether by collection, drop-off, or special events. The DEP may look for opportunities to develop new cost-effective programs for materials that are currently recyclable but are relatively small components of the waste stream.

3. Montgomery County accepts and recycles all types of plastic bottles, jars, containers, tubs, lids, caps, buckets, flowerpots, clamshell containers, durable and reusable containers, and more. #6 Expanded polystyrene and rigid polystyrene food service ware items are not recyclable in the County, and the use, provision, and sale of these items are prohibited. The markets for plastic bags, film, and wraps require that these items be clean, dry, and free from contamination, thereby making it impractical to collect plastic bags, film, and wraps via the County's curbside recycling program. However, there is strong market demand for clean and dry plastic bags, film, and wraps through participation in drop-off collection programs. These drop-off programs, located at most grocery and some retail locations in the County, offer residents convenient access to recycle a wide variety of plastic bags, film, and wraps when going on a return shopping trip to a store. Additionally, Montgomery County has implemented a drop-off program for plastic bags, films and wraps at the Transfer Station, serving as another outlet for residents to conveniently drop off these items for recycling. The County will continue to promote these drop-off collection programs and provide information on the County's website, through social media, and through direct notification. Also, the County will continue to work with grocery stores and other retailers to promote film plastic recycling via this route.

- Plastic film/plastic bag recycling programs for single-family, multi-family, and commercial sectors
 - Bulky rigid plastics curbside recycling collection pilot program for single-family residents
4. Evaluate opportunities to establish recycling and waste diversion programs for construction and demolition materials for commercial and residential sectors and coordinate with other County agencies, including the Department of Permitting Services, to develop regulations/requirements to facilitate reuse/recycling of building materials
 5. Evaluate textiles/clothing curbside recycling collection pilot program for single-family residents.
 6. Evaluate carpet and carpet padding recycling program for all sectors.
 7. Mattresses and box springs are accepted for recycling at the Transfer Station. Education is provided through various channels, including website promotion, social media, community events and meetings, etc. The County will continue to promote the recycling of mattresses and box springs to residents, businesses, property owners, and managers of multi-family properties.

5.6.6 Responsible Management of Materials - Collection Enhancements

1. The SAYT Program for single-family homes: DEP will implement a phased program to roll out SAYT Countywide, projecting the impacts on waste reduction and increased recycling, as well as changes in the System Benefit Charge to address how property owners pay for collection services.
2. Responsible management of materials - Collection Enhancements. DEP will assess the provision of refuse collection services to households in Sub-district B receiving only County-provided recyclable, scrap metal, and yard trim recycling to increase efficiency and safety, reduce traffic, and encourage increased recycling.

5.7 Financial Management System

The general expense and revenue information that shapes the County's fiscal policy for the SWMP may be found in the Public Services Program (PSP)/Operating Budget and Capital Improvements Program (CIP)/Capital Budget. In conjunction with the annual budget preparation, DEP will prepare data and analysis detailing the current and projected six-year expenses and revenues (if applicable) of each solid waste management program. DEP also will provide long-term projections regarding the revenues collected for solid waste programs and the fees necessary to support the program(s). DEP may calculate the average unit cost and/or marginal cost of other solid waste programs proposed by the County Executive. These documents will be available at County public libraries and the DEP offices. The Solid Waste Enterprise Fund is self-supporting through user fees and receives no financial support from the

County's General Fund.

5.7.1 Budgeting

Budget Preparation

The County Executive is responsible for preparing the annual budget and its amendments for submission to the County Council for appropriate action. The Office of Management and Budget assists the County Executive and the Chief Administrative Officer with all budget matters, research, program evaluation, and other related matters. The County Executive transmits the annual operating budget to the County Council on or about March 15th each year.

The Director of DEP prepares and submits to the County Executive a recommended budget for operations and capital improvements and requests for supplemental appropriations, as needed, related to the integrated solid waste management system. The budget is developed to create flexibility to make decisions regarding expenses, revenues, and user fees that fund the operating and CIP budgets for solid waste management operations and programs.

Biosolids Management Budget Preparation

DEP reviews WSSC Water's budget requests related to the County's solid waste management activities and makes appropriate recommendations to the County Executive.

5.7.2 Solid Waste Revenue Sources

Chapter 48 of the Montgomery County Code, Article IV Solid Waste Fund, governs the County's solid waste management system and establishes the Solid Waste Enterprise Fund. Section 48-43 specifically requires separate subsidiary funds for the refuse collection and disposal operating activities. The activities in each subsidiary fund are self-supporting, with revenues covering expenses; hence, it requires that the County at least annually set charges for solid waste services to equal expenses.

The Solid Waste Act adopted the Master Authorization (MA) according to the provisions outlined in (Article II, Section 2.1). The MA is a contract between the County, bondholders, and long-term contract holders. The bondholders and long-term contract holders rely on the MA because it assures them that appropriate policies and procedures are in place to guarantee that there will be a sufficient flow of funds to repay bondholders and contract holders for the duration of the bonds and contracts.

The County funds its solid waste system primarily by employing four revenue streams: (1) tipping fees (disposal fees), (2) systems benefit charges, (3) refuse collection and leaf vacuuming charges, (4) revenues and credits from the sale of recyclables, and compost and

electricity.

Revenues from these sources provide an adequate and reliable funding source to finance County solid waste programs, including all recycling services. Revenues raised from the four sources above go directly into an independent, legislatively established Solid Waste Enterprise Fund that exclusively finances County solid waste programs.

Tipping Fees

The County charges separate per-ton fees (\$/ton "refuse tipping fees") for accepting MSW and C&D material (charged for waste delivered in open- top roll-off boxes). A distinct tipping fee is also set for accepting yard waste. All tipping fees are set by the County Council and calculated to ensure full recovery of County solid waste system costs and all other revenue sources. Within these constraints, the tipping fees can also be set to influence behavior through incentives. The tipping fee is used as the County's "economic flow control" for waste generated in the County that is delivered to the Transfer Station for disposal. The system economics considerations factor in the impact of MSW and C&D material delivered to the County's facilities and make the economic outcomes relatively indifferent to the waste management techniques.

The refuse tipping fee is set and periodically adjusted relative to the regional market so that MSW delivered by private haulers to the Transfer Station during the forthcoming year will match, as nearly possible, a target of 85% to 95% of the RRF permit capacity (e.g., 558,450 to 624,150 tons per year based on waste with the design point heating value of 5,500 BTU/pound).

The C&D tipping fee shall be set at a minimum to fully cover the County's cost of handling this special type of waste but shall be set at a higher rate than the refuse tipping fee to reflect the County's preference to use the RRF for processing MSW. Material brought to the Transfer Station in open-top roll-off boxes is identified as C&D and charged a higher fee. Finally, the refuse and C&D tipping fees shall be at least to reasonably assure that combined deliveries to the County are within the 821,500 tons per year annual limitation of the Transfer Station's refuse disposal permit.

Fluctuations in the economy affect overall waste generation. Relative changes in the use of regional disposal options by private collectors and changes in recycling performance by all sectors will continue to affect the amount of MSW delivered to the County for disposal in any year. Influences beyond the County's direct control include pre-existing private sector disposal contracts at regional facilities and regional pricing pressures. These, in particular, can affect response time (i.e., the time it takes for the market to respond to a revised County tip fee).

Accordingly, DEP will deploy, develop, and maintain contingency plans and operational capacity that can be used in conjunction with refuse and C&D tipping fee adjustments to manage the amounts of incoming MSW and C&D. The contingency plans may include a

controlled bypass of processible waste while tipping fee adjustments take effect.

Tip fees for refuse from non-municipal, single-family residences, and multi-family dwellings in buildings comprising six or fewer dwelling units are collected on the tax bill as disposal fees (prepaid tip fees). This is a fee for service and not a tax. The hauler cannot collect this fee from the resident since it has been prepaid. All other tipping fees are charged as waste is delivered at the Transfer Station.

Systems Benefit Charges

Systems benefit charges are imposed on residential and non-residential generators of solid waste and can include both a base charge and an incremental charge. Base systems benefit charges, after offsets from tip and disposal fees cover all or a portion of the cost of developing and maintaining the basic programs and facilities necessary to fulfill the County's obligation to provide for the management of solid waste generated within the County. Revenues from base systems benefit charges and refuse tip and disposal fees provide for all system costs not covered by another fee. These costs include system administration, waste reduction programs, debt service on existing facilities, and the fixed cost of disposal programs and facilities.

The County Council annually establishes system benefit charge rates and tip fees at a level necessary to raise sufficient revenues to fund County Council-approved solid waste activities and system expenses. Base system benefits charges are derived by allocating revenue generation requirements among the single-family, multi-family, and non-residential sectors in proportion to each sector's contribution to overall County waste generation. Base system benefit charges are calculated by dividing the total base system benefit charge revenue generation required from each sector, less tip fee offsets from that sector, by the total number of billable units in that sector.

From the non-residential sector, the County may charge and collect the required base and incremental systems benefit charges by various means. Currently, the County establishes, under County Executive Regulation 9-99 (which can be amended without amending this Plan), non-residential system benefit charges which vary from property to property according to (1) the average waste generation rate for different non-residential land use categories; and (2) the property's improved gross floor area (measured by 2,000 square foot units). There are five categories of non-residential generators, ranging from low to high. Non-residential solid waste generators in specific land uses are categorized into a generator category based on waste generation studies. The charge for a generator is then multiplied by the number of 2,000 square foot units attributable to that generator.

Incremental system benefit charges cover all or a portion of incremental services received by some, but not all, generators of solid waste. Incremental system benefit charges are assessed to each generating sector (single-family residential, multi-family residential, and

non- residential) for services provided specifically to that sector. For example, each single-family household (in unincorporated areas of the County) that receives curbside recycling services is charged for its share of curbside recycling program costs. Incremental system benefit charges for the multi-family residential and non-residential sectors cover educational, enforcement, and outreach services provided directly for the benefit of each of those two sectors.

Refuse Collection and Leaf Vacuuming Charges

The County has separate revenue streams to fund the refuse collection and leaf vacuuming services. Single-family residences within the Solid Waste Collection District of the County have assessed charges to cover the costs of refuse collection services. Single-family and multi-family homes within the Leaf Recycling Service Area of the County have assessed charges to cover the costs of leaf vacuuming services.

Revenues and Credits

The County Solid Waste Enterprise Fund receives revenue from various sources, including but not limited to the following: 1. The sale of recyclable materials recovered from the Recycling Center and Transfer Station at the Shady Grove Complex in Derwood, Maryland; 2. The interest earned on any reserves held by County Finance on behalf of the Solid Waste Enterprise Funds; and 3. Small amounts of revenues from miscellaneous sources such as license fees, sale from disposal of equipment, and rent.

It should be mentioned that the system benefit charges, Refuse Collection Fees, and Leaf Vacuuming Fees discussed above are calculated net of all projected revenues and yet fully fund the operating budgets following the Rate Covenants of the Master Authorization and Chapter 48 of the County Code.

Additionally, the County receives economic credit (in the form of reduced operating costs paid to contractors) from the sale of electricity and ferrous metals at the RRF, the sales of compost products produced at the MCYTCF, and from the mulch produced by grinding brush and natural wood waste at the Transfer Station. Revenues are also derived from interest earned on any reserves held by County Finance on behalf of the Solid Waste Enterprise Funds. Finally, minor amounts of revenues are derived from miscellaneous sources such as license fees and rent. Annually recommended system benefit charges, Refuse Collection, and Leaf Vacuuming Fees discussed above are calculated net of all projected revenues.

5.7.3 Biosolids Management Revenue Sources

WSSC Water funds biosolids management through wastewater treatment and water supply user fees.

5.7.4 Financial Management System

Annually, the system benefit charges are calculated and reviewed to ensure equitable cost allocation amongst the different ratepayer categories. Refuse collection and leaf vacuuming charges are also calculated and reviewed and will be adjusted, as necessary, to reflect the actual program costs and net asset policy compliance.

Effective financial analysis performed during the rate calculation provides rate and cost stability, budget flexibility, and prudent financial management, which helps mitigate financial risk to Solid Waste Enterprise Funds.

The County will continually monitor revenue generation methods to ensure that each ratepayer contributes a fair and equitable share while generating sufficient resources to fund all necessary solid waste programs. The County will keep abreast of current market "gate rates" and "contract rates" to maintain competitive tipping fees. Tip fee adjustments affect the amount of waste received at County facilities. These fee adjustments will be used to manage the future waste delivered to County facilities.

The County will monitor commodity markets to ensure the Solid Waste Enterprise Fund (Disposal Fund) receives the most favorable revenues and credits possible from the sale of recovered energy from electric revenue, scrap metal, the closed Oaks Landfill (landfill gas revenue), and material sales revenue from paper and commingled recyclables.

DEP established a Fund Balance Policy to provide rate stability to the Solid Waste Enterprise Fund. The policy maintains the appropriate balance of cash reserves and operating cash for the fund while mitigating financial risks.

It is strongly recommended that any change to the rate-setting calculation methodology should be reviewed and approved by (1) the Financial Advisor, (2) County Finance, (3) the Office of the County Attorney, (4) the Bond Counsel, and (5) the Office of Management and Budget.