

CHAPTER 3

SOLID WASTE GENERATION, COLLECTION, AND ACCEPTANCE SYSTEMS

This chapter addresses all the solid waste categories in COMAR 26.03.03.03 §D (1). This chapter also discusses the collection methods and solid waste acceptance facilities available to manage each solid waste category. This chapter is organized into the following subsections:

- 3.1 Solid Waste Generation
- 3.2 Solid Waste Collection Service
- 3.3 Recycling Collection Service
- 3.4 In-County Solid Waste Acceptance Facilities
- 3.5 County's Solid Waste Processing Facilities
- 3.6 Waste Transportation System
- 3.7 Regional Non-County Solid Waste Disposal Facilities

Appendix A defines the acronyms and solid waste terms used in this chapter and throughout this document.

3.1 Solid Waste Generation

Table 3.1 displays CY2022 actual solid waste generation by waste type and solid waste generation projections for CY2025 to CY2034, including categories provided by MDE.

As specified later in this section, solid waste generation projections are calculated using M-NCPPC forecasts for County population and employment. These forecasts are included in **Table 2.1** and **Table 2.3** in Chapter 2.

Data included in this SWMP are gathered from a variety of sources. Certain solid waste data are obtained directly from scales at County facilities. For example, tons of refuse processed at the Transfer Station and tons of recyclables processed at the MRF are recorded on-site. Other data points are derived from external sources such as private solid waste collectors. They must report to the County the amount of refuse and recyclables transported to non-County facilities. Other sources include voluntary processor reports, annual reports from businesses, and annual recycling tonnages reported by businesses that are not documented through other reporting methods.

Periodic studies commissioned by the County provide other key data points, such as changes in the per capita/employee waste generation rates and the relative composition of wastes in the disposal stream.

**Table 3.1 Annual Waste Generation (tons) and Projections (tons) in Montgomery County,
CY 2025 – CY 2034**

Wates Category	2022 (Actual)	2025	2028	2031	2034
MSW Residential	192,868	194,722	197,458	199,330	200,636
MSW Commercial	294,912	299,057	303,260	304,044	306,036
MSW Mixed	46,067	46,571	47,090	47,439	47,668
Industrial (solids, liquid, etc.)					
Land Clearing Debris (LCD)	125	128	131	134	137
Demolition Debris (C&D)	270,934	277,308	283,615	289,939	296,301
Controlled Hazardous Substances	-				
Dead Animals	-				
Bulky or Special Waste	-				
Wastewater Treatment Plant Sludges	-				
Asphalt	3,485	3,567	3,648	3,729	3,811
Latex Paint	424	481	503	537	579
Oil Based Paint	57	59	61	62	64
Special Medical Waste	3,655	3,782	3,881	3,980	4,078
Asbestos	1,165	1,192	1,220	1,247	1,274
Concrete	8,898	9,107	9,314	9,522	9,731
MRA Waste Disposed (reported by MD-permitted waste facilities)	534,271	540,830	548,311	551,351	554,919
NON-MRA Waste Disposed (reported by MD-permitted waste facilities)	288,320	295,144	301,869	308,612	315,396
Data Source: County MRA Report					
MRA Waste Disposed (exported directly out of state, bypassing MD-permitted waste facilities)	19,159	19,369	19,584	19,730	19,825
MRA Recyclables	365,321	379,591	394,744	412,088	431,107
Non-MRA Recyclables	336,646	344,566	352,402	360,260	368,166
Total Waste Generated*	1,543,717	1,579,500	1,616,910	1,652,040	1,689,412
Total Municipal Solid Waste Generated (see Appendix B for details)	918,751	939,790	962,639	983,168	1,005,850

Note: Based on MDE Instructions and COMAR Regulations 26.03.03.03. Solid waste generation projections are calculated using M-NCPPC County population and employment forecasts.

3.1.1 Municipal Solid Waste (Residential, Commercial, Industrial, & Institutional)

MSW consists of solid waste generated at single-family residences, multi-family properties, commercial establishments, government facilities, and institutions. MSW does not include land clearing and demolition debris, controlled hazardous substances, automobiles, biosolids, or other solid waste streams requiring specialized handling. These different solid waste types are discussed later in this chapter.

Table 3.1 displays MSW recycled and disposed of according to four categories specified in COMAR 26.03.03.03.D "residential waste," "commercial waste," "industrial waste," and "institutional waste." MDE sent this table's baseline data (CY 2022) in November 2023. According to the baseline data, the total MSW generated in the County yields approximately 918,000 tons in CY 2022 per year, a 16% reduction compared with CY 2017. Generation projections for CY 2025 to CY 2034 are adjusted for County population and employment increases only.

The residential solid waste consists of waste generated from single-family households and multi-family (e.g., apartment, condominium) residences. **Table 3.1** shows that in CY 2022, the residential sector disposed of approximately 192,000 tons of MSW. The data was derived using weight reports from the MDE, the County's Solid Waste Transfer Station, MRF, and Yard Trim Composting Facility records supplemented with information provided under County Executive Regulation 5-13 AM by solid waste collectors and haulers.

Commercial, industrial, and institutional solid wastes comprise all MSW generated from non-residential sources. Commercial solid waste generally comprises refuse and recyclables generated by businesses and non-profit organizations, including offices, bars and restaurants, retail and wholesale establishments, and hotels. Industrial solid waste comprises refuse and recyclables generated by manufacturing, transportation, and utility activities. Institutional solid waste consists of trash and recyclables generated primarily from health service, government, and education activities.

The regulation governing this SWMP 's content requires the distinction of "commercial," "industrial," and "institutional" MSW generation. The County estimates non-residential waste generation according to 87 land-use types as recorded by the State Department of Assessments and Taxation. Aggregation of those land uses into commercial, industrial, and institutional categories generated the following distribution of non-residential waste generation among the "commercial," "industrial," and "institutional" categories: Commercial – 63%, Industrial – 26%, and Institutional – 10%.

As shown in **Table 3.1**, In CY 2022, approximately 294,000 tons of non-residential waste was disposed of in the County.

3.1.2 Land Clearing and Construction and Demolition Debris (C&D)

Land clearing and demolition debris include rock fragments, soil, masonry, concrete, asphalt, brick, glass, plastics, mortar, wood, paper, and metals. When consolidated from a construction or demolition site, these materials are not considered MSW. **Appendix A** has a full definition of the materials included as C&D.

Based on County and private sector scale records, private C&D disposal activity is reported to the County according to Executive Regulation 58-92AM. If the generation is proportional to population and employment change, without regard for economic condition influences, the projected total generation of C&D for 2035 is expected to be around 296,000 tons.

3.1.3 Controlled Hazardous Substances

Controlled Hazardous Substances (CHS), as defined in COMAR 26.13.01, is a solid waste that poses a substantial present or potential hazard to human health or the environment because of its quantity, concentrations, or chemical or physical characteristics.

The MDE regulates treatment, storage, or disposal (TSD) facilities for hazardous waste and requires the certification of drivers and vehicles transporting hazardous waste. There are two facilities in the County with TSD permits to store hazardous waste for up to 90 days: The National Institutes of Health in Bethesda and the Walter Reed National Military Medical Center in Bethesda. All hazardous wastes generated in the County are shipped out of the County for treatment and disposal.

Facilities that generate more than 100 kilograms of hazardous waste per month or more than 1 kilogram of acutely hazardous waste per month or store more than 100 kilograms of hazardous waste on-site are subject to regulation under COMAR. Hazardous waste generators below these thresholds are not subject to regulation under COMAR¹.

The Montgomery County ECOWISE program was established in 1996 to serve businesses and institutions located in the County that generate small quantities of hazardous wastes. Businesses served by this program are known as "small quantity generators" (SQG). ECOWISE allows small businesses to dispose of small quantities of hazardous wastes in an environmentally responsible manner at a fraction of the cost of direct contracting with a hazardous waste management firm. Under this program, hazardous waste is collected at the County's transfer station, where a contractor takes it for final processing and disposal.

Under the ECOWISE program, collection events occur during which eligible SQGs may deliver certain toxic, flammable, corrosive, or reactive waste products for recycling, treatment, or disposal.

¹ For a complete description of State controlled hazardous waste generator requirements, see COMAR 26.13.02.

Eligible SQGs may dispose of up to 100 kilograms (approximately 220 pounds) of acids, bases, pesticides, fuels, solvents, oil-based paints, photographic chemicals, oxidizers, reactive materials, and batteries. The program does not accept acute hazardous waste, radioactive materials, explosives, or medical waste. All ECOWISE collections occur weekly at the County Transfer Station. All ECOWISE participants pre-register with the County before disposing of any materials.

Montgomery County Executive Regulation 19-93 AM, "Hazardous Materials Use Permit," requires any business that uses, stores, treats, or transfers 50 pounds (5 gallons) or more of any hazardous materials, including waste, at any time to a) register annually with the Montgomery County Department of Fire and Rescue Services, Local Emergency Planning Council; and b) Obtain a Hazardous Materials Use Permit.

Facilities that use more than 2,000 pounds (220 gallons) of hazardous substances, including waste, at any time are required to supply a hazardous materials inventory listing the quantity and location of hazardous substances, a facility diagram showing the locations of hazardous materials, and storage areas; building access points; any fire protection systems (e.g., sprinkler systems); and adjacent properties; and the submission of a contingency plan for accidental releases.

Once a Hazardous Materials Use Permit has been obtained, it must be renewed annually, with appropriate information updated. The business must pay the permit's initial and renewal fees.

3.1.4 Household Hazardous Waste

Under state and federal law, Household Hazardous Waste (HHW) is not required to be handled separately as hazardous waste if certain conditions are met. However, DEP programs have been implemented to promote the source separation of these materials from MSW.

The County established a permanent HHW collection program at the Shady Grove Processing Facility and Transfer Station in 2010.

The HHW program expanded progressively from a drop-off program operated as one-day events periodically each year to the construction of the permanent drop-off facility at the Transfer Station in 2010. The drop-off facility is open during regular Transfer Station operating hours. These extensive hours encourage greater facility use and accommodate almost any schedule for residents and businesses. Since its inception, the HHW program has processed hundreds of tons of toxic, flammable, corrosive, and reactive materials. In CY 2022, an estimated 177 tons of hazardous wastes were generated in the County. The projected total generation of HHW in 2035 is 214 tons.

3.1.5 Special Medical Waste

As defined in COMAR 26.13.11, special medical waste requires separate collection and disposal from MSW. It is generated by veterinary clinics, hospitals, doctors' offices, medical testing, and research laboratories. Special medical waste includes utensils, bandages, containers, or any other material generated from human patient care; diagnosis and surgical areas; animal bedding and feces; disposable laboratory equipment and their contents; materials resulting from contact with animal care and laboratory procedures; all disposable needles and syringes; and all other disposable materials from outpatient care for human and animal patients where the presence of pathogenic organisms are diagnosed or suspected.

MDE regulates special medical waste incinerators. As of the date of this SWMP, no special medical waste incinerators are permitted to operate in Montgomery County. All special medical waste generated within the County is transported for disposal at private facilities outside the County. MDE must license Haulers of special medical waste. **Table 3.1** shows that special medical waste reported by MDE for CY2022 was 3,655 tons.

3.1.6 Animal Carcasses (Dead animals)

Under COMAR, animal carcasses are listed as solid waste. Sources include domestic and wild animals from roadways, County animal shelters, research facilities, and farms. There are no rendering facilities for animal carcasses located in the County. Most farm animal carcasses, bone, and fat from restaurants, groceries, and other food services are recycled by rendering facilities in Virginia. Animal shelter and road-kill carcasses are processed at out-of-county special medical waste incinerators or animal rendering facilities. Currently, one privately owned, MDE-permitted pet crematorium is operating in the County.

3.1.7 Vehicle Scrap Tires

The State of Maryland Scrap Tire Law² prohibits the disposal of tires in landfills. At the time of this SWMP, no scrap tire recycling facilities are permitted in the County. Many auto service centers and tire dealers in the County recycle their customers' tires at facilities outside the County.

County residents may recycle up to five (5) scrap tires per year at the Transfer Station tire drop-off. CY22 Transfer Station records show that 6,526 tons were received at the Transfer Station and sent to be recycled.

² Section 9-228, the Environment Article of the Annotated Code of Maryland

3.1.8 Wastewater Treatment Biosolids

Under COMAR, biosolids are listed as solid waste and are defined as municipal wastewater solids. Detailed information on the County's management of wastewater is available in the 2022-2031 Comprehensive Water Supply and Sewerage System Plan³.

3.1.9 Litter

Maryland Litter Control Law

The Maryland Litter Control Law⁴ makes it unlawful for any person or persons to dump, deposit, throw, or leave, or to cause or permit the dumping, depositing, placing, throwing, or leaving of litter on any public or private property in this State, or any waters in this State unless it is deposited at an adequately permitted waste disposal facility, placed in a proper receptacle or is lawfully deposited on private property in a manner consistent with public welfare.

All law enforcement agencies, officers, and officials of the State or any enforcement agency are authorized, empowered, and directed to enforce compliance with the Litter Control Law.

County Litter Control Authority

Whenever any readily movable property of any kind, such as, but not limited to, furniture, appliances, personal effects, etc., is abandoned or left in violation of any law, ordinance, or order on public or private premises, it may be removed in accordance with Chapter 32-1 of the Montgomery County Code.

3.1.10 Septage

Approximately 20,000 homes in Montgomery County are not connected to the sewer system and use other means of wastewater disposal, mainly septic systems. Only about two dozen homes in Montgomery County rely on sewage holding tanks. These septic systems and sewage holding tanks are periodically pumped out by haulers. WSSC Water issues permits to haulers that discharge to a WSSC water-managed facility. Additionally, all haulers that conduct business within the County are required to obtain a permit from WSSC Water. Currently, the main discharge facility accepting pumped septage in the County is the Muddy Branch discharge facility, managed by WSSC Water and located in the City of Gaithersburg. It is estimated that about 8,000 gallons per day or 3 million gallons annually of septage pumped out from septic systems in the County is discharged into the Muddy Branch discharge facility.

³ [Montgomery County Water Supply and Sewerage System Plan.pdf](#)

⁴ Section 10-110, the Criminal Law of the Annotated Code of Maryland (2010)

3.2 Waste Collection

RRMD, through its Independent Collection Contractors, collects recyclables from all single-family homes in the non-municipal portions of the County and solid waste from only a subset of the single-family dwellings, as explained in the next sections. As shown in **Table 3.2**, RRMD does not provide collection services for recyclables or solid waste to multi-family properties, commercial businesses, non-profit organizations, or government facilities.

The County (Collection District) is divided into two solid waste collection subdistricts: Sub-district A and Sub-district B, as shown in **Figure 3.1**.

Under the authority of Subsection 48-29 of the County Code, Method 2 regulation may expand or reduce these service subdistricts.

Solid waste collected on behalf of the County by Independent Collection Contractors must be delivered to the Transfer Station or a County-designated facility. These contractors are not required to pay a tipping fee at the Transfer Station for residential solid waste collected from single-family residences in the collection district on behalf of the County. Independent Collection Contractors are prohibited from billing County residences any disposal fee for refuse collected at those homes. All single-family homeowners pay an annual Systems Benefit Charge to the County to cover the costs associated with the disposal of their MSW.

Sub-district A

In Sub-district A, the County provides weekly trash and recycling collection services through competitively procured contracts with private service providers for single-family homes, townhomes, and residential properties with six (6) or fewer units. Trash is collected curbside once a week and includes five (5) bulky waste pick-ups annually. Bulky waste pick-ups must be scheduled by calling the County's MC311 call center or online in advance of the regularly scheduled collection day. Residents provide their own trash containers.

In 2021 DEP started a voluntary residential food scraps pilot program for single-family households across three (3) collection routes in Bethesda, Rockville, Potomac, and Silver Spring. More information can be found in Section 5.1.2 of this SWMP and [Residential Food Scraps Collection Pilot](#)

Sub-district B

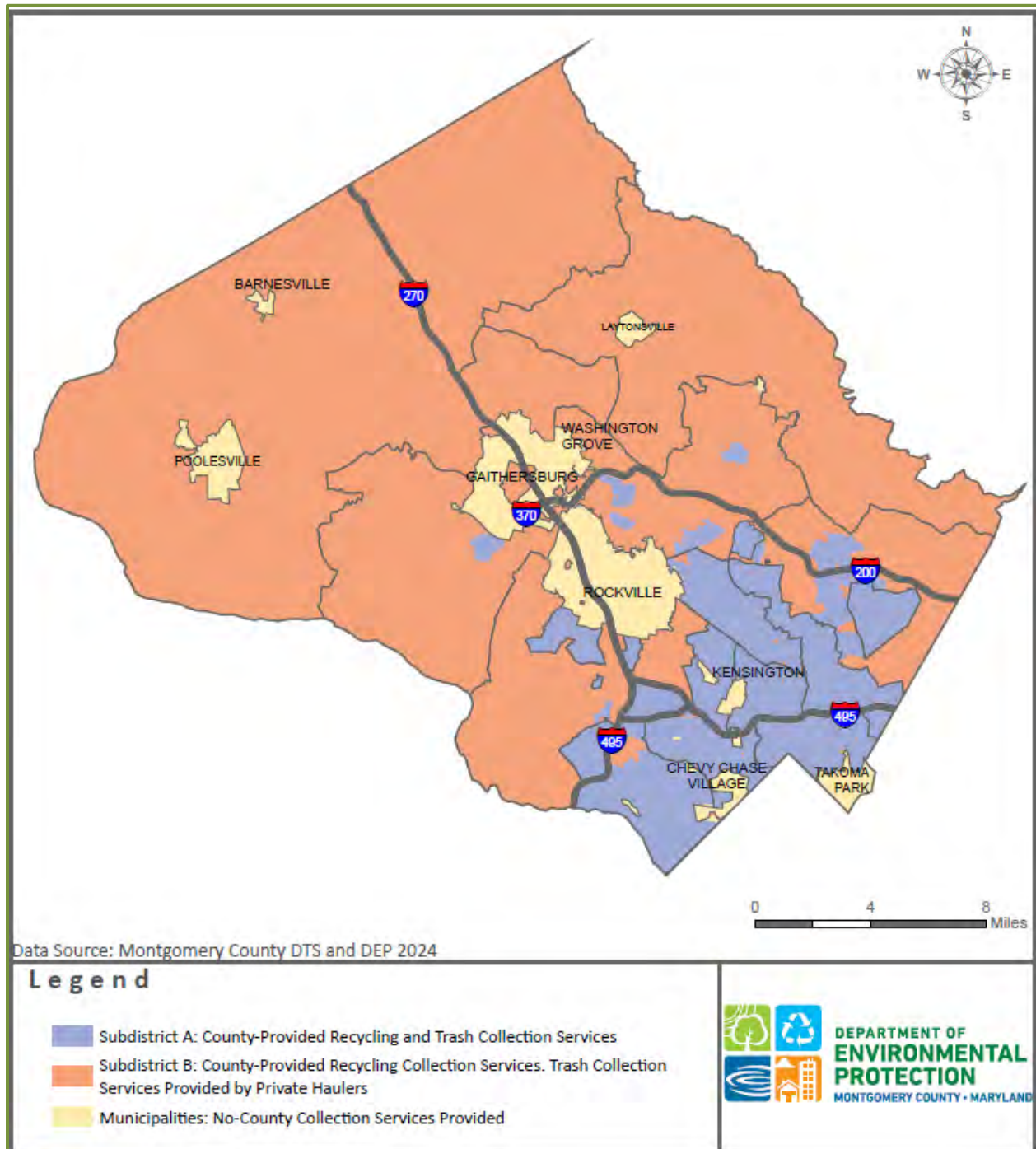
Private collectors, known as Independent Collection Contractors, provide trash collection services in Sub-district B, with authorization by the County. An Independent Collection Contractor must enter into a collection authorization with the County under terms acceptable to the County, which allows it to collect solid waste from single-family residences in

Sub-district B. Customers contract directly with the Independent Collection Contractors for their trash collection services and may pay for an additional level of services, such as twice weekly trash collection. Residents provide their own trash containers.

Table 3.2 County Collection Services Provided

County Services Provided	Single-family (6 or fewer units)	Multi-family (7 or more units)	Incorporated Municipalities	Non-Residential
Trash Collection	Sub-district A (weekly, once per week)	No County Service	No County Service	No County Service
Bulk Trash Collection	Sub-district A (5 scheduled pick-ups annually)	No County Service	No County Service	No County Service
Recycling Collection	Sub-district A & B (weekly, once per week)	No County Service	No County Service	No County Service
Yard Trim Collection	Sub-district A & B (weekly, year-round)	No County Service	No County Service	No County Service
Scrap Metal Collection	Sub-district A & B (scheduled pick up)	No County Service	No County Service	No County Service

Figure 3.1 Map of Solid Waste Collection Services



Incorporated Municipalities

The county has three (3) cities and 16 incorporated municipalities, with an estimated 70,000 households and approximately 174,000 residents. These incorporated areas⁵ are responsible for collecting trash and recyclables within their jurisdictions. Some of these municipalities choose to contract with Private Commercial Collectors on behalf of their residents, or they allow residents to contract directly with Private Commercial Collectors. Municipalities that provide dual-stream curbside recycling collection services may deliver their recyclables to the County MRF.

The County also provides technical support, assistance, education, training, and enforcement within those municipalities that have adopted the County's recycling regulations for the multi-family and non-residential sectors. These include the City of Gaithersburg and the City of Rockville.

Table 3.3 provides an overview of the trash and recycling services provided by the incorporated municipalities and cities in Montgomery County. This overview is based on publicly available information and RRMD staff interviews with city and town officials conducted in March 2024. **Table 3.3** indicates whether the service is either public (i.e., provided by the municipality), private (i.e., the homeowner/business contracts directly with a private service provider for collection), or contracted (i.e. the municipality contracts with a private service provider to collect material on behalf of the homeowner/business).

Since the last version of this SWMP, residential food scraps recycling programs have increased in the County and in incorporated cities and municipalities. As of March 2024, the County has established three (3) voluntary residential food scraps recycling collection program areas. Also, private food scraps recycling collection companies are offering their services for a fee to residents outside of the pilot area who want to source separate food scraps and other acceptable organic materials for recycling.

Fourteen (14) municipalities reported some level of residential food scraps recycling programs, including food scraps recycling drop-off locations. Some examples include:

- Gaithersburg: The Department of Public Works offers two drop-off locations for City residents
- Rockville: Food scraps recycling drop-off for City of Rockville residents is only available at the Rockville Senior Center
- Takoma Park: Provides residents with curbside food scraps recycling collection services

⁵ There are also two Special Taxing Districts, The Village of Drummond and Friendship Heights for more information : [Municipalities, Trash and Recycling, DEP, Montgomery County Government, MD \(montgomerycountymd.gov\)](https://montgomerycountymd.gov/Municipalities,TrashandRecycling,DEP,MontgomeryCountyGovernment,MD)

Table 3.3 Materials Management in Incorporated Cities and Municipalities

	Population	No. Hhlds	Trash Collection	Bulk Trash	Scrap Metal	Recycling Collection	Yard Trim / Brush	Food Scraps
Incorporated Cities								
Gaithersburg, City of	68,952	25,671	Private	Contracted	Public	Contracted	Contracted	Yes
Rockville, City of	66,924	26,543	Public	Public	Public	Public	Public	Yes
Takoma Park, City of	17,390	6,898	Public	Public	Public	Public	Public	Curbside Res. Collection - Public
Incorporated Municipalities								
Barnesville (Town)	140	62	Contracted	Not Specified	Contracted	Contracted	No	No
Brookeville (Town)	163	53	Contracted	Contracted	No	Contracted	No	No
Chevy Chase (Town)	2,855	995	Contracted	Contracted	No	Contracted	Contracted	Yes
Chevy Chase (Village)	2,019	682	Contracted	Public	No	Contracted	Public	Yes
Chevy Chase, Section 3	788	314	Contracted	Contracted	Contracted	Contracted	Contracted	Yes
Chevy Chase, Section 5 (Village)	663	225	Contracted	Contracted	Contracted	Contracted	Contracted	Yes
Chevy Chase View (Town)	991	333	Contracted	Contracted	Contracted	Contracted	Contracted	Yes
Chevy Chase (Village of North)	676	226	Contracted	Contracted	Contracted	Contracted	Contracted	Yes (starting July 1, 2024)
Garrett Park (Town)	978	324	Contracted	Contracted	Contracted	Contracted	Contracted	Yes
Glen Echo (Town)	275	103	Contracted	Contracted	No	Contracted	Contracted	No
Kensington (Town)	2,099	813	Contracted	Contracted	No	Contracted	Contracted	Yes (starting July 1, 2025)
Laytonsville (Town)	569	242	Contracted	Contracted	Not Specified	Contracted	Contracted	No
Martin's Additions (Village)	928	328	Contracted	Contracted	Contracted	Contracted	Contracted-Seasonal	Yes
Poolesville (Town)	5,688	1,880	Contracted	Contracted	Contracted	Contracted	Contracted	In process
Somerset (Town)	1,171	368	Contracted	Not Specified	No	Contracted	Contracted	Yes
Washington Grove (Town)	497	285	Contracted	Contracted-2x/yr		Contracted	Contracted-Seasonal	No

Source:

Population: U.S. Census Bureau, Population Division, Population Estimate Program (Release date: May 2023). They were compiled by Research & Strategic Projects, Montgomery Planning, MNCPPC (1/22/2024).

Households: 2022 5-year American Community Survey, U.S. Census Bureau. They were compiled by Research & Strategic Projects, Montgomery Planning, M-NCPPC (2/9/2024).

Staff interviews with city and municipal officials, March 2024

Note:

Public (i.e., provided by the municipality)

Private (i.e., the homeowner/business contracts directly with a private service provider for collection)

Contracted (i.e., the municipality/city contracts with a private service provider to collect material).

Multi-family and Non-Residential

Residential properties with seven (7) or more dwelling units are defined as multi-family properties. Commercial, industrial, and institutional properties, including non-profit organizations and federal, state, and local government facilities, are categorized as non-residential or commercial properties. Trash collection and disposal for both multi-family and non-residential properties are the responsibility of the property owners, who often contract with a licensed private collection company or self-haul waste to a solid waste acceptance facility.

Bulk Trash

The same private sector collectors under contract with the County collect household refuse and bulky waste generated by single-family residences in Sub-district A. Before their regular collection day, residents must call MC311 or schedule the bulk trash pick-up online. Residents are allowed up to five (5) bulk trash collections per year at no additional charge. There is no limit on the number of items collected as part of each pick-up, but there is a "rule of thumb" that bulk trash consists of five (5) or more bags or cans of trash, large non-metal items such as furniture, carpets, or mattresses. C&D waste, propane tanks, and hazardous materials are not considered bulk trash and may be taken to the Shady Grove Transfer Station. There is no charge for disposing of loads less than 500 pounds for County residents showing proof of residency.

Residents of Sub-district B or incorporated municipalities must make their own arrangements for collecting bulk trash or taking it to the Shady Grove Processing Facility and Transfer Station or the Poolesville Beauty Spot.

Montgomery County promotes the diversion of construction and building materials from the waste stream for residential and commercial partners. The County's "Don't Dump. Donate!" program provides an opportunity for residents and businesses to drop off reusable building materials for reuse. The County provides information to contractors about the benefits of donating usable construction and building materials, through information provided and shared by the Department of Permitting Services and during on-site visits. The County provides links to "A Builders Recycling Guide," a resource database of reuse and recycling

opportunities for construction and demolition materials compiled by the Metropolitan Washington Council of Governments. The County will continue to work with the Department of Permitting Services and other agencies to identify opportunities to facilitate the reuse and recycling of building materials.

3.3 Recycling Collection

Executive Regulation 1-15 established the entire County as a recycling service area and banned certain recyclable materials from being set out for collection mixed in with refuse. All single-family residences in the County, except for those in certain incorporated municipalities, receive County-provided weekly curbside collection of mixed paper and cardboard, glass bottles and jars, aluminum cans and foil products, bi-metal cans, and plastic bottles, jars, containers, tubs, lids/caps, pails, buckets, flowerpots, grass clippings, brush, leaves, Christmas trees, and large household appliances ("white goods") and large scrap metal items. Chapter 48 of the County Code defines single-family residences in the County Collection district as all single-family detached homes, townhouses, and residential buildings comprised of six (6) or fewer dwelling units.

The County works with homeowner associations, management groups, and other citizen groups to customize recycling collection services whenever feasible to meet the special needs of user groups, including townhouse residents, senior citizens, and residents with disabilities. This includes special recycling bins and alternate collection points where needed and feasible.

Residential – Single-family

The County provides weekly curbside dual-stream collection of recyclables for all single-family homes in Sub-districts A and B through competitively procured contracts with private service providers. Residents who receive curbside recycling collection from the County also receive scrap metal and yard trim recycling collection. The County provides 18-gallon blue bins for commingled containers (aluminum cans and foil products, glass bottles and jars, bi-metal cans, and plastic bottles, jars, containers, and more). Residents are provided with either a 35-gallon or 65-gallon wheeled cart for recycling mixed paper and cardboard. Residents may also place cardboard and mixed paper in paper bags, in small cardboard boxes, or bundled with twine and placed next to their blue bin. Yard trim must be placed in paper lawn bags or reusable containers with a yard trim decal provided by the County. Branches can be bundled with twine, and each bundle must be 30 inches or less in diameter and weigh 45 pounds or less. Residents in 5 of the 13 recycling collection areas can also call MC311 to schedule curbside collection of electronics and batteries on their regular recycling collection day. Additional areas will be provided this service when current recycling contracts are up for renewal.

Table 3.4 below lists the number of households served and the total annual tons of trash, recycling, scrap metal, and yard trim collected for the thirteen (13) service areas (see **Figure 3.2**) comprising the two (2) Sub-districts.

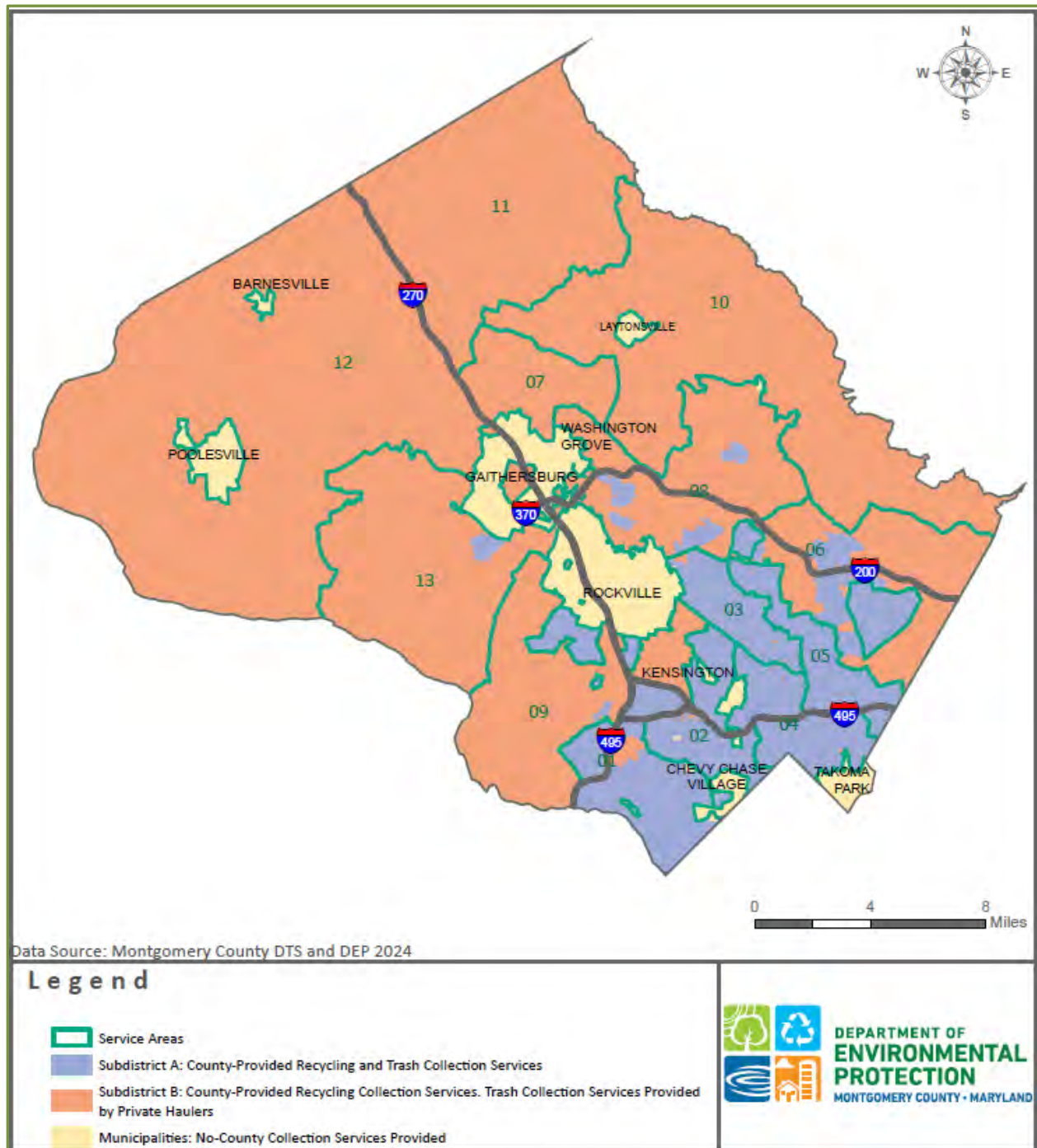
Table 3.4 Number of Households Served and Tons Curbside-Collected by District (CY22)

Service Areas	Number of Households		Annual Tons (CY2022)				
	Trash Collection Service (Sub B)	Recycling & Yard Trim Collection Service	Trash Collection Service (Sub A)	Recycling ⁽¹⁾	Scrap Metal ⁽²⁾	Yard Trim	Total
Area 1	20,838	21,427	15,025	7,689	366	2,913	26,046
Area 2	15,455	15,803	10,842	5,289	230	2,947	19,818
Area 3	14,066	14,464	15,466	4,590	56	2,750	23,000
Area 4	18,926	19,727	13,148	6,014	152	3,842	24,328
Area 5	15,951	16,145	12,636	4,662	75	3,124	21,521
Area 6	3,736	22,926	4,288	6,942	73	2,649	13,215
Area 7		17,137	-	4,245	21	1,121	5,387
Area 8	2,586	22,464	592	6,216	85	3,242	10,820
Area 9		16,163	101	5,039	36	1,675	6,750
Area 10		7,612	18	2,594	26	810	3,429
Area 11		16,102	-	4,732	48	1,356	6,148
Area 12		19,400	-	5,126	28	1,102	6,255
Area 13	941	12,196	222	3,239	29	1,570	5,383
TOTAL	92,499	221,566	75,400	66,376	1,223	29,102	172,100

1. Recycling includes commingled material collected (aluminum products, bi-metal steel/tin cans, glass bottles and jars, and plastic bottles, jars, and containers) in the County provided 18-gallon blue bins and mixed paper products collected in a 35-gallon or 65-gallon wheeled cart (or set out in paper bags, cardboard boxes, or bundled with twine).
2. Scrap metal includes materials collected at the curb. This service can be scheduled online or by calling MC311.

Source: Information provided by Montgomery County (Tonnage information from scale reports for tons managed in 2022 at Shady Grove Transfer Station and Processing Facility)

Figure 3.2 Map of Service Areas Subdistrict A and B



Non-Residential

Recycling collection for non-residential properties may be accomplished via self-haul or may be contracted directly between the owners and privately contracted County-licensed recycling collectors. The same materials are mandated for recycling as in the single-family residential recycling program and are banned from being disposed of as trash. Collectors must formally notify any generators that place unacceptable materials in recycling containers, either electronically or in writing. Collectors deliver recyclable material to private recycling facilities within and outside the County. The County offers and provides educational materials, outreach, training, technical assistance, and various sizes of recycling containers to businesses at no additional charge to facilitate the separation, collection, and recycling of recyclable materials from employees and customers.

Apartment Building and Condominium Recycling Programs

Multi-Family Residential Recycling – The State "Recycling- Apartment Buildings and Condominiums (2012) Act" requires County Recycling Plans to address the collection and recycling of recyclable materials from residents of apartment buildings and condominiums that contain ten (10) or more dwelling units by property owners or managers of apartment buildings. The County's multi-family recycling program is outlined in Section 3(b) of Executive Regulation 1-15, "Residential and Commercial Recycling." It is fully compliant with Sections 9-1703(b), (12), and (13) of the Environmental Article, Annotated Code of Maryland.

Generally, Montgomery County's multi-family recycling program mirrors its single-family recycling program, except that multi-family properties must contract recycling collection services with a private collector to provide a separate collection of recyclable materials or may self-haul recyclable materials to recycling facilities. The same materials are mandated for recycling as in the single-family residential recycling program and are banned from disposal as trash. Section 3(b)(3)(c)(8) of Executive Regulation 1-15 requires, among other things, that "Collectors must collect and deliver to a recycling facility materials that have been source-separated from the solid waste stream unless the recyclable materials are not acceptable. If a collector determines that the recyclable materials are unacceptable, then the collector must inform the generator or responsible agent in writing using a form provided by the Department. The collector must indicate the name of the property, name of the responsible agent, and specify a collector name and phone number for additional information".

The County enforces multi-family recycling regulations through mandatory reporting requirements and a combination of site investigations, on-site verification of any applicable exemptions, field verification of Annual Waste Reduction and Recycling Reports, issuance of Verbal Warnings, Notices of Violations, and Citations with fines levied.

Public Schools Recycling Programs

House Bill 1290, "Environmental-Recycling-Public-School Plans" of the 2009 Maryland General Assembly, added a new subsection (b)(10) to §9-1703 of the Environment Article, Annotated Code of Maryland setting recycling requirements for public schools. The County's strategy for collecting, processing, marketing, and disposing of recyclable materials from public schools is described in "Montgomery County Public Schools Recycling Action Plan, June 2014"⁶ and "Montgomery County Recycling Plan for Publicly Funded Colleges and Special Schools." These two documents were prepared by the Montgomery County Public Schools (MCPS) and DEP, respectively, to satisfy subsection (b)(10) of §9-1703 and are incorporated herein by reference for that purpose.

Recycling at Special Events

Consistent with Section 9-1712 of Environment Article, Annotated Code of Maryland, Montgomery County already works with the agencies that issue event permit approvals for special events expecting 200 or more persons in attendance using public streets, public facilities, or public parks. The event organizer must do the following:

- Provide a recycling receptacle immediately adjacent to each trash receptacle at the special event;
- Ensure that all recycling receptacles are clearly distinguished from trash receptacles by color or signage; and
- Ensure that all recyclable materials (as mandated by Montgomery County regulation) deposited into recycling receptacles at the special event are collected for recycling.

To the extent feasible, Montgomery County also recommends that event organizers consider collecting food scraps for recycling and reporting to the County on recycling activities.

Office Buildings Recycling Program

State Bill 370, *Environment – Recycling – Office Buildings*, requires the County to address the collection and recycling of recyclable materials from buildings with more than 150,000 square feet of office space. The Bill requires, by October 1, 2021, each owner of an office building with more than 150,000 square feet of office space to provide recycling receptacles for the collection of recyclable materials. Montgomery County Executive Regulation 1-15 requires property owners of commercial properties to make recycling collection service and storage space for recyclable solid waste available to tenants. The County's strategy to comply with this

⁶ [Montgomery County Public Schools Action Plan 2014.pdf](#)

Bill in accordance with Section 9-1703(b) of the Environment Article, Annotated Code of Maryland was included in Appendix F of the 2020-2029 adopted Plan.⁷

Collection and Recycling of Fluorescent and Compact Fluorescent Lights that contain mercury

For compact fluorescent lamps (CFLs), the County will continue to expand the number and locations of retailers who accept CFLs for recycling and will continue to publicize this information through the DEP website and other educational opportunities. Currently, the County accepts CFLs and fluorescent tubes from residents for no additional fee through its HHW program for residents and Universal Wastes for a small fee from certain businesses. Clean Harbors Environmental Services, Inc. is the contractor that provides these services seven days a week at the Shady Grove Processing Facility and Transfer Station. The hours are 7:00 a.m. to 5:00 p.m. Monday to Saturday and 9:00 a.m. to 5:00 p.m. on Sunday. These extensive hours encourage greater use of the facility and accommodate almost any schedule for residents. Certain businesses considered Small Quantity Generators can only participate through EcoWise and must register for compact fluorescent lamps and pay the disposal fee. Clean Harbors processes and separates the glass, metal, and mercury from the bulbs and ships the materials to recycling markets.

Scrap Metal Recycling Program

Residents who receive recycling collection from the County also receive County-contracted curbside scrap metal recycling collection. During the weekly recycling collection route, county-contracted collectors collect large scrap metal items generated by single-family residences in Sub-districts A and B. Customers must call MC311 or go online to schedule a scrap metal recycling collection. There is no limit on the number of scrap metal recycling requests scheduled per year. The item(s) must be made of more than 50% metal. Scrap metal includes large household appliances, bicycles, lawnmowers, etc.

Yard Trim Recycling Program

All single-family residences in Sub-districts A and B are provided with yard trim (grass clippings, leaves, brush, and garden trimmings) recycling collection once per week year-round, with a maximum of 45 pounds for each container or bundle set-out. Materials must not be set out in plastic bags. Residents can place yard trimmings in reusable containers with a yard trim decal or paper yard trim bags. Limbs that are not in labeled containers must be bundled with twine. Christmas trees are also collected for recycling year-round.

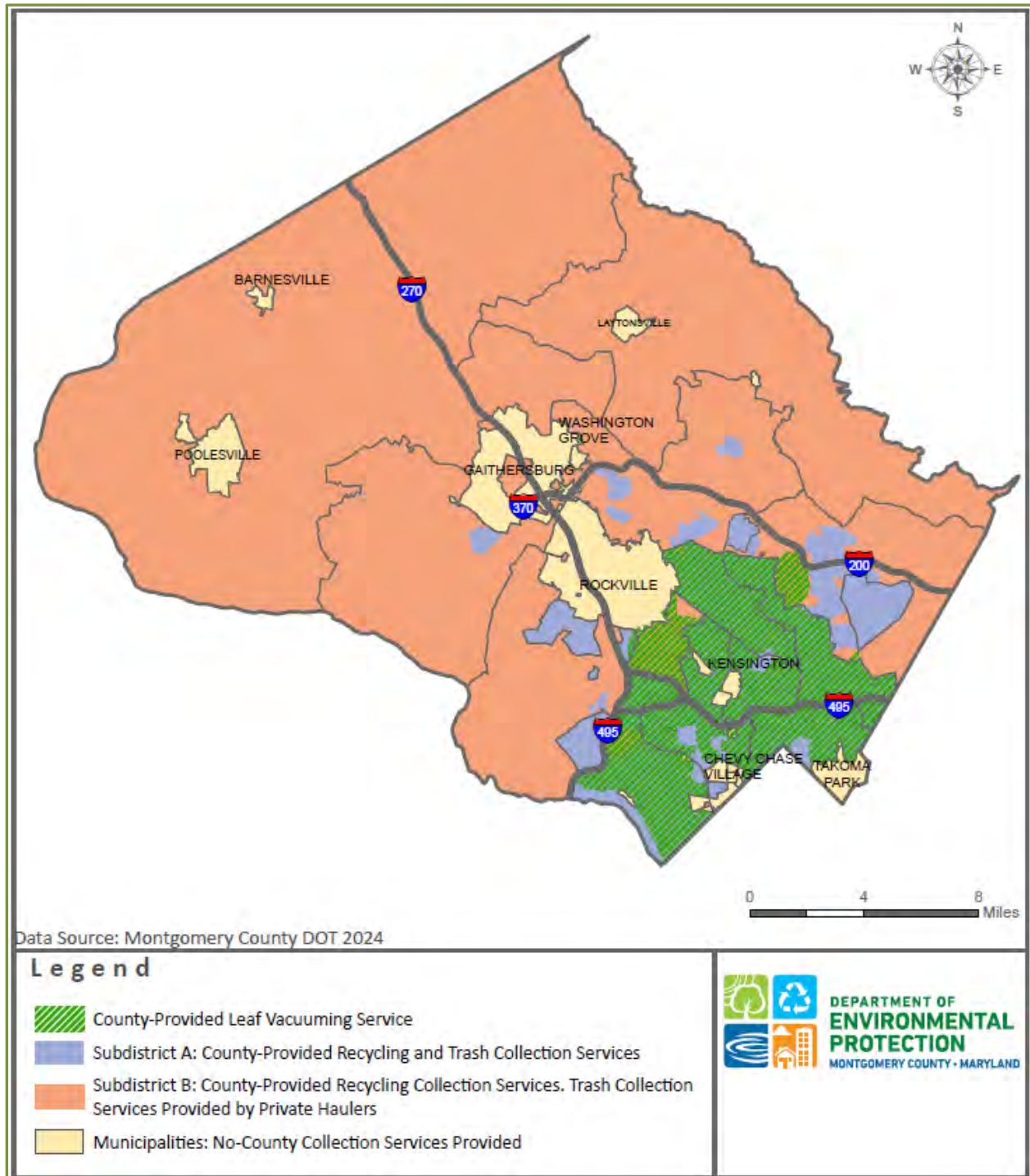
⁷ Comprehensive Solid Waste Management Plan for the Years 2020 through 2029 Adopted by County Council of Montgomery County, Maryland Resolution Number 19-1008 dated October 12, 2021. Approved by Maryland Department of the Environment Approval Date: February 3, 2022.

The County also promotes grasscycling and on-site or backyard composting at home to further reduce the amount of yard trim materials set out for collection. The County distributes compost bins for at-home composting of yard trim materials at no additional charge to County residents.

Montgomery County Department of Transportation (MCDOT) provides seasonal (generally November through January) leaf collection within the Leaf Collection District, shown in **Figure 3.3**. Leaves are vacuumed from public rights-of-way and transported to the Montgomery County Yard Trim Composting Facility for composting. The County has adopted a procedure⁸ that requires the support of at least 80% of the households in the neighborhood/area before opting in or out of the Leaf Collection District.

⁸ <https://www.montgomerycountymd.gov/SWS/Resources/Files/store/ER/ER6-99AM.pdf>

Figure 3.3 Map of Leaf Collection District



3.4 In-County Solid Waste Acceptance Facilities

As **Table 3.5** and **Figure 3.4** show, Montgomery County has several waste management facilities. In Maryland, landfills, transfer stations, processing facilities, resource recovery facilities, and special medical waste incinerators require a refuse disposal permit or air permit from MDE. Scrap tire collection and recycling facilities require licenses from MDE for their operations, and natural wood waste and composting facilities require permits from MDE outlined in COMAR 26.04.11. Detailed information is available at [MDE Composting](#).

Composting Facilities

As of June 1, 2024, MDE has permitted four (4) composting facilities⁹ in Montgomery County, including the Montgomery County Yard Trim Composting Facility. All but the Compost Crew at Wasche Farm Composting Facility are in operation.

- ACME Biomass Reduction Inc.'s Composting Facility accepts yard trim and natural wood waste. Feedstock is composted by placing the materials in windrows and periodic aeration with loaders. From receipt of feedstock to curing, the life cycle of compost is estimated to be approximately five (5) months. In CY 2022, this facility accepted 3,610 tons of Natural Wood Waste and 38,761 tons of organics.
- Aspen Nursery is a Tier 1 facility located on 8.6 acres that provides recycling of leaves and brush. It has a capacity to process and compost approximately 5,000 cubic yards per year on-site. The material is composted using windrows over a 5-6 month period to produce a commercial name of AN Compost. In CY 2022, this facility accepted 359 tons of Natural Wood Waste and 542 tons of organics.

Construction and Demolition Facilities

There is one (1) C&D processing facility in the County, C&D Recovery LLC. It is a state-of-the-art material recovery facility for materials from construction and demolition debris. Materials accepted are wood drywall, metals, plastics, glass, cardboard, brick, wiring, shingles, soils and concrete, and paving. Also, incidental tires and white goods are accepted. According to [Maryland Solid Waste Management and Diversion Report.pdf](#) in CY2022, this facility accepted 93,356 tons of waste, of which 14,029 tons were generated in Montgomery County.

⁹ [MDE Composting Facilities June 2024](#)

Table 3.5 Solid Waste Acceptance and Major Composting Facilities Located in Montgomery County

Facility Type/Name	Location (Maryland Grid Coordinates)	Acreage	Owner	Permit Type	Operating Status	Remaining Life ¹⁰	Types of Waste	Annual Tons 2022 ¹¹
Construction Debris Reclamation Facilities C&D Recovery LLC Processing Facility	24120 Frederick Rd Clarksburg (1226619, 578608)	10.81	Environmental Alternatives Reclamation, Inc.	Refuse Disposal Processing Facility	Active	Indefinite	Construction and demolition debris	16,468
Transfer Station, Public Shady Grove Processing Facility and Transfer Station	16101 Frederick Rd Derwood (1263505, 529641)	43.12	Montgomery County	Refuse Disposal and Transfer Station Facility	Active	Indefinite	Solid Waste Non- processable Yard trim Brush to mulch	497,120 146,169 ¹² 59,342 26,993
Resource Recovery Facilities Montgomery County Resource Recovery Facility	21204 Martinsburg Rd Dickerson (1183469, 559168)	35	Montgomery County (land); Northeast Md. Waste Disposal Authority (RRF)	Refuse Disposal Permit	Active	Indefinite ¹³	Solid Waste loaded on the rail (includes some processable and C&D)	561,861
Site 2 Landfill Site (not constructed; held in reserve)	Near Martinsburg Rd & Wasche Rd Dickerson (1183472, 553143)	820	Montgomery County	Refuse Disposal Permit	Land reserved for possible future need	--	--	--

¹⁰ The information presented in **Table 3.5** is based on Maryland Department of the Environment (MDE) records, including the remaining life of each facility

¹¹ Annual tons received by County Facilities are based on the materials flow diagram used for the MRA report

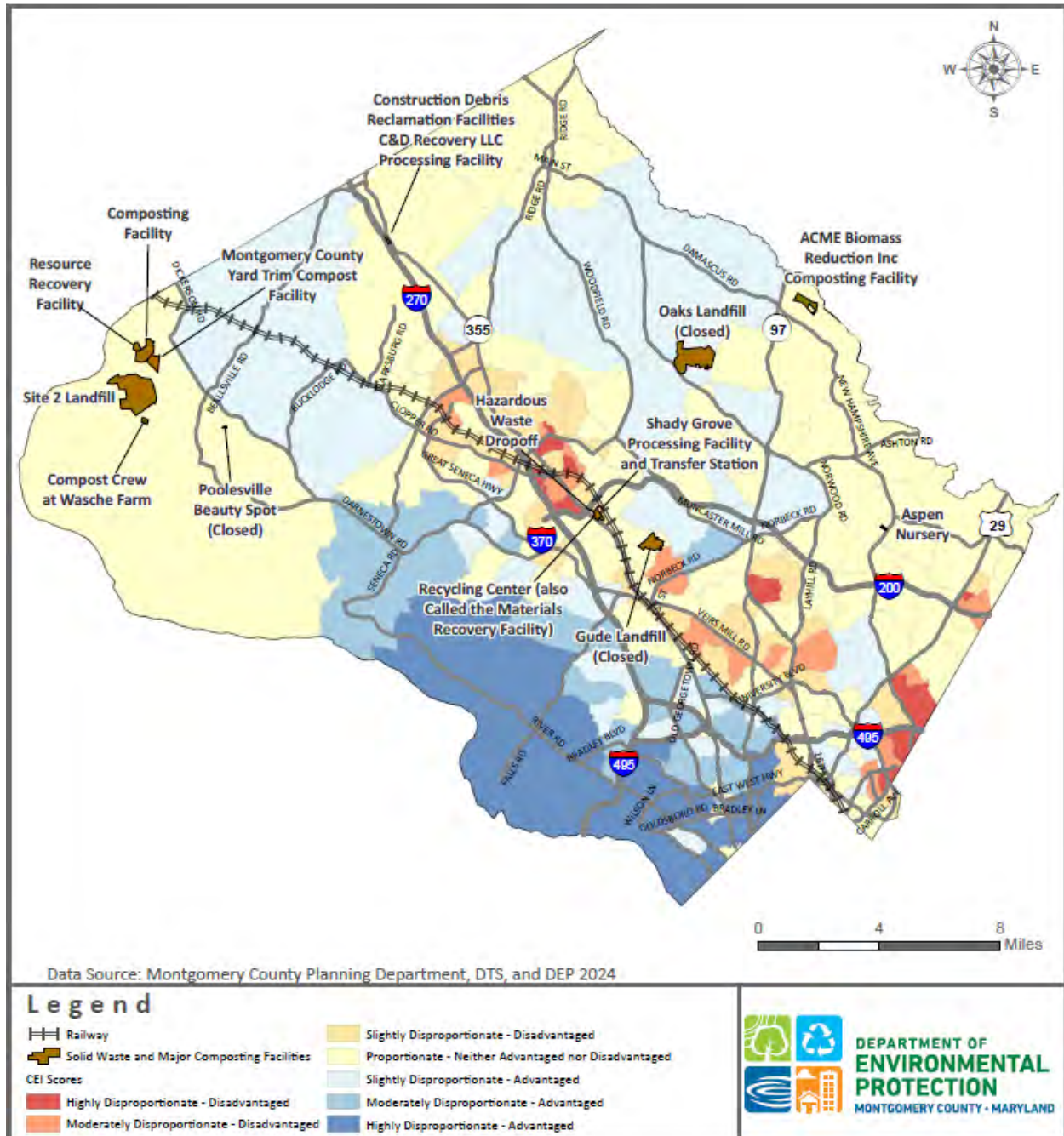
¹² Non-burnable materials

¹³ If there are future changes to the operational status of the Resource Recovery Facility, Montgomery County and the Northeast Maryland Waste Disposal Authority will provide notification to MDE based on the requirements of the Solid Waste Management Plan and of current operating permits for the facility. For instance, 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.

Facility Type/Name	Location (Maryland Grid Coordinates)	Acreage	Owner	Permit Type	Operating Status	Remaining Life ¹⁰	Types of Waste	Annual Tons 2022 ¹¹
Composting Facilities								
Montgomery County Yard Trim Compost Facility	21210 Martinsburg Rd Dickerson (1185038, 558347)	49	Montgomery County	Composting	Active	Indefinite	Leaves and grass	59,342 ¹⁴
ACME Biomass Reduction, Inc. Composting Facility	21601 New Hampshire Av Brookville (1301470E and 565201N)	107.5	ACME Biomass Reduction Inc	Composting Permit	Active	Indefinite	Yard Trimmings	19,000 tpy (design capacity)
Compost Crew at Wasche Farm	Wasche Farm 18930 Wasche Road in Dickerson, 20842. (1184573E, 546346N)	<10	Compost Crew Inc., A Benefit Corporation	General Composting Facility Permit (GP-CF01), Tier 2 - Small	Planned	Indefinite	Yard Trimmings, Food Scraps, Manure etc.	20,000 tpy (design capacity)
Aspen Nursery	15710 New Hampshire Avenue, Silver Spring (1314066E, 527293N)	8.5	Aspen Landscape Contractors, Inc.	Active Composting Permit	Active	Not Known	Yard Trimmings	1,250 tpy (design capacity)

¹⁴2,021 tons of the 59,342 tons sent to Montgomery County Yard Trim Compost Facility were sent to the RRF.

Figure 3.4 Map of Solid Waste and Composting Facilities in Relation to Roadways and Community Equity Index in Montgomery County



3.5 County's Solid Waste Acceptance Facilities

Montgomery County owns several solid waste management facilities, as shown in **Figure 3.4**. These include the Materials Recovery Facility (MRF), the Shady Grove Processing Facility and Transfer Station (Transfer Station), the Resource Recovery Facility (RRF), the Montgomery County Yard Trim Composting Facility (MCYTCF), land reserved for a potential processing/disposal facility (Site 2 Landfill), and the Poolesville Beauty Spot.

As a matter of policy, County-operated solid waste facilities are used only for the County's solid waste. Thus, no MSW is imported from other jurisdictions to county-operated solid waste facilities. Also, no major private solid waste facilities exist in Montgomery County that would attract waste generated outside the County's boundaries.

3.5.1 Shady Grove Processing Facility and Transfer Station

The Shady Grove Processing Facility and Transfer Station is located at 16101 Frederick Road on a 45-acre parcel of land in Derwood, Maryland. As seen in **Figure 3.5**, it is located adjacent to the MRF, also known as the Recycling Center, and receives trash and recyclables from permitted solid waste haulers, collectors, and residents at the public drop-off area. The Transfer Station has been in operation since the spring of 1982. In 1995, a transportation system was set up to facilitate the rail haul of processible (i.e., combustible) waste from the Transfer Station to the RRF. In 2008, the tipping floor area and building were expanded. Improvements were made to the site's roads, additional scales were installed, and an enclosed small vehicle drop-off center (Annex) was added adjoining the surge pit.

Four (4) compactors at the Transfer Station can compress up to 26 to 27-ton loads of solid waste, which are mechanically discharged into 40-foot intermodal containers. Containers of compacted waste are driven to the rail yard located on the Transfer Station campus for shipment to the RRF. Processible waste can be bypassed directly to other permitted disposal sites if necessary.

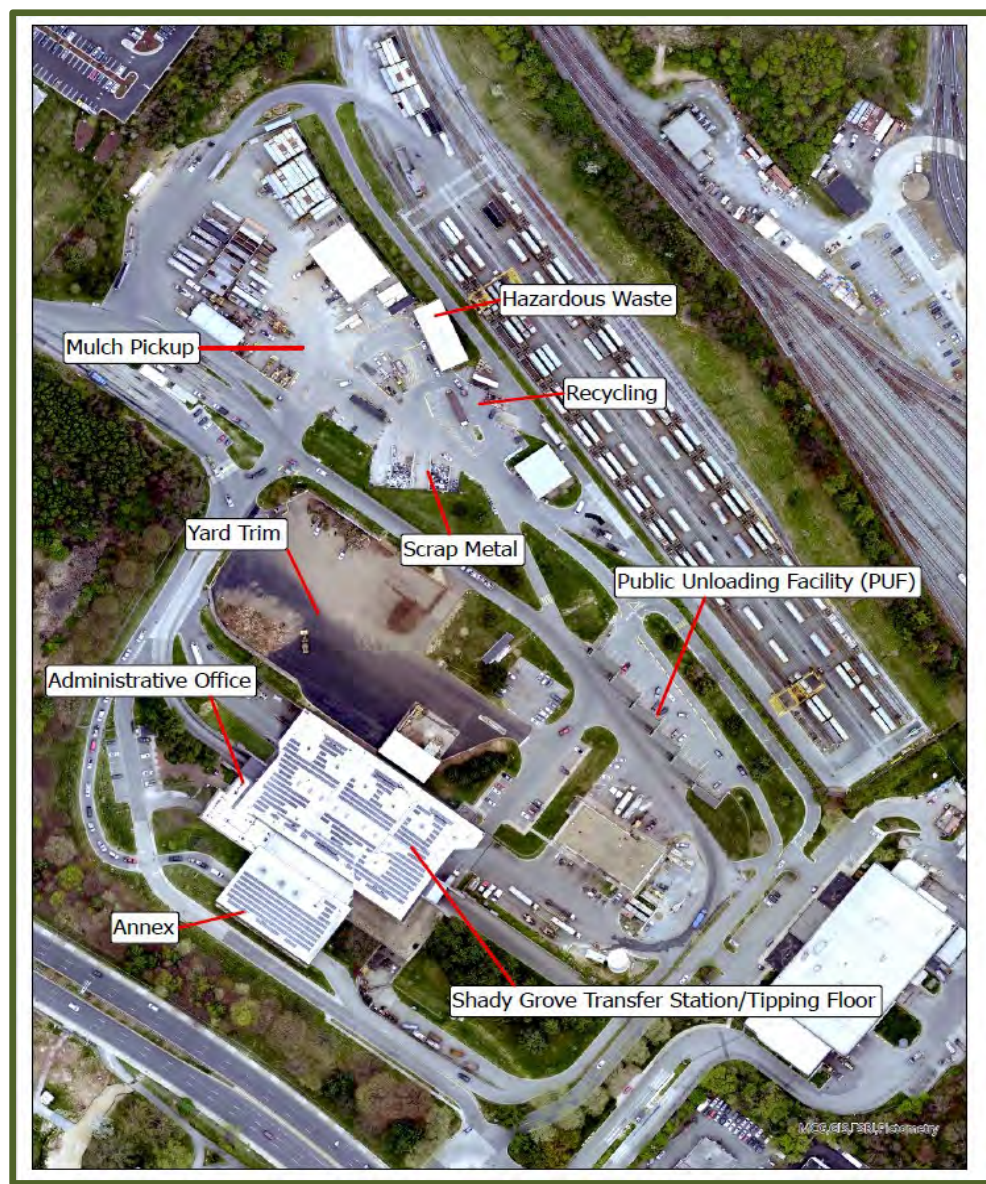
The Shady Grove Processing Facility and Transfer Station has a waste operating permit limit of 821,500 tons per year. On an annual basis, this facility processes about 550,000 to 625,000 tons of processible (combustible) waste, 40,000 to 60,000 tons of non-processible waste, about 60,000 tons of yard trim, 26,000 tons of mulch, and about 10,000 tons of scrap metal, electronics, and other recyclables.

The facility averages approximately 2,100 tons per day of MSW delivered via commercial and residential vehicles. Sixty-five (65%) percent of vehicular traffic is made up of smaller (less than 3-ton payload) vehicles.

The Transfer Station utilizes two (2) entrances: the Shady Grove truck entrance for commercial customers and the Route 355 (Frederick Road) entrance to access the residential

Public Unloading Facility (PUF) entrance. The Shady Grove truck entrance receives over 1,000 collection trucks, pick-up trucks, cube vans, etc. (e.g., vehicles carrying more than 500 pounds) per day. The PUF entrance receives about 1,000 to 2,000 smaller vehicles (e.g., cars and mini-vans carrying less than 500 pounds) per day.

Figure 3.5 Site Plan of Shady Grove Transfer Station and Processing Facility



Source: Aerial imagery, by Pictometry 2023

Twelve (12) radioactive waste detectors are located at several entrances to safeguard against unacceptable waste. These locations include the entrance to the main and annex tipping

floors, the entrance at the PUF area, the three (3) inbound truck scales, the entrance to the annex tipping floor, the contractor's dedicated scale, and the upper lot residential recycling areas.

All refuse delivered to the Transfer Station in loads over 500 pounds is weighed and recorded, and all refuse leaving the Transfer Station is weighed and recorded. Inspectors conduct routine checks of incoming loads for unacceptable materials. Non-processible waste received at the Transfer Station is transported to landfills in the region, with material currently going to the Mountain View Reclamation Landfill near Greencastle, Pennsylvania.

Drop-off Areas at the Transfer Station

The Transfer Station accepts a wide variety of materials that the residential and non-residential sectors can drop off. The Transfer Station has locations for the drop-off of various materials to be properly disposed of, recycled, and reused, as outlined below and shown in **Figure 3.5**. Items that may be dropped off at the Transfer Station include HHW, electronics, building materials, textiles, bulky rigid plastics, scrap metal, bikes, and tires.

- The household hazardous waste drop-off location is available to residents for proper disposal of home-generated HHW. Small businesses certified as SQGs may also use the drop-off location through the ECOWISE program. Once per month, the ECOWISE Program allows Montgomery County businesses (SQGs) to drop-off up to 220 pounds of hazardous waste on a cost-per-pound basis.
- Public Unloading Facility (PUF): This area of the Transfer Station is reserved for unloading trash and recyclable materials delivered in passenger vehicles. All materials accepted in the curbside collection program are accepted at the PUF. Residents can drop off a maximum of 500 pounds of trash at no charge. Above that threshold, the cost is \$70 per ton of trash. There is no charge for dropping off recyclables, nor limitation on the amount of most recyclables delivered.
- The Transfer Station provides a drop-off location for recycling materials such as electronics, textiles, bulky rigid plastics, scrap metal, durable medical equipment, mattresses, and tires. Reusable textiles and those not in a condition to be reused are accepted. Recently, the County has implemented a drop-off program for plastic bags, films, and wraps at the Montgomery County Shady Grove Road Processing Facility and Transfer Station, serving as another outlet for residents to conveniently drop off these items for recycling.
- Through the "Don't Dump. Donate!" program, materials such as appliances, bricks, cabinetry, doors, flooring, roofing, tools, etc., that are in good, reusable condition can be brought to the Recycling Area as a donation. The County has partnered with several non-profit organizations to reuse these materials. Materials that are not considered to be reusable are disposed of as trash.

- The Transfer Station also includes areas to drop-off yard trim (grass, leaves, and brush) for recycling. Residents who receive recycling collection services through the County are provided a curbside collection of yard trim year-round; however, yard trim can also be dropped off at the facility by residents and landscapers. Most of the yard trim (grass and leaves) is hauled to the County's Yard Trim Composting Facility. The brush is ground into mulch and provided at the County's Mulch Preserve location. Mulch is available to residents at no charge and is sold to commercial mulch vendors.

3.5.2 Materials Recovery Facility (MRF)

The MRF, also known as the Recycling Center, is in Derwood, Maryland, adjacent to the Shady Grove Processing Facility and Transfer Station. The MRF is owned by the County and operated by MES. MES is also responsible for materials marketing. The Recycling Center processes the two streams of recyclables, commingled materials, and mixed paper from single-family residences as well as limited commercial sources. Mixed paper includes writing paper, newspaper, magazines, shredded paper, unwanted mail, boxboard, and corrugated cardboard; commingled materials include glass bottles, jars and jugs, plastic bottles, tubs, lids and containers, aluminum cans, foil products, as well as steel and bi-metal cans¹⁵. The MRF receives and sorts materials five (5) days a week. In May 2021, the County Council approved a capital project to upgrade and increase its capacity.

The Commingled Containers Processing area: Mechanical and hand separation are used to sort and bale each commingled container; glass bottles and jars are not baled. Instead, sorted glass is put in bunkers. These materials are then sold to various commodity brokers and end markets to be remanufactured into new materials.

The MRF commenced operations in August 1991. The facility was designed to process 80 tons per day or 10 tons per hour of commingled materials but is currently receiving 130-150 tons per day (or 16- 19 tons per hour) of commingled recyclables per day, resulting in the need to by-pass a large percentage of incoming material. The excess commingled materials are bypassed via a transfer trailer to single-stream MRFs in Prince George's County and York County, PA. There are 52 workers at the MRF each day, working one shift per day, five (5) days a week, depending on the volume of materials received.

The Mixed Paper Processing Facility (PPF) was built at a capital cost of approximately \$3.3 million and began operation in May 2017. The PPF is designed to process up to 25 tons of mixed paper and cardboard (OCC) per hour. The PPF is operated by MES staff and contract laborers for a total of nine employees. The PPF operations include separating and baling mixed paper and OCC to sell to commodity brokers for processing or ultimate distribution into the

¹⁵ More Information about acceptable materials can be found:

[Executive Regulation 1-15: Residential and Commercial Recycling](#)

market. The mixed paper and OCC are baled and sent to paper mills, both domestically and exported internationally, to be made into new products.

3.5.3 Yard Trim Composting Facility

In 1983, the County purchased the former "Matthews Farm" near Dickerson, Maryland, where WSSC Water operated a 118-acre sewage sludge composting facility. The County converted the site into the MCYTCF. The MCYTCF is operated by the MES under an Intergovernmental Agreement with the County.

The facility is located at 21210 Martinsburg Road, Dickerson, MD 20842. Facility operations occur on a 48-acre bituminous pavement pad. Yard trim materials are composted at the facility in an open-air windrow operation using mobile windrow turners. Yard trim is received, sorted, and processed at the Shady Grove Processing Facility and Transfer Station in Derwood before being transported to the compost facility by rail and truck. Leaves received at the Silver Spring Depot during the County's vacuum leaf collection program are shipped by truck directly to the MCYTCF.

To reduce truck traffic on MD Route 28 and other roads near the MCYTCF, the transport of processed yard trim by rail is prioritized. The goal is to maximize rail transport of yard trim to the MCYTCF.

MES markets the finished product of the aerobic composting process at the MCYTCF, marketed under the Leafgro® brand name. Bagged and bulk Leafgro® is shipped by truck into the commercial soil amendment market.

The MCYTCF operates under the 1996 Agreement of Settlement and Compromise ("Sugarloaf Agreement") between the Sugarloaf Citizens Association (SCA) and the County. The Sugarloaf Agreement caps incoming yard trim handled and processed at the MCYTCF at 77,000 tons per fiscal year. Production of bagged compost is at 650,000 bags per fiscal year. The stipulations of the Sugarloaf Agreement include operating hours, pieces of equipment, staffing levels, and various operational parameters to minimize any impact of MCYTCF operations on the surrounding community. The Sugarloaf Agreement includes provisions for the 77,000-ton cap to be exceeded only for pilot programs and prior written SCA approval.

The County aggressively promotes grasscycling and backyard composting to reduce the amount of yard trim DEP has to manage and remain under the 77,000 incoming ton cap at the MCYTCF. County residents may obtain compost bins at no additional charge to encourage them to enjoy the benefits of composting their yard trim materials at home.

3.5.4 Resource Recovery Facility

The RRF is located in Dickerson, Maryland, on 34 acres adjacent to the former Dickerson Generating Station. The RRF employs a mass burn combustion technology to process MSW, employing three (3) 600-ton-per-day waterwall furnaces with Martin reverse reciprocating grates. Each unit generates approximately 171,100 pounds of steam per hour at 865 pounds per square inch (psi) at 830°F. The steam powers a turbine generator with the capacity to produce 63 MW of electricity. The NMWDA sells electricity generated and Renewable Energy Credits (REC's) into the regional market as a member of PJM Interconnection.

On behalf of the County, NMWDA provided financing for the design and construction of the RRF and required transportation improvements. The design and construction loans were paid off in 2016. NMWDA also manages the contract and service agreement with Reworld Montgomery, Inc., a subsidiary of Reworld Energy Corporation, formerly Covanta Montgomery, Inc., to operate and maintain the RRF, Transfer Station, and related transportation system.

The County has a Waste Disposal Agreement with the NMWDA that provides for the disposal of non-recycled wastes and payment of service fees. The RRF is operating under the second 5-year extension period, which ends in April 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.

Changes to the Waste Disposal and Service Agreements – The County must not approve or allow to take effect, under either the Waste Disposal Agreement or Service Agreement, any material change in the capacity or operation or any material reduction in performance or environmental standards of the facility or the transportation system unless the Director of DEP has submitted the change to the County Council. The County Council must approve or disapprove the proposed change within 30 days or two regular County Council work sessions, whichever is longer. If the County Council does not act within this time frame, the change will stand approved unless the County Council approves a resolution extending the time allowed for Council action. In addition to the process noted above, any material change in either the Waste Disposal Agreement or Service Agreement that would result in the closure of the RRF must not be approved or be allowed to take effect until an amendment to the Ten-Year Plan revising the County's primary disposal path for waste is adopted by the County Council and approved by MDE.

Electricity Sales Agreement—The NMWDA sells the electricity generated at the RRF into the PJM energy market. It also sells the capacity credits and RECs generated by the facility into the PJM capacity market and the open REC market, respectively.

Monitoring Program – DEP monitors RRF stack emissions during all operating hours using a data telemetry link to the Continuous Emissions Monitoring System (CEMS) provided

under the facility's Title V air permit. The Air Pollution Control (APC) system includes processes for the removal of nitrogen oxides (NO_x), acid gases (SO₂ and HCl), mercury dioxins, and particulate matter. The CEMS measures the emission levels of sulfur dioxide, nitrogen oxides, hydrogen chloride, temperature, opacity, and carbon monoxide to ensure the APC system is operating correctly and the facility is adhering to its air permit. The CEMS data is shared on the County's website at <https://www.montgomerycountymd.gov/sws/facilities/rrf/cem.html>. Additionally, several health-risk assessment studies have concluded that there are "no measurable influences on ambient air concentrations attributable to RRF source emissions."¹⁶

Though not required by permit or regulation, DEP periodically monitors levels of certain pollutants in ground-level ambient air and non-air environmental media. The pollutants monitored include dioxins, furans, and trace metals, including arsenic, beryllium, chromium, cadmium, nickel, lead, and mercury.

In 2009, the County upgraded the RRF APC system, reducing NO_x emissions by approximately 50 percent. The new NO_x control system eliminated the need for the hazardous material anhydrous ammonia to be used and stored at the RRF.

Reworld Montgomery, Inc. participates in the Voluntary Protection Program (VPP) under the Occupational Safety and Health Act (OSHA). To qualify for and maintain participation in the VPP, Maryland Occupational Safety and Health rigorously audits and inspects Reworld Montgomery, Inc. regularly. Audit and inspection results must document Reworld Montgomery, Inc.'s achievement and maintenance of continuous workplace safety and health improvement.

Through the Service Agreement or Change Orders, DEP, in cooperation with NMWDA and Reworld Montgomery, will require changes or improvements to the RRF's air pollution control systems and/or operational practices should stack and/or ambient monitoring data indicate current systems and practices are not in compliance with regulatory and/or permit requirements.

Annual Capacity – The RRF was designed and operated to not compete with the county's waste reduction, reuse, and recycling initiatives. To ensure a balance between each component of the County's MSW processing system, the RRF has a nominal design capacity of 1,800 tons per day or 657,000 tons per year based on a waste heating value of 5,500 BTU/lb. The County limits the RRF to 95% of capacity. A target of 85% – 95% capacity is maintained to ensure permit limits are not exceeded. The RRF's refuse disposal permit allows a maximum of 689,000 tons of waste per calendar year to be delivered to the RRF. In CY 2022, the RRF accepted 552,918 tons of waste, about 80% of its capacity.

¹⁶ From "Fourth Operational Phase Ambient Air Monitoring Program, Winter 2013-2014 and 2014-2015"
<https://www.montgomerycountymd.gov/SWS/Resources/Files/rrf/ambient-air-report-1606/Ambient-Air-Report-1606.pdf> (last accessed 8/24/2018)

The County maintains a competitive tip fee to control the amount of processible waste delivered to the Transfer Station. Progress toward achieving high recycling rates also helps moderate this amount.

MSW deliveries to the RRF can vary greatly. The annual peak volume is in June, with a winter peak in December. The RRF's annual permit limit is based on the nominal design capacity of 1,800 tons per day. Because the RRF can safely operate above 1,800 tons per day, the County's practice is to process at higher rates during peak delivery periods to minimize the costly transport of MSW to an out-of-county landfill.

If MSW incoming volumes necessitated processible waste to be shipped for disposal at its out-of-county landfill, the County Executive must notify the County Council within thirty days of closing the calendar quarter. In that case, the County Executive must identify the actions taken or recommended to reduce demand on the RRF. Possible actions could include tip fee adjustments, expanded recycling efforts, or waste diversion programs. Private-sector MSW export does not require County Council notification because the County reports this information semi-annually.

RRF throughput tonnage projections and private sector MSW export tonnage projections for the upcoming fiscal year, the actual tonnages for the most recent fiscal year, and actual tonnages for the first half of the current fiscal year are part of the County Executive's annual Recommended Operating Budget presentation to the County Council.

Contingencies—The Service Agreement provides for out-of-county disposal of waste if the RRF cannot accept waste due to mechanical or operational failure or cessation of operations.

3.5.5 Beauty Spots: Satellite Drop-off Center

The Poolesville Beauty Spot is a satellite drop-off facility where residents can dispose of bulky waste. Beauty Spots are intended to "beautify" neighborhoods by giving residents a location to drop off large items for disposal. The Poolesville Beauty Spot is at 19200 Jerusalem Road in Poolesville, Maryland. It is only open on Saturdays from 7 am to 3 pm. Residents may drop off up to 500 pounds of bulky waste, including furniture, rugs, and mattresses. The Beauty Spot does not accept commercial waste, residential household trash, or recyclables, including scrap metal or yard trim. The current contractor, Reworld, transports material received at the Beauty Spot for disposal at the Shady Grove Processing Facility and Transfer Station.

3.5.6 Land Reserved for Potential Future In-County Landfill

The County owns approximately 820 acres along Wasche Road near Dickerson, Maryland, known as "Site 2". This parcel will be held in reserve should changes in economic conditions, laws, regulations, or other circumstances emerge. The Refuse Disposal Permit # for Site 2 is 2019-WMF 0237.

The current design for a landfill at Site 2 provides a landfill footprint of approximately 125 acres. Site 2 is currently in use for agricultural purposes. Under the Letter of Understanding with the SCA, the County must notify the SCA at least one (1) year before the anticipated construction start date.

3.6 Waste Transportation System

The solid waste transportation system primarily consists of moving 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.

Transfer Station to RRF: Processible Waste and Yard Trim

Processible¹⁷ waste received at the Transfer Station is hauled in enclosed forty-foot-long intermodal containers 18 miles by rail to the RRF. Containers are stacked two (2) high on lightweight, special-purpose rail cars and travel via an existing railroad right-of-way between a railroad yard adjacent to the existing Transfer Station and a 1.2-mile access track and rail yard adjacent to the RRF. CSX Transportation, Inc. provides rail service. A portion of the yard trim sent to the MCYTFC is transported from the Transfer Station via rail to the RRF and by truck to the MCYTFC.

RRF to Out-of-County Landfill: RRF Ash, Non-Processible Waste, and Bypassed Waste

In 2023, the County assumed the NMWDA's contract with Old Dominion Landfill in Henrico County, Virginia, to transport and recycle ash residue from the RRF. Ash residue delivered to the Old Dominion Landfill is processed to screen the material into two sizes. During the screening process, ferrous and non-ferrous metals are removed to be recycled. The screened ash residue is reused within the landfill, one for alternate daily cover and one for road base for internal landfill roads. The contract expires in August 2026.

Under the Service Agreement, Reworld is responsible for managing non-processible waste received at the Transfer Station.

If the RRF cannot accept processible waste, the Service Agreement specifies the conditions and requirements for waste bypass and whether the County or Reworld pays for the cost.

¹⁷ Processible Waste – waste that enters the County's waste system and is deemed acceptable for processing at the Resource Recovery Facility.

Non-processible waste that can be recycled is sent to various regional reclamation facilities. Under the Service Agreement with Reworld, non-processible waste and bypass waste can be transported for disposal at approved disposal facilities at Reworld's discretion.

3.7 Regional Non-County Solid Waste Disposal Facilities

The accounting of MSW generated in the County is independent of the location at which the MSW was processed. Refuse generated in the County may be processed at the County's Transfer Station or private facilities outside the County. Privately operated MSW disposal facilities do not exist within Montgomery County. County recycling and composting facilities primarily handle materials generated by the single-family residential sector. Recyclables generated by the multi-family residential and non-residential sectors are processed at private facilities and the County's MRF. Privately operated recycling facilities are located within the County and adjacent jurisdictions.

The County validates generation rates by analyzing public and private sector waste disposal and recycling practices. County Executive Regulation 5-13 AM requires collectors and haulers transporting solid waste in the County to submit semi-annual reports about their activity. The report form requires information about the amount and type of solid waste or recycling collected, the sector from which the material was collected, and the name and location of the facilities to which the material was delivered.

Reports from a collector or hauler are due each August 1st for the preceding January 1st to June 30th period and each February 1st for the preceding July 1st to December 31st period. DEP compiles these reports, and together with the County's Transfer Station scale house records, they provide an important part of the County's solid waste system-wide tonnage accounting.

3.7.1 MSW handled by Private Haulers

As shown in **Table 3.6**, in 2022, approximately 75,000 tons of MSW generated in Montgomery County were disposed of at facilities outside the County; some were taken outside of Maryland, e.g., Washington DC and Virginia. That is a 38% reduction over the tons disposed outside of the County in the last planning period, 2017.

Table 3.6 Facilities Utilized Outside Montgomery County by Private Sector to Dispose of Municipal Solid Waste in CY2022

Solid Waste Disposal Facilities Used CY2022	Total Tons
WM Annapolis Junction	38,464
WM Fort Totten	11,998
Recycle One	7,691
Giant Food Stores Distribution Center	2,531
Alexandria Waste Recovery Facility	2,267
Federal IPC	1,784
Wheelabrator (BRESO)	1,495
WM Northeast TS	1,491
Olive Street Processing (WB Waste)	1,347
WM Recycle America Elkridge	1,265
Encore Recycling	947
WM Merrifield	716
Small amounts were taken to several other facilities (i.e., DC materials, King George, Apple Valley, Brown Station, PG County MRF, WM Benning Road TS, Reworld WTW Fairfax, WM Curtis Creek, Western Acceptance Facility)	2,615
Total MSW disposed at private facilities	74,612

Source: Recycling and Resource Management Division based on 2022 MRA Report

Private sector collectors are expected to continue to utilize facilities outside the County for disposal and understand that their use of these facilities is essential to the overall management of Montgomery County's integrated solid waste management system.

3.7.2 C&D handled by Private Haulers

C&D is nonhazardous waste from construction and demolition sites. It generally consists of brick, concrete, wood and lumber, roofing, drywall, and other masonry materials. C&D waste can be brought to the Transfer Station and more than 30 public and privately owned disposal facilities in and outside Montgomery County.

In 2022, approximately 294,000 tons of C&D materials were reported by private haulers or by scale records at the Transfer Station as generated in the County—a 7% increase over the amount reported in 2017. Of the C&D generated, Montgomery County managed half, and the private sector handled half. The continued use of the Transfer Station to dispose of C&D materials creates more pressure on the already constrained system. **Table 3.7** below shows how C&D generated in the County was managed, recycled, and disposed of in CY 2022. Compared to the previous planning period base year (2017), the total tons of C&D received for

recycling at the Transfer Station was reduced from 15% to 7%, and the percentage of the private sector was reduced from 24% to 14%.

Table 3.7 Tons of Construction and Demolition Debris Recycled and Disposed in CY 2022

Management of C&D Debris	Tons	% Managed
Total Tons Received by Montgomery County	146,169	50%
Recycled by County (does not count toward recycling rate) ¹	21,329	7%
Disposed by the County via its Out-of-County landfill contract	44,401	15%
Burned by County in RRF (remaining ash also disposed in Out-of-County Landfill)	80,438	27%
Total Tons Handled Entirely by the Private Sector	147,882	50%
Recycled (does not count toward recycling rate) ¹	42,192	14%
Disposed	105,690	36%
Total Tons Managed	294,051	100%

Source: Montgomery County, MD Department of Environmental Protection. Division of Solid Waste Services
Haulers Report, CY 2022. Reported as Non-MRA Materials Recycled

As noted in Table 3.8, 83% of the C&D collected by private haulers in CY 2022 was managed by six (6) facilities. Three (3) managed 75% of the total C&D: Sun Recycling and Ritchie Reclamation and C&D Recovery, LLC Processing Facility. The latter is a private C&D processing facility located in Montgomery County. A concentration of processing was noticeable when compared to the 2017 baseline. According to the haulers' report, C&D materials were transported to 31 other facilities in smaller amounts.

Table 3.8 C&D Acceptance Facilities

Facility Name	Disposed	Asphalt Recycled	Concrete Recycled	Gen. Recycled	Total
Sun Recycling	43,816		51	6,324	50,191
Ritchie Reclamation	37,593		123	5,948	43,664
C & D Recovery	14,029			2,439	16,468
Federal IPC	5,384			5	5,389
Tolson & Associates	1,441	1,128	2,985	10	5,564
Recycle One	1,099		9	968	2,076
a. Subtotal	103,363	1,128	3,167	15,693	123,351
b. Other 25 private facilities	2,327	4,287	8,518	9,399	24,531
Total tons processed	105,690	5,415	11,685	25,092	147,882

Source: Montgomery County, MD Department of Environmental Protection. Division of Solid Waste Services 2024

Figure 3.6, below, shows a map of the facilities most commonly used by the private sector, as noted in **Table 3.8**. This map shows acceptance facilities in Maryland, Virginia, and D.C. The map only shows those reported by private haulers used to process C&D generated within Montgomery County. Therefore, **Figure 3.6** does not represent all the facilities available for processing C&D generated in Montgomery County.

Figure 3.6 C&D Acceptance Facilities

