

Amendment No. 1 Amendment No. 1 to Council Resolution No. 143-2025

**BY: Chairperson at the request
of the County Executive**

**Legislative Day No. 13
Date: September 2, 2025**


Amendment No. 1 to Amendment No. 1

(This amendment removes reference to the Pay As You Throw Program.)

- 1 In the Amendment description, remove items 9, 12b and 13 and renumber the description
2 accordingly.
3
4 On page 2, strike lines 11 and 14.
5
6 In the pages attached to Amendment No. 1:
7 • Remove pages 105 and Appendix A, Page 2 and
8 • On page 113, strike in its entirety the row that reads:
9 “Assess the feasibility, benefits, and requirements for a PAYT program in Howard
10 County.... Short”.

I certify that this a true copy of

Amendment 1 to Amendment 1 to CR 143¹-2025
passed on September 2, 2025


Council Administrator

Amendment No. 1 to Council Resolution No. 143-2025

**BY: Chairperson at the request
of the County Executive**

**Legislative Day No. 13
Date: September 2, 2025**

Amendment No. 1

(This amendment:

- 1. Removes reference to 2030 General Plan goals;*
- 2. Clarifies statistics related to the Green Bin program;*
- 3. Adds yard trim and food waste to a graphic depicting residential waste composition;*
- 4. On page 58 of the Solid Waste Management Plan, removes the specific date of April 1 as the start date for yard waste collection;*
- 5. Clarifies that carpet and shingles cannot be disposed of at the Residents' Convenience Center;*
- 6. Removes reference to the statewide voluntary recycling goal;*
- 7. Removes provisions related to ash recycling and capacity at the existing mass burn WTE Facility;*
- 8. Corrects the number of eligible households who participate in curbside collection;*
- 9. ~~Adds a statement of the intent to study the feasibility, benefits, and requirements for a PAYT program;~~*
- 10. 9. Adds that the County would have 3 years lead to design and construct the last cells at the landfill or find another export location when the landfill nears capacity;*
- 11. 10. Clarifies that the third option, should the landfill reach capacity, is an option of last resort;*
- 12. 11. Regarding the summary of action steps:*
 - a. Adds a timeframe for the inclusion of more reuse options as the markets develop; and*
 - b. ~~Adds an action item of accessing the feasibility, benefits, and requirements for a PAYT program in Howard County and adds a "short" timeframe for this assessment; and~~*
 - c. b. Adds a timeframe for monitoring greenhouse gas emissions from the landfill; and*
- 13. ~~Adds "Pay as you Throw" in the list of acronyms; and~~*
- 14. 12. Adds a type of solid waste accepted at the Citron Hygiene Transfer Station.)*

I certify that this a true copy of

Amendment 1 to CR 143-2025

passed on September 2, 2025

[Signature]

Council Administrator

1 In the Solid Waste Management Plan, attached to this Act, amend the following pages as shown
2 in the attachment to this Amendment:

3 1. Page 8

4 2. Page 32

5 3. Page 34

6 4. Page 58

7 5. Page 59

8 6. Page 74

9 7. Pages 80 and 81

10 8. Page 98

11 ~~9. Page 105~~

12 ~~10. 9.~~ Page 109

13 ~~11. 10.~~ Page 113

14 ~~12. Appendix A, page 2~~

15 ~~13. 11.~~ Appendix D, page 1

1.0 Legal and Institutional Framework

3. Manage, direct, or administer, as appropriate, the residential solid waste and recyclable materials collection and processing services provided by agencies and private firms under contract with the County.
4. Evaluate alternative waste processing and disposal capacity, as necessary, to provide for future County needs.
5. Implement and maintain a comprehensive solid waste management program in conformance with the approved Plan, including development of new programs, facilities, and contracts with private service providers.
6. Maintain a comprehensive recycling program as described in the Plan, including programs to reduce the amount of solid waste requiring landfill disposal through source reduction, reuse, and recycling.
7. Provide information and assistance to residents, government entities, schools, and businesses about the County's solid waste management system; implement education programs to promote waste reduction, reuse, and recycling.

1.1.3 Recycling and Waste Reduction

Howard County's goal of efficient and cost-effective management of solid waste is reflected in the County's comprehensive recycling program⁴. One goal presented in this Plan is to exceed the minimum recycling requirements of the Maryland Recycling Act (MRA), which requires the County achieve a 35 percent recycling rate and establishes a 60 percent voluntary waste diversion goal. The comprehensive recycling program has been designed to meet and exceed these requirements and goals with participation by residents, schools, government, and business operators. ~~The County, through the 2030 General Plan, has established an internal recycling goal of 75 percent by 2030.~~

Reduction of solid waste and household hazardous waste generation are objectives of the County solid waste management system. This is consistent with the Environmental Protection Agency's (EPA) waste management hierarchy as shown in **Exhibit 1-1**. The County has implemented numerous initiatives regarding recycling and waste reduction. These are described in Chapter 3 of this Plan.

⁴ <https://www.howardcountymd.gov/bureau-environmental-services/recycling>

3.2.1 Residential and Commercial Waste

Howard County completed a comprehensive residential waste composition study in 2022 to measure the composition of residential MSW generated in the County. For the purposes of this Plan development, MSW composition has been estimated based on an understanding of the mix of residential, commercial, and institutional waste generators in the County.

In Howard County, Residential Waste is collected from households through a combination of curbside service, curbside bulk collection, dumpsters, community clean-up projects, and drop-off facilities at the ARL. Due to local factors, the proportion of various materials in the MSW stream would be expected to vary somewhat from that experienced in other communities.

Commercial Waste is non-hazardous waste generated by businesses in the ordinary course of their operations and is collected by private contractors and is generally not disposed of at the county landfill. It includes non-bulky waste that is normally stored outside in closed containers, due to the potential presence of food scraps and other putrescible materials. Commercial Waste excludes waste generated by construction and demolition activities. Industrial Waste is generally generated by manufacturing operations. Included in institutional waste is schools, hospitals, prisons, government offices and similar facilities.

3.2.1.1 Projected Quantities and Composition

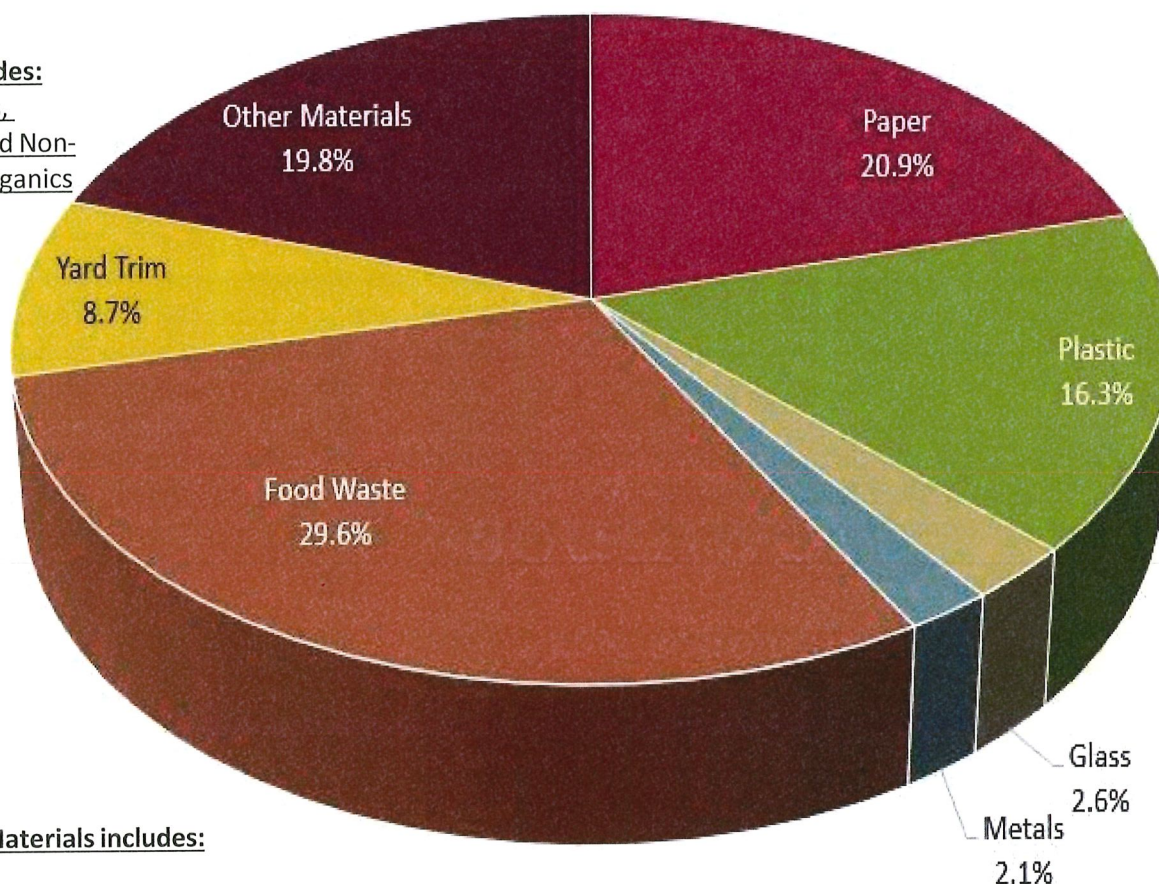
Table 3-1 includes the actual waste and recycling quantities disposed of in Howard County in 2022. This exhibit also provides projections for the planning period of 2025 through 2034. The 2022 waste disposal data was provided to Howard County by MDE. This information is taken from waste tonnages reported to MDE by permitted solid waste facilities. Recycling quantity data is from the MRA reports completed by Howard County and submitted to MDE. Data from the historical recycling reports is presented later in this chapter. Future waste generation quantities were calculated by multiplying the 2022 per capita rate for each waste category by respective future annual population projections.

Exhibit 3-1 presents the results of the 2022 residential waste composition study. The study sampled waste from each of the 15 Trash and Recycling Zones (TRZs) that comprise the County's curbside collection system. The composition only includes residential waste collected curbside. It does not include source-separated recyclable materials placed curbside or materials self-hauled to the Alpha Ridge Residents' Convenience Center. The composition of recyclable materials presented in **Exhibit 3-1** are materials in the residential waste stream that are disposed of and represent an opportunity for increased diversion. The waste composition study indicates that organics are the largest component of the waste stream. ~~Food waste and yard waste comprise 38.3 percent of the residential waste stream.~~ In total, they represent 38.3% of the waste stream, of which about 29.6% would be acceptable in the Green Bin program. This demonstrates the importance of the County's "Feed the Green Bin" program for improved waste diversion and recycling.

There has not been a recent waste composition study for Howard County's commercial sector, so data from the 2016 Maryland Statewide Waste Composition Study was used to estimate the distribution of different types of institutional/commercial/industrial (ICI) waste in the County. **Exhibit 3-2** presents an estimate of ICI waste composition in graphic form. Paper is the largest component of the commercial waste stream, comprising 27.4 percent. Organics are also a large part of the commercial waste stream, totaling about 20.5 percent. The composition of recyclable materials presented in **Exhibit 3-2** are materials disposed of in the ICI waste stream.

Exhibit 3-1 Estimated Residential Waste Composition
After source separation

Yard Trim includes:
Brush, Branches,
Leaves, Grass and Non-
Compostable organics



Other Materials includes:
Wood
Concrete, brick, other C&D
Bulky waste
Carpet & rugs
Textiles, rubber, leather
Diapers, sanitary products
E-waste
HHW

Food Waste includes
Packaged and Non-
Packaged food scraps

Paper includes:
Old newspapers
OCC
Magazines
Paperboard
Mixed paper
Gable top, aseptic
Other paper

3.4.3 Waste and Recyclables Collection System

The Bureau of Environmental Services is responsible for County-wide curbside collection services for residential waste, recyclables, food scraps, and yard trim; as well as collection from private condominium units in the residential collection program, public buildings, and county schools; and curbside waste and recyclables collection for businesses in the Ellicott City Historic District. Other than the Ellicott City Historic District, the County does not provide commercial waste collection. Businesses must contract private haulers for collection and disposal of solid waste.

The Bureau operates a curbside bulky trash collection for items such as sofas, desks, etc., which are collected with the regular curbside solid waste collection. Also, a Residential Bulk Dumpster Program or community cleanup program is available for multi-family homes within the County's collection program. In this Program, the County coordinates with multi-family homes to provide collection containers for scheduled community waste clean-ups. Containers are delivered to collection sites by a county contractor, usually for use over a weekend, and are removed at the beginning of the following week.

The Collections Division of the Bureau of Environmental Services manages the Residential Refuse Collection Program and the Residential Bulk Dumpster Program. The Collections Division uses private haulers under contracts awarded on a competitive basis. The County is divided into 15 Trash and Recycling Zones, each with about 4,500 to 6,000 households. A 16th TRZ provides front-end dumpster collections to about 5,700 County offices, schools, and condominium properties. The County currently collects trash and recycling from 87,000 households, yard trim from 64,000 households, and food scraps from over 20,000 households. Collection of waste, recycling, and yard trim is provided by a single contractor within each zone. A single contractor also services the containers located at condominium developments and at public buildings.

The integrated routes offer separate waste collection including bulk items, recyclables collection, yard trim collection, and food scraps collection, each once per week. Recyclables collection is for metal cans, glass, plastic containers, and mixed paper. Yard trim collection for grass clippings, leaves, and small wood scraps is provided from April 1st to the middle of January. Collections are scheduled for Christmas trees in January of each year. Food scrap collection is currently available only on certain routes. In November of 2023, the County expanded the "Feed the Green Bin" food scraps collection program and is planning further expansion. Curbside scrap metal collection includes metal swing sets, file cabinets, appliances, lawn mowers, exercise equipment, etc. Integrated collection contracts to provide for solid waste and recyclables collection are awarded for up to six-year terms. The County funds waste and recycling collection and disposal with revenue from a dedicated Environmental Services Fund.

Collection contractors are required to drop off collected waste at disposal facilities or in the case of recyclable materials, processing facilities. Contracts provide that contractors deliver materials to facilities as directed by the Bureau of Environmental Services. The County has a service agreement with the Authority which provides that collected residential waste from Howard County be delivered to AJTS.

Commingled loads of yard trim and food scraps are delivered to the Alpha Ridge Landfill's compost facility. Yard trim collected from routes that are not part of the County's food scrap collection program are sent to yard trim only processing facilities. Recyclables are directed to a MRF located in Elkridge, Maryland. Scrap metal is directed to ARL for recycling through the scrap metal contractor.

Commercial waste generators, including industry, institutions, and retail and service businesses, contract directly with private contractors, who provide collection services for commercial waste. Private

3.0 Existing Waste Management System

contractors also provide services for C&D debris, dead animals, and septage. Collection contractors may deliver waste to any legally permitted transfer or disposal facility. As discussed previously, waste exported from the County is often disposed at privately-owned landfills rather than publicly owned sites.

The County collects HHW at a drop-off facility located at the Residents' Convenience Center. The facility is open to receive waste every Saturday from April through November, and the first Saturday of the month in January, February, and March, during ARL operating hours. A contractor operates the site and is responsible for receiving waste from citizens, identifying unknown wastes, properly packaging wastes for shipment, and transporting packaged wastes to processing and disposal facilities.

3.4.4 Solid Waste Acceptance Facilities

The ARL and Alpha Ridge Transfer Station are the only County-owned and operated public solid waste acceptance facilities. The compost facility at the ARL is the only food scrap compost facility within the County. The LPWRP is a County-owned wastewater treatment facility that receives septage waste.

A list of solid waste acceptance facilities and recycling/composting facilities in Howard County can be found in **Appendix D**. It also contains a map showing the location of these facilities.

3.4.4.1 Public Facilities

There is one (1) active landfill and two (2) closed landfills undergoing post-closure care activities in Howard County. These facilities include the following:

- Alpha Ridge Landfill; Marriottsville - Active
- Carrs Mill Road Landfill; Glenwood - Closed
- New Cut Landfill; Ellicott City - Closed

The ARL is located on Marriottsville Road, north of Interstate 70, in the northern part of the County. The Landfill opened in 1980. It consists of 590 acres, of which 190 are permitted for fill. Since most of the residential waste and commercial waste is exported to private facilities, the ARL is not expected to reach capacity until after the year 2055 based on projections documented in Annual Capacity Utilization Reports submitted to the MDE. The total permitted landfill capacity at the ARL is about 7.4 million tons (based on a waste density of 1,100 pounds per cubic yard). There are undeveloped cells at the ARL, currently the County is working in Cell 1.

The Alpha Ridge Transfer Station is located on the property of ARL. The Transfer Station is a two-level 500-ton per day (tpd) MSW transfer facility which occupies a four-acre area. Haulers deliver solid waste onto a tipping floor utilizing self-unloading vehicles. There is a separate area provided for smaller vehicles requiring hand unloading.

The ARL and Transfer Station accept non-hazardous solid waste including MSW, and C&D debris. Operations are Monday - Saturday, 52 weeks per year, except for specified County holidays. Daily receipts of all types of acceptable waste at the ARL averaged about 260 tons per day in 2023, for a total of approximately 78,500 tons for the year. Most of the waste received is transported to the AJTS for transfer to disposal sites.

At the Residents' Convenience Center residents may dispose of waste not collected at the curb. White goods, bulky waste, tires, wet cell batteries, used motor oil, antifreeze, mattresses, ~~textiles, shingles,~~ electronics, rigid plastics, ~~carpet,~~ textiles, shoes, cooking oil, and other recyclables also can be brought to

4.5 RECYCLING

Recycling is an integral component of the County's solid waste management program and is required by Maryland law. The State has a mandated recycling goal of 35 percent for counties with populations greater than 150,000, ~~with a state-wide voluntary recycling goal of 55 percent.~~ In addition, the Maryland General Assembly established a voluntary 60 percent waste diversion goal, which is calculated by adding the recycling rate plus the maximum of five percent source reduction credits.

The County contracts for services including curbside collection, and processing and marketing of recyclable mixed paper, commingled containers, and yard trim. Costs to operate the system are paid from the Bureau of Environmental Services' operating budget. All yard trim and food scrap collection is taken to the Compost Facility at the ARL to be composted.

The County provides recycling opportunities at its Residents' Convenience Center located at the ARL. The recyclables collected at the center include those items collected curbside with the addition of textiles, shoes, waste oil, antifreeze, vehicle batteries, tires without rims, wood, yard trim, cooking oil, scrap metal, scrap propane tanks, scrap tires, and electronics waste.

4.5.1 Public Education

The County utilizes a diverse collection of media and community outreach approaches to promote recycling. Promotional and informational materials developed and circulated by the Recycling Division each year include the items accepted at the Residents' Convenience Center at that time. The County's comprehensive public education program has been effective at distributing recycling information but can be enhanced through continued participation.

The County conducted a public opinion survey to assess the adequacy of current services to inform preparation of this Plan. A total of 3,110 residents responded to the survey, reflecting a variety of demographics. A full list of the questions and survey results can be found in **Appendix E**. Participants had the opportunity to give feedback on their satisfaction with the County's solid waste program. **Exhibits 4-1, 4-2, and 4-3** summarize residents' satisfaction with the County's solid waste and recycling program. Overall, over 90 percent of residents are satisfied or very satisfied with the current solid waste and recycling services. Recurring requests/concerns identified in the survey include:

- Expanding the "Feed the Green Bin" Program to more communities.
- Confusion over why select materials are not picked up by the hauler.
- Education about what plastics can be recycled and what needs to be thrown away.

4.6 WASTE PROCESSING AND DISPOSAL

Howard County will continue to provide processing and disposal capacity for residential waste and the portion of commercial waste currently received at the ARL. It is assumed that the practice of exporting commercial waste, as discussed in Chapter 3, will continue throughout the planning period, and the County anticipates that it will directly receive and dispose no more than 10 percent of the commercial waste generated at ARL.

The total amount of waste in place at the ARL is about 3.3 million tons. Currently, the total remaining permitted landfill capacity is about 4.1 million tons. Under the current Plan that minimizes disposal at the ARL and prioritizes waste export, the ARL has about 33 years of life remaining. These conditions are used as the basis for evaluating the adequacy of facility size or capacity share for each of the alternatives discussed below. Should circumstances arise that prevent the County from exporting solid waste, the life of the ARL would be significantly shortened.

The County relies primarily on waste export via the AJTS to manage waste collected and controlled directly by the County. Additional processing options are provided here to understand their feasibility for use during the planning period as a contingency should the need arise.

4.6.1 Waste-To-Energy

Waste-to-energy (WTE) facilities are designed to serve as a reliable disposal option while producing power. As in any combustion process, solid ash residue is produced. Bottom ash is formed by combusted material that exits at the bottom of the furnace chamber, while fly ash consists of ash and other solids captured from the boiler and air pollution control equipment. The Most ash residue is shipped to a landfill for disposal although recycling options are becoming accepted practice as discussed below.

4.6.1.1 Ash Recycling

Maryland Law prohibits counting the recycling and reuse of ash from MSW incinerators and WTE facilities as Recycled Material. Recycling and reuse of ash from MSW incinerators and WTE facilities are becoming more common practice. Ash is reused primarily at landfills, most often as an alternative daily cover or road base for equipment. Recycling MSW ash has become an important waste reduction opportunity in recent years. Large WTE providers have begun to find sustainable solutions for MSW ash residue. The metal separated can be recycled, and the aggregate can be used in construction projects. One producer estimates that the process can reduce the amount of ash going to landfills by 65 percent.²⁰

4.6.1.2 Capacity at Existing Mass-Burn WTE Facilities

The WTE plant in Baltimore is located 18.3 miles from Howard County. In 2019 about 22,000 tons of waste from Howard County was sent to the facility. About 90 percent of the waste burned at this facility comes from the City of Baltimore and the County of Baltimore. The Baltimore City contract comes with an ash disposal agreement and an emissions control agreement for use of Baltimore City's landfill. The remaining capacity is available for commercial users. Howard County has no intention to send solid waste collected curbside or at our landfill to a WTE facility. If Howard County has a future need for WTE because the King George Landfill and other regional facilities are unable to accept waste generated in Howard County, the most feasible option would be to secure capacity at an existing traditional mass-burn WTE facility.

²⁰ Total Ash Processing – Covanta

Ash generated by WTE facilities could be disposed of at the ARL; however, this would reduce the facility's capacity, and the County prefers WTE ash not be landfilled at ARL.

4.6.2 Waste Export

Howard County currently exports all its residential waste and a small quantity of commercial waste. In July 2022, the County entered into a Waste Disposal Agreement with the Authority to provide for the transfer of solid waste from the County to a private regional landfill located in King George County, Virginia. The agreement establishes Howard County's maximum annual disposal tonnage is 150,000 tons. There is no daily tonnage limit. Waste generated in the County is directly hauled to the AJTS in Anne Arundel County before being rail transported to the King George County Landfill in Virginia. Most of the residential and commercial waste received at the Alpha Ridge Landfill is also transported to the AJTS.

4.6.3 Mixed Solid Waste Composting

There are no in-county or regional solid waste facilities that manage solid waste composting operations. The County has no plans to initiate this type of operation during this planning period.

4.7 ALPHA RIDGE LANDFILL

Despite the environmental and public concerns associated with landfill operations, most waste management systems require landfill disposal.

Recycling, composting, and material separation and removal can divert significant portions of the waste stream from final disposal, but not all materials are compatible with processing methods. Combustion of solid waste significantly reduces waste volumes, but these facilities must dispose of non-recycled ash residuals.



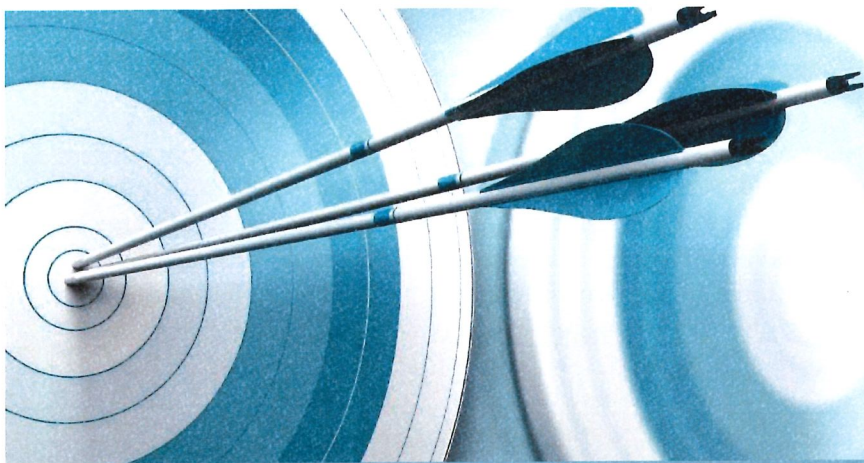
Less than ten (10) percent of the waste generated in Howard County is landfilled at the ARL. A limited amount of residential and commercial waste received at the ARL, which is not suitable for waste export, is landfilled on site. Most of the waste received at the ARL is exported.

It is Howard County's objective to minimize the amount of waste disposed of at the ARL. Disposal of substantial waste quantities at this facility will be limited to short time periods during which other preferred disposal options are unavailable. As noted in Chapter 3, the ARL is the County's back up facility for waste disposal as identified in the County's Contingency Plan.

4.7.1 Landfill Design

From 1981, when the ARL opened, to 1993, waste was placed in an unlined cell. A 38-acre cell constructed with a double synthetic liner and leachate collection system was put into operation in January 1993 and the unlined cell was closed. The ARL has permitted space available on-site for two additional lined 38-acre cells, or for a larger number of smaller cells.

The existing liner system cross-section from top to bottom includes the following:



5.0 ACTION PLAN

5.1 INTRODUCTION

The Howard County Solid Waste Management Plan (2025-2034) is a planning document for the County, and is coordinated with the general plan, HoCo by Design. This is a dynamic document which may be amended from time to time as necessary to meet changing requirements for an integrated solid waste management program that meets the needs of the community, as well as the requirements of the State of Maryland. As required by COMAR 26.03.03, this Plan will be reviewed at least once every three (3) years and updated if necessary.

The action plan presented in this chapter responds to the County's needs for managing the various types and quantities of waste generated and provides for system components that are technically and economically feasible for the County. As presented in previous chapters, the County manages most of the residential waste generated in the County, but less than 10 percent of the MSW generated by commercial establishments, apartments, industry, and institutional facilities.

This chapter presents the Plan of action for Howard County's integrated solid waste management system and components that are to be used during the planning period ending in 2034. Public and private programs and facilities for source reduction, recycling, processing, and disposal are addressed as part of the County's solid waste management strategy. Other components addressed include contingency planning and funding mechanisms.

Flexibility is incorporated into the implementation process as the County can respond to developments and changes in materials markets, technology, private sector services, and opportunities for regional cooperation. The County is open to considering new approaches to solid waste management in the future. This Plan conforms to the County's land use plan and to HoCo by Design.

5.2 CHANGES SINCE THE 2014 PLAN

A number of changes have occurred in Howard County since the 2014 Solid Waste Management Plan, which are reflected in this updated Plan.

5.2.1 Food Scraps Recovery

The County's food scraps composting program known as "Feed the Green Bin Program," has grown over the last 10 years. In 2022, 36,000 eligible ~~Today over 20,000~~ households have signed up to participate in the curbside collection

5.0 Action Plan

5.8.1.2 Second Option

If the current waste export contract was discontinued for some reason and the County disposed all residential waste and non-residential waste and C&D waste generated in the County at the ARL, the remaining landfill life is estimated at three (3) years. This projection assumes that non-residential waste currently delivered to private facilities continues to be managed privately. Under this option, the capacity will also be sufficient until well past the end of the planning period. The County would have a 3-year lead time to design and construct the last cells at ARL or find another export location.

5.8.1.3 Third Option

If the County sent all the waste currently being exported to a WTE facility, buried the ash, and continued the minimal landfilling of materials not acceptable at a WTE facility, the capacity will be sufficient until at least the end of the planning period. An alternative for this option, which would extend the life of the ARL, would be to send all the waste currently being exported to a WTE facility, with the ash landfilled at an out-of-county landfill. This is the least preferred option and one of last resort to be used only if regional solid waste disposal systems have experienced a total breakdown.

5.8.2 Alpha Ridge Transfer Station

In the event of one or more of the current facilities being unable to accept waste, the County could transfer waste from the transfer station directly to one of the landfills or WTE facilities in the region.

5.8.3 Alpha Ridge Residents' Convenience Center

The Residents' Convenience Center at the ARL accepts solid waste and recyclables at no cost to Howard County residents. As more materials can be economically recycled, the County will expand the recycling opportunities at the convenience center during the planning period.

Considering the inherent operational flexibility, the convenience area will be adequate to manage waste and recyclables quantities delivered during the planning period. However, the County will continue to monitor the center to determine if additional expansion is needed.

5.8.4 Alpha Ridge Composting Facility

The Howard County compost facility at the ARL is adequately sized for the planning period; however, if necessary, additional processing capacity can be built.

5.9 FINANCING AND FUNDING

Howard County funds solid waste management capital and operating costs through an Environmental Services Fund (ESF). The ESF funds all administrative and operational costs for residential waste collection and waste disposal and all administrative costs for recycling processing and public outreach. The ESF is evaluated annually with various budget models and projections to confirm sustainability. Fees are adjusted annually to cover the cost of the services provided.

5.9.1 Revenue

The primary revenue source for the ESF is the Refuse Collection Charge assessed on each improved residential real property (detached homes, town homes, and condominiums) that are on public roads and some on private roads that have provided a damage waiver.

Table 5-1 Summary of Solid Waste Management Action Steps

Action Step	Timeframe
Action Step 1 – Promote and Encourage Source Reduction and Reuse	
Conduct a source reduction outreach campaign directed at consumers	Short
Conduct a source reduction outreach campaign directed at businesses	Short
Provide compost bins and promote their use	Short
Continue operating paint, bike and textile reuse programs	Short
Explore establishing a swap shop/reuse center	Medium
Include more reuse options as markets develop	Short/Medium/Long
Action Step 2 – Increase Commercial Recycling Participation	
Support and enforce Apartment and Condo recycling law	Short
Encourage recycling in office buildings in response to state requirements	Short
Continue the Work Green Howard Certification Program and explore opportunities for program enhancement	Short
Increase business recycling reporting through voluntary or mandated actions	Short
Support school recycling programs and initiatives	Short
Action Step 3 – Increase Organics Diversion	
Expand food scraps collection in public schools	Short
Facilitate food donation programs	Short
Conduct an organics composting education and outreach campaign	Short
Revise planning and zoning text amendments allowing commercial food scraps anaerobic digestion, food scraps composting and on-farm composting	Short/Medium
Expand residential food scraps collection to more households with year-round collections	Short/Medium/Long
Study feasibility of a public/private partnership for anaerobic digestion of food scraps in Howard County	Medium
Action Step 4 – Expand List of Acceptable Recyclable Materials	
Expand mix of curbside recycling program materials if processing and marketing capabilities exist	Short/Medium/Long
Expand mix of recyclable materials accepted at the ARL if processing and marketing capabilities exist	Short/Medium/Long
Action Step 5 – Solid Waste Disposal	
Continue MSW waste export	Short/Medium/Long
Continue to assess the capacity of Alpha Ridge Transfer Station to handle daily tons as required	Short
Continue to assess the capacity of the current active landfill cell at ARL	Short
Assess the feasibility, benefits, and requirements for a PAYT program in Howard County.	Short
Action Step 6 – Energy and Greenhouse Gas Reductions	
Monitor greenhouse gas emissions from landfill and maintain or remediate to acceptable limits	<u>Short</u>
Prioritize, when practical, the use of renewable energy to meet the County's energy needs	Short
Evaluate alternative technology for energy	Long
Action Step 7 – Education and Outreach	
Conduct business waste audits and reduction/recycling education	Short/Medium/Long
Establish a business recycling recognition program	Short/Medium/Long
Continue education and outreach programs in schools	Short/Medium/Long

Summary of Solid Waste Acceptance Facilities in Howard County, MD

Appendix D

Waste Facilities in Howard County

Name	Location	Type Solid Waste Accepted or Generated	Ownership	Permit Status
Alpha Ridge Landfill	Intersection of Marriottsville Rd & 1-70	Non-hazardous municipal solid waste	Howard County Government	Approved -MDE Permit No. 2021-WMF-0110
Alpha Ridge Processing Facility and Transfer Station	Intersection of Marriottsville Rd & 1-70	Non-hazardous municipal solid waste	Howard County Government	Approved -MDE Permit No. 2017-WPT-0578
Ameriwave Processing Facility and Transfer Station	7130 Kit Kat Road, Elkridge MD	Non-hazardous municipal, commercial, and C&D material	WM of Maryland	Approved – MDE Permit No. 2021-WPT-0572
Citron Hygiene Transfer Station	7184 Troy Hill Road, Elkridge MD	<u>Non-hazardous commercial waste</u>	Citron Hygiene US Corp	Approved – MDE Permit Number 2024-WTS-0687

Amendment No. 1 to Council Resolution No. 143-2025

BY: Chairperson at the request
of the County Executive

Legislative Day No. 13
Date: September 2, 2025

Amendment No. 1

(This amendment:

- 1. Removes reference to 2030 General Plan goals;*
- 2. Clarifies statistics related to the Green Bin program;*
- 3. Adds yard trim and food waste to a graphic depicting residential waste composition;*
- 4. On page 58 of the Solid Waste Management Plan, removes the specific date of April 1 as the start date for yard waste collection;*
- 5. Clarifies that carpet and shingles cannot be disposed of at the Residents' Convenience Center;*
- 6. Removes reference to the statewide voluntary recycling goal;*
- 7. Removes provisions related to ash recycling and capacity at the existing mass burn WTE Facility;*
- 8. Corrects the number of eligible households who participate in curbside collection;*
- 9. Adds a statement of the intent to study the feasibility, benefits, and requirements for a PAYT program;*
- 10. Adds that the County would have 3 years lead to design and construct the last cells at the landfill or find another export location when the landfill nears capacity;*
- 11. Clarifies that the third option, should the landfill reach capacity, is an option of last resort;*
- 12. Regarding the summary of action steps:*
 - a. Adds a timeframe for the inclusion of more reuse options as the markets develop;*
 - b. Adds an action item of accessing the feasibility, benefits, and requirements for a PAYT program in Howard County and adds a "short" timeframe for this assessment; and*
 - c. Adds a timeframe for monitoring greenhouse gas emissions from the landfill;*
- 13. Adds "Pay as you Throw" in the list of acronyms; and*
- 14. Adds a type of solid waste accepted at the Citron Hygiene Transfer Station.)*

1 In the Solid Waste Management Plan, attached to this Act, amend the following pages as shown
2 in the attachment to this Amendment:

- 3 1. Page 8
- 4 2. Page 32
- 5 3. Page 34
- 6 4. Page 58
- 7 5. Page 59
- 8 6. Page 74
- 9 7. Pages 80 and 81
- 10 8. Page 98
- 11 9. Page 105
- 12 10. Page 109
- 13 11. Page 113
- 14 12. Appendix A, page 2
- 15 13. Appendix D, page 1

1.0 Legal and Institutional Framework

3. Manage, direct, or administer, as appropriate, the residential solid waste and recyclable materials collection and processing services provided by agencies and private firms under contract with the County.
4. Evaluate alternative waste processing and disposal capacity, as necessary, to provide for future County needs.
5. Implement and maintain a comprehensive solid waste management program in conformance with the approved Plan, including development of new programs, facilities, and contracts with private service providers.
6. Maintain a comprehensive recycling program as described in the Plan, including programs to reduce the amount of solid waste requiring landfill disposal through source reduction, reuse, and recycling.
7. Provide information and assistance to residents, government entities, schools, and businesses about the County's solid waste management system; implement education programs to promote waste reduction, reuse, and recycling.

1.1.3 Recycling and Waste Reduction

Howard County's goal of efficient and cost-effective management of solid waste is reflected in the County's comprehensive recycling program⁴. One goal presented in this Plan is to exceed the minimum recycling requirements of the Maryland Recycling Act (MRA), which requires the County achieve a 35 percent recycling rate and establishes a 60 percent voluntary waste diversion goal. The comprehensive recycling program has been designed to meet and exceed these requirements and goals with participation by residents, schools, government, and business operators. ~~The County, through the 2030 General Plan, has established an internal recycling goal of 75 percent by 2030.~~

Reduction of solid waste and household hazardous waste generation are objectives of the County solid waste management system. This is consistent with the Environmental Protection Agency's (EPA) waste management hierarchy as shown in **Exhibit 1-1**. The County has implemented numerous initiatives regarding recycling and waste reduction. These are described in Chapter 3 of this Plan.

⁴ <https://www.howardcountymd.gov/bureau-environmental-services/recycling>

3.2.1 Residential and Commercial Waste

Howard County completed a comprehensive residential waste composition study in 2022 to measure the composition of residential MSW generated in the County. For the purposes of this Plan development, MSW composition has been estimated based on an understanding of the mix of residential, commercial, and institutional waste generators in the County.

In Howard County, Residential Waste is collected from households through a combination of curbside service, curbside bulk collection, dumpsters, community clean-up projects, and drop-off facilities at the ARL. Due to local factors, the proportion of various materials in the MSW stream would be expected to vary somewhat from that experienced in other communities.

Commercial Waste is non-hazardous waste generated by businesses in the ordinary course of their operations and is collected by private contractors and is generally not disposed of at the county landfill. It includes non-bulky waste that is normally stored outside in closed containers, due to the potential presence of food scraps and other putrescible materials. Commercial Waste excludes waste generated by construction and demolition activities. Industrial Waste is generally generated by manufacturing operations. Included in institutional waste is schools, hospitals, prisons, government offices and similar facilities.

3.2.1.1 Projected Quantities and Composition

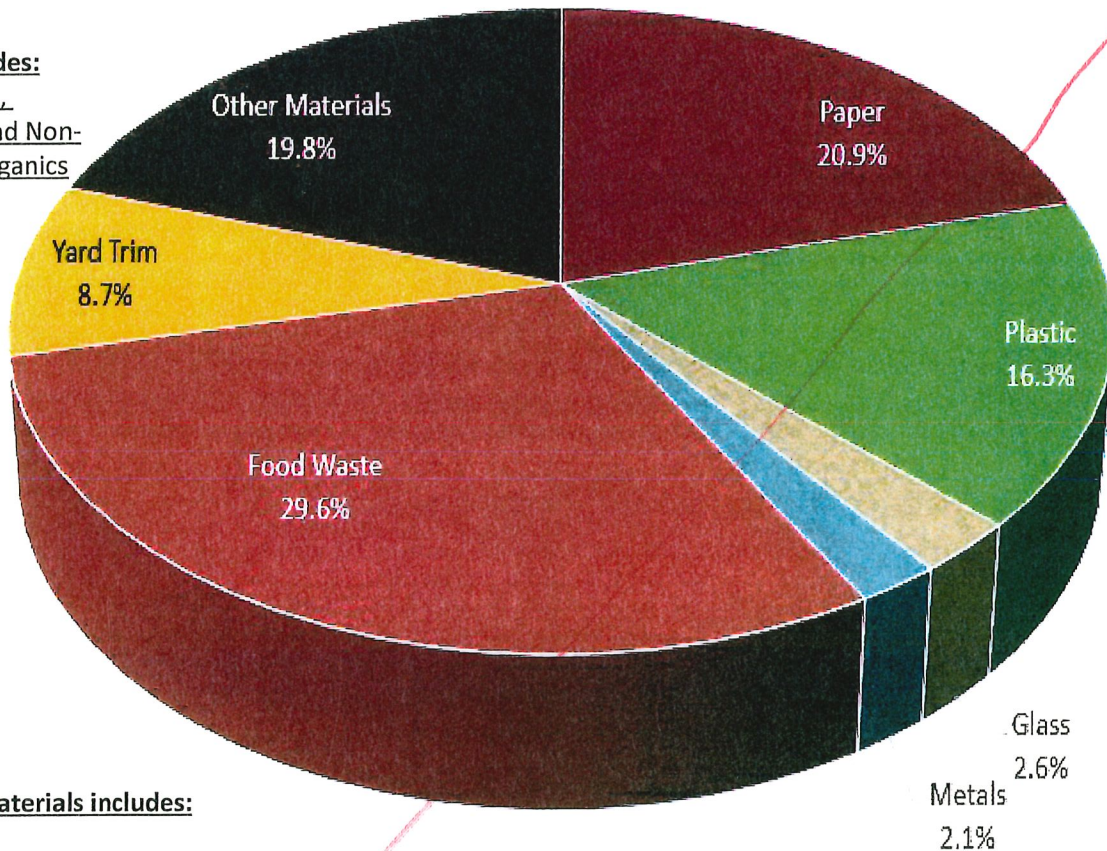
Table 3-1 includes the actual waste and recycling quantities disposed of in Howard County in 2022. This exhibit also provides projections for the planning period of 2025 through 2034. The 2022 waste disposal data was provided to Howard County by MDE. This information is taken from waste tonnages reported to MDE by permitted solid waste facilities. Recycling quantity data is from the MRA reports completed by Howard County and submitted to MDE. Data from the historical recycling reports is presented later in this chapter. Future waste generation quantities were calculated by multiplying the 2022 per capita rate for each waste category by respective future annual population projections.

Exhibit 3-1 presents the results of the 2022 residential waste composition study. The study sampled waste from each of the 15 Trash and Recycling Zones (TRZs) that comprise the County's curbside collection system. The composition only includes residential waste collected curbside. It does not include source-separated recyclable materials placed curbside or materials self-hauled to the Alpha Ridge Residents' Convenience Center. The composition of recyclable materials presented in **Exhibit 3-1** are materials in the residential waste stream that are disposed of and represent an opportunity for increased diversion. The waste composition study indicates that organics are the largest component of the waste stream. ~~Food waste and yard waste comprise 38.3 percent of the residential waste stream. In total, they represent 38.3% of the waste stream, of which about 29.6% would be acceptable in the Green Bin program.~~ This demonstrates the importance of the County's "Feed the Green Bin" program for improved waste diversion and recycling.

There has not been a recent waste composition study for Howard County's commercial sector, so data from the 2016 Maryland Statewide Waste Composition Study was used to estimate the distribution of different types of institutional/commercial/industrial (ICI) waste in the County. **Exhibit 3-2** presents an estimate of ICI waste composition in graphic form. Paper is the largest component of the commercial waste stream, comprising 27.4 percent. Organics are also a large part of the commercial waste stream, totaling about 20.5 percent. The composition of recyclable materials presented in **Exhibit 3-2** are materials disposed of in the ICI waste stream.

Exhibit 3-1 Estimated Residential Waste Composition
After source separation

Yard Trim includes:
Brush, Branches,
Leaves, Grass and Non-
Compostable organics



Other Materials includes:
Wood
Concrete, brick, other C&D
Bulky waste
Carpet & rugs
Textiles, rubber, leather
Diapers, sanitary products
E-waste
HHW

Food Waste includes
Packaged and Non-
Packaged food scraps

Paper includes:
Old newspapers
OCC
Magazines
Paperboard
Mixed paper
Gable top, aseptic
Other paper

3.4.3 Waste and Recyclables Collection System

The Bureau of Environmental Services is responsible for County-wide curbside collection services for residential waste, recyclables, food scraps, and yard trim; as well as collection from private condominium units in the residential collection program, public buildings, and county schools; and curbside waste and recyclables collection for businesses in the Ellicott City Historic District. Other than the Ellicott City Historic District, the County does not provide commercial waste collection. Businesses must contract private haulers for collection and disposal of solid waste.

The Bureau operates a curbside bulky trash collection for items such as sofas, desks, etc., which are collected with the regular curbside solid waste collection. Also, a Residential Bulk Dumpster Program or community cleanup program is available for multi-family homes within the County's collection program. In this Program, the County coordinates with multi-family homes to provide collection containers for scheduled community waste clean-ups. Containers are delivered to collection sites by a county contractor, usually for use over a weekend, and are removed at the beginning of the following week.

The Collections Division of the Bureau of Environmental Services manages the Residential Refuse Collection Program and the Residential Bulk Dumpster Program. The Collections Division uses private haulers under contracts awarded on a competitive basis. The County is divided into 15 Trash and Recycling Zones, each with about 4,500 to 6,000 households. A 16th TRZ provides front-end dumpster collections to about 5,700 County offices, schools, and condominium properties. The County currently collects trash and recycling from 87,000 households, yard trim from 64,000 households, and food scraps from over 20,000 households. Collection of waste, recycling, and yard trim is provided by a single contractor within each zone. A single contractor also services the containers located at condominium developments and at public buildings.

The integrated routes offer separate waste collection including bulk items, recyclables collection, yard trim collection, and food scraps collection, each once per week. Recyclables collection is for metal cans, glass, plastic containers, and mixed paper. Yard trim collection for grass clippings, leaves, and small wood scraps is provided from April 1st to the middle of January. Collections are scheduled for Christmas trees in January of each year. Food scrap collection is currently available only on certain routes. In November of 2023, the County expanded the "Feed the Green Bin" food scraps collection program and is planning further expansion. Curbside scrap metal collection includes metal swing sets, file cabinets, appliances, lawn mowers, exercise equipment, etc. Integrated collection contracts to provide for solid waste and recyclables collection are awarded for up to six-year terms. The County funds waste and recycling collection and disposal with revenue from a dedicated Environmental Services Fund.

Collection contractors are required to drop off collected waste at disposal facilities or in the case of recyclable materials, processing facilities. Contracts provide that contractors deliver materials to facilities as directed by the Bureau of Environmental Services. The County has a service agreement with the Authority which provides that collected residential waste from Howard County be delivered to AJTS.

Commingled loads of yard trim and food scraps are delivered to the Alpha Ridge Landfill's compost facility. Yard trim collected from routes that are not part of the County's food scrap collection program are sent to yard trim only processing facilities. Recyclables are directed to a MRF located in Elkridge, Maryland. Scrap metal is directed to ARL for recycling through the scrap metal contractor.

Commercial waste generators, including industry, institutions, and retail and service businesses, contract directly with private contractors, who provide collection services for commercial waste. Private

3.0 Existing Waste Management System

contractors also provide services for C&D debris, dead animals, and septage. Collection contractors may deliver waste to any legally permitted transfer or disposal facility. As discussed previously, waste exported from the County is often disposed at privately-owned landfills rather than publicly owned sites.

The County collects HHW at a drop-off facility located at the Residents' Convenience Center. The facility is open to receive waste every Saturday from April through November, and the first Saturday of the month in January, February, and March, during ARL operating hours. A contractor operates the site and is responsible for receiving waste from citizens, identifying unknown wastes, properly packaging wastes for shipment, and transporting packaged wastes to processing and disposal facilities.

3.4.4 Solid Waste Acceptance Facilities

The ARL and Alpha Ridge Transfer Station are the only County-owned and operated public solid waste acceptance facilities. The compost facility at the ARL is the only food scrap compost facility within the County. The LPWRP is a County-owned wastewater treatment facility that receives septage waste.

A list of solid waste acceptance facilities and recycling/composting facilities in Howard County can be found in **Appendix D**. It also contains a map showing the location of these facilities.

3.4.4.1 Public Facilities

There is one (1) active landfill and two (2) closed landfills undergoing post-closure care activities in Howard County. These facilities include the following:

- Alpha Ridge Landfill; Marriottsville - Active
- Carrs Mill Road Landfill; Glenwood - Closed
- New Cut Landfill; Ellicott City - Closed

The ARL is located on Marriottsville Road, north of Interstate 70, in the northern part of the County. The Landfill opened in 1980. It consists of 590 acres, of which 190 are permitted for fill. Since most of the residential waste and commercial waste is exported to private facilities, the ARL is not expected to reach capacity until after the year 2055 based on projections documented in Annual Capacity Utilization Reports submitted to the MDE. The total permitted landfill capacity at the ARL is about 7.4 million tons (based on a waste density of 1,100 pounds per cubic yard). There are undeveloped cells at the ARL, currently the County is working in Cell 1.

The Alpha Ridge Transfer Station is located on the property of ARL. The Transfer Station is a two-level 500-ton per day (tpd) MSW transfer facility which occupies a four-acre area. Haulers deliver solid waste onto a tipping floor utilizing self-unloading vehicles. There is a separate area provided for smaller vehicles requiring hand unloading.

The ARL and Transfer Station accept non-hazardous solid waste including MSW, and C&D debris. Operations are Monday - Saturday, 52 weeks per year, except for specified County holidays. Daily receipts of all types of acceptable waste at the ARL averaged about 260 tons per day in 2023, for a total of approximately 78,500 tons for the year. Most of the waste received is transported to the AJTS for transfer to disposal sites.

At the Residents' Convenience Center residents may dispose of waste not collected at the curb. White goods, bulky waste, tires, wet cell batteries, used motor oil, antifreeze, mattresses, ~~textiles, shingles,~~ electronics, rigid plastics, ~~carpet,~~ textiles, shoes, cooking oil, and other recyclables also can be brought to

4.5 RECYCLING

Recycling is an integral component of the County's solid waste management program and is required by Maryland law. The State has a mandated recycling goal of 35 percent for counties with populations greater than 150,000, ~~with a state-wide voluntary recycling goal of 55 percent.~~ In addition, the Maryland General Assembly established a voluntary 60 percent waste diversion goal, which is calculated by adding the recycling rate plus the maximum of five percent source reduction credits.

The County contracts for services including curbside collection, and processing and marketing of recyclable mixed paper, commingled containers, and yard trim. Costs to operate the system are paid from the Bureau of Environmental Services' operating budget. All yard trim and food scrap collection is taken to the Compost Facility at the ARL to be composted.

The County provides recycling opportunities at its Residents' Convenience Center located at the ARL. The recyclables collected at the center include those items collected curbside with the addition of textiles, shoes, waste oil, antifreeze, vehicle batteries, tires without rims, wood, yard trim, cooking oil, scrap metal, scrap propane tanks, scrap tires, and electronics waste.

4.5.1 Public Education

The County utilizes a diverse collection of media and community outreach approaches to promote recycling. Promotional and informational materials developed and circulated by the Recycling Division each year include the items accepted at the Residents' Convenience Center at that time. The County's comprehensive public education program has been effective at distributing recycling information but can be enhanced through continued participation.

The County conducted a public opinion survey to assess the adequacy of current services to inform preparation of this Plan. A total of 3,110 residents responded to the survey, reflecting a variety of demographics. A full list of the questions and survey results can be found in **Appendix E**. Participants had the opportunity to give feedback on their satisfaction with the County's solid waste program. **Exhibits 4-1, 4-2, and 4-3** summarize residents' satisfaction with the County's solid waste and recycling program. Overall, over 90 percent of residents are satisfied or very satisfied with the current solid waste and recycling services. Recurring requests/concerns identified in the survey include:

- Expanding the "Feed the Green Bin" Program to more communities.
- Confusion over why select materials are not picked up by the hauler.
- Education about what plastics can be recycled and what needs to be thrown away.

4.6 WASTE PROCESSING AND DISPOSAL

Howard County will continue to provide processing and disposal capacity for residential waste and the portion of commercial waste currently received at the ARL. It is assumed that the practice of exporting commercial waste, as discussed in Chapter 3, will continue throughout the planning period, and the County anticipates that it will directly receive and dispose no more than 10 percent of the commercial waste generated at ARL.

The total amount of waste in place at the ARL is about 3.3 million tons. Currently, the total remaining permitted landfill capacity is about 4.1 million tons. Under the current Plan that minimizes disposal at the ARL and prioritizes waste export, the ARL has about 33 years of life remaining. These conditions are used as the basis for evaluating the adequacy of facility size or capacity share for each of the alternatives discussed below. Should circumstances arise that prevent the County from exporting solid waste, the life of the ARL would be significantly shortened.

The County relies primarily on waste export via the AJTS to manage waste collected and controlled directly by the County. Additional processing options are provided here to understand their feasibility for use during the planning period as a contingency should the need arise.

4.6.1 Waste-To-Energy

Waste-to-energy (WTE) facilities are designed to serve as a reliable disposal option while producing power. As in any combustion process, solid ash residue is produced. Bottom ash is formed by combusted material that exits at the bottom of the furnace chamber, while fly ash consists of ash and other solids captured from the boiler and air pollution control equipment. The Most ash residue is shipped to a landfill for disposal although recycling options are becoming accepted practice as discussed below.

4.6.1.1 Ash Recycling

Maryland Law prohibits counting the recycling and reuse of ash from MSW incinerators and WTE facilities as Recycled Material. Recycling and reuse of ash from MSW incinerators and WTE facilities are becoming more common practice. Ash is reused primarily at landfills, most often as an alternative daily cover or road base for equipment. Recycling MSW ash has become an important waste reduction opportunity in recent years. Large WTE providers have begun to find sustainable solutions for MSW ash residue. The metal separated can be recycled, and the aggregate can be used in construction projects. One producer estimates that the process can reduce the amount of ash going to landfills by 65 percent.²⁰

4.6.1.2 Capacity at Existing Mass-Burn WTE Facilities

The WTE plant in Baltimore is located 18.3 miles from Howard County. In 2019 about 22,000 tons of waste from Howard County was sent to the facility. About 90 percent of the waste burned at this facility comes from the City of Baltimore and the County of Baltimore. The Baltimore City contract comes with an ash disposal agreement and an emissions control agreement for use of Baltimore City's landfill. The remaining capacity is available for commercial users. Howard County has no intention to send solid waste collected curbside or at our landfill to a WTE facility. If Howard County has a future need for WTE because the King George Landfill and other regional facilities are unable to accept waste generated in Howard County, the most feasible option would be to secure capacity at an existing traditional mass-burn WTE facility.

²⁰ Total Ash Processing - Covanta

4.0 Assessment of Existing System

Ash generated by WTE facilities could be disposed of at the ARL; however, this would reduce the facility's capacity, and the County prefers WTE ash not be landfilled at ARL.

4.6.2 Waste Export

Howard County currently exports all its residential waste and a small quantity of commercial waste. In July 2022, the County entered into a Waste Disposal Agreement with the Authority to provide for the transfer of solid waste from the County to a private regional landfill located in King George County, Virginia. The agreement establishes Howard County's maximum annual disposal tonnage is 150,000 tons. There is no daily tonnage limit. Waste generated in the County is directly hauled to the AJTS in Anne Arundel County before being rail transported to the King George County Landfill in Virginia. Most of the residential and commercial waste received at the Alpha Ridge Landfill is also transported to the AJTS.

4.6.3 Mixed Solid Waste Composting

There are no in-county or regional solid waste facilities that manage solid waste composting operations. The County has no plans to initiate this type of operation during this planning period.

4.7 ALPHA RIDGE LANDFILL

Despite the environmental and public concerns associated with landfill operations, most waste management systems require landfill disposal. Recycling, composting, and material separation and removal can divert significant portions of the waste stream from final disposal, but not all materials are compatible with processing methods. Combustion of solid waste significantly reduces waste volumes, but these facilities must dispose of non-recycled ash residuals.



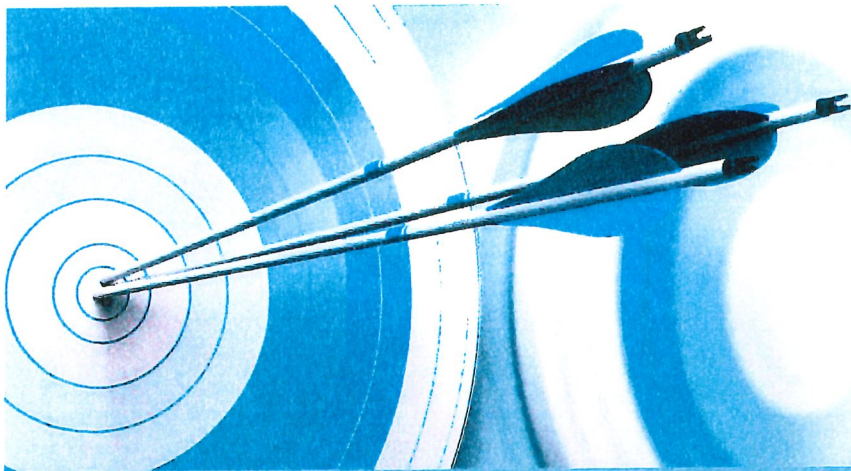
Less than ten (10) percent of the waste generated in Howard County is landfilled at the ARL. A limited amount of residential and commercial waste received at the ARL, which is not suitable for waste export, is landfilled on site. Most of the waste received at the ARL is exported.

It is Howard County's objective to minimize the amount of waste disposed of at the ARL. Disposal of substantial waste quantities at this facility will be limited to short time periods during which other preferred disposal options are unavailable. As noted in Chapter 3, the ARL is the County's back up facility for waste disposal as identified in the County's Contingency Plan.

4.7.1 Landfill Design

From 1981, when the ARL opened, to 1993, waste was placed in an unlined cell. A 38-acre cell constructed with a double synthetic liner and leachate collection system was put into operation in January 1993 and the unlined cell was closed. The ARL has permitted space available on-site for two additional lined 38-acre cells, or for a larger number of smaller cells.

The existing liner system cross-section from top to bottom includes the following:



5.0 ACTION PLAN

5.1 INTRODUCTION

The Howard County Solid Waste Management Plan (2025-2034) is a planning document for the County, and is coordinated with the general plan, HoCo by Design. This is a dynamic document which may be amended from time to time as necessary to meet changing requirements for an integrated solid waste management program that meets the needs of the community, as well as the requirements of the State of Maryland. As required by COMAR 26.03.03, this Plan will be reviewed at least once every three (3) years and updated if necessary.

The action plan presented in this chapter responds to the County's needs for managing the various types and quantities of waste generated and provides for system components that are technically and economically feasible for the County. As presented in previous chapters, the County manages most of the residential waste generated in the County, but less than 10 percent of the MSW generated by commercial establishments, apartments, industry, and institutional facilities.

This chapter presents the Plan of action for Howard County's integrated solid waste management system and components that are to be used during the planning period ending in 2034. Public and private programs and facilities for source reduction, recycling, processing, and disposal are addressed as part of the County's solid waste management strategy. Other components addressed include contingency planning and funding mechanisms.

Flexibility is incorporated into the implementation process as the County can respond to developments and changes in materials markets, technology, private sector services, and opportunities for regional cooperation. The County is open to considering new approaches to solid waste management in the future. This Plan conforms to the County's land use plan and to HoCo by Design.

5.2 CHANGES SINCE THE 2014 PLAN

A number of changes have occurred in Howard County since the 2014 Solid Waste Management Plan, which are reflected in this updated Plan.

5.2.1 Food Scraps Recovery

The County's food scraps composting program known as "Feed the Green Bin Program," has grown over the last 10 years. In 2022, 36,000 eligible ~~Today over 20,000~~ households have signed up to participate in the curbside collection

5.0 Action Plan

contract maximums.

Additionally, the County will undertake a comprehensive study to assess the feasibility, benefits, and requirements for a PAYT program in Howard County.

5.6.2 Non-Residential MSW

Private haulers independently engage with a processing or disposal facility or deliver waste directly to the ARL. The County will monitor deliveries of MSW by commercial haulers, and fees charged by private facilities, and adjust its tipping fee upward should private sector fees change enough to cause quantities of non-residential waste delivered to the ARL to significantly increase. It is projected that less than ten (10) percent of the non-residential waste generated in the County will be directly managed by the County.

5.6.3 Construction, Demolition, and Land Clearing Debris

The construction of a public C&D disposal facility is not anticipated during the planning period. Any C&D landfill constructed in the County will be required to include a recovery facility to maximize recycling of C&D debris. A proposed C&D landfill not incorporating a recovery facility will not be included in this Plan.

Since private companies control most C&D debris disposal capacity in Maryland, it is not known what additional disposal capacity will be provided in the long term. Privately operated landfills located in the mid-Atlantic region outside of Maryland are available to compensate for a reduction, if any, in C&D capacity within Maryland. As noted in Chapter 4, the cost to use such landfills is anticipated to be competitive with in-state lined C&D landfills, although haulers will incur additional costs for long-haul transportation.

If it is determined that inadequate private C&D disposal capacity will be available on a long-term basis, the County will work with MDE and other counties to identify and implement opportunities for regional in-state C&D debris recovery and disposal facilities. As a last resort, the County will consider a capital project with the objective of siting and implementing a C&D debris recovery and disposal facility in the County to receive C&D debris generated in the County.

5.6.4 Other Wastes

Adequate programs and facilities exist for the management of these wastes through publicly and privately operated activities. Capacity exists to manage the predicted quantity increases during future years. The management system for each waste type is anticipated to be maintained during the planning period.

5.6.4.1 Controlled Hazardous Substances

During the planning period the quantity of HHW handled through this collection program is projected to increase by around 15 percent due to the projected increase in population. The existing program is sufficient to adequately manage the quantities of HHW projected for collection during the planning period. The County anticipates continuing operation of the HHW facility during the planning period as currently configured with the possibility of extra collection days during the planning period.

5.6.4.2 Emergency Spill Management

The Howard County Fire and Rescue Department responds to all reported incidents of releases of hazardous substances and petroleum spills. The Department's capability is adequate for the County's needs. Staff regularly assesses equipment and training programs to confirm adequate emergency spill responses are maintained. The County intends to utilize its existing contractor to provide for materials disposal in the event of petroleum or hazardous waste spills. The designation of approved disposal sites is flexible, in that the contractor may propose new or replacement sites for County approval as conditions

5.0 Action Plan

5.8.1.2 Second Option

If the current waste export contract was discontinued for some reason and the County disposed all residential waste and non-residential waste and C&D waste generated in the County at the ARL, the remaining landfill life is estimated at three (3) years. This projection assumes that non-residential waste currently delivered to private facilities continues to be managed privately. Under this option, the capacity will also be sufficient until well past the end of the planning period. The County would have a 3-year lead time to design and construct the last cells at ARL or find another export location.

5.8.1.3 Third Option

If the County sent all the waste currently being exported to a WTE facility, buried the ash, and continued the minimal landfilling of materials not acceptable at a WTE facility, the capacity will be sufficient until at least the end of the planning period. An alternative for this option, which would extend the life of the ARL, would be to send all the waste currently being exported to a WTE facility, with the ash landfilled at an out-of-county landfill. This is the least preferred option and one of last resort to be used only if regional solid waste disposal systems have experienced a total breakdown.

5.8.2 Alpha Ridge Transfer Station

In the event of one or more of the current facilities being unable to accept waste, the County could transfer waste from the transfer station directly to one of the landfills or WTE facilities in the region.

5.8.3 Alpha Ridge Residents' Convenience Center

The Residents' Convenience Center at the ARL accepts solid waste and recyclables at no cost to Howard County residents. As more materials can be economically recycled, the County will expand the recycling opportunities at the convenience center during the planning period.

Considering the inherent operational flexibility, the convenience area will be adequate to manage waste and recyclables quantities delivered during the planning period. However, the County will continue to monitor the center to determine if additional expansion is needed.

5.8.4 Alpha Ridge Composting Facility

The Howard County compost facility at the ARL is adequately sized for the planning period; however, if necessary, additional processing capacity can be built.

5.9 FINANCING AND FUNDING

Howard County funds solid waste management capital and operating costs through an Environmental Services Fund (ESF). The ESF funds all administrative and operational costs for residential waste collection and waste disposal and all administrative costs for recycling processing and public outreach. The ESF is evaluated annually with various budget models and projections to confirm sustainability. Fees are adjusted annually to cover the cost of the services provided.

5.9.1 Revenue

The primary revenue source for the ESF is the Refuse Collection Charge assessed on each improved residential real property (detached homes, town homes, and condominiums) that are on public roads and some on private roads that have provided a damage waiver.

Table 5-1 Summary of Solid Waste Management Action Steps

Action Step	Timeframe
Action Step 1 – Promote and Encourage Source Reduction and Reuse	
Conduct a source reduction outreach campaign directed at consumers	Short
Conduct a source reduction outreach campaign directed at businesses	Short
Provide compost bins and promote their use	Short
Continue operating paint, bike and textile reuse programs	Short
Explore establishing a swap shop/reuse center	Medium
Include more reuse options as markets develop	Short/Medium/Long
Action Step 2 – Increase Commercial Recycling Participation	
Support and enforce Apartment and Condo recycling law	Short
Encourage recycling in office buildings in response to state requirements	Short
Continue the Work Green Howard Certification Program and explore opportunities for program enhancement	Short
Increase business recycling reporting through voluntary or mandated actions	Short
Support school recycling programs and initiatives	Short
Action Step 3 – Increase Organics Diversion	
Expand food scraps collection in public schools	Short
Facilitate food donation programs	Short
Conduct an organics composting education and outreach campaign	Short
Revise planning and zoning text amendments allowing commercial food scraps anaerobic digestion, food scraps composting and on-farm composting	Short/Medium
Expand residential food scraps collection to more households with year-round collections	Short/Medium/Long
Study feasibility of a public/private partnership for anaerobic digestion of food scraps in Howard County	Medium
Action Step 4 – Expand List of Acceptable Recyclable Materials	
Expand mix of curbside recycling program materials if processing and marketing capabilities exist	Short/Medium/Long
Expand mix of recyclable materials accepted at the ARL if processing and marketing capabilities exist	Short/Medium/Long
Action Step 5 – Solid Waste Disposal	
Continue MSW waste export	Short/Medium/Long
Continue to assess the capacity of Alpha Ridge Transfer Station to handle daily tons as required	Short
Continue to assess the capacity of the current active landfill cell at ARL	Short
Assess the feasibility, benefits, and requirements for a PAYT program in Howard County.	Short
Action Step 6 – Energy and Greenhouse Gas Reductions	
Monitor greenhouse gas emissions from landfill and maintain or remediate to acceptable limits	Short
Prioritize, when practical, the use of renewable energy to meet the County's energy needs	Short
Evaluate alternative technology for energy	Long
Action Step 7 – Education and Outreach	
Conduct business waste audits and reduction/recycling education	Short/Medium/Long
Establish a business recycling recognition program	Short/Medium/Long
Continue education and outreach programs in schools	Short/Medium/Long

- LEPC – Local Emergency Planning Committee
- MDE – Maryland Department of the Environment
- MDGS – Department of General Services
- MDOT – Maryland Department of Transportation
- MES – Maryland Environmental Service
- MRA – Maryland Recycling Act
- MRF – Material Recovery Facility
- MSW – Municipal Solid Waste
- NPL – National Priorities List
- OCC – Old Corrugated Containers
- PAYT – Pay As You Throw
- RCRA – Resource Conservation and Recovery Act
- SARA – Superfund Amendments and Reauthorization Act
- The Authority – Northeast Maryland Waste Disposal Authority
- TRZ – Trash and Recycling Zone(s)
- WTE – Waste-to-Energy
- USBEA – U.S. Bureau of Economic Analysis

Summary of Solid Waste Acceptance Facilities in Howard County, MD

Appendix D

Waste Facilities in Howard County

Name	Location	Type Solid Waste Accepted or Generated	Ownership	Permit Status
Alpha Ridge Landfill	Intersection of Marriottsville Rd & 1-70	Non-hazardous municipal solid waste	Howard County Government	Approved -MDE Permit No. 2021-WMF-0110
Alpha Ridge Processing Facility and Transfer Station	Intersection of Marriottsville Rd & 1-70	Non-hazardous municipal solid waste	Howard County Government	Approved -MDE Permit No. 2017-WPT-0578
Ameriwest Processing Facility and Transfer Station	7130 Kit Kat Road, Elkridge MD	Non-hazardous municipal, commercial, and C&D material	WM of Maryland	Approved – MDE Permit No. 2021-WPT-0572
Citron Hygiene Transfer Station	7184 Troy Hill Road, Elkridge MD	<u>Non-hazardous commercial waste</u>	Citron Hygiene US Corp	Approved – MDE Permit Number 2024-WTS-0687