

Baltimore County, Maryland

TEN YEAR SOLID WASTE MANAGEMENT PLAN

2019-2028

October 2018



CLEAN GREEN COUNTY

Baltimore County Department of Public Works - Bureau of Solid Waste Management
www.baltimorecountymd.gov/solidwaste solidwaste@baltimorecountymd.gov



Maryland

Department of the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

February 20, 2019

Mr. Steven A. Walsh, Director
Baltimore County Department of Public Works
County Office Building, Suite 307
111 West Chesapeake Ave
Towson, MD 21204

Dear Mr. Walsh:

The Maryland Department of the Environment (the "Department") has completed its review of Baltimore County's (the "County") adopted Resolution No. 113-18 for the County's 2019-2028 Solid Waste Management Plan (the "Plan"). The County Council of Baltimore County adopted the Plan on November 19, 2018 and the County forwarded the Plan to the Department for its review and approval to ensure the County is in compliance with the requirements of Sections 9-503, 9-505, and 9-1703 of the Environment Article, Annotated Code of Maryland, and Code of Maryland Regulations (COMAR) 26.03.03. The Department received the adopted Plan on December 14, 2018.

Based on this review, the Department has determined that the adopted resolution satisfies the requirements of Sections 9-503(a), 9-505(a)(18), and 9-1703(b) of the Environment Article. The resolution also satisfies the requirements of COMAR 26.03.03. In accordance with Section 9-507(a) of the Environment Article, Annotated Code of Maryland, the Plan is approved.

Section 9-506(b)(2) of the Environment Article, Annotated Code of Maryland, requires the County to submit a progress report to the Department at least every two years including any revisions or amendments to the County Plan that have been adopted. Since the County's Plan was adopted on November 19, 2018, the County must submit to the Department its progress report on or before **November 19, 2020**.

Thank you for your continuing interest and cooperation in providing sound and long-term solid waste management planning for the County. If you have questions or need additional clarification on these matters, please contact me at 410-537-3305 or by email at kaley.laleker@maryland.gov or Mr. John Sullivan, Manager of Resource Management Program at 410-537-3314 or john.sullivan1@maryland.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Kaley Laleker".

Kaley Laleker, Director
Land and Materials Administration

cc: The County Council of Baltimore County
Michael R. Beichler, Chief, Baltimore County Bureau of Solid Waste Management
John Sullivan

Baltimore County, Maryland
2019-2028 Ten Year Solid Waste Management Plan

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BALTIMORE COUNTY, MARYLAND

TEN YEAR SOLID WASTE MANAGEMENT PLAN (2019-2028)

EXECUTIVE SUMMARY

*Baltimore County Department of Public Works
Bureau of Solid Waste Management*

OVERVIEW

Baltimore County is adopting a new Ten Year Solid Waste Management Plan, covering the years 2019-2028, in fulfillment of Section 26.03.03 of the Code of Maryland Regulations and consistent with Baltimore County's 1999 Public Participation Plan. Baltimore County last adopted a Ten Year Solid Waste Management Plan in December 2008, and the Maryland Department of the Environment (MDE) approved that Plan in April 2009.

Baltimore County's existing solid waste and recycling infrastructure (collection, processing, marketing, and disposal), allowing for some improvements as outlined later in this Executive Summary, appears to be adequate at least through the year 2028. Adoption of this Ten Year Solid Waste Management Plan will ensure that Baltimore County has a solid waste management strategy in place covering 2019-2028. Implementation of this Plan will also yield these very important benefits:

- Extend the life of Baltimore County's only operating landfill (already more than half full) by preventing waste and increasing recycling
- Improve the cost-effectiveness of the County's solid waste management and recycling program (when trash disposal costs are increasing)
- Enhance resident satisfaction with the County's solid waste management and recycling program

CHAPTER I: GOALS, ORGANIZATION, AND REGULATIONS

Consistent with the current mission statement of the Department of Public Works, Bureau of Solid Waste Management, Baltimore County is committed to provide a safe, environmentally sound, integrated solid waste management program that:

- Promotes waste prevention
- Increases recycling
- Increases resource recovery (of materials neither prevented nor recycled)
- Decreases the quantity and toxicity of solid waste requiring landfilling

The Bureau of Solid Waste Management is the County agency primarily responsible for solid waste management, particularly the residential sector. Major areas of responsibility include managing the County’s waste prevention and recycling program, collecting residential trash and recyclables, and operating the Eastern Sanitary Landfill Solid Waste Management Facility (ESL), the Central Acceptance Facility (CAF), and the Western Acceptance Facility (WAF).

The Department of Environmental Protection and Sustainability (EPS) also plays a major role in the County’s solid waste management system, including but not limited to permitting and inspecting solid waste facilities, inspecting collection vehicles, accepting certain materials for recycling or proper disposal, responding to hazardous waste emergencies, and reducing litter.

Baltimore County strives to comply with all applicable Federal, State, and local laws and regulations, and has its own set of comprehensive laws and regulations regarding solid waste management.

CHAPTER II: POPULATION, ZONING, AND LAND USE

Baltimore County’s population is expected to grow from approximately 831,000 residents as of 2016 to approximately 862,000 residents by 2030. Baltimore County Zoning regulations govern the construction of new solid waste disposal facilities. Facilities owned and operated by the County are exempt from these regulations. This *Plan* shall not be used to create or enforce local land use and zoning requirements. Baltimore County’s *Master Plan 2020* includes solid waste policies and actions that emphasize the importance of the three “Rs” (waste reduction, reuse, and recycling), as well as resource recovery to minimize the need for landfilling.

CHAPTER III: SOLID WASTE GENERATION, IMPORT/EXPORT, COLLECTION, AND ACCEPTANCE FACILITIES

Projected increases in the County’s solid waste stream referred to in this Plan are based on expected population growth as discussed in Chapter II, and presume the continuation of relatively steady trends in per capita residential MRA waste generation (about 860 pounds per person, per year, based on the highest annual per capita figure from 2012-2015) and per capita commercial generation (about 772 pounds per person, per year, based on the highest annual per capita figure from 2012-2015). Attachment A to this Executive Summary is Table III-1 (entitled “Trash Generation and Population Data”). Table III-1 summarizes the increases in material generation the County is expected to face during the ten-year planning period, with vision out to the year 2030.

The most significant imports of materials currently involve Harford County. Under an August 2013 agreement, Baltimore County currently accepts all of Harford County’s single stream recyclables for sorting at CAF in Cockeysville. In addition, Baltimore County receives approximately 135,000 tons of trash per year from Harford County. This imported trash is taken to ESL in White Marsh, where the Harford County trash is then transferred out-of-County to Waste Management disposal sites. Significant quantities of land clearing and demolition materials from out-of-County come to in-County facilities such as Honeygo Run Reclamation Center Rubble Landfill and Days Cove Rubble Landfill.

Baltimore County currently has one major out-of-County outlet for residential trash – through 2021 (with three contract renewal options), Baltimore County may take 215,000 tons of residential trash per year to the

Wheelabrator Baltimore energy-from-waste facility. The County also has the option of transferring residential trash out-of-County via a contract with Waste Management.

39 private collection companies, many family-owned businesses of long standing, collect residential trash and recycling on County-designated routes and then deliver the materials to County-designated facilities. Commercial trash and recycling collection is strictly a function of the private sector, although Baltimore County encourages commercial recycling and provides technical assistance and recognition to that sector. For information on the collection of institutional and other materials, please see the Ten Year Solid Waste Management Plan itself.

Please see Map III-1 (Attachment B to this Executive Summary), which is entitled “Selected Solid Waste Facilities Used by Baltimore County and/or Located in Baltimore County.”

CHAPTER IV: ASSESSMENT OF EXISTING SOLID WASTE MANAGEMENT SYSTEM

Baltimore County has developed a sound and flexible solid waste management system that is adequately handling all of the material currently being generated.

Baltimore County has made significant strides in the past decade to improve its recycling program, resulting in increased residential recycling rates and both environmental and fiscal benefits to the County. In February 2010, the County transitioned from its “dual stream” residential recycling program to a “single stream” model, allowing residents to mix all recyclables together in the same container for collection. This program began with single family homes and town homes, and expanded over the rest of 2010 to include most apartment and condominium units in the County as well. With the introduction of single stream recycling to all single family homes and town homes, and expansion to most apartments and condominiums, the County saw a significant increase in the amount of material being collected from residents for recycling – from 36,167 tons in 2009 to 47,182 tons in 2010, and 54,310 tons in 2015. In addition, Baltimore County opened its own single stream materials recovery facility (MRF) in November 2013, which enabled the County to retain the value of collected recyclables and maximize the financial benefits of its recycling program. From November 2013 through May 2017, more than 190,000 tons of recyclables were sold from the MRF, generating gross revenues of more than \$25 million.

In addition to “curbside” collection, Baltimore County provides additional outlets for residential trash and recycling in the form of three drop-off facilities, which have earned overall very high ratings from the residents using them. During a Summer 2016 survey, Baltimore County asked 700 residents to rate its drop-off facilities on a scale of one (very dissatisfied) to five (very satisfied). The Eastern Sanitary Landfill earned an average rating of 4.84, the Central Acceptance Facility earned an average rating of 4.71, and the Western Acceptance Facility earned an average rating of 4.68. In short, the County residents using the County’s three recycling drop-off centers are overwhelmingly very satisfied with the drop-off centers.

While County residential recycling tonnages have stayed relatively constant since 2011, residential trash tonnages have decreased over this same period – a promising trend. While it is difficult to pinpoint a specific reason for this decrease in trash tonnages, the shift could be attributed to a number of factors, including “lightweighting” of packaging materials and increased residential recycling and waste prevention efforts.

As things stand now, Baltimore County’s only guaranteed outlet for trash after the year 2021 is the Eastern Sanitary Landfill (ESL) in White Marsh. However, the County’s ownership and stewardship of this landfill assures the County a high degree of solid waste management independence, especially during the ten-year planning period. Without taking advantage of three remaining, five-year contract renewal options with

Wheelabrator Baltimore, the “worst case scenario” (strictly in terms of ESL capacity) is that the County would lose 215,000 tons per year in trash outlets starting in 2022. Even if this “worst case” situation comes to pass, the Eastern Sanitary Landfill, with an estimated remaining trash capacity of more than 10 million cubic yards as of January 2016, is the County’s ultimate assurance that it can handle the County’s next decade of trash. Please see Attachment C to this Executive Summary (Table IV-3).

The bottom line is that, for the most part, ESL’s longevity will continue to be a function of choices the County and its citizens make. Though Baltimore County has made significant progress on the waste prevention and recycling fronts, there is much room for improvement. The County must continue to focus its efforts on the promotion of waste prevention and recycling in order to minimize stress on the County’s overall solid waste management system.

CHAPTER V: PLAN OF ACTION

This plan of action covers Baltimore County’s solid waste management program through the year 2028, with vision beyond. Looking forward, Baltimore County seeks the continuous improvement of its solid waste management system. For planning purposes, this entails setting priorities and developing strategies while preserving flexibility to respond to inevitable changes in situations as the future unfolds.

As discussed in Chapter IV, ESL is the ultimate assurance that the County can handle the next decade of trash. ESL will continue to be used to landfill trash on-site, as a site for yard materials processing, as a transfer station for transporting trash out-of-County, and as a transfer station for transporting recyclables to CAF. Baltimore County is also expected to continue to transport about 215,000 tons of trash per year to Wheelabrator Baltimore through at least 2021, though access to the facility beyond this date is contingent upon possible contract extensions. In any event, the County is always on the lookout for better disposal option(s) that may emerge.

The new Ten Year Solid Waste Management Plan includes a comprehensive set of recommendations in the areas of waste minimization, recycling, resource recovery (waste to energy), and landfilling:

1. Continue to use the MDE Source Reduction Credit Checklist as a planning guide in achieving the maximum 5% waste prevention credit each year.
2. Continue the County’s single stream recycling program.
3. Continue to mail four-year trash and recycling collection schedules, with program information, to all single family homes and town homes in the County.
4. Continue to work with owners and managers of multi-family developments (condominiums and apartments) to provide high quality opportunities for residents to recycle.
5. Consider distribution of large recycling containers to County residents living in single family homes and town homes.
6. Consider moving to semi-automated collection of recycling and trash, especially if large recycling containers are to be distributed to residents.
7. Consider implementing an organics recycling collection program that includes food scraps.
8. Expand the Baltimore County Government Facilities Recycling Program.
9. Expand recycling opportunities in County parks.
10. Expand recycling opportunities in County rights of way near major intersections around Baltimore County.

11. Assess yard materials recycling collection program cost-effectiveness, and make adjustments as appropriate.
12. Promote recycling in the commercial and institutional sectors generally.
13. Continue and expand collaboration with the Baltimore County Public Schools recycling program.
14. Maximize the cost-effectiveness of Baltimore County’s marketing of the recyclables that are sorted and baled at its materials recovery facility (MRF) in Cockeysville.
15. Assess the environmental as well as fiscal impacts of extending Baltimore County’s contract options with Wheelabrator Baltimore beyond the end of 2021.
16. Seek to minimize the amount of material to be landfilled during the planning period, particularly the amount of material landfilled at ESL.
17. Minimize the impact of trash landfilled at ESL.
18. Continue to pursue useful ways to manage byproducts of the decomposition process at ESL.
19. Reassess the commercial tipping fee (currently \$100 per ton), and other fees, at the County’s solid waste acceptance facilities as needed.

Furthermore, the new Ten Year Plan includes a variety of other recommendations for improvements in areas that cut across solid waste management methods:

1. Continue to seek out creative uses for closed landfills.
2. Consider changing the name of the Bureau of Solid Waste Management to more clearly indicate its mission.
3. Assess collection routes for efficiency on an ongoing basis, making adjustments as appropriate.
4. Hold household hazardous waste collection days at least once per year at ESL and WAF.
5. Ensure that equipment and vehicle repair and replacement needs are met on a comprehensive, ongoing basis.
6. Ensure that solid waste management regulations are revised and updated as needed.
7. Invest in intensified public education outreach regarding the County’s solid waste management program to County residents.
8. Enhance the content and customer friendliness of the Bureau of Solid Waste Management website.
9. Pursue or support statewide legislation that would impose a ban on retailers using or distributing at least some “problematic” plastic items in certain situations.
10. Pursue or support statewide legislation to mandate commercial/institutional recycling reporting, aiming for reasonable requirements that fully take the needs of businesses and institutions into account.

CONCLUSION

Spending more money to handle “waste” that could be minimized or recycled in the first place is an unattractive option for the County. To minimize the impact of rising trash management costs and maximize recycling revenues during the planning period, the County Administration and County Council will need to make major and sustained investments in both solid waste management infrastructure and public education. By taking this approach, Baltimore County Government can best protect taxpayers and the natural environment.

Executive Summary - Attachment A

TABLE III-1

ANNUAL WASTE DISPOSED / RECYCLING GENERATION AND POPULATION DATA

YEAR	POPULATION	RESIDENTIAL MRA WASTE DISPOSED TONS PER CAPITA	RESIDENTIAL MRA WASTE DISPOSED TONS	COMMERCIAL MRA WASTE DISPOSED TONS PER CAPITA	COMMERCIAL MRA WASTE DISPOSED TONS	NON MRA WASTE DISPOSED TONS PER CAPITA	NON MRA WASTE DISPOSED TONS	TOTAL MRA AND NON MRA WASTE DISPOSED TONS	TOTAL MRA AND NON MRA RECYCLED TONS PER CAPITA	TOTAL MRA AND NON MRA RECYCLED TONS	TOTAL WASTE DISPOSED AND RECYCLED TONS
	(1)	(2)	(3)	(4)	(3)	(5)	(3)	(3)	(6)	(3)	(3)
2015	829,209	0.430	356,673	0.338	280,184	0.309	255,975	892,831	0.836	693,200	1,586,031
2016	831,026	0.430	357,341	0.329	273,567	0.274	227,781	858,689	0.735	610,724	1,469,413
2017	835,020	0.430	359,059	0.386	322,318	0.316	263,866	945,243	0.745	622,090	1,567,333
2018	839,014	0.430	360,776	0.386	323,859	0.316	265,128	949,764	0.745	625,065	1,574,829
2019	843,008	0.430	362,493	0.386	325,401	0.316	266,391	954,285	0.745	628,041	1,582,326
2020	847,000	0.430	364,210	0.386	326,942	0.316	267,652	958,804	0.745	631,015	1,589,819
2021	849,000	0.430	365,070	0.386	327,714	0.316	268,284	961,068	0.745	632,505	1,593,573
2022	851,000	0.430	365,930	0.386	328,486	0.316	268,916	963,332	0.745	633,995	1,597,327
2023	853,000	0.430	366,790	0.386	329,258	0.316	269,548	965,596	0.745	635,485	1,601,081
2024	855,000	0.430	367,650	0.386	330,030	0.316	270,180	967,860	0.745	636,975	1,604,835
2025	857,000	0.430	368,510	0.386	330,802	0.316	270,812	970,124	0.745	638,465	1,608,589
2026	858,040	0.430	368,957	0.386	331,203	0.316	271,141	971,301	0.745	639,240	1,610,541
2027	859,080	0.430	369,404	0.386	331,605	0.316	271,469	972,479	0.745	640,015	1,612,493
2028	860,120	0.430	369,852	0.386	332,006	0.316	271,798	973,656	0.745	640,789	1,614,445
2029	861,160	0.430	370,299	0.386	332,408	0.316	272,127	974,833	0.745	641,564	1,616,397
2030	862,200	0.430	370,746	0.386	332,809	0.316	272,455	976,010	0.745	642,339	1,618,349

(1) Population figures are based on U.S. Census Bureau, Population Division and July 2014 Maryland Department of Planning. Projections at five-year intervals starting with the year 2020. Projections after 2016 are derived by linear interpolation (which means that straight-line increases are assumed between years where U.S. Census and/or Maryland Department of Planning projections are not available).

(2) Residential MRA waste disposed projections beyond 2015 are based on two factors – population and per capita projections. Per capita residential MRA waste disposed is projected to remain constant at 0.430 tons per capita per year from 2016 through 2030. This projection is based on residential MRA waste disposed tons per capita being within a very close range from 2012 to 2015 (0.420 to 0.430 tons per capita per year). To be conservative in estimating residential MRA waste disposed from 2016 and beyond, the higher end of the range is applied (0.430 tons per capita per year).

(3) The totals of MRA and non MRA waste disposed tons and MRA and non MRA Recycling tons through 2016 correspond to data in Baltimore County's annual tonnage reports to the Maryland Department of the Environment (MDE). Residential waste disposed tons are best estimates obtained by averaging actual tonnages for the two applicable fiscal years (e.g., 2010 figure = 0.5 x [FY10 + FY11 tonnages]). Commercial waste disposed tons are best estimates based on allocations in MDE annual facility reports, but it is difficult to track waste entering or leaving the County precisely.

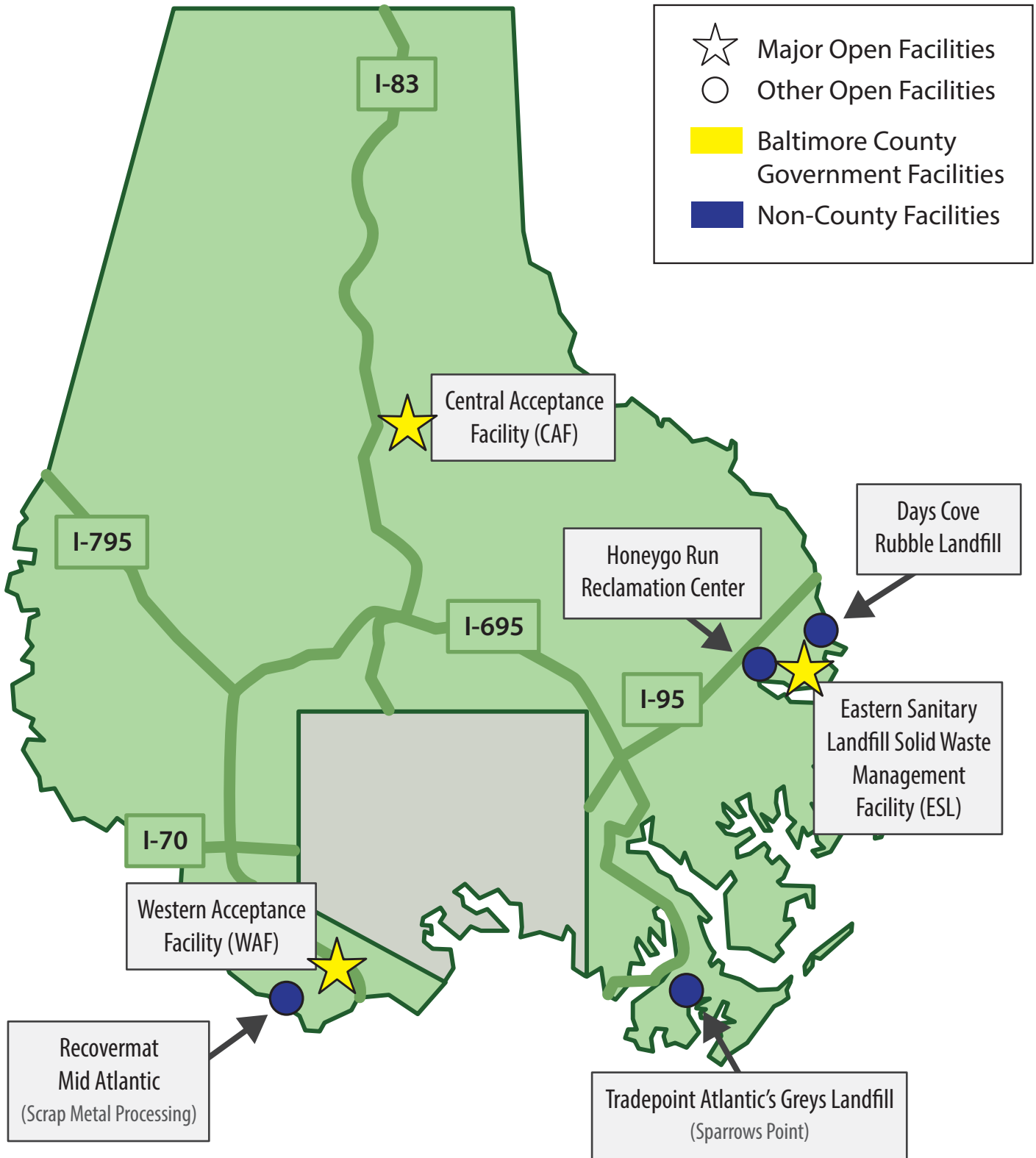
(4) Commercial MRA waste disposed projections beyond 2016 are based on two factors – population and per capita projections. Per capita commercial MRA waste disposed is projected to remain constant at 0.386 tons per capita per year from 2017 through 2030. This projection is based on commercial MRA waste disposed tons per capita being within a close range from 2012 to 2016 (0.329 to 0.386 tons per capita per year). To be conservative in estimating commercial MRA waste disposed from 2016 and beyond, the higher end of the range is applied (0.386 tons per capita per year).

(5) Non MRA waste disposed projections beyond 2016 are based on two factors – population and per capita generation rate assumed at a constant level of 0.316 tons per year (the average for 2013-2016).

(6) Total MRA and Non MRA Recycled projections beyond 2016 are based on two factors – population and per capita generation rate assumed at a constant level of 0.745 tons per year (the average for 2013-2016).

Map III-1

SELECTED SOLID WASTE FACILITIES USED BY BALTIMORE COUNTY AND/OR LOCATED IN BALTIMORE COUNTY



Executive Summary - Attachment C

**Table IV-3
"Worst Case Scenario" Projections Regarding ESL Capacity
as of January 2029**

This table illustrates a scenario in which no replacement capacity was found if Baltimore County chose not to exercise further 5-year options with Wheelabrator Baltimore after December 2021.

Basic Assumptions	
	Tons*
a. Projected Trash 2016-2028: ¹	4,746,042
b. Trash to Wheelabrator Baltimore Jan. 2016-Dec. 2021: ²	-1,290,000
c. Projected MSW-to-Energy Ash	129,000
d. Trash to ESL 2016-2028: ³	3,585,042

* All trash tons are residential trash.

¹ Source: Table III-1

² 215,000 tons/year multiplied by six years.

³ Projected trash for 2016-2028 minus trash kept out of ESL through Wheelabrator Baltimore contract period ending December 2021 as shown in b.

"Worst Case Scenario" Projection of Remaining ESL Capacity as of January 2029		
	Tons*	Cubic Yds.**
d. Capacity Remaining at ESL as of January 2016: ⁴	4,990,093	10,417,730
c. Trash to ESL 2016-2028: ³	-3,585,042	-7,484,430
e. Capacity Remaining at ESL as of January 2029:	1,405,051	2,933,300

⁴ Source: Eastern Sanitary Landfill Solid Waste Management Facility Tonnage Report for the Calendar Year 2015 as submitted to MDE dated February 26, 2016. Settling is added to available airspace that can be utilized to meet the final grading plans every year the landfill is surveyed.

** Conversion of tons to cubic yards based on conversion included in Eastern Sanitary Landfill Solid Waste Management Facility Tonnage Report for the Calendar Year 2015 as submitted to MDE dated February 26, 2016.

CHAPTER I OF TEN YEAR SOLID WASTE MANAGEMENT PLAN

GOALS, ORGANIZATIONS, AND REGULATIONS

(October 2018)

Introduction

Baltimore County's *Ten Year Solid Waste Management Plan (Plan)* is designed to comply with federal, state and local laws and regulations by establishing an overall objective to guide Baltimore County's solid waste management and recycling activities for the next decade and beyond. The County's objectives and policies conform to those of the State and regional comprehensive land use plans and programs. The *Plan* addresses a ten year planning period and is required to be reviewed by the County and updated, if necessary, every three years.

The *Plan* is prepared in accordance with Section 26.03.03 of the Code of Maryland Regulations (COMAR) and includes recycling and waste minimization activities, as well as solid waste activities for Baltimore County. The Baltimore County Council officially adopted the *Plan* on November 19, 2018. Our *Plan* is flexible enough to adjust to the changes that have been occurring in the solid waste management field over the past decade.

Goals

The following is the Baltimore County Department of Public Works, Bureau of Solid Waste Management's overall mission statement:

To provide a safe, environmentally sound, integrated solid waste management program to promote waste prevention, increase recycling and resource recovery, and decrease the quantity and toxicity of solid waste requiring landfilling in accordance with the Ten Year Solid Waste Management Plan.

In addition to this mission statement, the Bureau of Solid Waste Management has initiated several long range goals to meet the changing needs of the County and to stay in compliance with federal, state and local regulations and laws. These goals are:

- ◆ To promote waste prevention, recycling, and resource recovery for the solid waste streams generated in Baltimore County, e.g.:
 - Maintain cooperative efforts with other Maryland jurisdictions to manage waste and promote recycling on a regional basis;
 - Operate the Baltimore County Central Acceptance Facility (CAF) Materials Recovery Facility (MRF) and market the recovered recyclables;
 - Evaluate the effectiveness of the County's ongoing residential recycling program and the feasibility of expanding its scope;

- Improve outreach and educational efforts regarding residential waste reduction and recycling, including curbside and drop-off programs;
 - Help County businesses and institutions start or expand waste prevention and recycling programs;
 - Expand the Baltimore County Facilities Recycling Program;
 - Meet or exceed the minimum recycling rate required by Maryland law (35% in 2015 and thereafter);
 - Aim to meet or exceed a Baltimore County-set voluntary goal of 45% recycling beginning in the year 2015; and
 - Address Executive Order 01.01.2017.13, Waste Reduction and Resource Recovery Plan for Maryland, which creates policy seeking to minimize environmental impacts of materials management, conserve in-State disposal capacity, make optimal use of resources and create an environmentally and economically sustainable system of materials management.
- ◆ To decrease the quantity of solid waste requiring landfilling, especially in Baltimore County’s Eastern Sanitary Landfill Solid Waste Management Facility (identified as such in State Refuse Disposal Permit 2015-WMF-0052A), which may include the following:
- Maintain the agreement to transfer waste to out-of-county disposal facilities;
 - Improve waste screening and recycling, including operating a yard materials processing center, at the Eastern Sanitary Landfill Solid Waste Management Facility (ESL);
 - Operate the transfer stations located at the Eastern Sanitary Landfill Solid Waste Management Facility;
 - Operate transfer stations at Central Acceptance Facility (CAF) and Western Acceptance Facility (WAF); and
 - Operate the household hazardous waste processing center at the Central Acceptance Facility (CAF) and conduct events at other locations, such as ESL and WAF, thereby minimizing the toxicity of solid waste requiring landfilling.
- ◆ To achieve the above goals in the context of a safe, environmentally sound, integrated solid waste management program, which may include the following actions:
- Operate the Eastern Sanitary Landfill (ESL), the Central Acceptance Facility (CAF) and the Western Acceptance Facility (WAF), including disposal, transfer, and drop-off for trash and recycling, consistent with all applicable laws, regulations, and permits; and
 - Strengthen the customer service-oriented, cost-effective, private collection system for trash and recyclables.

Conformance with Land Use Plan

The Baltimore County Charter requires that a master land use plan be adopted or updated every ten years. The purpose of the master plan is to guide the development of the County. A master plan envisions a desirable future, and charts a course of action. *Master Plan 2020* examines the policies and strategies that have guided past development of the County, and reassesses them in light of present and projected conditions.

Master Plan 2020 contains a section entitled Public Infrastructure, which includes a subsection entitled Solid Waste. The Solid Waste section outlines the responsibilities expected of the solid waste management program, as well as the current policy and recommended actions to address them.

It is important for County policies, ordinances, and plans to be consistent with the County's *Master Plan*. The *Solid Waste Management Plan* is in conformance with *Master Plan 2020* for several reasons:

- It is an integrated plan that balances environmental health with economic and functional needs that Baltimore County has for solid waste management;
- It provides for flexibility in management and for regular review and amendment;
- It continues to stress the importance of improving trash and recycling collection; and
- It ensures the efficient management of the Eastern Sanitary Landfill Solid Waste Management Facility.

Organization of County Government

Baltimore County's government consists of one County Executive, who is elected by a County-wide vote, and a County Council consisting of seven members, each elected by voters in their Council district. The County Executive appoints the Administrative Officer, who oversees the departments and offices. Organizational charts show the structure of the County government as it pertains to solid waste management activities. The following charts are at the end of Chapter I.

Chart I-1 - The overall organization of Baltimore County Government. All agencies are involved to the extent that they create and dispose of waste. The Executive and Council are responsible for approving the *Solid Waste Management Plan* and budgets.

Chart I-2 - County offices/departments involved in solid waste management. Several County offices/departments are involved in solid waste management, ranging from budgeting and overseeing to disposal and hauling.

Chart I-3 - The organization of the Baltimore County Department of Public Works. The Department of Public Works is managed by a director appointed by the County Executive with approval of the County Council. The Department of Public Works is responsible for overseeing the Bureau of Solid Waste Management, as well as four other bureaus.

Chart I-4 - The organization of the Bureau of Solid Waste Management. The County agency primarily responsible for solid waste management and whose duties are described throughout this *Solid Waste Management Plan* is the Bureau of Solid Waste Management. The Bureau's duties include:

- Managing the County's waste prevention and recycling program, including composting and mulching efforts;
- Collecting residential trash and recyclables;
- Operating the Central Acceptance Facility (CAF) and the Western Acceptance Facility (WAF);
- Operating the Eastern Sanitary Landfill (ESL) as well as maintaining closed sites; and
- Preparing the *Solid Waste Management Plan*.

In addition to the County Department of Public Works (DPW) Bureau of Solid Waste Management, the Waste Management Section of the County Department of Environmental Protection and Sustainability (EPS), as shown in Chart I-2, is involved in major segments of County solid waste management, including:

- Routinely inspecting permitted solid waste disposal, collection, recycling, and incineration facilities to ensure compliance with local regulations and permits;
- Reviewing and approving local permits for such facilities, including conducting public hearings and meetings with elected officials, community associations, and government agencies;
- Responding to and investigating complaints concerning illegal landfill sites;
- Tracking of solid waste disposal sites for use in the evaluation of proposed property acquisitions by the County, responding to requests for information from citizens, consultants, community groups, and others who are conducting site assessments for residential and commercial property transactions;
- Providing assistance to the Fire Department and other local and state agencies in arranging for the proper disposal of some hazardous materials and petroleum products from spills and other emergencies;
- Inspecting properties proposed for demolition or alteration work to insure that asbestos-containing materials and hazardous materials are handled properly;
- Regulating the acceptance and disposal of special waste materials in the Eastern Sanitary Landfill Solid Waste Management Facility; and
- Monitoring private well water supplies in communities surrounding closed County landfills, upon request.

Discussion of Federal, State and Local Laws and Regulations

Federal

Federal Statutes Affecting Solid Waste Management

There are various federal laws on hazardous materials, resource and energy recovery, water quality, air quality, noise, historic site preservation, land conservation, and biological preservation that apply in varying degrees to the management of solid waste. Some of these include the following:

- ***Asbestos Control- Asbestos Hazard Emergency Response Act:***
Requires control with asbestos materials and requires completion of a training program by those who do asbestos-related work with schools.
- ***Clean Air Act:***
Regulates emissions from landfill gas management systems and resource recovery facilities. Landfill operators must comply with requirements of the state implementation plan established under Section 110.
- ***Clean Water Act:***
Establishes the National Pollutant Discharge Elimination System (NPDES) in Section 402, a program that regulates effluent limitations for the discharge of wastewater and runoff from solid waste management facilities into waters of the United States. The construction of facilities that may impact rivers, lakes, marshes, swamps or wetlands is regulated by Section 404, which is

administered by the Army Corps of Engineers. Section 405 addresses the disposal of wastewater treatment sludge.

- ***Comprehensive Environmental Response, Compensation and Liability Act (Superfund) (CERCLA):***
Establishes programs for the identification and remediation of current and past waste disposal sites containing hazardous substances; establishes standards for clean-up efforts and disposal of wastes; and provides a mechanism for assigning liability for contaminated sites. Municipal landfills posing environmental threats may be subject to cleanup under CERCLA.
- ***Endangered Species Act:***
Prohibits construction or operation of facilities that would result in the “taking” of an endangered or threatened wildlife species, or in the destruction of their critical habitat.
- ***Federal Emergency Management Act:***
Prohibits siting of facilities within a 100-year floodplain.
- ***Mercury-Containing and Rechargeable Battery Management Act:***
Requires the collection and recycling, or proper disposal, of used nickel cadmium batteries, small sealed lead-acid batteries, and certain other batteries.
- ***Public Utilities Regulatory Policies Act (PURPA):***
Encourages co-generators and small power producers, such as municipal solid waste combustors, to supplement their existing electrical utility capacity. The Federal Energy Regulatory Commission is responsible for implementing regulations and setting limits on the power output of these facilities.
- ***Resource Conservation and Recovery Act (RCRA):***
Promotes recycling and reuse of recoverable materials. The Act provides guidelines for environmentally sound handling and disposal of both hazardous and non-hazardous solid waste. Subtitle D of the Act specifies criteria for municipal solid waste landfills. Law also governs federal purchases of recycled products.
- ***Safe Drinking Water Act:***
Establishes maximum contaminant levels in ground water monitoring programs for landfill activities.

Federal Regulations Affecting Solid Waste Management (CFR, Title 40, Subchapter 1)

The Code of Federal Regulations (CFR) (www.ecfr.gov) deals with the management of solid waste, solid waste acceptance facilities, operations and construction, and recycling. Relevant regulations include the following (regulations marked with an asterisk [*] are mandatory for federal agencies and recommended for state and local governments):

- Part 240: Guidelines for the Thermal Processing of Solid Wastes:
Sets minimum performance level for municipal solid waste incinerators with a capacity of 50 tons per day, or greater.
- Part 241: Solid Wastes Used as Fuels or Ingredients in Combustion Units:
Outlines procedures and requirements for the identification of solid wastes used as fuels or ingredients in combustion units.
- Part 243: Guidelines for the Storage and Collection of Residential, Commercial and Institutional Solid Waste*:
Sets minimum performance levels for solid waste collection operations. Issues addressed include storage, safety, equipment, frequency and management.

- Part 246: Source Separation for Materials Recovery Guidelines*:
Sets minimum actions for the recovery of resources from solid wastes, including source separation of residential, commercial, and institutional solid wastes.
- Part 247: Guidelines for the Procurement of Products that Contain Recycled Materials:
Outlines procedures that can be utilized in the specifications for procurement of products to increase the use of recycled materials. Provides guidelines for purchase of items that are or can be made with recovered materials, and requires that any procuring agency that uses appropriated federal funds to procure an item so designated by EPA must purchase the item containing the highest percentage of recovered materials possible.
- Part 255: Identification of Regions and Agencies for Solid Waste Management:
Lays out procedures for the identification of regional solid waste management planning districts pursuant to Section 4002 (a) of the Solid Waste Disposal Act.
- Part 256: Guidelines for Development and Implementation of State Solid Waste Management Plans:
Establishes guidelines for development and implementation of State Solid Waste Management Plans.
- Part 257: Criteria for the Classification of Solid Waste Disposal Facilities and Practices:
Sets guidelines to determine which solid waste facilities pose a reasonable probability of adverse effects on health or the environment. Facilities in violation will be considered open dumps. Does not apply to municipal solid waste landfills (MSWLF) (covered under Section 258).
- Part 258: Criteria for Municipal Solid Waste Landfills (Subtitle D Regulations):
Sets minimum criteria for the design and operation of municipal solid waste landfills. Includes location restrictions, operating criteria, design criteria, groundwater monitoring and corrective actions, closure and post-closure care and financial assurance criteria. The criterion applies to all MSWLF units that receive waste on or after October 9, 1991.
- Part 260: Hazardous Waste Management Systems – General:
Provides definitions of terms and a general overview of Parts 260 through 265 and 268.
- Part 261: Identification and Listing of Hazardous Waste:
Provides identification of those materials which are subject to regulations as hazardous wastes under Parts 124, 260-265, 268, 270, and 271.
- Part 262: Standards Applicable to Generators of Hazardous Waste:
Establishes standards for generators of hazardous wastes (EPA identification numbers, manifests, and pre-transportation requirements including record-keeping and reporting).
- Part 263: Standards Applicable to Transporters of Hazardous Waste:
Establishes regulations for transporters of hazardous waste materials requiring a manifest as defined in Part 262.
- Part 264: Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities:
Establishes minimum standards for the management of hazardous waste.
- Part 265: Interim Status Standards for Owners and Operators of Hazardous Waste Treatment and Disposal Facilities:
Establishes minimum standards that define the management of hazardous wastes during the period of interim status and until the certification of post-closure or closure of the facility.

- Part 266: Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Disposal Sites:
Establishes minimum standards for the recyclable materials used in a manner to constitute disposal, hazardous waste burned for energy recovery, used oil burned for energy recovery, recyclable material used for precious metal recovery, and spent lead-acid batteries being reclaimed.
- Part 267: Standards for Owners and Operators of Hazardous Waste Land Disposal Facilities Operating Under Standardized Permit:
Establishes minimum standards which define the management of hazardous waste for new land disposal facilities under a standardized permit.
- Part 268: Land Disposal Restrictions:
Identifies a schedule to evaluate listed wastes for prohibition of land disposal and establishment of treatment standards for these wastes.
- Part 270: EPA Administered Permit Programs:
The Hazardous Waste Permit Program requires standard permit conditions, monitoring and reporting requirements for EPA permitting for the treatment, storage and disposal of hazardous waste.
- Part 271: Requirements for Authorization of State Hazardous Waste Programs:
Identifies the requirements that state programs must meet to fulfill interim and final authorization, as well as the procedures EPA uses to approve, revise and withdraw approval of state programs.
- Part 272: Approved State Hazardous Waste Programs:
Establishes the applicable state hazardous waste management programs.
- Part 503: Standards for the Use or Disposal of Sewage Sludge:
Sets requirements and standards for the treatment, land application, surface disposal and incineration of sewage sludge.

State

Maryland Laws Affecting Solid Waste Management

The primary State agency overseeing solid waste management is the Maryland Department of Environment (MDE). MDE's Land and Materials Administration (www.mde.maryland.gov) is responsible for regulating solid waste management and recycling efforts. Some of the state laws affecting solid waste management include the following:

- **Chesapeake Bay Critical Area Protection Program (1984):**
Controls human intervention in the Bay area.
- **Composting Act (1992):**
Includes composting in the definition of recycling. Requires that county recycling plans address composting issues, and bans loads of yard materials collected separately from trash from being landfilled effective in 1994.
- **Electronics Recycling Program (2007):**
Mandates that manufacturers of certain electronics devices (computers, televisions, etc.) contribute payments toward a fund for local government electronics recycling programs or that such manufacturers establish their own electronics recycling collection programs. Authorizes counties to address the subject of electronics recycling in their recycling plans.
- **Fluorescent and Compact Fluorescent Light Recycling (2011):**

An Act requiring a county recycling plan to address the strategy for the collection and recycling of fluorescent and compact fluorescent lights that contain mercury.

- **Land-Clearing Debris Landfills – Amount of Security (1990):**
Addresses the number of bonds required as security for each acre of land-clearing debris landfills.
- **Maryland Air Quality Control Act (1989):**
Allows adoption of rules for air pollution control, sets emission standards and air quality control areas, and requires training for municipal solid waste incinerator operators.
- **Maryland Environmental Service Act (1970):**
Creates the Maryland Environmental Service to manage service regions that were created to deal with issues affecting the state’s water supply, wastewater purification, and solid waste management.
- **Maryland Landfill Financial Assurance Law (1997):**
Sets forth financial assurance requirements for landfills in conformance with the requirements of federal regulations.
- **Maryland Landfill Siting Law (1994):**
Describes the requirements for public hearings regarding landfill siting, and addresses permitting requirements and security requirements. Explains the requirements for submissions of plans and documents necessary to conduct a technical review and to approve proposed facilities.
- **Maryland Recycling Act (1988):**
Requires that by 1994 each jurisdiction with a population greater than 150,000 reduce its solid waste stream by at least 20% through recycling (15% for jurisdictions with lesser populations). The recycling rate calculation includes both residential and commercial waste and recycling tonnages. House Bill 929 (2012) amended the rates to 35% for Counties with a population greater than 150,000 or 20% for a county with less than 150,000. The law requires full implementation by December 31, 2015.
- **Maryland Senate Joint Resolution 6 (2000):**
Sets a voluntary statewide goal of 40% waste diversion by 2005, with a credit of up to 5% for jurisdictions engaged in specified waste prevention activities. “Waste diversion” is defined as recycling rate plus waste prevention credit. Mandatory recycling rates established by the Maryland Recycling Act of 1988 remain in effect.
- **Maryland State Implementation Plan (SIP) (Ongoing):**
Limits emissions from specific pollutant sources to prevent air quality from falling below National Ambient Air Quality Standards (NAAQS).
- **Maryland Nonpoint Source Pollution Control Laws (1990-1994):**
Allows for the adoption of criteria and procedures by counties and soil conservation districts to implement soil erosion control programs and for counties and municipalities to implement storm water management programs.
- **Maryland Used Oil Recycling Act (1997):**
Requires MDE to develop programs to educate the public on oil recycling and to designate used oil collection facilities. It also prohibits disposal of used oil into sewers, drainage systems, or natural waters.
- **Maryland Wastewater Treatment Law (1987):**
Requires permits prior to installing, altering, or extending a water supply system or refuse disposal system (including a landfill, waste transfer station, incinerator, or other waste processing facility).
- **Medical Waste Legislation (1988):**
Regulates identification, record keeping, treatment, transport and disposal of special medical wastes; infectious wastes are prohibited in solid waste landfills in the state.

- **Mercury Oxide Battery Act (1992):**
Makes mercury oxide battery manufacturers responsible for collection, transportation and recycling or disposal of batteries sold or offered for promotional purposes in the state.
- **Natural Wood Waste Recycling Act (1991):**
Establishes the requirements for wood waste recycling in Maryland, authorizes the Department of the Environment to adopt additional regulations governing recycling facilities, and requires a permit for operation of these wood waste facilities created after July 1, 1992.
- **Newsprint Recycled Content Act (1991):**
Regulates newsprint recycling by imposing specified recycling content percentage requirements on the Maryland newspaper industry. Amended in 2006 to measure compliance based on a rolling three-year average.
- **Nickel Cadmium (NICD) Battery Act (1995):**
Regulates the storage, transportation, and destination of nickel-cadmium batteries.
- **Nontidal Wetland Regulations (1990):**
Prevents net loss of nontidal wetlands by establishing a stringent permitting process.
- **Northeast Maryland Waste Disposal Authority (1980):**
Creates and establishes the powers of the Northeast Maryland Waste Disposal Authority.
- **Plastic Material Code (1991):**
Regulates that rigid plastic containers or bottles may not be distributed for sale in the state unless appropriately labeled indicating the plastic resin used to produce them.
- **Public School Plans (2009):**
An Act requiring a county recycling plan to address the strategy for the collection, processing, marketing, and disposition of recyclable materials from county public schools.
- **Recycling – Apartment Buildings and Condominiums (2012):**
An Act requiring a county recycling plan to address the collection and recycling of recyclable materials from residents of apartment buildings and condominiums that contain 10 or more dwelling units by property owners or managers of apartment buildings and councils of unit owners of condominiums. Implements a reporting requirement for recyclable materials generated at apartment buildings and condominiums that contain 10 or more dwelling units when applicable.
- **Recycling – Composting Facilities Act (2013):**
Provides that a person may operate a composting facility only in accordance with specified requirements, regulations, orders, and permits and requires the Department of the Environment to adopt regulations to establish a permit system for composting facilities.
- **Recycling – Special Events (2014):**
An Act requiring a county recycling plan to address the collection and recycling of recyclable materials from special events by October 1, 2015. Amended in 2017 to require a county government to provide a written statement before issuing a certain permit for a special event after October 1, 2017.
- **Scrap Tire Law (1992):**
Prohibits the disposal of scrap tires in landfills after January 1, 1994, and creates a licensing system for the management of scrap tires. Establishes requirements for implementing a scrap tire recycling system, licensing haulers and collection facilities. Establishes the Tire Clean-Up and Recycling Fund.
- **Sludge Application (1993):**
Regulates land application procedures for sludge to maintain the public health.
- **Telephone Directory Recycling Act (1991):**
Requires telephone directory publishers to meet specified recycling content percentage requirements for telephone directories.

- **Waste Reduction and Resource Recovery Plan for Maryland (2017):**
Creates a policy to minimize environmental impacts of materials management, conserve in-State disposal capacity, make optimal use of resources and create an environmentally and economically sustainable system of materials management.
- **Water and Sewage Plan Act (1983):**
Requires the preparation and submission of solid waste management plans by counties and establishes the minimum requirements of such plans.
- **Yard Waste Act (1994):**
Bans separately collected yard waste from disposal facilities after October 1994.

Summary of **Article 9- Environment Article, Annotated Code of Maryland** (This statute contains MDE’s authority for the regulation of solid waste). (<http://mgaleg.maryland.gov/webmga/frmStatutes.aspx>)

Title 4 – Water Management

Title 6 – Toxic, Carcinogenic and Flammable Substances

Title 7 – Hazardous Materials and Substances

Title 9 – Water, Ice, and Sanitary Facilities

Subtitle 2 – Regulation by State

Section 204 - Installing, Altering or Extending Water Supply Systems, Sewerage Systems or Refuse Disposal Systems

204.1 - Installing, Altering or Extending Incinerators

204.2 - Installing, Altering or Extending Landfill Systems

Section 209 - Landfill System – Hearings

Section 210 - Landfill System – Prerequisites for Issuance of Permit

Section 211 - Landfills, Incinerators and Transfer Stations; Requirements for Security

Section 212 - Landfill Systems – Option to Purchase

212.1 - Denial of Permit to Nongovernment Person

Section 213 - Landfill System – Term of Permit (5 Years)

Section 214 - Landfill System – Revoking or Refusal to Renew a Permit

Section 215 - Landfill System – Closure and Cover when Operations End

Section 225 - Landfills Near Hospital Prohibited (1/2-Mile Radius)

Section 226 - Certification of Public Necessity Required for Hazardous Waste Landfill System

Section 227 - Infectious Waste in Landfill System Prohibited

Section 228 - Scrap Tires – Storage, Recycling and Disposal

Subtitle 5 - County Water and Sewerage Plans

Subtitle 17 - Office of Recycling (created MDE’s Recycling Program and defined and mandated county recycling goals)

Maryland Regulations Affecting Solid Waste Management

The principal State of Maryland regulations pertaining to solid waste management are found in the Code of Maryland Regulations (COMAR) (<http://www.dsd.state.md.us/COMAR/ComarHome.html>). Pertinent regulations include Title 26 Department of the Environment; Subtitle 04 Regulation of Water Supply, Sewage Disposal, and Solid Waste (COMAR 26.04.07), as well as some of the following denoted regulations:

Title 26

- Subtitle 1 - General Provisions
- Subtitle 2 - Occupational, Industrial, and Residential Hazards
 - Chapter 3 - Control of Noise Pollution
- Subtitle 3 - Water Supply, Sewerage, Solid Waste and Pollution Control Planning and Funding
 - Chapter 3 - Development of County Comprehensive Solid Waste Management Plans
 - Chapter 8 - Water Pollution Control Fund Construction Financial Assistance Regulations
 - Chapter 10 - Financial Assistance for the Constructing of Solid Waste Processing and Disposal Facilities
 - Chapter 11 - Environmental Review Procedures for Facilities Receiving Financial Assistance from the Maryland Water Quality Financing Administration
- Subtitle 4 - Regulations of Water Supply, Sewage Disposal, and Solid Waste
 - Chapter 4 - Well Construction
 - Chapter 6 - Sewage Sludge Management
 - Chapter 7 - Solid Waste Management
 - Chapter 8 - Storage, Collection, Transferring, Hauling, Recycling, and Processing of Scrap Tires
 - Chapter 9 - Natural Wood Waste Recycling Facilities
 - Chapter 11 - Composting Facilities
- Subtitle 8 - Water Pollution
- Subtitle 10 - Oil Pollution and Tank Management
 - Chapter 13 - Oil-Contaminated Soil
 - Chapter 15 - Management of Used Oil
- Subtitle 11 - Air Quality
 - Chapter 3 - Permits, Approvals, and Registration - Title V Permits
 - Chapter 7 - Open Fires
 - Chapter 8 - Control of Incinerators
 - Chapter 9 - Control of Fuel-Burning Equipment, Stationary Internal Combustion Engines, and Certain Fuel-Burning Installations
 - Chapter 15 - Toxic Air Pollutants
 - Chapter 17 - Nonattainment Provisions for Major New Sources and Major Modifications
- Subtitle 13 - Disposal of Controlled Hazardous Substances
 - Chapter 1 - Hazardous Waste Management System: General
 - Chapter 2 - Identification and Listing of Hazardous Waste
 - Chapter 3 - Standards Applicable to Generators of Hazardous Waste
 - Chapter 4 - Standards Applicable To Transporters of Hazardous Waste
 - Chapter 5 - Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
 - Chapter 6 - Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
 - Chapter 7 - Permits for CHS Facilities
 - Chapter 8 - Rights of Condemnation
 - Chapter 10 - Standards for the Management of Specific Hazardous Waste and Specific Types of Hazardous Waste Management Facilities
 - Chapter 11 - Special Medical Wastes
 - Chapter 12 - Standards Applicable to Generators of Special Medical Waste
 - Chapter 13 - Standards Applicable to Transporters of Special Medical Waste
- Subtitle 14 - Hazardous Substances Response Plan
 - Chapter 1 - Procedures for Hazardous Substance Response

- Chapter 2 - Investigating, Evaluating, and Responding to Hazardous Substance Releases
- Subtitle 15 - Disposal of Controlled Hazardous Substances-Radioactive Hazardous Substances
- Subtitle 17 - Water Management
 - Chapter 1 - Erosion and Sediment Control
 - Chapter 2 - Stormwater Management
 - Chapter 4 - Construction on Nontidal Waters and Floodplains
- Subtitle 20 - Surface Coal Mining and Reclamation Under Federally Approved Program
 - Chapter 26 - Excess Soil Disposal
 - Chapter 27 - Waste Handling
- Subtitle 23 - Nontidal Wetlands
- Subtitle 24 - Tidal Wetlands

Local (County)

Local (County) Laws Affecting Solid Waste

As described earlier, the primary County agency for solid waste management is the Department of Public Works, Bureau of Solid Waste Management. The Department of Environmental Protection and Sustainability (EPS) assists in the program and is the County’s regulatory agency in regard to solid waste issues. See Article 13, Title 4 (“Solid Waste”) of the County Code, which is available at www.baltimorecountymd.gov/agencies/law/countycode.html.

The following is a summary of Baltimore County laws in Article 13, Title 4 relating to solid waste management:

Subtitle 1. In General

- 13-4-101. Definitions
- 13-4-102. Purpose
- 13-4-103. Variances
- 13-4-104. Open dumps
- 13-4-105. Offensive material on public or private property
- 13-4-106. General permit requirement

Subtitle 2. Storage, Collection, Transportation, and Disposal

- 13-4-201. Method of solid waste storage - In general
- 13-4-202. Same - Occupant and owner responsibilities
- 13-4-203. Same - County responsibility
- 13-4-204. Permits for solid waste collection - Required
- 13-4-205. Same - Application; issuance; fee; renewal
- 13-4-206. [Reserved]
- 13-4-207. Same - Prohibited act
- 13-4-208. Requirements for solid waste collection vehicles and receptacles
- 13-4-209. Commercial, industrial, institutional establishments
- 13-4-210. Employment of people for collection
- 13-4-211. Requirements for persons having solid waste collection by the county
- 13-4-212. Hot or burning material

- 13-4-213. Recycling of wastes
- 13-4-213.1 Recycling of home electronic devices
- 13-4-214. Disposal of animal carcasses
- 13-4-215. Disposal of medical waste
- 13-4-216. Disposal of hazardous and special waste

Subtitle 3. Processing and Land Disposal Sites

- 13-4-301. Permit for processing and disposal sites - Required
- 13-4-302. Same - Application and issuance
- 13-4-303. Confidential and proprietary information
- 13-4-304. Deed modification
- 13-4-305. Regulations
- 13-4-306. Compliance with regulations

Subtitle 4. Enforcement

- 13-4-401. Right of entry
- 13-4-402. Inspection of vehicles
- 13-4-403. Approving authority may suspend or revoke a permit
- 13-4-404. Reinstatement of a suspended permit
- 13-4-405. Reinstatement of Permit
 - Cross references – Buildings and building regulations, §32-4-2; environmental protection and sustainability, article 33; health and human services, §3-13; housing, §35-3; dumping refuse, etc., on property of another, §17-1-107; rodent and vermin control, §13-7-3; et seq.; planning, zoning and subdivision control, article 32.
 - State law references – Solid waste generally, Ann. Code of Md., Environment Article, 9-204 et seq., 9-1701 et seq., 9-1801 seq.; littering, Ann. Code of Md. Art. 27, 468.

Local (County) Regulations Affecting Solid Waste Management

In addition, Baltimore County’s Bureau of Solid Waste Management has specific regulations governing the following:

- Baltimore County Residential Trash and Recycling Collection (Single Stream Version)
- Disposal at Eastern Sanitary Landfill Solid Waste Management Facility;
- Acceptance of Non-Hazardous “Special” Solid Waste at Eastern Sanitary Landfill Solid Waste Management Facility;
- Disposal Rates at Eastern Sanitary Landfill Solid Waste Management Facility;
- Acceptance of Asphalt, Concrete, Brick (Non-refractory), Block and Earth at Eastern Sanitary Landfill Solid Waste Management Facility;
- Use of Residents’ Drop-off Center at Eastern Sanitary Landfill Solid Waste Management Facility;
- Use of Residents’ Drop-off Center at Baltimore County Central Acceptance Facility and Western Acceptance Facility;
- Commercial Disposal at Baltimore County Central Acceptance Facility;
- Community and Non-Profit Organization Clean-ups; and

- Acceptance of “Select” Solid Waste at Eastern Sanitary Landfill Solid Waste Management Facility.

The Bureau of Solid Waste Management also has guidelines for implementing some of the budgeted programs, such as the Community Clean-Up Program.

All Bureau of Solid Waste Management regulations and guidelines may be found at www.baltimorecountymd.gov/Agencies/publicworks/solid_waste/index.html.

In addition, the Department of Environmental Protection and Sustainability has established regulations for solid waste processing facilities and sites. EPS regulations may be obtained by contacting the agency at 410-887-3745 or visiting www.baltimorecountymd.gov/agencies/environment/index.html.

Local (County) Agreements

Baltimore County is a member jurisdiction of the Northeast Maryland Waste Disposal Authority (NMWDA), an independent state agency that provides support to member jurisdictions in projects involving solid waste management. Other Authority members include Baltimore City, Anne Arundel, Carroll, Frederick, Harford, Howard and Montgomery Counties.

Local (County) Purchase of Recycled and Recyclable Products

Under the provisions of Article 10, Title 2, Section 312 of the Baltimore County Code, the County purchasing agent is required to purchase recycled products. Concerted efforts by consumers, such as Baltimore County, are important for creating markets for recyclable materials. Specifically, County Code §10-2-312 requires:

- In procuring paper or paper products, the purchasing agent shall purchase or approve for purchase only commodities that are recyclable and produced from recycled paper containing post-consumer waste at least 10% in excess of that required by the applicable federal standard;
- Of the total volume of paper that the purchasing agent buys, at least 40% shall be recycled paper;
- The purchase of non-recyclable polystyrene products or products packaged in non-recyclable polystyrene shall be avoided;
- Contracts shall specify that materials must be packaged in recycled and recyclable materials;
- In the purchase of non-paper commodities, the purchasing agent shall review product specifications, and shall revise specifications, where appropriate, to include recycled content in the following product areas: re-refined oil, plastic products, auto parts, compost material, aggregate, insulation, solvents, rubber products; and
- No inks containing toxic components shall be used in any County publication.

County Code §10-2-312 also requires double-sided copying and that consultants and contractors doing business with the County use recycled and recyclable materials printed on both sides.

Baltimore County’s Department of Public Works recognizes the need to use recycled materials to help develop markets, and the usefulness of recycled materials. As stated in DPW’s February 2000 *Standard Specification for Construction & Materials* (as updated through the February 2007 Consolidated

Addendum #3), recycled products, such as crushed glass, concrete, asphalt, and landscaping material, are approved for use on County public works projects.

CHART I-1

BALTIMORE COUNTY, MARYLAND COUNTY GOVERNMENT ORGANIZATION

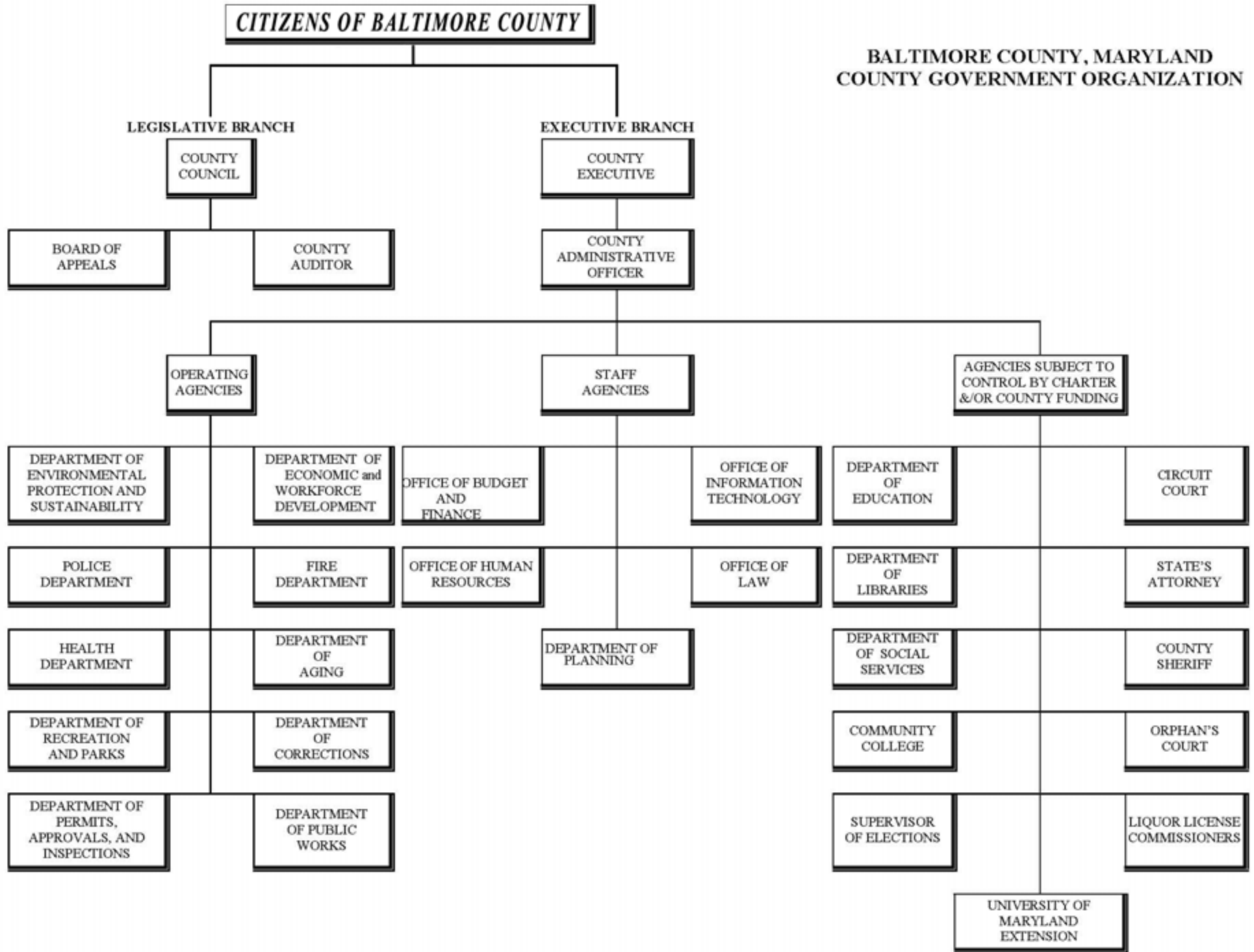


CHART I-2

BALTIMORE COUNTY DEPARTMENTS INVOLVED IN SOLID WASTE ACTIVITIES

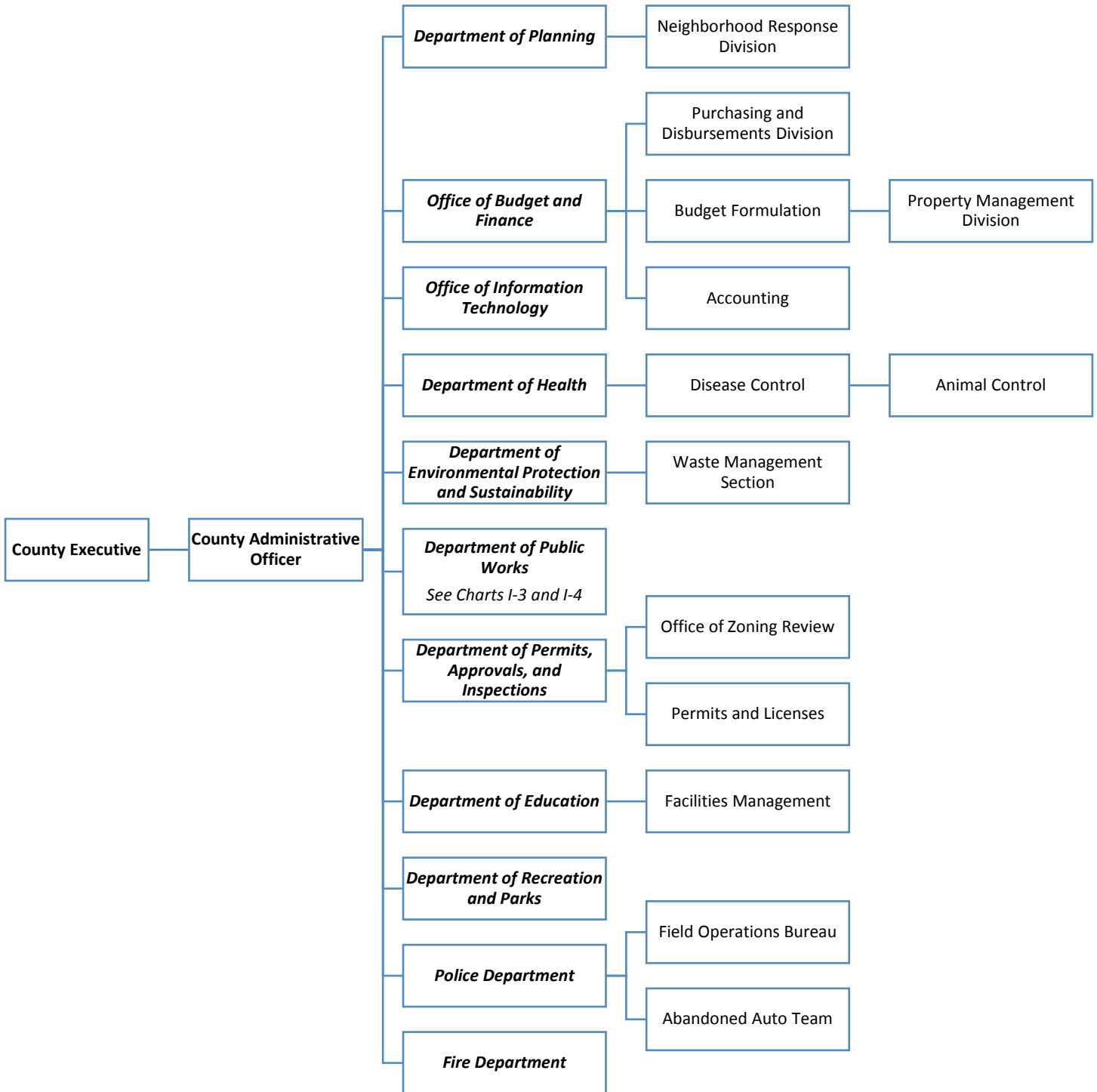


CHART I-3

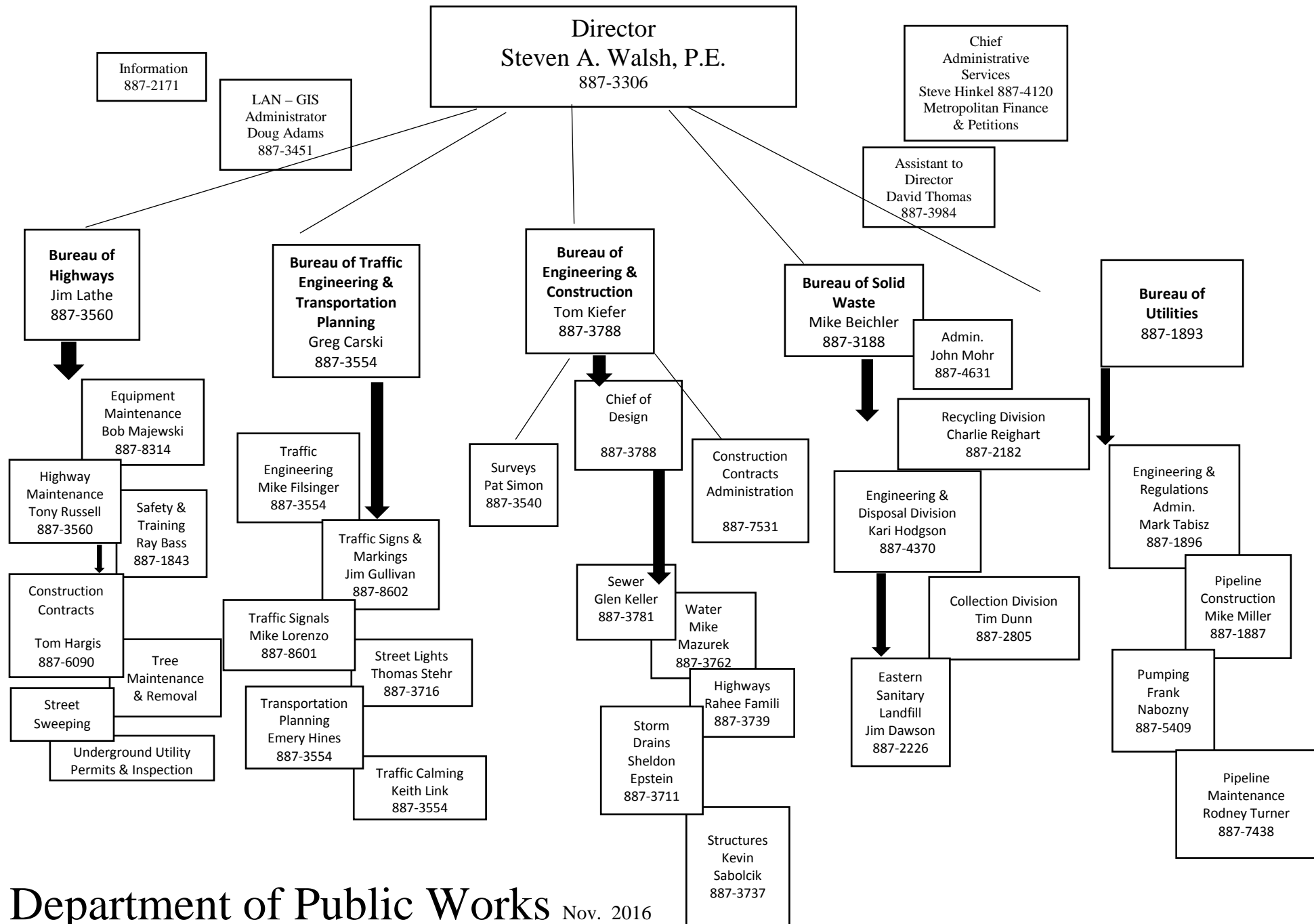
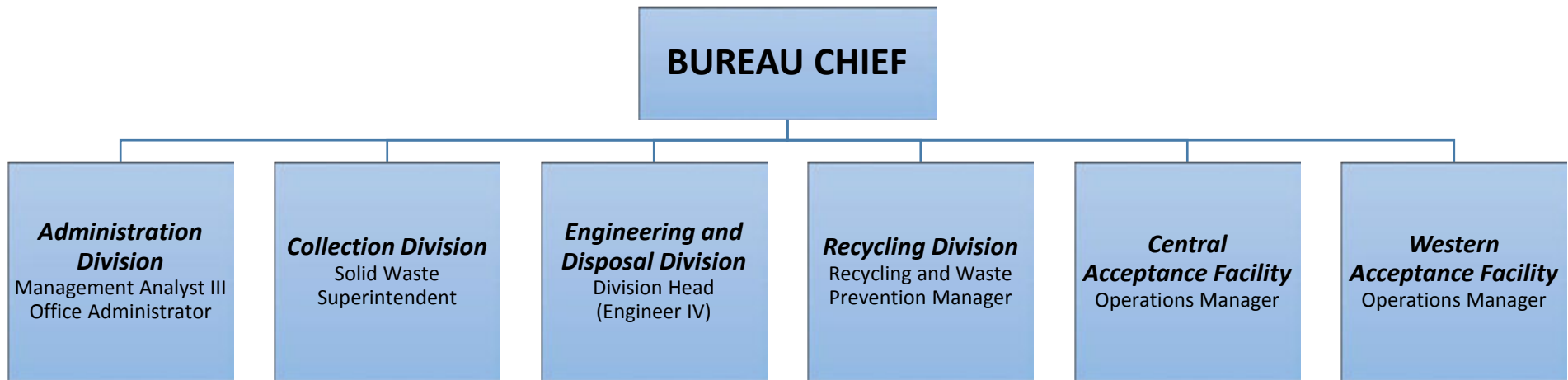


CHART I-4

BALTIMORE COUNTY BUREAU OF SOLID WASTE MANAGEMENT ORGANIZATIONAL CHART



CHAPTER II OF TEN YEAR SOLID WASTE MANAGEMENT PLAN

POPULATION, ZONING, AND LAND USE

(October 2018)

Introduction

Baltimore County attained county status in 1659. The County was named for the Lords of Baltimore, proprietary governors of the Maryland colony. At first, Baltimore County included all that territory which is now Cecil and Harford Counties, as well as a large portion of what is now Kent County and the eastern half of Carroll County.

The town of Baltimore (Baltimore City) gained municipal status in 1797 when it received a municipal charter. In 1816 the first annexation of surrounding territory took place. By this annexation, Baltimore City acquired a population of 16,000 to 17,000. The City deeds and County deeds for rural places were all kept in the same book series until a vote in 1851 led to the separation of Baltimore City and Baltimore County. County court functions stayed in the city until the original Towsontown courthouse opened in January 1857.

A general map outlining Baltimore County and referencing neighboring jurisdictions is included as Map II-1.

It is important for Baltimore County to keep track of growth patterns such as population, employment, and household units since each affects the management of solid waste in terms of waste generation, solid waste disposal capacity, collection and disposal, operating costs, landfill life expectancy, etc.

Demographics

Baltimore County is located in the geographic center of the State in a metropolitan area with a population exceeding 2.7 million. During the last two decades, the basic demography of the County has changed from predominantly rural to an urban and rural mix. Within its 612 square miles (plus an additional 28 square miles of water) are situated at least 25 identifiable unincorporated communities. Baltimore County's population is expected to grow from approximately 831,000 residents as of 2016 to approximately 862,000 residents by 2030.

According to the Baltimore County Office of Planning, the rate of population growth in Baltimore County is expected to slow substantially through the year 2030. See Table II-1.

Municipalities and Federal Facilities

Baltimore County surrounds the City of Baltimore, but the two entities are entirely separate political units. Baltimore County performs all local governmental functions within its jurisdiction,

as **there are no incorporated towns, villages, municipalities or other political subdivisions with separate taxing authority.** Under home rule charter since 1957, an elected County Executive and a seven-member County Council govern the County with each serving separate executive and legislative functions.

There are three federal facilities located at the Federal Center at Woodlawn Business Community, which includes the Social Security Administration facility, a Federal Bureau of Investigation (FBI) Regional Office, and the Center for Medicare and Medicaid Services (see Map II-2). These facilities use private haulers to collect and dispose of trash. The Social Security Administration has also established a recycling program, which provides recyclables to private recycling facilities in and around the Baltimore area. Depending on market conditions, the recyclables are either sold, donated, or a fee is paid.

Zoning Requirements

Zoning is an important part of Baltimore County's land use regulations. The Zoning Ordinance affects solid waste management activities within the County by restricting the placement of facilities related to the disposition of solid wastes. Construction of new facilities within Baltimore County is controlled by a document entitled Baltimore County Zoning Regulations. Facilities owned and operated by the County are exempt from these regulations. Land use and development regulations and standards are contained or authorized in the Baltimore County Code. This *Plan* shall not be used to create or enforce local land use and zoning requirements. Both the County's Zoning Regulations and Code may be accessed at www.baltimorecountymd.gov/Agencies/law/countycode.html.

The Baltimore County Zoning Regulations specify what land uses can be developed on a piece of property based on the property's designated zoning classification. The zoning regulations also contain area and setback requirements and other regulations related to site design. Section 105 of the Baltimore County Zoning Regulations prohibits several land uses in Chesapeake Bay Critical Areas, including solid or hazardous waste collection or disposal facilities and sanitary landfills.

There are several types of solid waste acceptance facilities that are explicitly described in the zoning regulations:

- Rubble Landfill;
- Sanitary Landfill;
- Sewage Sludge Composting;
- Sludge Co-Landfilling;
- Sludge Handling in General;
- Sludge Incineration;
- Sludge Land Spreading; and
- Sludge Surface Impoundment.

The Baltimore County Department of Environmental Protection and Sustainability has the same requirements for rubble and sanitary landfills. Both rubble and sanitary landfills are subject to

Section 412 of the County zoning regulations. In accordance with the County Code, open dumps are not permitted within the County and, consequently, are not referenced in the regulations.

Comprehensive Land Use Plan (County Master Plan)

According to the Baltimore County Office of Planning’s *Master Plan 2020*, “Baltimore County’s Charter requires that the master plan be adopted or updated every ten years. The purpose of the master plan is to guide the development of the county.” *Master Plan 2020*, which was updated and adopted November 15, 2010, examines the policies and strategies that have guided past development of the County, and reassesses them in light of present and projected conditions.

Each successive master plan adopted by Baltimore County has built upon previous work. Central to the way that the County has developed is the concept of delineating two distinct land management areas – the urban area and the rural area. This concept manages growth in a manner that preserves important natural and agricultural resources and maximizes the efficiency of County revenues spent on transportation improvements, utilities, and other capital projects. An urban-rural demarcation line (URDL) was established in 1967. The urban areas of the county were those that had or would receive public water and sewer infrastructure, and therefore would accommodate development, including employment, retail and residential uses. In the rural areas, reliance on private well and septic systems would limit the amount of development that could be accommodated, and thereby help ensure the area’s continued use for agricultural and natural resource protection and low-density rural residential uses.

Again, according to the Baltimore County’s Office of Planning’s *Master Plan 2020*, “the County Executive and the County Council acknowledge the importance of the master plan as an advisory tool for ensuring rational and orderly development. The policy decisions of the Council, expressed through its law-making powers, are the means to fulfilling the evolving needs of the County and the citizens. *Master Plan 2020* is intended to guide the County Executive, the Council, and the government agencies in accomplishing the visions and goals of the plan.”

Baltimore County’s *Master Plan 2020* includes a section on solid waste. Land development in Baltimore County may pose constraints on the establishment of a solid waste management facility simply by occupying available land or by establishing land uses incompatible with solid waste management facilities.

Following for the remainder of this chapter is the relevant section from the *Master Plan 2020* referring to solid waste. Parenthetical items are additions/clarifications to the verbatim text of the Master Plan.

Master Plan 2010-2020

PUBLIC INFRASTRUCTURE

INTRODUCTION

Public infrastructure is the term used to describe the basic facilities, equipment, services and installations needed for the growth and functioning of a

community. Because public infrastructure is so important in determining the timing, location, and intensity of private development, it serves as a valuable tool for master plan implementation.

The principal responsibility for infrastructure in Baltimore County lies with the Department of Public Works. The department's mission is to plan, provide, maintain, and expand public infrastructure systems serving the residents of Baltimore County in the safest, most efficient, and cost effective manner possible. Because the county is aging, infrastructure needs have shifted from construction of new facilities to maintenance of existing facilities. Major areas of responsibility of the Department of Public Works include:

- Developing, maintaining and upgrading the transportation network
- Providing for adequate water supply and sewerage service
- Providing adequate storm drain systems
- Managing solid waste

POLICIES

- The infrastructure projects in the Capital Budget and Program should be used to maintain existing healthy communities, and leverage county resources to direct future mixed-use growth to the Community Enhancement Areas.
- Continue active participation in the Metropolitan District.
- The Metropolitan District Line should coincide with the URDL.
- Water and sewer infrastructure requires continuous maintenance and upgrading, as demand for service increases.
- Promote solid waste reduction, reuse, recycling, and resource recovery to minimize the need for landfilling and to extend the useful life of the Eastern Sanitary Landfill Solid Waste Management Facility (ESL).

POLICY AND ACTIONS

Policy and actions discussed are from the *Master Plan 2020*, and pertain to solid waste management.

SOLID WASTE

Baltimore County's Solid Waste Management responsibilities include:

- Providing weekly recycling and refuse collections for 332,000 households, and biweekly yard waste recycling collections from April through December to 70% of these households.
- Managing the county's waste reduction, recycling and composting programs.
- Operating the active Eastern Sanitary Landfill Solid Waste Management Facility, which includes a transfer station, yard waste composting and mulching operation, and a residential drop-off and recycling center, as well

- as properly maintaining county-owned closed sanitary landfills.
- Overseeing the operation of the two solid waste facilities: Western Acceptance Facility (WAF) in Halethorpe and Baltimore County Central Acceptance Facility (CAF) in Cockeysville, both of which are transfer stations and include residential drop-off centers. CAF also has a materials recovery facility for recyclable paper and bottles and cans.
- Coordinating with the Northeast Maryland Waste Disposal Authority (NMWDA) in overseeing the operation of the Southwest Resource Recovery Facility, a waste to energy facility located in Baltimore City and operated by Wheelabrator Baltimore. (Note: The facility is often referred to as BRESKO).
- Preparing and updating the county's recycling plan and solid waste management plan.
- Coordinating with other jurisdictions to formulate regional solid waste management and recycling plans.

Policy: Promote solid waste reduction, reuse, recycling, and resource recovery to minimize the need for landfilling, and to extend the useful life of the Eastern Sanitary Landfill Solid Waste Management Facility (ESL).

Actions

1. Continue to promote participation by the 237,000 single-family homes and town homes in the County's weekly single stream recycling collection program, which started on February 1, 2010.
2. Bring a total of up to 81,000 apartments and condominium units on board with single stream recycling collection.
3. Continue to pursue the maximum 5% waste prevention credit availability annually from the Maryland Department of the Environment, through such activities as promoting grasscycling (cutting grass high and letting it lie) and publishing a new Reuse Directory every other year.
4. Continue to promote product stewardship alternatives (such as manufacturer and/or retail take back programs) to County acceptance of household electronic items for reuse or recycling, while maintaining three electronic reuse/recycling drop-off centers around the County.
5. Expand the County Government Facilities Recycling Program consistent with cost-effectiveness.
6. Maximize the use of waste to energy technology, including Wheelabrator Baltimore, L.P. in Baltimore City, regarding residential trash generated that is not reduced, reused, or recycled.
7. Transfer out-of-state, rather than landfill at ESL, any material that the County does not manage by waste prevention, recycling, or resource recovery, to the extent feasible.
8. Expand and/or improve the transfer stations at ESL and the Baltimore County Central Acceptance Facility (CAF) in Cockeysville.
9. Continue and/or expand the beneficial use of landfill gas (the methane component), which started with the generation of electricity at the ESL landfill gas to energy facility in 2006.
10. Intensify overall public education outreach regarding the County's solid waste/recycling program to County residents.

Closed Landfill Sites

Baltimore County has closed landfill sites, some of which are under the direction of the Department of Recreation & Parks (Southwest Area Park, Batavia) and the Revenue Authority (Longview Golf Course). Two sites, which are essentially open space at this time, are the Hernwood (295 acres) and Parkton (204 acres) sites, both of which are closed and being monitored. These sites will be available for future recreational use. The Texas Landfill is presently being used as a residents' drop-off center.

Map II-1

BALTIMORE COUNTY, MARYLAND

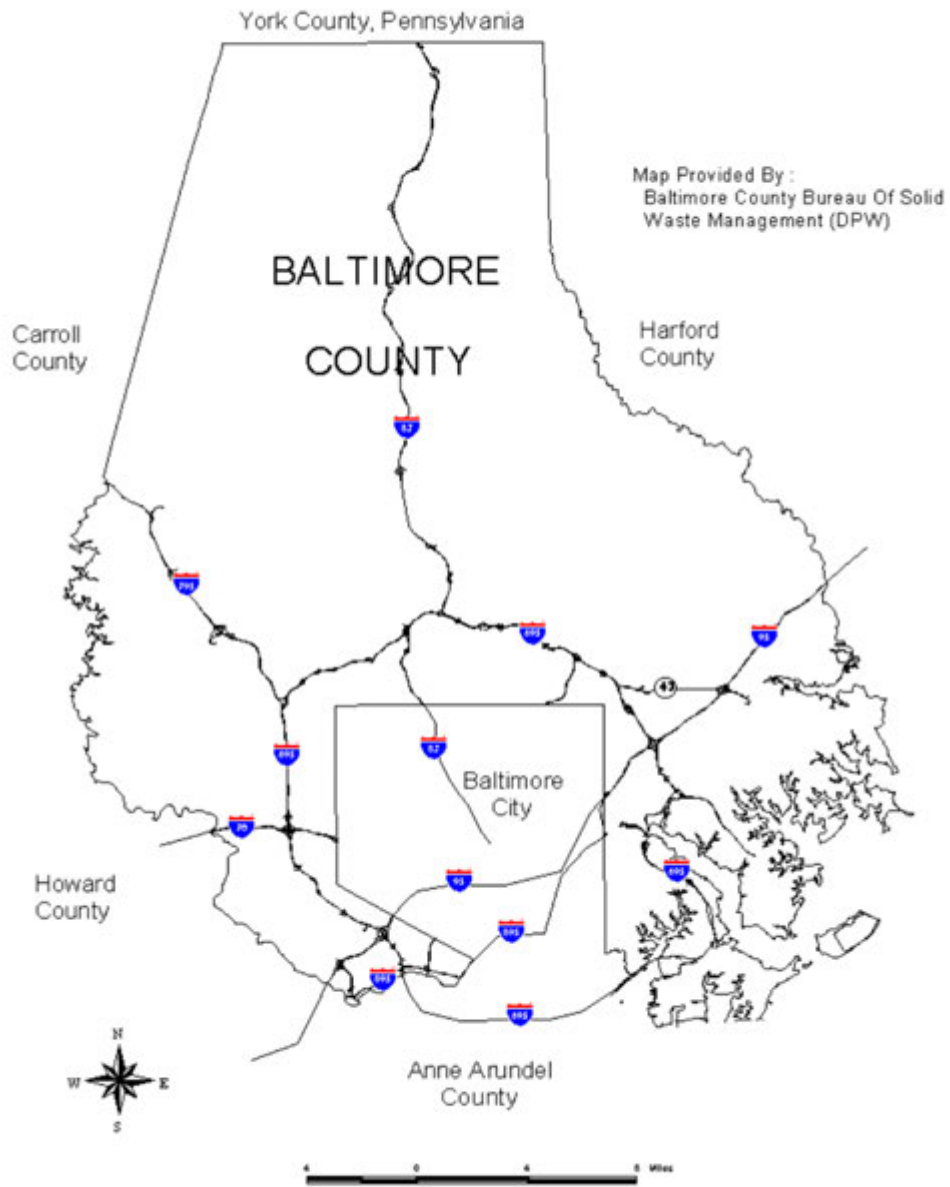
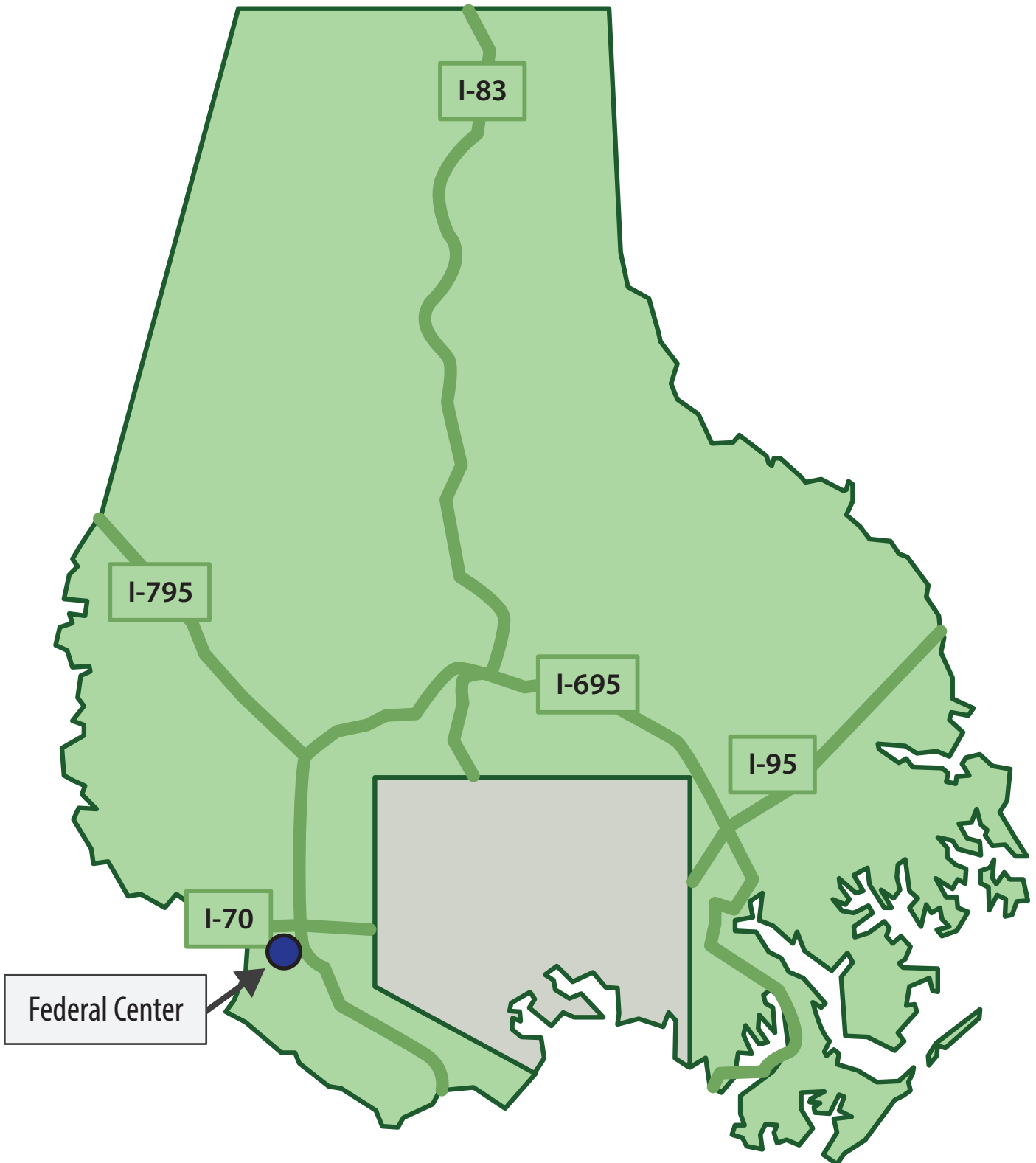


TABLE II-1**POPULATION DATA**

YEAR	POPULATION*
2008	798,651
2009	801,808
2010	805,029
2011	813,169
2012	818,282
2013	823,295
2014	826,518
2015	829,209
2016	831,026
2017	835,020
2018	839,014
2019	843,008
2020	847,000
2021	849,000
2022	851,000
2023	853,000
2024	855,000
2025	857,000
2026	858,040
2027	859,080
2028	860,120
2029	861,160
2030	862,200
2031	863,660
2032	865,120
2033	866,580
2034	868,040
2035	869,500
2036	871,750
2037	874,000
2038	876,250
2039	878,500
2040	880,750

* Population figures are based on U.S. Census Bureau, Population Division and July 2014 Maryland Department of Planning. Projections after 2016 are derived by linear interpolation (which means that straight-line increases are assumed between years where U.S. Census and/or Maryland Department of Planning projections are not available).

FEDERAL FACILITIES LOCATED IN BALTIMORE COUNTY



FEDERAL CENTER INCLUDES THE SOCIAL SECURITY ADMINISTRATION, FEDERAL BUREAU OF INVESTIGATION AND THE CENTERS FOR MEDICARE AND MEDICAID SERVICES

CHAPTER III OF TEN YEAR SOLID WASTE MANAGEMENT PLAN

SOLID WASTE GENERATION, IMPORT/EXPORT, COLLECTION AND ACCEPTANCE FACILITIES

(September 2020)

Chart III-1 summarizes the flow of residential and commercial solid waste from within Baltimore County to various facilities in and around the County as of July 2017. As the chart reflects, materials generated in Baltimore County are handled in a variety of ways (including recycling, waste to energy, landfilling in the County, and transfer for landfilling outside the County). Furthermore, multiple facilities inside and outside the County play an important role.

Table III-1 includes 2015 and 2016 data (the most recent years for which comprehensive residential and commercial data is available), as well as annual projections through 2030, regarding population, waste (trash) disposed, and recycling generation for both MRA and non-MRA materials. In addition, the projections in Table III-1 for MRA residential and commercial waste were developed using data going back to 2012, though these years are not included in the table itself. Residential MRA waste disposal, on both a per capita (0.430 tons, or 860 pounds, per year in 2015) and absolute basis (more than 356,000 tons in 2015), decreased consistently from 2005 through 2013, and remained relatively steady in 2014 and 2015. In addition, Baltimore County's population (now approximately 831,000) is expected to continue its upward trend over the next decade and beyond. Taking all of these factors into account, **though there may be more residential MRA waste material for Baltimore County to manage during the 2019-2028 period due to a growing population, the total amount of residential MRA waste generated per capita is not projected to increase.**

A brief description of the present solid waste management system (i.e., waste prevention, generation, collection, and processing/disposal) for various types of materials follows:

1. Residential (household, domestic) materials

Baltimore County has attempted to minimize the amount of residential material, whether recyclable or not, needing to be collected. While prevention of residential waste has many benefits, of particular interest to Baltimore County is the associated reduction in disposal costs and vehicle pollution.

Yard materials (grass, leaves, and small brush) have been a significant focus in the County's efforts to promote the first of the "3 R's" (Reduce, Reuse, and Recycle). Home composting, "leafcycling" (mowing over fallen leaves and allowing them to decompose on the lawn over time), and "grasscycling" (cutting grass high and letting the clippings lie on the lawn) are all promoted by the County on an ongoing basis. The Bureau of Solid Waste Management promotes these waste prevention practices using various methods, from information and instructional videos on the County website to handouts at special events. From 1997 through 2016, the County also hosted 21 compost bin sales. At times, the Bureau of Solid Waste

Management runs more targeted campaigns related to reductions in yard waste – for example, a series of three postcards promoting “leafcycling” were sent to areas of the County with historically high amounts of leaf generation in the Fall of 2015.

Ranking right behind waste minimization as a method for cutting down on the amount of material placed out for collection, whether as trash or recycling, is reuse. While donating usable items so that they may be reused by others is by no means new, more and more businesses and non-profits are making reuse a distinctly viable option for an ever widening range of materials. Designed to make donating unwanted items easier for residents, the County’s Reuse Directory helps residents keep reusable material out of the County’s collection system. The latest edition (2017) provides contact and other information regarding more than 50 reuse organizations. These organizations accept a wide variety of items, from appliances to vehicles. The County distributes the Reuse Directory to residents both in hard copy form and as a downloadable PDF on the County’s web site. Baltimore County also encourages residential reuse in other ways – since April 2010, the County has hosted containers for The Loading Dock (a non-profit building materials reuse center) at its Central Acceptance Facility and Eastern Sanitary Landfill residents’ drop-off locations.

The overall Baltimore County residential solid waste program has undergone many changes in the last decade, though the collection system itself remains relatively unaltered. During the early to mid-1990s, the County implemented a once a week trash, once a week recycling collection program which continues to serve approximately 240,000 single-family homes and town homes. In June 2017, approximately 15,000 homes were granted a second weekly trash pickup (for a total of two trash and one recycling collections per week) as part of a larger effort by the County to reduce rodent problems in those targeted areas. Approximately 70% of single-family homes and town homes also have a separate yard materials recycling collection from April into December, every other week.

The Baltimore County solid waste program utilizes 39 private collection companies appointed by the County Administrative Officer (in accordance with State law and the County Code) and compensated by the County. Each collector provides both trash and recycling collection service on the geographic routes assigned by the County. Once material has been collected, it is delivered to one of several County-designated facilities. In February 2010, Baltimore County transitioned from a “dual stream” to “single stream” recycling program, in which all acceptable items can be set out in the same container for pickup each week. The range of accepted recyclables also expanded with the implementation of the single stream program, and currently includes plastic bottles, jugs, and wide-mouth containers, rigid plastics, aluminum and steel cans, empty aerosol cans, aluminum foil and pie pans, glass bottles and jars, milk and juice cartons, cardboard, and various types of paper.

As of October 2010, most condominium and apartment units within Baltimore County receive once a week trash and once a week single stream recycling collection from a County-authorized collector. This implementation of County-wide recycling collection at multi-family properties occurred well ahead of the October 1, 2014 deadline that resulted from the addition of sections 9-1703 (b) (12) and (13) to the Environment Article, Annotated Code of Maryland. This law requires that the property owner or manager of an apartment building that contains ten (10) or more dwelling units and the council of unit owners for a condominium that contains ten (10) or more dwelling units must provide for the collection and recycling of recyclable materials for

their residents. Further details about this law and its implementation in Baltimore County are detailed below.

A. Apartment Building and Condominium Recycling Program (the “ABCR Program”)

Through the cooperation of the Baltimore County Bureau of Solid Waste Management (“the Bureau”) and owners or managers of apartment buildings or councils of unit owners of condominiums (“apartment and condominium officials”), and other stakeholders involved in the implementation of this law, the Bureau identified 337 apartment buildings and 94 condominiums that fall under the scope of the law. The Bureau contacted all relevant apartment and condominium officials and provided information on the requirements of the new multi-family recycling law.

Apartment and condominium officials identify how the recyclable materials will be stored, collected, and transported to the recycling markets for the collected materials. Other program requirements that apartment and condominium officials must follow include:

1. Materials Included in ABCR Program

Recyclables must include: plastic, metal, and glass containers, and paper.

2. Collection of Materials

Apartment and condominium officials are responsible for providing all containers, labor, and equipment necessary to fulfill recycling requirements throughout their buildings. Distinctive colors and/or markings of recycling containers shall be provided to avoid cross-contamination. Apartment and condominium officials must ensure adequate and sufficiently frequent collection and transportation of recyclable materials from apartment and condominium locations to markets. Appropriately sized recycling containers are to be used for the collection of a building’s recyclable materials. Residents who wish to participate in the ABCR Program will be responsible for making recyclables available for collection prior to their removal on the scheduled pickup day.

3. Processing of Materials

Apartment and condominium officials are responsible for the processing of their recyclables. Upon request, apartment and condominium officials must submit annual, calendar year reports, on forms developed and made available by the Bureau, to the Baltimore County Bureau of Solid Waste Management, 111 West Chesapeake Avenue, Room 225, Towson, Maryland, 21204, detailing the recycling tonnage removed from the apartments and condominiums and sent to markets for the materials, as well as waste disposal totals. These reports will be due to the Bureau no later than the end of February covering information for the previous calendar year. Apartment and condominium officials must retain this information, including completed and returned forms, for a minimum of three (3) calendar years.

B. Stakeholders

Stakeholders involved in implementing the law include:

1. Baltimore County Council – adopted the MDE-approved language of ABCR Program for the *Plan*.
2. Baltimore County Department of Public Works – oversees Bureau of Solid Waste Management activities and assures that all apartment buildings and condominiums that fall under the requirements are included in the ABCR Program.
3. Baltimore County Bureau of Solid Waste Management – communicated the requirements of the law to the apartment and condominium officials; assists apartment and condominium officials in developing a recycling program; monitors the progress and performance of the ABCR Program; updated the County’s recycling plan to include the ABCR program and amended the *2009-2018 County Solid Waste Management Plan*; and developed an annual recycling reporting form to be used by apartment and condominium officials.
4. Owners and Managers of Apartment Building or Councils of the Unit Owners of Condominiums – provide practical and convenient recycling opportunities to the residents of each apartment building or condominium; secure and manage recycling contracts with the contractor for providing recycling collection from the building locations (if the County has not already designated a collector); provide recycling collection bins and containers for transporting the materials from the buildings to the markets; and perform record keeping and report to the County, upon request, on an annual basis as previously prescribed.

C. Participating Apartment Buildings (337) and Condominiums (94) in ABCR Program

The Bureau maintains a database of all participating apartment buildings and condominiums. This database is publicly available information to any interested party that contacts the Bureau at 410-887-2000 or solidwaste@baltimorecountymd.gov. New apartment buildings and condominiums that fall under the requirements of the law will begin participating in the ABCR program within three (3) months of being notified of said requirements by the Bureau.

D. Program Monitoring

The Bureau oversees the progress and performance of the ABCR Program. However, the apartment and condominium officials are responsible for conducting inspections, reviewing service levels, investigating reported or unreported pick-up and disposal complaints, and meeting with residents or recycling contractor staff to educate or review practices, and review contractor compliance with the recycling contract. Any issues arising from these activities deemed to be deficiencies on the part of the resident(s) or recycling contractor(s) are detailed in writing and reported to the violator. The apartment and condominium officials must initiate actions to correct all deficiencies within 60 days of being notified. In the event a County-designated collector is responsible for a deficiency, the deficiency is reported to the Bureau and the Bureau must initiate action(s) to correct the deficiency within 60 days of being notified.

The apartment and condominium officials should also be available to conduct educational seminars and/or tours regarding new materials, practices, and procedures for residents.

Also, the owner, manager or council are responsible for keeping the residents current on new regulations, laws, and mandates affecting recycling in the apartment buildings or condominiums.

The Bureau has the right to inspect, for compliance, any apartment or condominium building subject to this section of the *Ten Year Solid Waste Management Plan*, including inspecting recycling containers and reviewing records regarding the multi-family recycling program.

E. Program Enforcement

The Bureau must ensure that recycling at apartments and condominiums has been implemented in accordance with the Sections 9-1703 and 9-1711 of the Environment Article, Annotated Code of Maryland. The Bureau ensures maximum participation of all existing apartment and condominium buildings in the ABCR Program by periodically notifying and reminding apartment and condominium officials of the existence of the program, and the Bureau also encourages resident participation by publicizing the ABCR Program. The Baltimore County Attorney’s Office determines if, when, and how the County should enforce the State multi-family recycling law, and what level of enforcement actions should be used. The State multi-family recycling law allows for fines to a person that violates the recycling or reporting requirements of the law, or a civil penalty, not exceeding \$50 for each day on which the violation occurs. Further, any penalties enforced by Baltimore County and collected under the law shall be paid to Baltimore County.

Certain institutional generators of materials (e.g., fire departments, police stations, places of worship) also receive County-authorized trash and recycling collection.

Three major facilities are at the heart of Baltimore County’s residential solid waste management system:

- Central Acceptance Facility (“CAF”), in Cockeysville, where single stream recycling is sorted and prepared for markets and trash is transferred to both Wheelabrator Baltimore (a.k.a. “BRESKO”) and the Eastern Sanitary Landfill Solid Waste Management Facility;
- Western Acceptance Facility (“WAF”), in Halethorpe, where recyclables are transferred to CAF and trash is transferred to BRESKO; and
- Eastern Sanitary Landfill Solid Waste Management Facility (“ESL”), in White Marsh, where recyclables are transferred to CAF and trash is landfilled on-site.

Although County-sponsored collection from streets and alleys accounts for the vast majority of material the County must manage, residents themselves can and do bring materials to one of three drop-off centers (ESL, CAF, and WAF). All three of these facilities accept the recyclable paper, plastic, metal, and glass accepted in the County’s single stream “curbside” recycling program, as well as a wider range of items for recycling and disposal.

The County accepts fluorescent tubes and compact fluorescent lamps (CFLs) for recycling from County residents at all three residents' drop-off centers. Fluorescent tubes and CFLs are also accepted during special collection events held twice per year by the Bureau of Solid Waste Management. The service is free to County residents.

The County's processing contractor is Broadview Waste Services Inc. The fluorescent tubes and CFLs are broken down into components such as mercury, phosphor, and glass, which are then marketed. In 2016, the County collected approximately 69,000 fluorescent tubes and CFLs for recycling; this total figure includes bulbs collected from residential drop-off centers and special collection events as well as County offices and facilities.

The County also monitors information about manufacturers and retailers that offer fluorescent tube/CFL collection programs. The Bureau of Solid Waste Management publicizes information about such programs to residents in a variety of ways, including through its customer service line.

Yard materials collected separately for recycling in Baltimore County's "curbside" program are brought to ESL, where they are composted or mulched. Compost and mulch made at ESL are used by County agencies or offered to residents free of charge. Yard materials dropped off by residents at CAF from March through mid-December are mulched on-site by Hollins Organic Products Inc.

Baltimore County established a permanent electronics recycling collection site at CAF's residents' drop-off center in 2006, and added further permanent sites at ESL and WAF in 2009. These sites are open free of charge to residents of Baltimore County. Baltimore County's e-recycling program accepts a wide range of electronics including cables, computer equipment (such as CPUs, hard drives, keyboards, mice, power supplies, printers, scanners, and other computer accessories and peripherals), music playing devices, phones, tablets, VCR/DVD/Blu-ray players, and video game consoles for year-round recycling collection. These materials are picked up by CyclePoint from SourceAmerica ("CyclePoint") and transported to its processing site in Virginia as needed. Any vendor contracted to collect and process electronics for the County is required to have R2 and/or e-Stewards certification as an assurance of the vendor's environmental stewardship.

As the electronics recycling contractor for Baltimore County, CyclePoint manages the materials dropped off at the County's three facilities by repairing and refurbishing a small amount of the electronics, while breaking down the rest of the items into component parts for marketing, depending on the age and condition of the equipment. Baltimore County collected approximately 350.95 tons of electronics for reuse or recycling in 2016.

2. Commercial materials

Commercial materials are those materials generated by businesses, including stores and offices, and collected by private haulers who contract directly with the businesses regarding collection type, frequency, etc. These private haulers are not under the County's control, and may deliver trash and/or recyclables to any properly permitted disposal/processing site they choose, so long as the site accepts them. In-county sites accepting commercial trash include WAF, CAF, and ESL. At the discretion of the County's Bureau of Solid Waste Management and with advance

permission, businesses from time to time drop off recyclables at WAF, CAF, and ESL as well. Out-of-County, but within the region, trash acceptance sites include Wheelabrator Baltimore (a.k.a. BRESCO) and Annapolis Junction Transfer Station in Anne Arundel County. Private haulers can also deliver trash and/or recyclables to other in-County, out-of-County, or even out-of-State sites.

Commercial trash quantities for Baltimore County can only be estimated, based on allocations between jurisdictions in MDE annual facility reports. There are several reasons why it is difficult to precisely track trash entering or leaving the County. First, the County has no way to independently monitor privately transported materials, within or outside the County. Second, many private collectors have in-County and out-of-County accounts. Finally, some of these collectors pick up materials from multiple jurisdictions on the same truck run, making it impossible to distinguish how much came from inside or outside Baltimore County.

With respect to recyclables, Baltimore County gathers information voluntarily submitted by recycling processors inside and outside the County, on an annual basis. Over the years, the quantity and quality of these reports has improved. Nevertheless, the commercial recycling tonnage numbers reported to the State by Baltimore County (or any other county) cannot be guaranteed as precise.

While Baltimore County Government cannot control what happens to commercial materials (except as detailed in section “A. Office Building Recycling Program” below), the County offers assistance to businesses upon request and works closely with the Northeast Maryland Waste Disposal Authority to encourage expanded commercial reuse/recycling efforts in the County. The leading example of this is the web site mdrecycles.org, which provides businesses with a wealth of information for starting or improving reuse/recycling programs.

A. Office Building Recycling Program

In 2019, the Maryland General Assembly passed Senate Bill 370 (Section 9-1714 of the Environment Article, Annotated Code of Maryland), *Environment–Recycling–Office Buildings*, which requires the collection and recycling of recyclable materials from office buildings that have 150,000 square feet or greater of office space.

Unless otherwise agreed upon between an office building owner, corporate management company and a tenant of the office building, as specified, each owner of an office building that falls within the square footage specified above must provide recycling receptacles for the collection of recyclable materials and a system for the removal (for further recycling) of the specified materials, as determined by the County. These recycling receptacles and collection services must be in place and operational no later than October 1, 2021.

1. Materials included in the Office Building Recycling Program

Owners, corporate management companies, and tenants of applicable office buildings shall recycle (at minimum) the following materials: corrugated cardboard, mixed paper, plastic materials, and metal. An example of acceptable recyclables in each of these categories can be found on the Baltimore County website at baltimorecountymd.gov/solidwaste, though this list should be viewed as a sample only,

and may not reflect the exact items accepted by non-County-owned material recovery facilities and other recycling processors and end markets.

2. Collection and Marketing of Materials

Owners, corporate management companies, and tenants of applicable office buildings (either directly or through contracting with a private sector company), are responsible for providing all containers, labor, and equipment necessary to fulfill recycling requirements throughout their buildings. The office building owner, corporate management company or tenants must ensure collection and transportation of recyclable materials to markets, or other legal recycling destinations.

3. Stakeholders and Participants

Entities that will be involved in implementing the Office Building Recycling Program include the owners, corporate management companies, and tenants of applicable office buildings, as well as Baltimore County.

At the time of the initial implementation of the Office Building Recycling Program, 20 applicable properties were identified in Baltimore County through State Department of Assessments and Taxation (SDAT) records (Appendix E).

Newly constructed office buildings (with use and occupancy permits issued after October 1, 2021) that meet the requirements of the Office Building Recycling Program under Section 9-1714 of the Environment Article, Annotated Code of Maryland, shall begin participating in the program within three months of being notified by Baltimore County. Baltimore County plans to check SDAT records on or before October 1 each year to determine which, if any, newly constructed office buildings in Baltimore County fall within the scope of the Office Building Recycling Program.

4. Schedule of Implementation

Baltimore County is required to amend its Ten Year Solid Waste Management Plan to include the Office Building Recycling Program by October 1, 2020.

Owners, corporate management companies, and tenants of existing applicable office buildings shall provide recycling receptacles for the collection and appropriate removal (for further recycling) of recyclable materials (corrugated cardboard, mixed paper, plastic materials, and metal) by October 1, 2021.

5. Program Monitoring

Monitoring of the collection of recyclable materials required in office buildings will be conducted by the owner, corporate management company, or tenants of each applicable office building.

Baltimore County may require the office building owner to submit an annual Maryland Recycling Act (MRA) report detailing the recycling tonnages removed from the office building(s) and the name of the markets or legal recycling destinations for the materials.

6. Program Enforcement

Baltimore County will notify the owners, corporate management companies or tenants of applicable office buildings of the implementation requirements in accordance with Sections 9-1703 and 9-1714 of the Environment Article, Annotated Code of Maryland.

3. Industrial (nonhazardous) solids, liquids, and sludges

Industrial materials are those materials generated by large industrial or manufacturing facilities. There are no known generators of significant quantities of industrial waste in Baltimore County. A power plant in the Bowleys Quarters area (C.P. Crane site) used to generate fly ash residuals captured by air pollution control devices; however, owner Avenue Capital Group LLC filed a deactivation notice for the site in November 2016, announcing a plan to stop burning coal in June 2018. Therefore, no further fly ash residuals should be generated during the planning period.

4. Institutional (schools, hospitals, government buildings) materials

Institutional generators (schools, hospitals, colleges and universities, places of worship, public buildings, and public services) rely on either residential or commercial collection systems. Processing and/or disposal of institutional materials occur in accordance with #1 or #2 above (residential and/or commercial materials). For the same reasons that quantifying commercial trash can be difficult, quantifying the amount of institutional trash generated in the County and handled through the commercial sector can be difficult, but estimates are possible (see #2 earlier in this chapter).

Baltimore County Government has expanded its County Facilities Recycling Program to include six major office buildings (the Historic Courthouse, New Courts Building, County Office Building, Public Safety Building, Drumcastle Building, and Jefferson Building), as well as all senior centers, Bureau of Highways maintenance shops, Bureau of Utilities maintenance shops, 10 regional park facilities, all police precincts, all fire stations and all Baltimore County Public Libraries. Additionally, recycling is collected from the District Court in Towson and the Baltimore County Detention Center. In 2016, 216.68 tons of single stream recyclables were collected from buildings in the County's Towson complex (which includes the County Office Building, Jefferson Building, New Courts Building, Historic Courthouse, Towson Library Branch, District Court, Detention Center, and Drumcastle Building).

The County collects fluorescent tubes and CFLs for recycling from County office buildings and facilities. The County's processing contractor is Broadview Waste Services Inc. The fluorescent tubes and CFLs are broken down into components such as mercury, phosphor, and glass, which are then marketed. In 2016, the County collected approximately 69,000 fluorescent tubes and CFLs for recycling; this total figure includes bulbs collected from residential drop-off centers and special collection events as well as County offices and facilities.

The County also has a "buy recycled" program to help strengthen markets for recyclables. Under Section 10-2-312 of the Baltimore County Code, County purchasing agents are required to buy certain recycled products. Current purchases include recycled office paper, tissue and towel

products, road millings and concrete. Further, the County’s “buy recycled” policy requires agents to purchase recyclable, recycled paper products, and at least 40% of all paper products purchased by the County must contain recycled paper. The policy also requires avoidance of non-recyclable polystyrene products, purchasing of materials packaged in recycled and recyclable materials, revision of specifications for various commodities (where appropriate) to include recycled content, and double-sided printing of reports on recycled and recyclable paper from consultants doing business with the County.

In Baltimore County the responsibility for planning and implementing public school recycling is delegated to two institutions, Baltimore County Public Schools (“BCPS,” Kindergarten through Grade 12) and the Community College of Baltimore County (“CCBC”). As the following descriptions of their recycling programs demonstrate, both BCPS and CCBC have already set examples for putting in place comprehensive recycling strategies in their respective school systems.

As of the 2016/2017 school year, the BCPS system is comprised of 173 schools, programs, and centers located throughout Baltimore County, as well as offices, bus facilities, and grounds facilities. The overall strategy in place throughout BCPS is to build on the current successes of the BCPS’ overall recycling program and therefore significantly reduce the amount of trash that would otherwise require disposal.

BCPS is dedicated to providing a quality, comprehensive educational program designed to address the needs of a diverse and growing student population. The system’s “Blueprint 2.0” outlines the organizational vision, mission, belief statements, performance goals, performance indicators, and key strategies and is the foundation of the BCPS system. Goal 4 of the Blueprint establishes the objective of “Organizational Effectiveness,” which focuses on effective and efficient use of resources. BCPS recognizes that its continued recycling efforts support this system-wide goal both in monetary savings associated with decreased costs for refuse removal as well as costs to the environment.

The centerpiece of BCPS’ strategy is its single stream recycling program, which has been in effect since the start of the 2008/2009 school year at all schools and was expanded to offices, bus facilities, and grounds facilities in the 2009/2010 school year. Newly opened schools will begin participating in the single stream recycling program at the start of the new school year in which they open. The Department of Physical Facilities – Office of Operations is generally responsible for the BCPS single stream recycling program.

Recyclables in the BCPS program must include mixed paper (nearly all types of paper), cardboard, plastics (including plastic bottles and jugs such as water bottles and soft drink bottles, wide-mouth plastic containers, and most other plastic items with the recycling symbol #1 through #7), glass food and beverage containers, and metal food and beverage containers. Because BCPS has a single stream collection program, the full range of recyclables are collected together in the same recycling containers. At the time of implementation, all schools received new single stream recycling dumpsters along with uniform in-school collection containers for classrooms, libraries, offices, and larger recycling containers for cafeterias, faculty rooms, and workrooms.

In conjunction with BCPS implementing the single stream recycling program during the 2008/2009 school year, Building Operations Supervisors received in-service training on how to support the new program. Details on the program are regularly provided to principals, teachers, and other staff members through the school system’s weekly bulletin.

As of the 2016/2017 school year, EnviroSolutions Inc. is BCPS’ contracted hauler for transporting single stream recyclables from BCPS sites to the Central Acceptance Facility (“CAF”) in Cockeysville. At CAF, the material is sorted and baled prior to marketing by Baltimore County. In calendar year 2016, 1,207.02 total tons of single stream recyclables were collected from BCPS sites across Baltimore County.

As extensive as BCPS’ single stream recycling program is, it is only one part of a much more comprehensive recycling strategy. For example, BCPS has its own electronics recycling program. Two departments within BCPS, the Department of Technology and the Department of Physical Facilities – Office of Logistics, share responsibility for the e-cycling program. The Department of Technology first looks for reuse opportunities within BCPS. On those occasions when reuse is not feasible, the Department of Physical Facilities – Office of Logistics makes arrangements for pickup and recycling with a vendor that is appropriate to the particular type of electronics.

Electronics covered in BCPS’ program include computer hardware and electronics, displays and monitors, televisions, audio-visual equipment, printers, scanners, and copiers. All schools, offices, bus facilities, and grounds facilities are part of the e-cycling program.

BCPS also has an extensive automotive recycling program, managed by the Department of Planning and Support Operations – Office of Transportation. Fleet maintenance technicians at all of the department’s repair facilities collect automotive parts (batteries and tires) and fluids (including antifreeze, motor oil, transmission fluid, brake fluid, and hydraulic fluids). Automotive oil is recycled by Mid States Oil and other automotive fluids are recycled by Triumvirate Environmental. Automobile tires are recycled by Emanuel Tire, LLC. A variety of battery suppliers recycle the automotive batteries.

BCPS’ scrap metal recycling program covers metal piping and plumbing, electrical wiring, brake drums and rotors, metal fencing and railings, and machinery and equipment. All schools, offices, bus facilities, and grounds facilities are part of the scrap metal recycling program. The BCPS Department of Physical Facilities and Office of Transportation share responsibilities for this recycling program. Depending on the type of material generated and current market pricing, various private scrap metal recyclers become the outlets for the recyclable scrap metal.

In addition to the recycling programs described above, BCPS is involved with the recycling of other items, such as:

- compact fluorescent light bulbs and light tubes;
- electronic and magnetic light ballasts;
- electric motors;
- printer cartridges; and
- surplus furniture, supplies, and materials.

BCPS' Department of Physical Facilities coordinates with the Divisions of Business Services and Curriculum/Instruction to monitor the public school recycling activities to ensure participation. Corrective actions must begin within 60 days of an issue being discovered. Recycling programs are routinely evaluated for effectiveness and efficiency. Strategic measures are used to ensure that the recycling programs are in line with the core mission of the school system and the Superintendent's "Blueprint 2.0."

BCPS utilizes the services of various vendors for the hauling and processing of recyclable materials. Contracts for these services are awarded through a competitive bid process. Vendors are evaluated using tools and processes administered by the Office of Purchasing. If issues arise with vendor performance, BCPS will seek remedies based upon the general conditions found in the contract documents. These remedies may include, but not be limited to, awarding new contracts to alternate bidders, issuing monetary penalties for non-performance, or issuing new solicitations for competitive bids.

The Community College of Baltimore County ("CCBC") system is comprised of three primary campuses located in Dundalk, Essex, and Catonsville, and three regional centers located in Owings Mills, Hunt Valley, and Randallstown. The overall recycling strategy in place at each of these campuses is to focus on a variety of recyclables that can be included in CCBC's recycling program throughout the planning period and therefore significantly reduce the amount of trash that would otherwise require disposal.

In the summer of 2011, CCBC instituted its "Simply Recycle" single stream recycling program. Under this initiative, any color or type of paper, cardboard, plastic, glass bottles, and cans are accepted together for recycling. At the commencement of the program (and supplemented over the ensuing six-year period), containers designed for recycling were placed though all college buildings (including classrooms, "highways," office suites, cafeterias, and conference rooms), as well as on building exteriors. Staff may have smaller recycling bins under their desks, and are encouraged to empty their individual bins into one of the larger containers for proper handling. Different colored collection bags are also utilized by Facilities Management staff to ensure the proper bags are placed in the appropriate compactor on primary campuses.

Once a compactor containing recyclables is filled, Republic Services transports the material to one of its single-stream recycling facilities. At this facility, CCBC's recyclables are sorted and marketed. CCBC then obtains a monetary credit on its monthly invoice for each ton of recyclable materials processed. Since its inception, the college's single stream recycling program has cultivated a change in behavior that has resulted in an overall 75 percent increase in collected recyclables.

It is important to emphasize that CCBC's recycling efforts are not limited to bottles and cans, paper, and cardboard. For example, fluorescent light tubes and electronic ballasts are collected on each of the three main campuses and boxed. Triumvirate Environmental, based in Baltimore City, picks up these items on an as needed basis, and then recycles them.

Each of CCBC's three main campuses has an automotive garage for routine maintenance and repair of college vehicles. Waste oil and used filters are collected in drums. When a sufficient quantity accumulates, Clear Harbors based in Baltimore City arrives for pickup and later recycling.

The CCBC system collects computer equipment, and tries first to donate this material to non-profit organizations. On those occasions when efforts at reuse fail, CCBC provides the computer equipment to A Better Way, an electronics recycler based in Jessup, Maryland.

The CCBC Department of Facilities Management monitors the recycling activities of each campus to ensure participation and assess trends. Corrective actions must begin within 60 days of an issue being discovered. Recycling programs are evaluated on a continual basis for effectiveness and efficiency. This evaluation, as well as supporting data, is detailed in an annual report that is presented to the college's Board of Trustees at their April board meeting.

CCBC awards contracts for all recycling services through a competitive bid process. If issues arise with vendor performance, CCBC will seek remedies based upon the general conditions found in the contract documents. These remedies include awarding new contracts to alternate bidders or issuing new solicitations for competitive bids.

In summary, both BCPS and CCBC have already implemented recycling strategies that cover a wide variety of recyclable materials and therefore minimized the amount of trash that otherwise would have required disposal. Both BCPS and CCBC plan to continue the recycling strategies described here throughout the planning period.

According to the Baltimore County Chamber of Commerce, there are six colleges/universities and six hospitals located within the County. Colleges, universities, and hospitals contract directly with private haulers and processing and/or disposal of materials generated in these facilities occurs in accordance with # 2 above (commercial materials). Colleges, universities, and hospitals in the County engage in varying degrees of waste prevention and recycling practices at their respective facilities.

5. Land clearing/construction and demolition debris (rubble)

Land clearing and demolition debris make up a significant, yet very difficult to quantify, portion of the materials generated in the County. Land clearing debris includes earthen material, tree stumps, and brush and branches. Demolition debris, including rubble, refers to materials left after taking down a home or other structure. For example, bricks, concrete, and lumber fall into the category of demolition debris.

Sometimes land clearing and demolition debris is processed at the point of generation (e.g., stump grinding). In other cases, private contractors or residents deliver such materials to processing and/or disposal sites.

There are a variety of private, in-County facilities that accept land clearing and demolition materials (e.g., Hollins Organic Products in Bare Hills [south of Ruxton], Edrich Lumber in Windsor Mill, and Days Cove Rubble Landfill and Honeygo Run Reclamation Center Rubble Landfill, both in White Marsh).

ESL accepts varying quantities of select rubble (e.g., concrete or asphalt) depending on need and suitability for use as fill material, road base material, or riprap. ESL also accepts some construction and demolition material delivered by residents. Likewise, the residents' drop-off

centers at CAF and WAF receive limited quantities of construction and demolition (C&D) materials.

An unknown quantity of land clearing and demolition materials is mixed in with the general commercial waste stream.

Based on data from the 2015 Tonnage Report Forms submitted to MDE by Honeygo Run Reclamation Center Rubble Landfill, Days Cove Rubble Landfill, and ESL, the estimated amount of land clearing and demolition debris for Baltimore County in 2015 is 213,947 tons. Future projections for this and other miscellaneous MDE waste categories, where there is an adequate foundation for such projections, are shown in Table III-2.

6. Controlled hazardous substances (CHS)

CHS, which include medical waste, must be hauled by State-licensed collectors and delivered to properly permitted CHS facilities for processing and/or disposal. There is no such facility in Baltimore County at this time.

7. Dead animals

Dead animals are collected from County roadways and County residents by Baltimore County's Department of Health, Animal Services. Deer and wildlife are disposed of at Eastern Sanitary Landfill. Domestic dogs and cats are disposed of in accordance with a contract the County has with a cremation firm. All told, these types of animal carcasses accounted for an estimated 27.4 tons in 2016.

8. Bulky or special materials (automobiles, large appliances, etc.)

The private sector handles collection and processing of most of these materials. Residents can take some of these materials to ESL, CAF, or WAF. Processing takes place both inside and outside Baltimore County.

Depending on a variety of circumstances, bulky or special materials end up recycled or in disposal. For example, refrigerators and other metal appliances can be recycled following evacuation of freon. Licensed recyclers accept automobiles to provide parts or scrap vehicles to out-of-County (including out-of-State) sites for recycling (e.g., as feedstock for steel mills).

9. Scrap tires

Passenger-sized scrap tires, off the rim and within regulation size, may be self-hauled to ESL, CAF, or WAF. If brought to one of these County facilities, scrap tires are stored and then transported to Auston Contracting Inc. located in Joppa, Maryland. This facility shreds tires for a variety of applications, including civil engineering projects, tire-derived fuel, and rubber mulch.

Scrap passenger tires taken to tire vendors may go to any of a number of outlets for processing or disposal.

Scrap truck tires are handled by private concerns. Scrap tire generation, including both passenger-sized vehicle and truck tires, can be estimated, though not precisely.

10. Wastewater treatment plant sludges

Baltimore County has a contract with Baltimore City, which operates the Back River Wastewater Treatment Plant and Patapsco Wastewater Treatment Plant. Under the terms of this contract, Baltimore City handles all of Baltimore County's wastewater treatment needs, including all of the sewage sludge generated at the two wastewater treatment plants.

A modest amount of sludge is generated by the leachate treatment system at Baltimore County's Hernwood closed landfill site. According to the most recent Eastern Sanitary Landfill solid waste tonnage report submitted to MDE, 19 tons of this material was taken to ESL for disposal in 2016.

11. Septage

Septage is handled through the wastewater treatment system. As a result, pursuant to #10 above, Baltimore City handles the County's sewage sludge.

12. Other Materials (quantities unknown unless otherwise indicated)

- A. Air pollution control devices** – There are no known major generators of these materials in Baltimore County during the planning period.
- B. Street sweepings** – collected from County roads by the County's Department of Public Works, Bureau of Highways (1,382 tons in 2016), and from State roads by the State Highway Administration; most street sweepings are taken to ESL for disposal.
- C. Litter** – this is collected by County and State highway crews, and also by Adopt-A-Road teams; Baltimore County's Department of Environmental Protection and Sustainability emphasizes litter prevention in its public education program.
- D. Mining materials** – handled on-site by private mining companies; typically involves rock, sand, or gravel operations.
- E. Agricultural materials** – usually, farmers handle crop residuals and animal manure on-site, individually or in cooperation with other farmers; other options include the Maryland Department of Agriculture, which administers nutrient management programs.
- F. Recreational materials** – these are materials generated by visitors to parks and other recreational facilities. In April 2017, the collection of trash from County parks and recreation facilities transitioned from the Property Management Division, Office of Budget and Finance to the Department of Public Works, Bureau of Solid Waste Management. The Bureau estimates the County collected 1,296 tons of trash from these locations in 2016. In 2015, the Department of Public Works and the Department of

Recreation and Parks collaborated to begin collecting recycling from 10 regional and specialty parks throughout the County as well.

13. Recycling at Special Events

A. Special Events Subject to the Recycling Program Requirements:

Section 9-1712 of the Environment Article, Annotated Code of Maryland requires special event organizers to provide for recycling at special events that meet the following three criteria:

1. Includes temporary use of a public street, publicly owned site or facility, or public park;
2. Serves food or drink; and
3. Is expected to have 200 or more persons in attendance.

Projected attendance may be estimated based on past attendance, number registered to attend, the venue's seating capacity, or other similar methods.

Through the cooperation of the Baltimore County Bureau of Solid Waste Management ("the Bureau") and other stakeholders involved in the implementation of this law, the Bureau has identified the following public sites within the County that host or may host special events meeting the above criteria. In addition to the sites listed individually, special events taking place on any local, State, or federally-owned streets are also included in the Special Events Recycling Program (SERP). This list may not be comprehensive; any site that meets the above criteria is subject to the requirements of the SERP.

County-owned sites:

1. Belmont Park – 8701 Walther Boulevard, Nottingham, MD 21236 – (P) 410-887-5300
2. Colgate Park – 7700 East Baltimore Street, Baltimore, MD 21224 – (P) 410-887-0255
3. Cromwell Valley Park – 2002 Cromwell Bridge Road, Hampton, MD 21234 – (P) 410-887-2503
4. Double Rock Park – 8211 Glen Road, Parkville, MD 21234 – (P) 410-887-5300
5. Eastern Regional Park – 11723 Eastern Avenue, Middle River, MD 21220 – (P) 410-887-3681
6. Fort Howard Park – 9500 North Point Road, Sparrows Point, MD 21219 – (P) 410-887-7529
7. Fullerton Field – 4400 Fullerton Avenue, Nottingham, MD 21236 – (P) 410-887-5307
8. Hannah More Park – 12035 Reisterstown Road, Reisterstown, MD 21136 – (P) 410-887-1142
9. Heritage Park – 2717 Playfield Street, Dundalk, MD 21222 – (P) 410-887-7155
10. Honeygo Run Regional Park – 9033 Honeygo Boulevard, Perry Hall, MD 21128 – (P) 410-887-5190
11. Meadowood Regional Park – 10650 Falls Road, Timonium, MD 21093 – (P) 410-887-3678
12. Nottingham Park – 9510 Stapleford Road, Rosedale, MD 21237 – (P) 410-887-5187
13. Olympian Park – 1 West Joppa Road, Towson, MD 21204 – (P) 410-887-0000

14. Oregon Ridge Park and Lodge – 13401 Beaver Dam Road, Cockeysville, MD 21030 – (P) 410-887-1818
15. Parkville Center – 8601 Harford Road, Parkville, MD 21234 – (P) 410-887-5300
16. Patriot Plaza – 400 Washington Avenue, Towson, MD 21204 – (P) 410-887-0000
17. Perry Hall Park – 9650 Honeygo Boulevard, Perry Hall, MD 21128 – (P) 410-887-5187
18. Putty Hill Park – 8600 Hoerner Avenue, Parkville, MD 21234 – (P) 410-887-5300
19. Reisterstown Regional Park – 401 Mitchell Drive, Reisterstown, MD 21136 – (P) 410-887-1163
20. Rocky Point Park – 2200 Rocky Point Road, Essex, MD 21221 – (P) 410-887-2818
21. Watersedge Park – 8820 Bullneck Road, Dundalk, MD 21222 – (P) 410-887-7134
22. All Baltimore County Public School locations – a complete listing of public school sites is available online at www.bcps.org/schools/.
23. The Community College of Baltimore County (Essex) – 7201 Rossville Boulevard, Baltimore, MD 21237 – (P) 443-840-2222

State-owned sites:

1. North Point State Park – 8400 North Point Road, Edgemere, MD 21219 – (P) 410-477-0757

B. Materials and Obligations:

Special event organizers are responsible for:

1. Providing and placing recycling receptacles adjacent to each trash receptacle at the event (except where already existing on site);
2. Ensuring that recycling receptacles are clearly distinguished from trash receptacles by color or signage;
3. Providing any other labor and equipment necessary to carry out recycling at the event;
4. Ensuring that materials placed in recycling receptacles are collected and delivered for recycling; and
5. Paying any costs associated with recycling at the special event.

Special event organizers may fulfill the requirement to ensure materials are collected and delivered for recycling through one or more of the following methods:

1. Self-hauling the materials to a County recycling drop-off site, with advance permission;
2. Contracting with a recycling hauler to collect the materials and deliver them for recycling; or
3. Receiving prior agreement from the site owner to use an existing recycling collection system available at the site.

The SERP must include collection of at least plastic containers, metal containers, glass containers, and paper. The special event organizer must assess the availability of food scraps recycling services for the event. If services are available, the special event organizer must provide for food scraps recycling, including provision of separate containers for organic and non-organic recyclables.

Recycling at a State-owned site must follow the State agency’s recycling plan, if available. Recycling at a federally-owned site must follow any applicable federal recycling plan. If no State or federal recycling program is available for the site, the special event organizer must set up a recycling program in accordance with the SERP.

C. Stakeholders:

The following stakeholders are involved in the SERP:

1. Baltimore County Council – adopted the MDE-approved language of the SERP for the *Plan*.
2. Baltimore County Department of Public Works – oversees Bureau of Solid Waste Management activities and ensure that all properties that potentially host events falling under the recycling mandate in Section 9-1712 are included in the SERP.
3. Baltimore County Bureau of Solid Waste Management – updated the County’s recycling plan and *Solid Waste Management Plan* to include the SERP program; communicates the requirements of the law to prospective special event organizers and owners/operators of publicly-owned sites in the County; and monitors the progress and performance of the SERP.
4. Special Event Organizers – provide recycling bins and ensure collection for recycling in accordance with the requirements in Section 9-1712. Also perform recordkeeping and submit a recycling reporting form to the County, if requested.

Before issuing a permit for a special event, Baltimore County shall provide to the special event organizer a written statement that describes the requirements and penalties of the SERP.

D. Program Monitoring:

The Bureau oversees the progress and performance of the SERP. However, the special event organizer is responsible for monitoring the implementation of recycling at the special event. Special event organizers must oversee placement and labeling of recycling receptacles and collection and recycling of recyclables. Performance of any recycling contractor engaged for compliance with the SERP must be monitored by the special event organizer. The special event organizer must promptly take action to correct any deficiencies in the contractor’s performance.

A special event organizer is responsible for maintaining the following records:

1. Any contracts for recycling service;
2. A list of the types of recyclables accepted for recycling;
3. If food scraps recycling is not provided at the event, a description of efforts made to identify available organics recycling services and the reasons organics recycling was determined to be unavailable;
4. The quantity of recyclables collected for recycling at the event; and
5. The quantity of solid waste collected for disposal at the event.

Upon request, the special event organizer will complete and submit a report, on a form provided by the Bureau, to the Bureau of Solid Waste Management, 111 West Chesapeake Avenue, Room 225, Towson, Maryland, 21204, detailing the above information.

E. Program Enforcement:

The County Bureau of Solid Waste Management may conduct inspections of the event to ensure compliance with the SERP. If a violation of the SERP is detected, the County may pursue an enforcement action against the special event organizer. The Baltimore County Attorney's Office determines if, when, and how the County should enforce the State special events recycling law, and what level of enforcement actions should be used. The State special events recycling law allows for fines to a person that violates the requirements of the law, or a civil penalty, not exceeding \$300 for each day on which the violation occurs. Further, any penalties enforced by Baltimore County and collected under the law shall be paid to Baltimore County.

Solid Waste and Recycling Imports and Exports

Effective February 1, 2010, Baltimore County made arrangements with Waste Management of Maryland, Inc. to continue transferring commercial trash (no set limit) out-of-County using the Central Acceptance Facility in Cockeysville and the Eastern Sanitary Landfill Solid Waste Management Facility in White Marsh (ESL). This agreement was amended on August 25, 2016, to include an option for annual out-of-County transfer (anticipated to be approximately 50,000 tons) of Baltimore County residential trash from ESL. The term for this contract lasts through January 31, 2020, with three five-year renewals at the County's option.

Baltimore County also has an arrangement with Republic Services, Inc. for the transfer of commercial trash from the Western Acceptance Facility to out-of-County disposal sites; the contract originally belonged to Maryland Environmental Services (former operators of the Western Acceptance Facility) and has been reassigned to the County directly. The contract term expires on December 31, 2020.

Third-party commercial haulers which are contracted to Waste Management and/or Republic Services also transport large quantities of trash and/or recyclables out-of-County, but are not required to report the types and quantities of these materials to Baltimore County.

In December 2011, Baltimore County renegotiated its contract with Wheelabrator Baltimore LP in Baltimore City. This increased the County's capacity for residential trash to be accepted for purposes of conversion to energy (electricity and steam) from approximately 160,000 tons of trash per calendar year to a guaranteed annual tonnage of 215,000 tons. The contract term lasts through December 31, 2021, with three five-year renewals at the County's option. The proportion of overall residential trash transferred from Baltimore County to Wheelabrator in 2016 is illustrated in Chart III-2.

The most significant imports of materials currently involve Harford County. Under an August 2013 agreement, Baltimore County currently accepts all of Harford County's single stream recyclables for sorting at CAF in Cockeysville (the recyclables are initially received at a transfer station at ESL and then transported to CAF). In addition, Baltimore County receives

approximately 135,000 tons of trash per year from Harford County. This imported trash is taken to ESL in White Marsh, where the Harford County trash is then transferred out-of-County to Waste Management disposal sites. This August 2013 agreement is set to last through June 30, 2036, with options for two additional ten-year terms in the event of mutual consent by the two counties.

Significant quantities of land clearing and demolition materials from out-of-County come to in-County facilities such as Honeygo Run Reclamation Center Rubble Landfill and Days Cove Rubble Landfill.

Solid Waste Acceptance Facilities in Baltimore County

Locations of solid waste acceptance facilities referenced in Chapter III are shown on Map III-1. A description of each of these facilities follows.

Resource Recovery Facilities

Central Acceptance Facility

Maryland Grid Coordinates:	X=431,043.09 Y=200,242.47
Size:	6 acres
Owner:	Baltimore County
Operator:	Baltimore County (as of July 2017)
Types of Waste:	Residential and commercial trash, bottles and cans, mixed paper, electronics, and other recyclable materials
Permit Status:	Refuse Disposal Permit (2011-WPT-0657)
Years of Service Life Remaining:	More than 10 years

The County agreement with Maryland Environmental Service (MES) to operate CAF ended July 1, 2017, when Baltimore County took over operations of the facility. At the materials recovery facility (MRF) single stream recyclables (including paper, plastics, and metal) are sorted, baled, and prepared for market.

In addition to single stream recyclables, the Residents' Drop-Off Center adjacent to CAF accepts scrap metal, white goods (e.g., refrigerators, washing machines), scrap tires, lead-acid batteries, and electronics for reuse/recycling by various vendors. This drop-off center also accepts compact fluorescent lamps (CFLs), fluorescent bulbs, mercury thermometers and thermostats, and rechargeable batteries for recycling. Residents can drop off the aforementioned recyclables as well as household trash at the Residents' Drop-Off Center free of charge, Monday through Saturday, 7:00 a.m. to 4:00 p.m.

Another component of the drop-off center is the household hazardous waste (HHW) area, which was relocated to CAF from its Eastern Sanitary Landfill location in September 2017. Open year-round, the HHW area accepts a range of materials for recycling or proper disposal, including paint thinners, pesticides, flammable chemicals, and automotive fluids.

An on-site transfer station is also present at CAF – residential trash is transferred to either the Eastern Sanitary Landfill or Wheelabrator Baltimore’s waste to energy facility, and commercial trash is transferred to either Wheelabrator Baltimore or out-of-County for landfilling.

According to the County’s Solid Waste Tonnage Report submitted to MDE, CAF handled 334,577 tons of material in 2016. Of that total, 252,876 tons of trash and other materials were transferred via the on-site transfer station and 87,701 tons of recyclable single stream materials were processed and prepared for markets.

Sanitary Landfills

Eastern Sanitary Landfill Solid Waste Management Facility

Maryland Grid Coordinates:	X=452,783.36 Y=191,694.06
Size:	367 acres
Owner and Operator:	Baltimore County
Types of Waste:	Residential and commercial trash, bottles and cans, mixed paper, yard materials, asphalt, concrete, earth, and other recyclable materials
Permit Status:	Refuse Disposal Permit (2015-WMF-0052A)
Years of Service Life Remaining:	35 years (2052)

The only operating sanitary landfill in Baltimore County, Eastern Sanitary Landfill Solid Waste Management Facility (ESL) opened in December 1982. The County estimates that this site had about 17.3 million cubic yards of trash capacity when it opened. The site currently accepts for landfilling residential and commercial trash, as well as trash from government operations. The County estimates that 350,435 cubic yards of landfill space were used in 2016, with a remaining trash capacity of about 10.4 million cubic yards as of January 2016. **This means that ESL is more than half full.**

In 1995, the County began bringing a portion of the County’s collected yard materials to ESL. These yard materials are either composted (using a windrow machine, etc.) or mulched using a tub grinder. As mentioned earlier in this chapter, the finished products of this yard materials processing (i.e., compost and mulch) are used by County agencies and offered to County residents at no charge.

ESL also has a Residents’ Drop-Off Center, similar to the center at CAF. This center accepts, among other items, single stream recyclables (including paper, plastic, metal, and glass), scrap metal, white goods (e.g., refrigerators and washing machines), scrap tires, compact fluorescent lamps (CFLs), fluorescent bulbs, mercury thermometers and thermostats, and lead-acid and rechargeable batteries. This drop-off center also accepts household trash free of charge, and is open to residents Monday through Saturday, 7:30 a.m. to 3:30 p.m.

According to the County’s Solid Waste Tonnage Report submitted to MDE, ESL handled 221,000 tons of material in 2016. Of that material, 173,455 tons were landfilled, with the roughly 48,000 tons of remaining material sent to other facilities for processing (e.g., scrap metal), processed on-site (e.g., yard materials), or used on-site (e.g., useable concrete).

Rubble and Industrial Waste Disposal Sites

Days Cove Rubble Landfill

Maryland Grid Coordinates:	X=453,761.64 Y=192,069.54
Size:	35.6 acres
Owner:	State of Maryland
Operator:	Days Cove Reclamation Center
Types of Waste:	C & D Material
Permit Status:	Refuse Disposal Permit (2014-WRF-0592)
Years of Service Life Remaining:	2 years (plus additional 10 years pending permit approval)

One of two permitted rubble landfills in Baltimore County, Days Cove Rubble Landfill accepts construction and demolition material from the private sector. This facility has an estimated service life of approximately two years, plus an additional ten years pending permit approval of Days Cove Rubble Landfill vertical expansion, and continues to find ways to recycle construction and demolition material on-site to reduce the amount of material being landfilled.

According to the Solid Waste Tonnage Report submitted to MDE, Days Cove Rubble Landfill received 109,193 tons of material generated in Baltimore County in 2015.

Honeygo Run Reclamation Center Rubble Landfill

Maryland Grid Coordinates:	X=448,336.52 Y=190,259.74
Size:	77 acres
Owner:	Honeygo Run Reclamation Center, Inc.
Operator:	Honeygo Run Reclamation Center, Inc.
Types of Waste:	C & D Material
Permit Status:	Refuse Disposal Permit (2014-WRF-0579A)
Years of Service Life Remaining:	Approximately 20 years

One of two permitted rubble landfills in Baltimore County, Honeygo Run Reclamation Center Rubble Landfill accepts construction and demolition material from the private sector. This facility has an estimated service life of approximately 20 years and continues to find ways to recycle construction and demolition material on-site to reduce the amount of material being landfilled.

According to the Solid Waste Tonnage Report submitted to MDE, Honeygo Run Reclamation Center Rubble Landfill received 64,731 tons of material generated in Baltimore County in 2015.

Tradepoint Atlantic's Greys Landfill

Maryland Grid Coordinates:	X=1,465,769.95 Y=572,031.24
Size:	30 acres
Owner:	Tradepoint Atlantic
Operator:	EnviroAnalytics Group
Types of Waste:	Industrial and C & D Material
Permit Status:	1997 Consent Decree (MDE, EPA)
Years of Service Life Remaining:	Approximately 4 years

The Grey's Landfill has been in operation since the late 1960s. The landfill accepts non-hazardous solid waste from the industrial, construction, demolition, and other activities occurring on the grounds of the former Sparrows Point steel mill facility.

Transfer Stations

Western Acceptance Facility

Maryland Grid Coordinates:	X=428,333.32 Y=173,757.14
Size:	6 acres
Owner:	Baltimore County
Operator:	Baltimore County (as of July 2017)
Types of Waste:	Residential and commercial trash, bottles and cans, mixed paper
Permit Status:	Refuse Disposal Permit (2015-WTS-0599)
Years of Service Life Remaining:	More than 10 years

The County agreement with Maryland Environmental Service (MES) to operate Western Acceptance Facility (WAF) ended July 1, 2017, when Baltimore County took over operations of the facility. At WAF's on-site transfer station, residential trash is transferred to Wheelabrator Baltimore's waste to energy facility, and commercial trash is transferred out-of-County for landfilling. Single stream recyclables are also transferred at this location; they are transported to the Central Acceptance Facility in Cockeysville.

WAF also has a Residents' Drop-Off Center, which accepts, among other items, single stream recyclables (including paper, plastic, metal, and glass), scrap metal, white goods (e.g., refrigerators, washing machines), lead-acid batteries, and scrap tires. This facility also accepts compact fluorescent lamps (CFLs), fluorescent bulbs, mercury thermometers and thermostats, and rechargeable batteries for recycling. Residents can drop off the aforementioned recyclables as well as household trash at the Residents' Drop-Off Center, Monday through Saturday, 7:00 a.m. to 4:00 p.m.

According to the County’s Solid Waste Tonnage Report submitted to MDE, WAF handled 198,194 tons of material in 2016. Of that total, 184,642 tons of trash and other materials were transferred to various locations and 13,552 tons of recyclable single stream materials were transferred to CAF.

Eastern Sanitary Landfill Transfer Station

Maryland Grid Coordinates:	X=452,783.36 Y=191,694.06
Size:	Less than 1 acre
Owner and Operator:	Baltimore County
Types of Waste:	Residential and commercial trash
Permit Status:	Refuse Disposal Permit (2013-WTS-0665)
Years of Service Life Remaining:	More than 10 years

Located within Eastern Sanitary Landfill Solid Waste Management Facility (ESL) is a transfer station, which became operational in July 1998 and currently transfers residential and commercial trash out-of-County. Per an August 2013 agreement with Harford County, a second transfer station was constructed at ESL and officially opened in September 2016. Single stream recyclables are also transferred at ESL; they are transported to the Central Acceptance Facility in Cockeysville.

According to the County’s Solid Waste Tonnage Report submitted to MDE, 189,193 tons of material were transferred out-of-County through ESL’s on-site transfer station in 2016.

Recycling Facilities

Recovermat Mid-Atlantic LLC

Maryland Grid Coordinates:	X=1,400,604.63 Y=567,190.32
Size:	12 acres
Owner:	EMR Smith Industries, Inc.
Operator:	Joseph Smith & Sons, Inc.
Types of Waste:	Scrap metal
Permit Status:	Refuse Disposal Permit (2005-WPF-0341)
Years of Service Life Remaining:	More than 10 years

In July 2008, Joseph Smith & Sons, Inc. purchased the Recovermat facility and began accepting scrap metal for recycling. Currently, scrap metal is shredded, prepared, and sent to market from this location. Construction and demolition material and commercial trash are no longer accepted at this facility.

According to the Solid Waste Tonnage Report submitted to MDE, 200,775 tons of metal materials generated in Baltimore County were processed at Recovermat Mid-Atlantic LLC in 2016.

Chart III-1, Page 1: Solid Waste Flow Chart for Baltimore County (FY 2018)

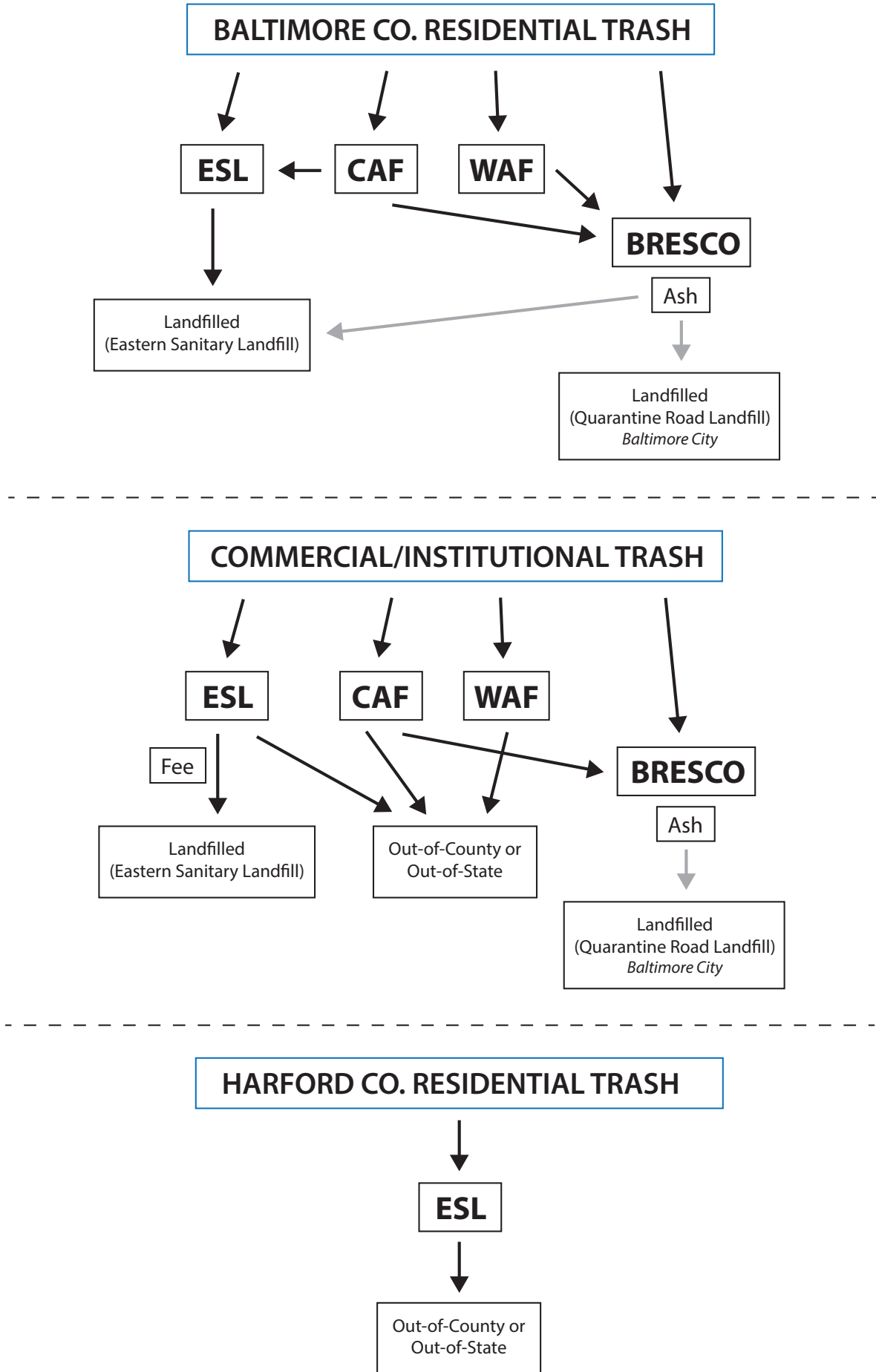
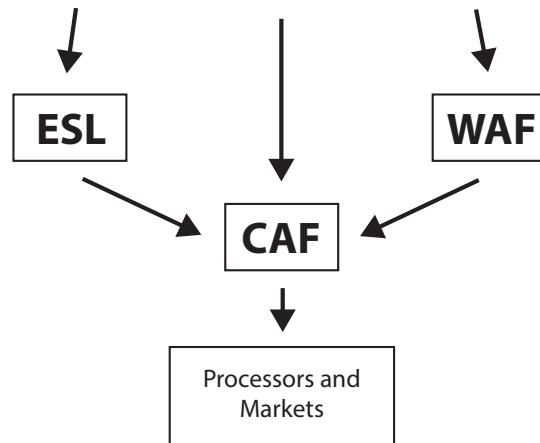
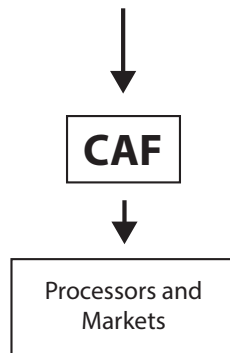


Chart III-1, Page 2: Recycling Flow Chart for Baltimore County (FY 2018)

BALTIMORE CO. RESIDENTIAL SINGLE STREAM RECYCLABLES



COMMERCIAL/INSTITUTIONAL SINGLE STREAM RECYCLABLES



HARFORD CO. RESIDENTIAL SINGLE STREAM RECYCLABLES

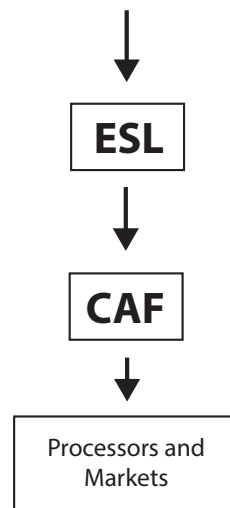
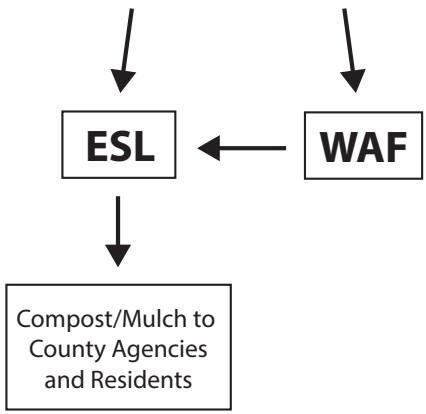


Chart III-1, Page 3: Yard Materials Flow Chart for Baltimore County (FY 2018)

RESIDENTIAL YARD MATERIALS - CURBSIDE COLLECTION



RESIDENTIAL YARD MATERIALS - DROP-OFF CENTERS

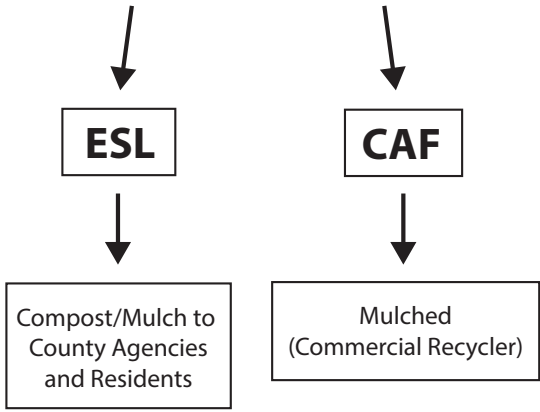


TABLE III-1

ANNUAL WASTE DISPOSED / RECYCLING GENERATION AND POPULATION DATA

YEAR	POPULATION	RESIDENTIAL MRA WASTE DISPOSED TONS PER CAPITA	RESIDENTIAL MRA WASTE DISPOSED TONS	COMMERCIAL MRA WASTE DISPOSED TONS PER CAPITA	COMMERCIAL MRA WASTE DISPOSED TONS	NON MRA WASTE DISPOSED TONS PER CAPITA	NON MRA WASTE DISPOSED TONS	TOTAL MRA AND NON MRA WASTE DISPOSED TONS	TOTAL MRA AND NON MRA RECYCLED TONS PER CAPITA	TOTAL MRA AND NON MRA RECYCLED TONS	TOTAL WASTE DISPOSED AND RECYCLED TONS
	(1)	(2)	(3)	(4)	(3)	(5)	(3)	(3)	(6)	(3)	(3)
2015	829,209	0.430	356,673	0.338	280,184	0.309	255,975	892,831	0.836	693,200	1,586,031
2016	831,026	0.430	357,341	0.329	273,567	0.274	227,781	858,689	0.735	610,724	1,469,413
2017	835,020	0.430	359,059	0.386	322,318	0.316	263,866	945,243	0.745	622,090	1,567,333
2018	839,014	0.430	360,776	0.386	323,859	0.316	265,128	949,764	0.745	625,065	1,574,829
2019	843,008	0.430	362,493	0.386	325,401	0.316	266,391	954,285	0.745	628,041	1,582,326
2020	847,000	0.430	364,210	0.386	326,942	0.316	267,652	958,804	0.745	631,015	1,589,819
2021	849,000	0.430	365,070	0.386	327,714	0.316	268,284	961,068	0.745	632,505	1,593,573
2022	851,000	0.430	365,930	0.386	328,486	0.316	268,916	963,332	0.745	633,995	1,597,327
2023	853,000	0.430	366,790	0.386	329,258	0.316	269,548	965,596	0.745	635,485	1,601,081
2024	855,000	0.430	367,650	0.386	330,030	0.316	270,180	967,860	0.745	636,975	1,604,835
2025	857,000	0.430	368,510	0.386	330,802	0.316	270,812	970,124	0.745	638,465	1,608,589
2026	858,040	0.430	368,957	0.386	331,203	0.316	271,141	971,301	0.745	639,240	1,610,541
2027	859,080	0.430	369,404	0.386	331,605	0.316	271,469	972,479	0.745	640,015	1,612,493
2028	860,120	0.430	369,852	0.386	332,006	0.316	271,798	973,656	0.745	640,789	1,614,445
2029	861,160	0.430	370,299	0.386	332,408	0.316	272,127	974,833	0.745	641,564	1,616,397
2030	862,200	0.430	370,746	0.386	332,809	0.316	272,455	976,010	0.745	642,339	1,618,349

(1) Population figures are based on U.S. Census Bureau, Population Division and July 2014 Maryland Department of Planning. Projections at five-year intervals starting with the year 2020. Projections after 2016 are derived by linear interpolation (which means that straight-line increases are assumed between years where U.S. Census and/or Maryland Department of Planning projections are not available).

(2) Residential MRA waste disposed projections beyond 2015 are based on two factors – population and per capita projections. Per capita residential MRA waste disposed is projected to remain constant at 0.430 tons per capita per year from 2016 through 2030. This projection is based on residential MRA waste disposed tons per capita being within a very close range from 2012 to 2015 (0.420 to 0.430 tons per capita per year). To be conservative in estimating residential MRA waste disposed from 2016 and beyond, the higher end of the range is applied (0.430 tons per capita per year).

(3) The totals of MRA and non MRA waste disposed tons and MRA and non MRA Recycling tons through 2016 correspond to data in Baltimore County's annual tonnage reports to the Maryland Department of the Environment (MDE). Residential waste disposed tons are best estimates obtained by averaging actual tonnages for the two applicable fiscal years (e.g., 2010 figure = 0.5 x [FY10 + FY11 tonnages]). Commercial waste disposed tons are best estimates based on allocations in MDE annual facility reports, but it is difficult to track waste entering or leaving the County precisely.

(4) Commercial MRA waste disposed projections beyond 2016 are based on two factors – population and per capita projections. Per capita commercial MRA waste disposed is projected to remain constant at 0.386 tons per capita per year from 2017 through 2030. This projection is based on commercial MRA waste disposed tons per capita being within a close range from 2012 to 2016 (0.329 to 0.386 tons per capita per year). To be conservative in estimating commercial MRA waste disposed from 2016 and beyond, the higher end of the range is applied (0.386 tons per capita per year).

(5) Non MRA waste disposed projections beyond 2016 are based on two factors – population and per capita generation rate assumed at a constant level of 0.316 tons per year (the average for 2013-2016).

(6) Total MRA and Non MRA Recycled projections beyond 2016 are based on two factors – population and per capita generation rate assumed at a constant level of 0.745 tons per year (the average for 2013-2016).

TABLE III-2

TRASH GENERATION AND POPULATION DATA - MISCELLANEOUS MDE WASTE CATEGORIES*

YEAR	POPULATION¹	RUBBLE²	DEAD ANIMALS³	BULKY WASTE (WHITE GOODS)⁴	TIRES⁵	WASTEWATER TREATMENT SLUDGE⁶	RECREATIONAL MATERIALS⁷	STREET SWEEPINGS⁸
2015	829,209	213,947	21	4,159	369	390	1,992	1,597
2016	831,026	169,210	27	5,336	343	19	1,296	1,382
2017	835,020	170,023	28	5,362	345	19	1,302	1,389
2018	839,014	170,836	28	5,387	346	19	1,309	1,395
2019	843,008	171,650	28	5,413	348	19	1,315	1,402
2020	847,000	172,463	28	5,439	350	19	1,321	1,409
2021	849,000	172,870	28	5,451	350	19	1,324	1,412
2022	851,000	173,277	28	5,464	351	19	1,327	1,415
2023	853,000	173,684	28	5,477	352	19	1,330	1,419
2024	855,000	174,091	28	5,490	353	19	1,334	1,422
2025	857,000	174,499	28	5,503	354	19	1,337	1,425
2026	858,040	174,710	28	5,509	354	19	1,338	1,427
2027	859,080	174,922	28	5,516	355	19	1,340	1,429
2028	860,120	175,134	28	5,523	355	19	1,341	1,430
2029	861,160	175,346	28	5,529	355	19	1,343	1,432
2030	862,200	175,558	28	5,536	356	19	1,345	1,434

* All weights measured in tons. For all categories, 2017-2028 projections assume tonnage increases proportional to projected population growth, using 2016 data as a baseline.

¹ Source: Table III-1.

² Source: Tonnage Reports for Honeygo Run Reclamation Center Rubble Landfill, Days Cove Rubble Landfill, and ESL as submitted to MDE.

³ Source: Baltimore County Department of Health, Animal Services; reported to MDE under "Residential MSW" category.

⁴ Source: Baltimore County Tonnage Reports for ESL, CAF, and WAF as submitted to MDE; tonnage includes material that was recycled.

⁵ Source: Baltimore County Tonnage Reports for ESL, CAF, and WAF as submitted to MDE; tonnage includes material that was recycled.

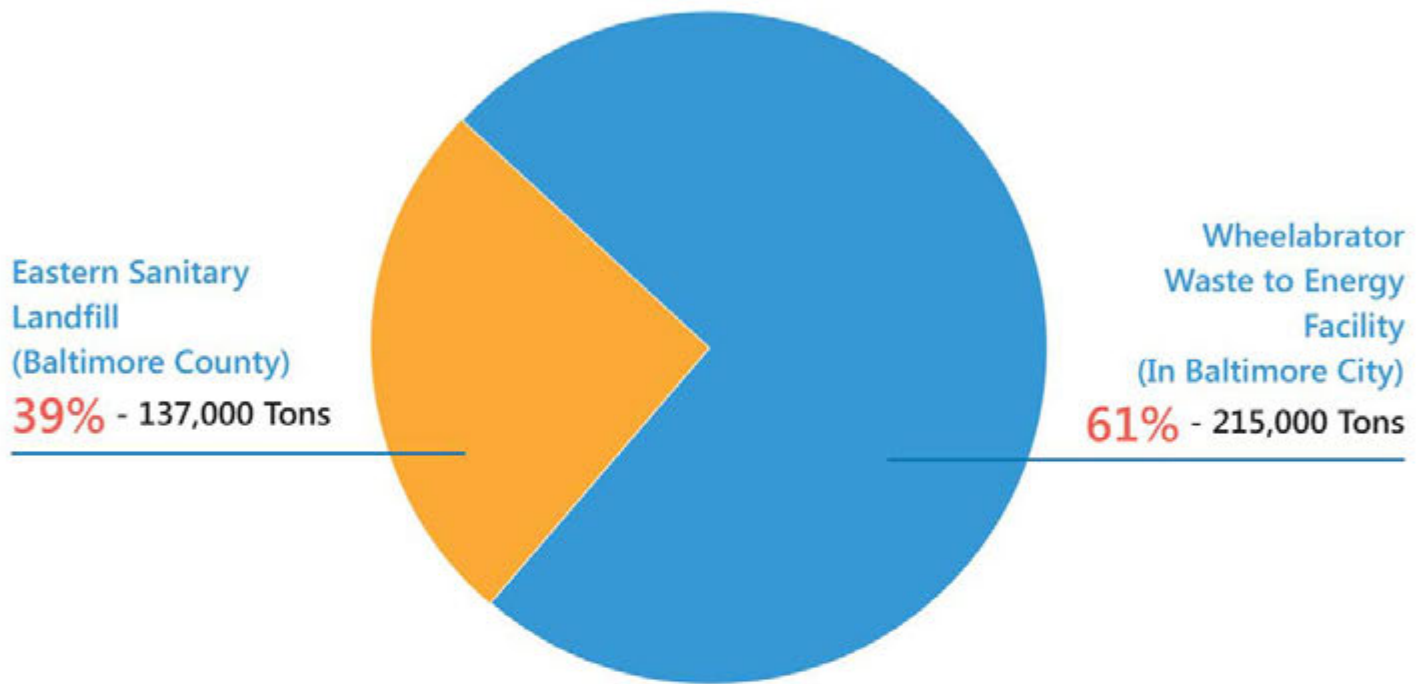
⁶ Source: Baltimore County Tonnage Report for ESL as submitted to MDE.

⁷ Source: Baltimore County Department of Public Works, Bureau of Solid Waste Management; reported to MDE under "Residential MSW" category.

⁸ Source: Baltimore County Department of Public Works, Bureau of Highways; reported to MDE under "Commercial MSW" category.

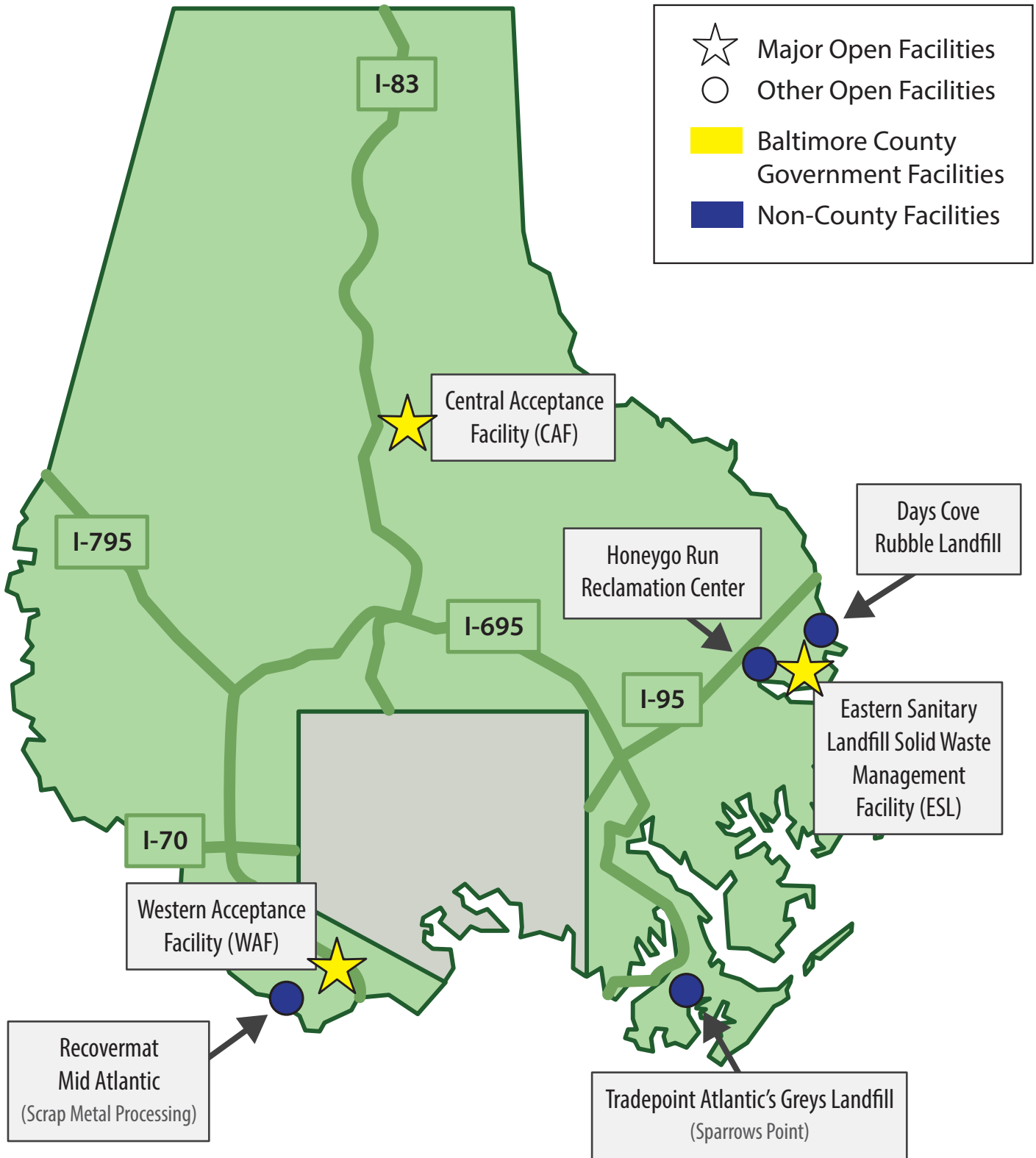
Chart III-2

Baltimore County Residential Trash Disposal (CY 2016)



Map III-1

SELECTED SOLID WASTE FACILITIES USED BY BALTIMORE COUNTY AND/OR LOCATED IN BALTIMORE COUNTY



CHAPTER IV OF TEN YEAR SOLID WASTE MANAGEMENT PLAN

ASSESSMENT OF EXISTING SOLID WASTE MANAGEMENT SYSTEM

(October 2018)

Baltimore County has developed a sound and flexible solid waste management system that is adequately handling all of the material currently being generated.

Baltimore County’s waste prevention/recycling/solid waste management program has received numerous honors during the past decade:

- 2010 – Maryland Recycling Network (MRN) Outstanding Government Leadership Award
- 2010 – The Loading Dock Certificate of Recognition for Donation Program
- 2013 – Maryland Recycling Network (MRN) Outstanding Government Leadership Award
- 2014 – National Association of Counties (NACo) Achievement Award for the Baltimore County Single Stream Recycling Materials Recovery Facility (MRF)
- 2014 – County Engineers Association of Maryland (CEAM) Award of Merit – Large Project, for the Baltimore County Central Acceptance Facility

While these honors are cause for celebrating what Baltimore County has already accomplished, they are more important in confirming that there is a solid foundation and springboard for progress during the upcoming ten-year planning period.

Waste Prevention (Source Reduction)

Perhaps the best evidence that Baltimore County has made waste prevention a top priority during the current ten-year planning period is that the County consistently earned the maximum waste prevention credit (5%) from the Maryland Department of the Environment (MDE) from 2009 through 2016. Please see Table IV-1.

Baltimore County has engaged in a wide range of successful waste prevention ventures during the past decade. Four major initiatives will be discussed here. For a more thorough overview of the County’s waste prevention activities, please see Appendix A - Source Reduction Credit Report to MDE for 2016.

The County hosted truckload compost bin sales each year from 2008 through 2016, resulting in the sale of more than 7,200 bins. Every year the County promotes grasscycling (“cutting grass high and letting it lie”). In the late fall of 2015, the County conducted a leafcycling promotional campaign involving direct mail targeting approximately 6,000 homes in a collection route in the Catonsville area. There was a measurable, positive impact on yard materials collection in the targeted collection route (-16% from 2014 baseline early November to mid-December) compared to collection routes throughout the County not targeted by the campaign (+18% from 2014 baseline early November to mid-December). The County’s Reuse Directory, which helps people who have materials to donate find organizations that accept those materials for reuse, has been revised every two years since its inception in 1999. Available

both online and in hard copy, the Reuse Directory is one of the most popular publications associated with the County’s waste prevention program.

Further discussion about current strategies and future plans to reduce the amount of solid waste generated in the County can be found in Chapter V’s recommendations, under “Waste Minimization (Reduce and Reuse; also known as ‘Source Reduction’).”

Recycling

Baltimore County has made significant strides in the past decade to improve its recycling program, resulting in increased residential recycling rates and both environmental and fiscal benefits to the County. In February 2010, the County transitioned from its “dual stream” residential recycling program to a “single stream” model, allowing residents to mix all recyclables together in the same container for collection. This program began with single family homes and town homes, and expanded over the rest of 2010 to most apartment and condominium units in the County as well. With the introduction of single stream recycling to all single family homes and town homes, and expansion to most apartments and condominiums, the County saw a significant increase in the amount of material being collected from residents for recycling – from 36,167 tons in 2009 to 47,182 tons in 2010, and 54,310 tons in 2015. In addition, Baltimore County opened its own single stream materials recovery facility (MRF) in November 2013, which enabled the County to retain the value of collected recyclables and maximize the financial benefits of its recycling program. From November 2013 through May 2017, more than 190,000 tons of recyclables were sold from the MRF, generating gross revenues of more than \$25 million. See Table IV-2 for a more complete look at the County’s residential trash and recycling tonnages since 2008.

In addition to “curbside” recycling and trash collection, Baltimore County provides additional, convenient outlets for residential recycling and trash in the form of three drop-off facilities, all of which have earned very high ratings from the residents using them. During a summer 2016 in-person survey, Baltimore County asked 700 residents to rate its drop-off facilities on a scale of one (very dissatisfied) to five (very satisfied). The Eastern Sanitary Landfill in White Marsh earned an average rating of 4.84, the Central Acceptance Facility in Cockeysville earned an average rating of 4.71, and the Western Acceptance Facility in Halethorpe earned an average rating of 4.68. In short, the County residents using the County’s three drop-off centers are overwhelmingly very satisfied with the drop-off centers.

The County’s “buy recycled” policy and program, intended to promote recycling market development, is due for a re-evaluation and improvement in terms of clarity and implementation. County “buy recycled” policy dates back to 1991. Please see Chapter III for further details.

An assessment of the collection, processing, marketing, and disposal systems in Baltimore County follows.

Collection

In general, the residential collection system is functioning in a satisfactory manner, and is capable of doing so for the foreseeable future. Baltimore County’s 39 residential collectors continue to perform the

day-to-day core services upon which residents rely. With collection decentralized among 39 collectors (many family-owned businesses of long standing), the County has successfully avoided dependency on a single collection company or small number of collection companies.

In November 2016, at Baltimore County's initiative, the Pinnacle Communications Resource Company conducted a comprehensive solid waste/recycling survey. Please see Appendix B. The telephone survey included 223 Baltimore County residents, randomized by zip code, keeping the margin of error down to +/- 6.6% at a 95% confidence level.

The following results from the 2016 telephone survey demonstrate a very high degree of overall resident satisfaction with the County's current solid waste management program:

- 88% of County residents surveyed said the County's trash/recycling collection service is satisfactory (57% strongly agreed);
- 88% said frequency of trash collection is satisfactory (62% strongly agreed);
- 85% said frequency of recycling collection is satisfactory (63% strongly agreed);
- 85% said it is convenient to recycle (62% strongly agreed);
- 83% said sending trash to facilities that convert trash into energy is better than sending trash to landfills (66% strongly agreed); and
- 68% said the information the County provides makes it easy to know what can be recycled (41% strongly agreed).

A variety of questions in the 2016 telephone survey were also designed to probe for residents' concerns about the collection program. However, only one area of questioning elicited a higher than 20% concern rate. 29% of residents surveyed said they had difficulty finding convenient storage for their recyclables that did not create odors or attract flies. 59% of all residents surveyed said they "would start recycling more if the County provided a large recycling container with a lid and wheels."

2016 survey data also revealed considerable resident confusion regarding the term "solid waste." Only 31% of residents surveyed said the term "solid waste" made them think of recycling, and only 58% of residents said "solid waste" made them think of trash.

The generally very positive input about the current residential collection system received through the public participation process thus far (three Solid Waste Management Citizens Review Committee meetings; public discussion meetings in Dundalk, Perry Hall, Cockeysville, Pikesville, and Arbutus; Planning Board meeting, and County Council meeting) is consistent with feedback from residents in the telephone survey.

Processing and Marketing of Recyclables

The County's recycling processing situation is quite satisfactory at present, and figures to be during the upcoming ten-year planning period. At CAF in Cockeysville, the County has its own single stream recycling sorting facility, which the County now operates. The County also markets the commodities that are sorted and baled at its facility. Revenues from the sale of recyclables rise and fall in accordance with

market conditions, but as mentioned earlier in this chapter the fiscal impact of the County having its own MRF is very positive. According to the November 2016 telephone survey, most County residents have at least a general sense that recycling is cost-effective (64% disagreed with a statement to the contrary; 40% strongly disagreed). This level of understanding is important in that a substantial majority of County residents already know that investments in recycling have paid off for them.

As needed, equipment at the County’s single stream recycling sorting facility has been replaced or modified to lengthen service life. Important decisions on equipment replacement and/or repair are being made and will continue to be made to ensure that recycling processing remains at least adequate. Dedicated to continuous improvement, the County will also update or modify equipment to expand the range of materials accepted for recycling, with appropriate consideration to costs (especially sorting costs), environmental impact, and strength of markets.

Solid Waste Composting

With the exception of source-separated yard materials composting, no portion of the County’s municipal solid waste (MSW) stream is processed through composting. As a developing technology, mixed MSW composting has not been included as a component of the County’s solid waste management system, largely due to economic and logistical challenges that render such a program unfeasible at this time.

Disposal (Including Resource Recovery)

The County has more than enough flexibility during the ten-year planning period with respect to residential trash disposal. First, the County has the unilateral right to renew contract options with Wheelabrator Baltimore, which operates a waste to energy (resource recovery) facility in downtown Baltimore. These contract options would guarantee the County an outlet for 215,000 tons of residential trash per year, during the 2022-2026, 2027-2031, and 2032-2036 periods. Currently and whenever a contract option were to be renewed, the County would be responsible for delivering 215,000 tons of trash at a specified price or paying the difference as if the full amount had been delivered. The term in the industry for such an agreement is “put or pay.” The County may take advantage of the contract renewal periods with Wheelabrator Baltimore, but is always on the lookout for better option(s) that may emerge. Further discussion about the factors that would be involved in such a decision can be found in Chapter V’s recommendations, under “Resource Recovery (Waste to Energy).”

A second outlet available for Baltimore County’s residential trash is Republic Services of Pennsylvania, which operates the Modern Landfill in York, Pennsylvania. The County has the right to send up to 20,000 tons of residential trash per year to Republic Services at prices dependent on quantity delivered. This is not a “put-or-pay” contract. Republic Services could agree to accept more than 20,000 tons of trash per year, but would not be obligated to accept that much. The next unilateral five-year renewal option for Baltimore County with Republic Services starts December 7, 2019, and there are two more five-year renewal options after that.

A third potential outlet for the County’s residential trash is through a contract with Waste Management. As discussed in Chapter III, the contract currently includes an option for out-of-County transfer and disposal of Baltimore County residential trash from the Eastern Sanitary Landfill Solid Waste Management Facility. This contract could be further amended to include the Central and Western Acceptance Facilities as well, if needed. The term for the current contract lasts through January 31, 2020, with three five-year renewals at the County’s option. The trash transferred by Waste Management is delivered to one of several designated disposal sites. In recent years, Waste Management has taken Baltimore County trash to Wheelabrator’s waste to energy facility in Baltimore, but the company is able to utilize other disposal sites as well, including landfills in Virginia and Pennsylvania.

Even in the unlikely event that the Wheelabrator Baltimore, Republic Services, and/or Waste Management outlets somehow became unavailable to Baltimore County, the County’s ownership and stewardship of the Eastern Sanitary Landfill (ESL) in White Marsh assures the County a high degree of solid waste management independence, especially during the ten-year planning period. ESL, with an estimated remaining trash capacity of more than 10 million cubic yards as of January 2016, is the County’s ultimate assurance that it can handle the County’s next decade of trash. Based on a five-year average (2012-2016) of volume landfilled at ESL, projected forward, the County estimated in its 2016 annual disposal facility report to MDE that ESL would not be full until the year 2052.

Because the County owns and operates the Eastern Sanitary Landfill, there is more than ample assurance that the County has adequate disposal capacity through 2028 and beyond. The following variables will help determine just how far beyond 2028 the County can rely on ESL for trash disposal:

- the degree to which changes in residential trash generation track projections in Table III-1;
- potential changes to the County’s waste prevention and recycling program, which might impact trash generation; and
- the degree to which the County is willing to pay for out-of-County disposal versus depositing trash in ESL.

Even under a hypothetical “worst case scenario” (strictly in terms of ESL capacity), in which the County does not exercise its Wheelabrator Baltimore options for 2022 and afterwards, and does not secure any replacement capacity, ESL would still have sufficient capacity to handle the County’s residential trash through the planning period and beyond. As Table IV-3 lays out in much greater detail, almost three million cubic yards of capacity would be projected to remain at ESL as of January 2029 under this “worst case scenario.” This would be enough to cover the County’s trash disposal needs beyond the end of the planning period and into the following decade.

The bottom line is that, for the most part, ESL’s longevity will continue to be a function of choices Baltimore County and its citizens make. Though the County has made significant progress on the waste prevention and recycling fronts, there is much room for improvement. The County must continue to focus its efforts on the promotion of waste prevention and recycling in order to minimize stress on the County’s overall solid waste management system. The County must also adapt to the extent required by unpredictable circumstances, such as major natural and/or human-caused disasters.

Looking out further than required for *Ten Year Solid Waste Management Plan* purposes, but with an eye to the County’s long-range future, the County may wish to consider options for maintaining a strong measure of solid waste management independence. If the County were to opt in favor of siting, designing, and constructing a new facility providing capacity for residential trash (e.g., waste to energy facility or landfill), it would probably take about 10 to 15 years of lead time to accomplish.

Baltimore County’s *Master Plan 2020* does not directly address the siting or operation of solid waste management systems or facilities. However, if a new facility were deemed necessary, all applicable State and County regulations would, of course, need to be followed. The following items would need to be considered in establishing a new facility providing capacity for residential trash in the County (informational resources in parentheses):

1. Topography (USGS Quadrangle Maps, <https://nationalmap.gov/ustopo/>)
2. Soil Types and Their Characteristics (Natural Resources Conservation Service, <https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/survey/>)
3. Geologic Conditions (USGS Geologic Map Database, <http://ngmdb.usgs.gov/>)
4. Location (Baltimore County Zoning Requirements, Table II-1)
5. Use and Depth of Aquifers (MDE Water Programs, <http://www.mde.state.md.us/programs/Water/Pages/index.aspx>)
6. Location of Wetlands (Baltimore County EPS Wetland Guidelines, <http://www.baltimorecountymd.gov/Agencies/environment/eir/waterqua.html>)
7. Location of Surface Water Sources and Their Flood Plains and Watersheds (Baltimore County EPS Wetland Guidelines, <http://www.baltimorecountymd.gov/Agencies/environment/eir/waterqua.html>)
8. Existing Water Quality Conditions (Baltimore County EPS Wetland Guidelines, <http://www.baltimorecountymd.gov/Agencies/environment/eir/waterqua.html>)
9. Incompatible Land Use (Baltimore County Zoning Requirements, Table II-1)
10. Planned Long-Term Growth Patterns (“Baltimore County Master Plan 2020”, <http://www.baltimorecountymd.gov/Agencies/planning/masterplanning/index.html>)
11. Federal, State and Local Laws and Areas of Critical State Concern (as designated by the Department of State Planning) (see Chapter I)”

This *Plan* shall not be used to create or enforce local land use and zoning requirements.

Baltimore County’s four transfer stations (two at ESL in White Marsh, one at CAF in Cockeysville, and one at WAF in Halethorpe) greatly enhance the County’s flexibility in reaching disposal outlets. At present one of the transfer stations at ESL is being used to transfer recyclables to CAF. Collectively,

these facilities give the County the capability to transfer trash to a variety of sites, including ones the County is not presently utilizing.

Opportunities for recycling or landfilling construction and demolition (C&D) material exist in the County (i.e., Days Cove Rubble Landfill and Honeygo Run Reclamation Center in northeastern Baltimore County) and outside of the County. On the order of 170,000 tons per year of C&D material, much of which is in-County, is being accepted By Days Cove Rubble Landfill and Honeygo Run Reclamation Center, according to their 2015 reports to the County. Honeygo Run estimates it has approximately 20 years of remaining capacity. Days Cove estimates it has two years of remaining capacity, plus an additional 10 years of capacity pending permit approval. Given all of the above, the C&D capacity outlook is good for Baltimore County at least through the ten-year planning period.

The County's arrangements with Baltimore City to handle the County's wastewater at the City's Back River and Patapsco Wastewater Treatment Plants are satisfactory.

Eastern Sanitary Landfill currently meets the County's need for asbestos disposal capacity. The County "Regulation for Acceptance of Non-Hazardous 'Special' Solid Wastes at Eastern Sanitary Landfill" describes the procedure by which this material must be delivered to ESL. The regulation states, among other things, that the generator must receive approval from the County to deliver the asbestos and that a representative from both the generator and EPS must be present while the material is delivered. There is adequate capacity for disposal of asbestos at ESL beyond the ten-year period covered by this plan.

In the event of an unplanned spillage or leaking of hazardous waste within the County, the situation would be handled on the front line by the Fire Department's Hazardous Material Unit, which operates out of the Brooklandville Fire Station and has three satellite hazmat units spread throughout the County. Disposal of this material would be handled on a case-by-case basis with input from the Fire Department and EPS.

Summary

Overall, the situation regarding collection and processing/disposal of commercial recyclables/trash appears to be satisfactory for the next ten years. The commercial sector is not projected to produce much more trash as time goes on (about 332,000 tons in 2028, only slightly above the 319,000 tons level in 2014). See Table III-1. While nothing can be stated with certainty, existing and/or new collection, processing, and disposal firms and facilities are expected to be adequate to handle the level of commercial materials anticipated.

Preventing waste and recycling materials that would otherwise become waste is each resident's responsibility, for fiscal as well as environmental reasons. The cost of wasting materials, already high, will likely increase during the solid waste management plan period. Furthermore, under our current system, disposal costs are borne in the same proportion by all citizens, even though those who create the most waste (and recycle the least) are responsible for a disproportionate share of those costs. Stated simply and in other words, those who are not "doing the right thing" create most of the disposal costs all residents share, while only those "doing the right thing" help hold down these costs.

In summary, the County's existing solid waste management infrastructure (collection, processing, marketing, and disposal) appears to be adequate at least through 2028. The more the County and its citizens are successful in preventing waste and recycling more of what is generated, the less stress the

overall solid waste management system will experience. Also, the degree to which the County is successful in securing replacement capacity (waste to energy and/or out-of-County landfilling) for the years 2022 and later will be important in determining how long ESL can accept trash beyond the end of the planning period.

Table IV-1

Maryland Recycling Act Recycling and Waste Diversion Rate Information

Year	Residential Recycling Tons	Commercial Recycling Tons	Total Recycling Tons	Recycling Rate	Waste Prevention Credit	Waste Diversion Rate
2008	112,551	943,337	1,055,888	58%	5%	63%
2009	111,647	274,443	386,090	36%	5%	41%
2010	147,635	285,571	433,206	41%	5%	46%
2011	146,247	298,149	444,396	44%	5%	49%
2012	150,296	270,991	421,287	42%	5%	47%
2013	92,915	199,660	292,574	37%	5%	42%
2014	92,859	173,310	266,169	34%	5%	39%
2015	90,400	177,834	268,234	35%	5%	40%
2016	86,801	200,618	287,418	36%	5%	41%

Note 1: Data in this table comes from Baltimore County's annual report to the Maryland Department of the Environment (MDE). Recycling tons include only those materials within the scope of the Maryland Recycling Act of 1988 (e.g., land clearing and demolition materials excluded).

Note 2: Waste prevention credits, up to a maximum of 5% depending on the extensiveness of a county's waste prevention activities, became available following enactment of Maryland Senate Joint Resolution 6 (2000). Baltimore County initiated this legislation and took a lead role in developing the checklist used in assessing what percentage credit a county is entitled to (see Appendix A).

Note 3: The vast majority of the steep drop in recycling and waste diversion rates from 2008 to 2009 resulted from most steelmaking slag and blast furnace slag recycled after generation at Sparrows Point no longer being counted as Maryland Recycling Act recycling.

Table IV-2

Residential Trash and Recycling Collection Data ("Curbside" and Drop-off Centers)

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Single Stream Recycling Tons	39,720	36,167	47,182	51,345	52,525	53,714	54,152	54,310	52,425
Trash Tons	421,470	407,809	386,413	364,694	349,468	345,584	349,251	356,673	357,341
Trash & Recycling Tons	461,190	443,975	433,595	416,039	401,993	399,298	403,403	410,983	409,766
%Recycling/Trash & Recycling	8.6%	8.1%	10.9%	12.3%	13.1%	13.5%	13.4%	13.2%	12.8%
<u>Change (2008 - 2016)</u>									
	<u>Total Tons</u>	<u>Percentage</u>							
Single-Stream Recycling Tons	+12,705	+32.0%							
Trash Tons	-64,129	-15.2%							
Population (see Table III-1)	+32,375	+4.1%							

Note: "Single Stream" recycling did not begin in Baltimore County until February 2010. "Single Stream Recycling Tons" prior to February 2010 included in this table are paper, bottles and cans that were collected for recycling.

Table IV-3
"Worst Case Scenario" Projections Regarding ESL Capacity
as of January 2029

This table illustrates a scenario in which no replacement capacity was found if Baltimore County chose not to exercise further 5-year options with Wheelabrator Baltimore after December 2021.

Basic Assumptions	
	Tons*
a. Projected Trash 2016-2028: ¹	4,746,042
b. Trash to Wheelabrator Baltimore Jan. 2016-Dec. 2021: ²	-1,290,000
c. Projected MSW-to-Energy Ash	129,000
d. Trash to ESL 2016-2028: ³	3,585,042

* All trash tons are residential trash.

¹ Source: Table III-1

² 215,000 tons/year multiplied by six years.

³ Projected trash for 2016-2028 minus trash kept out of ESL through Wheelabrator Baltimore contract period ending December 2021 as shown in b.

"Worst Case Scenario" Projection of Remaining ESL Capacity as of January 2029		
	Tons*	Cubic Yds.**
d. Capacity Remaining at ESL as of January 2016: ⁴	4,990,093	10,417,730
c. Trash to ESL 2016-2028: ³	-3,585,042	-7,484,430
e. Capacity Remaining at ESL as of January 2029:	1,405,051	2,933,300

⁴ Source: Eastern Sanitary Landfill Solid Waste Management Facility Tonnage Report for the Calendar Year 2015 as submitted to MDE dated February 26, 2016. Settling is added to available airspace that can be utilized to meet the final grading plans every year the landfill is surveyed.

** Conversion of tons to cubic yards based on conversion included in Eastern Sanitary Landfill Solid Waste Management Facility Tonnage Report for the Calendar Year 2015 as submitted to MDE dated February 26, 2016.

CHAPTER V OF TEN YEAR SOLID WASTE MANAGEMENT PLAN

PLAN OF ACTION

(October 2018)

Introduction

Baltimore County Government is committed to leading by example. In the area of solid waste management, leadership by example means demonstrating both environmental and fiscal stewardship, with consideration not just for the present but also for the long-term future.

The current Baltimore County Bureau of Solid Waste Management mission statement reads as follows: “Provide a safe, environmentally sound integrated solid waste management program to promote waste prevention, increase recycling and resource recovery, and decrease the quantity and toxicity of solid waste requiring landfilling, in accordance with the *Ten Year Solid Waste Management Plan*.”

This plan of action covers Baltimore County’s solid waste management program through the year 2028, with vision beyond. Looking forward, Baltimore County seeks the continuous improvement of its solid waste management system. For planning purposes, this entails setting priorities and developing strategies while preserving flexibility to respond to inevitable changes in situations as the future unfolds.

Solid Waste Acceptance Facilities

Following is a brief discussion of each of the solid waste acceptance facilities expected to be in service during the planning period. For more detailed facility descriptions and assessments, see Chapters III and IV, respectively. While these are the principal facilities expected to be in use, any number of circumstances could develop prompting the possibility of additional or fewer facilities.

Eastern Sanitary Landfill Solid Waste Management Facility (“ESL”)

As discussed in Chapter IV, ESL is the ultimate assurance that the County can handle the next decade of trash. ESL will continue to be used to landfill trash on-site, as a site for yard materials processing, as a transfer station for transporting trash out-of-County, and as a transfer station for transporting recyclables to CAF. The County’s contract with Waste Management of Maryland to transfer commercial trash out-of-County from this facility expires in January 2020, though there are three five-year renewal options.

Central Acceptance Facility (“CAF”)

During the planning period, CAF is expected to be an integral part of the County’s recycling collection and processing system. CAF will also continue to be used as a transfer station for transporting trash out-of-County and as a transfer station for transporting trash to ESL. The County’s contract with Waste

Management of Maryland to transfer commercial trash out-of-County from this facility expires in January 2020, though there are three five-year renewal options.

Western Acceptance Facility (“WAF”)

During the planning period, WAF is expected to remain a transfer station from which recyclables will be transferred to CAF and trash will be transferred to Wheelabrator Baltimore (contingent after 2021 upon possible contract extensions with the County) and/or other locations.

Wheelabrator Baltimore

Baltimore County is expected to continue to transport about 215,000 tons of trash per year to this facility through at least 2021. This figure may vary depending on agreements that from time to time may be entered into with other jurisdictions willing to allow the County to use some of their allotments. As previously mentioned, access to Wheelabrator Baltimore beyond 2021 is contingent upon possible contract extensions.

Days Cove Rubble Landfill

Estimated to reach capacity in more than 10 years, pending permit approval, Days Cove Rubble Landfill is expected to be an outlet for the private sector to recycle or landfill construction and demolition material during the planning period.

Honeygo Run Reclamation Center Rubble Landfill

Estimated to reach capacity in approximately 20 years, Honeygo Run Reclamation Center Rubble Landfill is expected to be an outlet for the private sector to recycle or landfill construction and demolition material during the planning period.

Managing Waste Streams

The following describes the County’s plan of action for handling each of the designated waste streams as identified in Chapter III. In general, a review of how materials are currently managed (see Chapter III) will offer the best insight into what is likely to happen during the planning period. As emphasized above, changes may be needed as circumstances unfold.

1. Residential (household, domestic) materials

No changes are anticipated to the present collection or processing/disposal systems for residential materials.

Continued efforts will be made to encourage residential waste prevention and recycling.

2. Commercial materials

No changes are anticipated to the present collection or processing/disposal systems for commercial materials.

Continued efforts will be made to encourage waste prevention and recycling in the private sector.

3. Industrial (nonhazardous) solids, liquids, and sludges

No changes are anticipated to the present collection or processing/disposal systems for industrial materials during the planning period, as any private companies generating such waste will handle collection and processing/disposal themselves.

4. Institutional (schools, hospitals, government buildings) materials

No changes are anticipated to the present collection or processing/disposal systems for institutional materials, except that the County Facilities Recycling Program may expand, especially as the County may purchase and/or build additional properties.

5. Land clearing and demolition debris (rubble)

No changes are anticipated to the present collection or processing/disposal systems for land clearing and demolition debris. However, the County will continue to encourage on-site disposal methods such as grade-and-fill operations and shredding.

6. Controlled hazardous substances (CHS)

No changes are anticipated to the present collection or processing/disposal systems for CHS material.

7. Dead animals

No changes are anticipated to the present collection or processing/disposal systems for this material.

8. Bulky or special materials (automobiles, large appliances, etc.)

No changes are anticipated to the present collection or processing/disposal systems for these materials.

9. Scrap tires

No changes are anticipated to the present collection or processing/disposal systems for scrap tires.

10. Wastewater treatment plant sludges

No changes are anticipated to the present collection or processing/disposal systems for this material.

11. Septage

Septage is handled through the wastewater treatment system. No changes are anticipated to the present collection or processing/disposal systems for this material.

12. Other Materials

- a. Air pollution control devices** – No changes anticipated to present system.
- b. Street sweepings** – No changes anticipated to present system.
- c. Litter** – No changes anticipated to present system.
- d. Mining materials** – No changes anticipated to present system.
- e. Agricultural materials** – No changes anticipated to present system.
- f. Recreational materials** – No changes anticipated to present system.

Sizing, Staging, and Capacity of Solid Waste Facilities

As detailed in Chapter III and more particularly Chapter IV, the County’s ownership of the Eastern Sanitary Landfill ensures that the County’s trash disposal needs will be met at least through the planning period. Indeed, adequate capacity is likely to extend considerably longer than 2028, with the most recent estimate (per the 2016 annual tonnage report sent to MDE) that ESL will have capacity until 2052.

The County is also committed to keeping all the rest of its solid waste/recycling facilities in at least adequate, if not better, condition during the planning period.

The County may or may not see a decrease in waste to energy capacity during the planning period, due to its three five-year contract renewal options with Wheelabrator Baltimore.

Schedule of New Systems and Facilities

No new solid waste systems or facilities, public or private, are scheduled to open during the planning period. This does not rule out new systems or facilities if necessary or desirable to address County needs as they develop, or new private or regional public systems or facilities in response to needs in the commercial sector.

Financing Solid Waste Facilities

Financing of existing solid waste facilities is expected to continue along current lines.

Public sector facilities will be financed through a combination of operating budget moneys and capital budget moneys. Operating budget moneys (annually allocated) come from the County’s General Fund, which draws on the general County tax base. Some of the moneys in the capital budget (five or six year outlook) come from the General Fund as well, but there is another source. As often as every two years, registered voters have the opportunity to vote in referenda on various bond issue(s) supportive of the County’s solid waste program. The County’s longstanding AAA bond rating means the County’s interest rate when borrowing funds is lower than it otherwise would be.

Another solid waste facility financing option open to the County is to work out an arrangement with the Northeast Maryland Waste Disposal Authority, as was done in conjunction with the establishment of BRESKO (the waste to energy facility now known as Wheelabrator Baltimore).

Private sector facilities will continue to be financed through private capital.

There are no proposed, new solid waste facilities in the County at this time.

Public Solid Waste Facility Closures

None of the public solid waste facilities discussed in this ten-year solid waste management plan are projected to close during the period covered by this plan.

Days Cove Rubble Landfill has an estimated two years of service life remaining, but that will be extended an additional 10 years pending permit approval. Tradepoint Atlantic's Greys Landfill is anticipated to close in approximately four years. However, this facility only accepts solid waste from the construction and demolition activities occurring on the facility grounds.

Note that additional facility closures(s) are not ruled out, if such action becomes appropriate in light of changed circumstances during the planning period.

Recommendations

The following solid waste management hierarchy has long been recommended by the United States Environmental Protection Agency (EPA). This hierarchy is generally accepted in the solid waste/recycling industry, for policymakers and decision-makers:

- waste minimization;
- recycling;
- resource recovery; and
- landfilling.

The overall objective of Baltimore County's solid waste management strategy is to meet the County's needs by striking an environmentally and economically sound balance among all of these methods, with general priority moving from the highest (waste minimization) to lowest (landfilling, especially at the Eastern Sanitary Landfill, where conserving space is the top goal). Accordingly, most of the recommendations in this plan are organized under one of the four categories in the EPA solid waste management hierarchy.

Waste Minimization (Reduce and Reuse; also known as "Source Reduction"):

Leading by example, Baltimore County will set two overarching goals for itself in terms of minimizing waste generation per capita during the ten-year planning period. First, the County will aim to hold residential trash generation per capita at or below the 0.430 tons per capita projected in Table III-1. Second, the County will aim to hold commercial/institutional trash generation per capita at or below the 0.386 tons per capita projected in Table III-1.

Focusing on these two overarching goals makes sense because there is no better way than minimizing trash generation to achieve the following, paramount environmental and fiscal benefits:

- **reducing greenhouse gas emissions and therefore mitigating climate change;**
- **conserving space at the Eastern Sanitary Landfill and therefore extending its useful life;**
- **conserving energy and natural resources;**
- **spurring job creation; and**
- **minimizing County costs of collection, processing, and disposal (ultimately borne by County taxpayers).**

The MDE Source Reduction Credit Checklist (see Appendix A), developed with Baltimore County playing a lead role, provides a wide-ranging list of activities for promoting waste minimization (the first two of the “3Rs” - “reduce and reuse”). Baltimore County will continue to use this checklist as a primary planning guide, with the goal of continuing to achieve the maximum source reduction credit (currently 5%) each year during the planning period. While the County may implement any of the MDE Source Reduction Checklist items from year to year, the County expects to focus most closely on the following items:

1. Conduct an ongoing, multi-faceted, public education program promoting grasscycling and/or home composting of yard trimmings.
2. Distribute publications exclusively promoting and describing how to utilize grasscycling and/or home composting of yard trimmings to at least 30% of single family households in the County.
3. Staff a source reduction display at a county fair or similar event.
4. Incorporate source reduction information into the County web site.
5. Promote source reduction in schools on an ongoing basis.
6. Advertise residential source reduction success through a County awards program or through local newspapers, radio, television or other media.
7. Advertise business source reduction success through a County awards program or through local newspapers, radio, television or other media.
8. Integrate source reduction into ongoing county employee training and education programs.
9. Promote source reduction through television or radio appearance or advertisement.
10. Distribute source reduction materials (brochures, flyers, fact sheets, posters, etc.) within three year periods to at least 30% of County residents through events, mailings or publications.
11. Distribute source reduction materials (brochures, flyers, fact sheets, posters, etc.) within three year periods to at least 30% of County businesses through events, mailings or publications.
12. Develop/update a solid waste reuse directory for County residents and/or businesses at least every three years.

13. Conduct a focus group or a survey of residents about source reduction activities and assistance needs at least every three years.
14. Conduct a focus group or a survey of businesses and institutions about source reduction activities and assistance needs at least every three years.
15. Develop/maintain a system for referring citizens, businesses and organizations to a materials exchange program.
16. Develop/maintain a system for providing reusable materials to a reuse center.
17. Conduct a source reduction waste audit or survey of County facilities where at least 10 percent of County employees work at least every three years.
18. Maintain a County procurement policy advancing the purchase of materials that result in reduced waste generation.
19. Incorporate green building goals/requirements in County construction, remodeling, and maintenance bid specs and contracts.

Those items the County has frequently accomplished in the past may be done in new and different ways in the future. The County may also wish to try some source reduction checklist items not previously attempted, or consider expanding existing County reuse-focused programs (such as accepting a wider variety of reusable items at County drop-off centers for donation).

With respect to item #18 above, the Bureau of Solid Waste Management should encourage revisions to the County's buy recycled program. First, the requirement that paper products should include post-consumer waste at least 10 percent higher than the federal standard should be deleted as a matter of practicality. The federal standards were developed through an industry consensus of what was practical in the marketplace. Therefore, the federal standard should be the standard to which Baltimore County holds itself accountable. Where federal standards include a range of percentages, the lowest number should be used to encourage the maximum number of vendors to compete for County contracts. Second, the current requirement that 40 percent of paper be recycled paper should be deleted as redundant. As long as the County adheres to the relevant federal standards, the paper the County purchases will have recycled content. Finally, the Bureau of Solid Waste Management should work with the Purchasing Office to promote awareness of and monitor compliance with the buy recycled program.

Baltimore County's Recycling and Waste Prevention Manager has volunteered to serve on a source reduction credit workgroup to be convened by MDE at a time yet to be determined. The purpose of this workgroup will be to assess the current source reduction credit system and recommend updates to the checklist and possibly expansion of the credit beyond the current 5% percent maximum.

Given the size of the organic fraction of the waste stream that is comprised of food waste, one of Baltimore County's clearest opportunities for waste minimization progress lies in reducing the amount of food waste. MDE is also giving food waste prevention a high priority moving forward.

Recycling:

Again leading by example, Baltimore County already has a comprehensive, convenient and popular single stream recycling program available to all of its residents. Further strengthening the County’s recycling program will yield more of the environmental and fiscal benefits enumerated above regarding waste minimization.

- 1. Continue the County’s single stream recycling program.** According to the Pinnacle Communications Resource Company (Pinnacle) telephone survey in November 2016, 85% of County residents say it is convenient to recycle, with 62% strongly agreeing. Recycling tonnages leapt about 40% above 2009 levels by 2011, with February 2010 marking the start of the single stream program for most residents.
- 2. Continue to mail four-year trash and recycling collection schedules, with program information, to all single family homes and town homes in the County.** The November 2016 telephone survey revealed that an overwhelming 89% of County residents believe that these collection schedules and guides are important to them (71% strongly agreed).
- 3. Continue to work with owners and managers of multi-family developments (condominiums and apartments) to provide high quality opportunities for residents to recycle.** Baltimore County’s Bureau of Solid Waste Management already has experts in facilitating high quality recycling opportunities for residents in the multi-family sector. Increasing publicity about the availability of these experts to collaborate with multi-family property owners and managers can improve the quantity and quality of recyclables coming from the multi-family sector.
- 4. Consider distribution of large recycling containers to County residents living in single family homes and town homes.** One of the most common methods jurisdictions around the country have found useful for spurring increased recycling tonnages is to distribute large recycling containers to their residents. 59% of Baltimore County residents surveyed in November 2016 said they “would start recycling more if the County provided a large recycling container with a lid and wheels.” Cost and logistical considerations need to be factored in as well.
- 5. Consider moving to semi-automated collection of recycling and trash, especially if large recycling containers are to be distributed to residents.** Semi-automated collection would involve mounting tippers on collection trucks, such that recycling and trash containers would be loaded onto the tippers and the contents of the containers tipped into the backs of the trucks. This would spare collection workers having to pick up the containers and tossing the containers’ contents into the backs of trucks, as is currently the case. Cost, logistical, and collection worker safety factors need to be considered.
- 6. Consider implementing an organics recycling collection program that includes food scraps.** While Baltimore County already has a recycling program for collecting yard materials, there is increasing attention being paid to how much food is being set out for disposal by residents. The most important way to address this portion of the waste stream is to reduce its generation prior to composting or disposal, which will be a high priority for Baltimore County over the next ten years and beyond (as noted in Chapter V of this *Plan* under Recommendations – Waste Minimization). With regard to the food scraps that continue to be generated, MDE is engaging a

wide variety of stakeholders in trying to create a reliable infrastructure, including outlets for processing organics with food scraps. Baltimore County should stay up to date with this effort, and look for opportunities that may include starting its own organics recycling collection program that includes food scraps. Cost and logistical considerations need to be taken into account.

- 7. Expand the Baltimore County Government Facilities Recycling Program.** Originally, this program concentrated on four major buildings in Towson (the Historic Courthouse, New Courts Building, County Office Building, and Public Safety Building). Since then this program has grown to include libraries, senior centers, the Drumcastle office building off of York Road, Police precincts, Fire stations, Bureau of Highways shops and Bureau of Utilities yards. The next step is to create a comprehensive database listing all County facilities and their recycling status. Further expansion consistent with cost-effectiveness should occur during the ten-year planning period.
- 8. Expand recycling opportunities in Baltimore County parks.** Starting where it will make the most difference, the County has already made recycling opportunities available in its ten regional parks. Recycling expansion beyond these ten parks would further enhance residents' quality of life where they go to play and relax. Cost and logistical considerations need to be factored in when deciding how, when, and where to expand such recycling opportunities. The County will begin implementation after considering a list of approximately 100 possible sites already identified by the County's Department of Recreation and Parks (see Appendix C).
- 9. Expand recycling opportunities in County rights of way near major intersections around Baltimore County.** The County entered into a contract with Creative Outdoor Advertising (COA) in March 2015. Since that time COA, in collaboration with the County, has placed more than 70 recycling/trash containers in County rights of way near major intersections around the County. Not only does this provide residents with more recycling opportunities, it helps reduce litter. Continued collaboration between the County and COA has the potential to significantly expand the number of locations where County residents can recycle away from home.
- 10. Assess yard materials recycling collection program cost-effectiveness, and make adjustments as appropriate.** The current yard materials collection program includes about 70% of all single family homes and town homes. On an ongoing basis, the County will identify areas where additions or subtractions to the yard materials recycling collection program are merited. One possibility is that a broader organics recycling collection program, including food scraps, could be implemented.
- 11. Promote recycling in the commercial and institutional sectors generally.** The County will continue to collaborate with the Northeast Maryland Waste Disposal Authority regarding the website designed to provide useful information about recycling for businesses and institutions (www.mdrecycles.org). When conducting waste assessments at businesses and institutions, County staff will offer technical assistance regarding recycling as well as waste minimization. The County will consider new initiatives to recognize and highlight recycling in the commercial and institutional sectors.
- 12. Continue and expand collaboration with the Baltimore County Public Schools recycling program.** The Bureau of Solid Waste Management regularly provides school presentations to thousands of BCPS students each year, and has provided BCPS with posters and flyers for

distribution throughout the school system. Collaboration with BCPS has been on the increase, including opportunities for Bureau staff to address meetings of BCPS building operations supervisors critical to the success of BCPS’s recycling program. The County will continue to encourage BCPS to maximize its recycling tonnages, and look for opportunities for enhanced collaboration.

- 13. Maximize the cost-effectiveness of Baltimore County’s marketing of the recyclables that are sorted and baled at its materials recovery facility (MRF) in Cockeysville.** Opening the County’s own single stream sorting facility in November 2013 has been of major fiscal benefit. The County will seek to maximize the cost-effectiveness of its MRF in the future, which will entail maintaining and improving the MRF during the ten-year planning period.

Resource Recovery (Waste to Energy):

- 1. Assess the environmental effects, including human health, as well as fiscal effects of extending Baltimore County’s contract options with Wheelabrator Baltimore beyond the end of 2021.** Deliveries of trash to Wheelabrator Baltimore produce useful steam and electricity, allow for metal recovery and recycling, and reduce the volume of material that ends up needing to be landfilled by about 90%. This last point is most relevant in terms of conserving capacity at Baltimore County’s Eastern Sanitary Landfill.

While all of the above are important to weigh in deciding whether/how long the County should continue its relationship with Wheelabrator Baltimore, there are other important factors as well. MDE is in the midst of determining how much more strict to be about Wheelabrator Baltimore’s air emissions levels. Depending on how this plays out, Wheelabrator Baltimore’s emissions may go down but operating costs may go up.

Environmental considerations can and will be prominent for Baltimore County, but the County must also be a cost-conscious consumer regarding its disposal alternatives. Solid waste management involves stewardship of fiscal as well as environmental resources.

Landfilling:

- 1. Baltimore County will seek to minimize the amount of material to be landfilled during the planning period, particularly the amount of material landfilled at the Eastern Sanitary Landfill.** As emphasized earlier in this chapter, conserving space at ESL is the key to maintaining the County’s generally strong solid waste management position during the planning period and beyond. Also as emphasized earlier in this chapter, the two most preferred methods for avoiding landfilling are waste minimization and recycling, though resource recovery may also play a significant role.

To the extent financially feasible, any material the County does not manage by waste minimization, recycling, or resource recovery will be transferred out-of-County, rather than landfilled at ESL. The chief advantage of this policy, to the extent it is backed up by County funding, is that it conserves capacity at ESL. The trade-off for the County is that it will be expensive to implement this policy because out-of-County landfilling options are costly.

2. **Minimize the impact of trash landfilled at ESL.** Realistically, even with a policy favoring out-of-County landfilling over landfilling at ESL, there will be trash arriving at ESL to be landfilled during the planning period. The County will continue to pursue and implement various techniques for minimizing the impact of trash arriving at ESL. These techniques will include, but not be limited to, improving on-site spotting and detection (to divert more material from disposal to recycling), achieving better compaction rates, and using GPS technology on landfill equipment. The County is committed to continue operating ESL in a manner that minimizes negative impacts on its neighbors. Furthermore, the Bureau of Solid Waste Management will continue to hold regular meetings with representatives of community organizations near ESL.
3. **Continue to pursue useful ways to manage byproducts of the decomposition process at ESL.** For example, the County has a contract through October 2022 with Eastern Landfill Gas, LLC for the landfill gas (methane) produced at ESL. This means electricity is derived from what otherwise would have been a waste product, and the County receives some money that can be used to help offset overall solid waste management costs. Moreover, this method for dealing with methane directly reduces greenhouse gas emissions that contribute to climate change. The County should strive to extend the contract for methane, or identify another useful outlet, such as conversion of methane to natural gas (which would be supplied to a pipeline adjacent to ESL).
4. **Reassess the commercial tipping fee (currently \$100 per ton), and other fees, at the County's solid waste acceptance facilities as needed.**

Other:

1. **Continue to seek out creative uses for closed landfills.** Again leading by example, consistent with practicality and cost-effectiveness, the County will continue to facilitate the creative use of its closed landfills. Examples of such creative use include providing runway and flight space for model aircraft and installing solar panels at closed landfills.
2. **Consider changing the name of the Bureau of Solid Waste Management to more clearly indicate its mission.** The November 2016 telephone survey revealed considerable resident confusion about the term “solid waste management.” When asked if “solid waste management” made them think of recyclables, only 31% of residents agreed, while 60% disagreed (35% of all respondents strongly disagreed). There was also significant confusion when residents were asked if “solid waste management” made them think of trash (35% disagreed). The National Solid Waste Management Association recently changed its name to the National Waste and Recycling Association in an effort to improve clarity about its purpose. Careful thought should be given to changing the name of the County's Bureau of Solid Waste Management as well.
3. **Assess collection routes for efficiency on an ongoing basis, making adjustments as appropriate.** Employ new technologies as they become available, where cost-effective.
4. **Hold household hazardous waste (HHW) collection days at least once per year at ESL and WAF.** While centralizing year round HHW acceptance at CAF makes sense in terms of maximizing convenience to County residents overall, convenience to residents in the eastern and western sectors of the County will be augmented by additional HHW collection day(s) at ESL and WAF.

5. **Ensure that equipment and vehicle repair and replacement needs are met in a comprehensive, ongoing basis.** Prioritize equipment and vehicle repairs and purchases to ensure that core operational functions are sustained at all County solid waste management facilities.
6. **Ensure that solid waste management regulations are revised and updated as needed.** Review all regulations periodically to determine if any changes are warranted.
7. **Invest in intensified public education outreach regarding the County’s solid waste management program to County residents.** The County is using a combination of unpaid (website, press releases, Facebook, etc.) and paid (internet, direct mail, television, billboard, movie theater, etc.) outreach methods to motivate and inform residents and businesses about the solid waste management system, and especially to promote waste minimization and recycling. Whether paid or unpaid, these outreach methods involve considerable staff time to arrange and execute.

One of the areas deserving of more attention is raising awareness of recycled products. In the November 2016 telephone survey, nearly half (47%) of residents said they would recycle more if they knew the types of products made from their recyclables. By increasing investment in public education, and taking advantage of new communication technologies, the County and its citizens can look forward to lower waste management costs and higher recycling revenues.

8. **Enhance the content and customer friendliness of the Bureau of Solid Waste Management website.** The fact that the Bureau’s website has a large and growing audience is good news. On an ongoing basis, the Bureau will strive to improve its website in order to provide the most up-to-date and accurate information possible. The Bureau will continue to use high quality videos and graphics to connect with viewers.
9. **Pursue or support statewide legislation that would impose a ban on retailers using or distributing at least some “problematic” plastic items in certain situations.** Such items may include polystyrene containers and/or plastic bags.
10. **Pursue or support statewide legislation to mandate commercial/institutional recycling reporting, aiming for reasonable requirements that fully take the needs of businesses and institutions into account.** Recycling tonnage data from these sources is crucial to understanding the “big picture” of recycling in the County, though reporting is currently a voluntary process. This data is used by MDE to calculate the official recycling rate for Baltimore County each year, and mandatory reporting would result in more complete data and thus a more accurate calculation.

Intergovernmental Coordination:

All sectors of the Baltimore County Government (including, but not limited to, the Department of Public Works, the Department of Environmental Protection and Sustainability, the Office of Information Technology, and the Office of Budget and Finance) need to coordinate with each other to maximize the quality and cost-effectiveness of the County’s solid waste management program.

Regional Cooperation and Professional Association Collaboration:

Baltimore County can and will lead by example and make many strides on its own in the area of solid waste management. The County will also build on a record of regional cooperation and legislative leadership in this field. Examples of organizations in which the County will continue to participate include, but are not limited to, the Solid Waste Association of North America (SWANA), the Maryland Association of Counties (MACo), the Maryland Recycling Network (MRN), and Northeast Maryland Waste Disposal Authority (NMWDA).

Conclusion

Spending more money to handle “waste” that could be minimized or recycled in the first place is an unattractive option for the County. To minimize the impact of rising trash management costs and maximize recycling revenues during the planning period, the County Administration and County Council will need to make major and sustained investments in both solid waste management infrastructure and public education. By taking this approach, Baltimore County Government can best protect taxpayers and the natural environment.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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Waste Management Administration
 Planning, Recycling and Outreach Program
COUNTY SOURCE REDUCTION (SR) CREDIT REPORT

County: BALTIMORE COUNTY

Reporting Period: 2016

Only respond "yes" for source reduction activities occurring in the reporting calendar year, unless a three-year time period is specified. A county may respond "yes" for an activity that is conducted in association with another partner.

Because SR of yard trimmings has the greatest SR potential of all materials, counties may receive a SR credit of up to 2% in Part 1 (Yard Trimmings SR Credit Checklist). For Part 1 a 1% credit will be awarded for each of the two Yard Trimmings SR boxes checked. For Part 2 (General SR Credit Checklist), SR credit will be awarded using the following ranges: 5 - 9 "Yes" = 1%, 10 - 15 "Yes" = 2%, and 16 or more "Yes" = 3%. Maximum combined SR credit for Part 1 and Part 2 is 5%.

PART 1 - YARD TRIMMINGS SOURCE REDUCTION CREDIT CHECKLIST

SR CREDIT OF 1% WILL BE AWARDED FOR EACH YES RESPONSE. (CHECK ALL THAT APPLY.)

1. Conducted an ongoing, multi-faceted, public education program promoting grasscycling and/or home composting of yard trimmings.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
2. Within the past three years , distributed publications exclusively promoting and describing how to utilize grasscycling and/or home composting of yard trimmings to at least 30% of single family households in the county.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

PART 2 - GENERAL SR CREDIT CHECKLIST -Nothing Related to Yard Trimmings Here!!!

PROMOTION/GENERAL EDUCATION (CHECK ALL THAT APPLY.)

1. Staffed a SR display at a county fair or similar event.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
2. Hosted a SR event for the general public.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
3. Incorporated SR information into a county web site.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
4. Promoted SR in schools on an ongoing basis.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5. Implemented a SR curriculum or ongoing activity in schools.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6. Advertised residential SR success through a county awards program or through local newspapers, radio, television or other media.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
7. Advertised business SR success through a county awards program or through local newspapers, radio, television or other media.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
8. Integrated SR into ongoing county employee training and education programs.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
9. Established/maintained ongoing SR recognition program for county employees.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
10. Promoted SR through television or radio appearance or advertisement.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
11. Within the past three years , distributed SR materials (brochures, flyers, fact sheets, posters, etc.) to at least 30% of county residents through events, mailings or publications.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
12. Within the past three years , distributed SR materials (brochures, flyers, fact sheets, posters, etc.) to at least 30% of county businesses through events, mailings or publications.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
13. Within the past three years , developed/updated a solid waste reuse directory for county residents and/or businesses.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
14. Within the past three years , conducted a focus group or a survey of residents about SR activities and assistance needs.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
15. Within the past three years , conducted a focus group or a survey of businesses and institutions about SR activities and assistance needs.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

PART 2 - GENERAL SOURCE REDUCTION CREDIT CHECKLIST cont.

TECHNICAL ASSISTANCE (CHECK ALL THAT APPLY.)		
16. Developed/maintained a system for referring citizens, businesses and organizations to a materials exchange program.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
17. Developed/maintained a system for providing reusable materials to a reuse center.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
18. Developed/maintained a swap shop or other materials exchange.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
19. Coordinated a textile reuse project.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
20. Worked with a targeted sector of business community, e.g., restaurants, to achieve SR.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
21. Conducted a SR training session, workshop, or presentation at a business, institutional or community event.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
22. Developed/maintained a home food* composting bin distribution program for county residents.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
23. Conducted workshops demonstrating proper food* composting techniques.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
24. Developed/maintained permanent food* composting demonstration sites.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
25. Operated a program to promote pallet reuse.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
26. Within the past three years , conducted SR site visits to 3 or more of the businesses in the county with the most employees or the highest waste generation.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
27. Within the past three years , conducted SR site visits to 15 or more of the businesses in the county with the most employees or the highest waste generation.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
28. Within the past three years , conducted SR site visits to 30 or more of the businesses in the county with the most employees or the highest waste generation.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
29. Within the past three years , conducted a SR waste audit or survey of county facilities where at least 10 percent of county employees worked.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
OTHER INITIATIVES (CHECK ALL THAT APPLY.)		
30. Collaborated on a multi-county SR event or program.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
31. Established/maintained a county procurement policy advancing the purchase of materials that result in reduced waste generation.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
32. Incorporated green building goals/requirements in county construction, remodeling, and maintenance bid specs and contracts.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
33. Held team meetings, at least quarterly, that included representatives from major county departments, in which SR was discussed as a formal part of the agenda.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
34. Implemented a variable rate pricing system designed to promote SR.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

***Refers to food waste composting activities only.**

Documentation:

In order to promote information sharing around the state and to document SR efforts, please provide copies of materials (promotional materials, policy guidelines, etc.) associated with any "yes" responses on the SR checklists. If your county provided materials in a previous year that are the same or essentially unchanged, simply identify them as such and do not provide them.

I certify, to the best of my knowledge, that the information provided on this form is accurate and that the documentation requested has been provided. Additional documentation will be made available to MDE for auditing purposes, if requested.

Signature

Title

Print Name

County

Date

Data collection dates: November 9-18, 2016

223 completed surveys with randomly selected current Baltimore County residents

Margin of error: +/- 6.6% at 95% confidence

Please note the numbering system used here is to make it easier to reference specific questions and does not reflect the randomized order the questions were asked.

Percentage totals do not always equal 100% due to rounding.

	Yes	No	Don't know or N/A
A1 Are you a Baltimore County resident?	100%		
A2 Are you at least 18 years of age?	100%		

A3 Do you remember receiving a 2014-2017 collection schedule and program guide from the County regarding recycling?	67%	25%	9%
A4 Do you still have that schedule?	78%	16%	6%

Note: This question was only asked of the 149 residents who confirmed receiving the county collection schedule and program guide.

	Aluminum Foil	Empty Aerosol Cans	Juice Boxes	Milk Cartons	Plastic bags (Not Accepted)	Rigid plastics such as lawn furniture, clothes hangers, and toys	Styrofoam (Not Accepted)	Wide-mouth plastic containers such as peanut butter, sour cream, and mayonnaise containers
A5 Which of the following materials do you believe are accepted in Baltimore County's recycling program?								
yes	53%	34%	56%	68%	31%	21%	24%	89%
no	35%	56%	32%	26%	64%	68%	70%	8%
Don't Know or N/A	12%	10%	12%	6%	5%	11%	6%	4%

	No distance at all	<5 mi	5-9mi	10-14mi	15-19mi	20-25mi	>25mi
A6 How far would you drive to drop off an old computer for recycling?	21%	17%	26%	22%	8%	4%	3%

	Yes	No			
A7 Have you ever brought materials to one of the County's three residential drop-off centers for recycling or disposal?	60%	40%			
	<monthly	monthly	twice a month	weekly	> once a week
A8 How frequently do you visit a County residential drop-off center?	74%	14%	5%	0%	8%

Note: This question was only asked of the 133 residents who confirmed using the county drop-off centers for recycling or disposal.

Please rate your level of agreement with each of the following statements on a scale from 1-6, where 1 indicates you strongly disagree and 6 indicates you strongly agree. If you are completely unsure, you may respond "don't know"	1-Strongly Disagree	2	3	4	5	6- Strongly Agree	Don't know or N/A
A9_01 I am uncertain whether recycling helps the environment	53%	5%	7%	5%	6%	22%	3%
A9_02 Information provided by the County makes it easy to know what can be recycled.	9%	7%	13%	8%	19%	41%	5%
A9_03 Individual recycling efforts don't really make a difference.	61%	10%	5%	5%	3%	15%	1%
A9_04 Storing recyclables creates odors and attracts flies.	46%	15%	5%	9%	8%	12%	6%
A9_05 The recycling collection schedule is difficult to follow.	64%	8%	4%	3%	4%	11%	6%
A9_06 It is convenient for our household to recycle.	5%	2%	7%	6%	17%	62%	1%
A9_07 Frequency of recycling collection is satisfactory.	5%	2%	6%	9%	13%	63%	2%
A9_08 I would recycle more if I knew the types of products that are made from my recyclables.	27%	11%	11%	8%	14%	25%	5%
A9_09 My neighbors expect our household to recycle	12%	6%	14%	7%	9%	25%	26%
A9_10 My family expects our household to recycle	9%	3%	5%	2%	14%	67%	2%
A9_11 Landfill space is a problem in our county.	10%	3%	12%	9%	9%	31%	25%
A9_12 Sending trash to facilities that convert trash to energy is better than sending trash to landfills.	5%	1%	5%	4%	13%	66%	8%
A9_13 I believe collected recyclables are really being recycled.	6%	4%	6%	14%	18%	42%	9%
A9_14 Trash and recycling collection service is satisfactory.	4%	1%	5%	7%	24%	57%	1%
A9_15 Frequency of trash collection is satisfactory.	4%	3%	5%	8%	18%	62%	1%
A9_16 Recycling is not cost-effective.	40%	14%	10%	5%	5%	9%	16%
A9_17 I would start recycling more if the County provided a large recycling container with a lid and wheels.	26%	5%	8%	9%	9%	38%	5%

Please rate your level of agreement with each of the following statements on a scale from 1-6, where 1 indicates you strongly disagree and 6 indicates you strongly agree. If you are completely unsure, you may respond "don't know"	1-Strongly Disagree	2	3	4	5	6- Strongly Agree	Don't know or N/A
A9_18 Receiving trash and recycling schedules and guides is important.	2%	2%	5%	3%	14%	71%	2%
A9_19 I frequently refer to the County's trash and recycling schedule and guide.	22%	10%	10%	9%	8%	38%	4%
A9_20 I frequently refer to the Baltimore County website and/or social media pages for information about recycling and waste management.	50%	14%	12%	5%	5%	9%	5%
A9_21 I open envelopes with the County seal on them.	6%	1%	8%	6%	11%	58%	10%
A9_22 The term 'solid waste' makes me think of trash.	17%	7%	11%	10%	14%	34%	7%
A9_23 The term 'solid waste' makes me think of recyclables.	35%	11%	13%	9%	10%	12%	9%
A9_24 The term 'solid waste management' makes me think of collection, processing, and disposal of trash and recyclables.	9%	5%	14%	10%	17%	34%	12%
A9_25 I would like to set out a mixture of all my trash, paper, bottles, cans, grass, and leaves for a single collection each week, and let a facility sort out and recover the recyclable items.	26%	7%	14%	7%	8%	35%	3%
A9_26 If the County tells me I can set out a mixture of all my trash, paper, bottles, cans, grass, and leaves for a single collection each week, and that a facility will sort out and recover the recyclable items, I'll believe it.	19%	5%	14%	11%	14%	33%	5%
A9_27 If the County tells me a facility will sort out and recover recyclable items from a mixture of trash, paper, bottles, cans, grass, and leaves, and do so cost-effectively, I'll believe it.	12%	7%	15%	14%	18%	30%	5%

	<6mo	6mo-1yr	2-5yr	6-10yr	>10yr
A10 How long have you lived in the County?	0%	0%	3%	1%	96%

	SINGLE	TOWN/ROW	DUP/TRIP	APART/CONDO	OTHER	REFUSE
A11 What type of home do you live in?	76%	11%	2%	9%	3%	0%

	OWN	RENT	REFUSE
A12 Do you own or rent your home?	89%	7%	4%

	CURB	ALLEY	DUMPSTER	OTHER
A13 Where do you set your trash out for collection?	75%	5%	4%	15%

	FEMALE	MALE	OTHER	REFUSE
A14 What is your gender?	63%	36%	0%	1%

	MARRIED	SINGLE	SEPAR.	DIVOR.	WIDOW	REFUSE
A15 What is your marital status?	65%	9%	0%	6%	14%	6%

	NO HS	SOME HS	HS GRAD	SOME COLL	COLL GRAD	SOME UNI	UNI GRAD	POST-GRAD	REFUSE
A16 What is the highest level of education you have completed?	1%	5%	18%	14%	27%	1%	5%	23%	6%

	18-30	31-40	41-50	51-60	61-70	71-80	81-90	>90	REFUSE
A17 Which of the following age categories applies to you?	1%	3%	10%	18%	30%	22%	9%	4%	3%

Appendix C – Possible Locations for Recycling Containers at Baltimore County Recreation and Parks Facilities

Region 1:

- Hannah More Park
- Gwynn Oak Park
- Woodlawn Memorial
- Western Hills Park
- Halethorpe Civic
- Arbutus Rec Center
- Ungers Field
- Spring Grove
- Franklin High School
- New Town High School
- Lansdowne High School
- Lansdowne Middle School
- Arbutus Elementary School
- Arbutus Middle School
- Catonsville High School
- Catonsville Middle School

Region 2:

- Hydes Road Park (4 fields)
- Campus Hills
- West Towson Park
- County Home Park (2 fields, 4 courts)
- Warren Place Park (3 fields, 3 diamonds)
- Cockeysville Middle School (6 fields, 4 diamonds)
- Padonia Elementary School (2 fields, 2 diamonds)
- Warren Elementary School (3 fields, 3 diamonds)
- Pot Spring Elementary School (1 field, 2 diamonds)
- Mays Chapel Elementary School (2 fields, 2 diamonds)
- Cockeysville (Skate Park)
- Dulaney High School (4 fields, 5 diamonds)
- Dulaney Springs Park (1 field)

Region 3:

- Fullerton Community Center (1 diamond, 1 Rec Center)
- Linover Park (3 fields)
- Fullerton Park (3 diamonds, 2 fields)
- Loch Raven Center (3 diamonds, 1 field, 1 Rec Center)
- Loch Raven Academy (5 diamonds, 3 fields)

- Loch Raven High (3 diamonds)
- Halstead Academy (2 diamonds, 1 field)
- Hillendale PAL (1 Rec Center)
- Oakleigh Elementary (4 diamonds, 2 fields)
- Pleasant Plains Elementary (3 diamonds, 2 fields)
- White Oak Elementary (2 diamonds, 1 field)
- Parkville High School (4 diamonds, 2 fields)
- Parkville Middle School (5 diamonds, 2 fields)
- Villa Cresta Elementary (3 diamonds, 3 fields)
- Carney Elementary (2 diamonds)
- Harford Hills (3 diamonds, 2 fields)
- Pine Grove Elementary (2 diamonds, 2 fields)
- Pine Grove Middle School (4 diamonds, 3 fields)
- Parkville Community Center (1 Rec Center)
- Bengies Chase Elementary (3 diamonds, 1 field)
- Oliver Beach Elementary (3 diamonds, 2 fields)
- Bengies Chase Community Center (1 Rec Center)
- Vincent Farms (3 diamonds, 1 field)
- Seneca Elementary (3 diamonds)
- Gunpowder Elementary (2 diamonds)
- Kingsville Elementary (2 diamonds)
- Kingsville Park (2 diamonds, 7 fields)
- Mt. Vista Park (6 fields)
- Loreley Community Building (1 Rec Center))
- Golden Ring Park (1 field)
- Rosedale Park (4 diamonds, 4 fields)
- Shady Spring PAL (1 Rec Center)
- Golden Ring Middle School (3 diamonds, 2 fields)
- Red House Run (2 diamonds, 2 fields)
- McCormick Elementary (2 diamonds)
- Rosedale Center (2 diamonds, 2 fields)
- Gough Park (2 diamonds, 2 fields)
- Snyder Lane (1 diamond, 1 field)
- Cowenton Park (3 fields)
- Perry Hall Park (5 fields)
- Nottingham Park (5 diamonds, 3 fields)
- PHHS (4 diamonds, 4 fields)
- PHMS (3 diamonds, 2 fields)
- PHES (3 diamonds, 2 fields)
- Seven Oaks Elementary (2 diamonds, 3 fields)
- Gunpowder Elementary (2 diamonds, 2 fields)
- Chapel Hill Elementary (4 diamonds, 1 field)
- Joppaview Elementary (2 diamonds, 2 fields)
- Soukup Arena (1 Rec Center)

Region 4:

- Edgemere – Sparrows Point – Bear Creek Communities
 - 2 High Schools
 - 3 Elementary Schools
 - 1 Park
 - 3 Community Parks
- Essex Stenbridge – Colgate Communities
 - Colgate Park
 - Martindale Park
 - Cox’s Point
 - Fields at Renaissance Park
- Berkshire – Eastwood, Gray Charles, North Point Village Communities (none have recycling containers; schools have single stream dumpsters)
 - Berkshire Elementary
 - Charlesmont Elementary
 - Norwood Elementary
 - Battlegrove Elementary
 - General John Stricker Middle
 - Holobird Middle
 - Gray Manor Park
 - North Point Village Park

Regional Facilities:

- Eastern Regional Park (6 diamonds, 3 fields, 1 turf field; currently have indoor containers, 1 recycling dumpster – County pick up)
- Honeygo Regional Park (2 diamonds, 2 fields, 1 turf field; currently have indoor containers, recycling dumpster – County pick up)
- Northeast Regional Park (4 indoor tennis courts, 2 indoor athletic fields); currently have no containers, 1 recycling dumpster – County pick up)
- Southeast Regional Park (1 indoor athletic field; currently have no containers, no dumpster)
- Meadowood Regional Park (6 fields, 1 turf field); currently have no containers, 1 recycling dumpster – County pick up)
- Randallstown Community Center (gym, indoor pool, theater; currently have indoor containers – County pick up)
- Northwest Regional Park (4 diamonds, 2 fields, 1 turf field: currently have no containers, no dumpsters)
- Reisterstown Regional Park (4 diamonds, 2 fields, 1 turf field; currently have no containers, no dumpsters)

Appendix D

Issues Raised at March 28, 2018 Public Hearing (and During 35-Day Written Comment Period)

Summary of Issue	Bureau Response/Resolution
<p>1. The County should stop sending trash to Wheelabrator Baltimore by the end of 2021 and renegotiate the County’s Waste Management contract to prohibit Waste Management’s use of incinerators as well. The County should prioritize the public health effects of incineration when making decisions about trash disposal.</p>	<p>This overall topic was already addressed sufficiently in the January 2018 draft Plan; however, the Resource Recovery Recommendations in Chapter V have been edited to clarify that human health effects will be included among environmental impacts when assessing Wheelabrator Baltimore contract options.</p>
<p>2. The Plan should not use terms like “resource recovery” to put a positive spin on incineration.</p>	<p>The County is required by COMAR to specifically “evaluate resource recovery options to reduce land disposal capacity needs” in the Plan. Therefore, per the direction of the Maryland Department of the Environment (MDE), the County referenced the term “resource recovery” when discussing waste to energy options.</p>
<p>3. In the same vein as above, the potential end of the Wheelabrator Baltimore contract in 2021 should not be referred to as a “worst case scenario.”</p>	<p>The Disposal section of Chapter IV has been edited to clarify that the “worst case scenario” reference is strictly in terms of remaining capacity at the Eastern Sanitary Landfill (ESL).</p>
<p>4. The Plan should include a visual that illustrates the proportion of County trash being sent to Wheelabrator Baltimore vs. ESL.</p>	<p>A pie chart has been added to Chapter III to illustrate this information.</p>
<p>5. Table IV-3 should account for the ash being brought to ESL from Wheelabrator Baltimore.</p>	<p>Table IV-3 has been edited to add the projected amount of ash from Wheelabrator Baltimore for 2016-2021.</p>
<p>6. The Plan should include a more definite push toward curbside food scraps composting collection.</p>	<p>The consideration of a food scraps composting program was already included in the January 2018 draft Plan; however, this section of Chapter V has been edited to emphasize that an even more important goal is to <i>reduce</i> the generation of food waste to begin with, which will be a priority during the planning period.</p>

Summary of Issue	Bureau Response/Resolution
7. The County should collect items such as sports equipment at the drop-off centers for reuse.	Chapter V's Waste Minimization Recommendations have been edited to add the consideration of accepting a wider variety of reusable items at County drop-off centers for donation.
8. The County should accept a wider variety of items for recycling (by updating the sorting equipment if necessary).	In Chapter IV, the Processing and Marketing of Recyclables section has been edited to add that "the County will also update or modify equipment to expand the range of materials accepted for recycling, with appropriate consideration to costs (especially sorting costs), environmental impact, and strength of markets."
9. The County should use mechanical material recovery processes to remove more recyclables from the waste stream.	While the County will continue to monitor the progress of this technology and consider adaptation in the future, this recommendation will not be added to the current draft Plan.
10. The County should make efforts to eliminate glass contamination of recyclables and spur the local glass recycling market.	Consistent with the recommendation in Chapter V, which already states "[t]he County will seek to maximize the cost-effectiveness of its MRF in the future, which will entail maintaining and improving the MRF during the ten-year planning period," the County will continue to consider options to improve the processing and marketing of glass.
11. The County needs to clarify whether the cubic yards calculation in Table IV-3 accounts for settling in the landfill.	A note has been added to Table IV-3 to clarify that "settling is added to available airspace that can be utilized to meet the final grading plans every year the landfill is surveyed."
12. The County should ban problem materials such as single-use plastic utensils, polystyrene, and plastic bags.	Chapter V's Other Recommendations have been edited to add a new item – "[p]ursue or support statewide legislation that would impose a ban on retailers using or distributing at least some 'problematic' plastic items in certain situations."
13. The County should prohibit its tire recycling vendor from burning tires (otherwise referred to as "tire-derived fuel").	The County declines to prohibit this State-sanctioned method of processing tires; therefore, this recommendation will not be added to the current draft Plan.
14. The County should adopt the "Zero Waste Hierarchy" (which does not include incineration as an option) vs. the EPA's Waste Management Hierarchy.	The County believes that the EPA's Waste Management Hierarchy better reflects a practical environmental and fiscal balance than the Zero Waste Hierarchy, which completely precludes consideration of resource recovery. Therefore, this recommendation will not be added to the current draft Plan.

Summary of Issue	Bureau Response/Resolution
15. The Plan should include an analysis in Table IV-3 of how much landfill space would be preserved if the County adopted “zero waste” measures.	See response to #14.
16. The County should require “e-Stewards Certification” of any companies handling its electronic waste.	Chapter III has been edited to clarify that “any vendor contracted to collect and process electronics for the County is required to have R2 and/or e-Stewards certification as an assurance of the vendor’s environmental stewardship.”
17. The County should change to a “pay as you throw” system for residential trash disposal.	While Baltimore County has considered (and may consider in the future) different options for trash collection programs, there is already a sufficient array of recommendations in the January 2018 draft Plan that focus on preventing trash generation and increasing recycling. Furthermore, few communities in Maryland currently have “pay as you throw,” and administering such programs is complicated and challenging. As a result, this recommendation will not be added to the current draft Plan.
18. In the Plan, the County should more firmly pledge to distribute large recycling containers to homes.	For the purpose and scope of this draft Plan, this item is already addressed to a sufficient degree under Chapter V’s Recycling Recommendations, which includes the intention to “[c]onsider distribution of large recycling containers to County residents living in single family homes and town homes.”
19. The County should set higher recycling and waste diversion goals.	The Baltimore County-set voluntary recycling goal stated in the January 2018 draft Plan (45%) already exceeds the minimum required by the Maryland Recycling Act (35%). The draft Plan also includes the intention to attain the maximum source reduction credit (currently 5%) each year. The County believes that the recycling and waste diversion goals included in the draft Plan strike a practical balance between environmental and fiscal factors. Therefore, the draft Plan was not edited based on this recommendation.
20. The County should mandate building deconstruction (vs. demolition).	Expanding the County Bureau of Solid Waste Management’s focus beyond the residential sector would require substantial additional funds and resources, particularly for initiatives that would require enforcement efforts. Therefore, this recommendation will not be added to the current draft Plan.

Summary of Issue	Bureau Response/Resolution
21. The County should biologically treat waste prior to landfilling to stabilize it and reduce odors.	This suggestion goes well beyond what is necessary and would add substantial additional costs. Therefore, this recommendation will not be added to the current draft Plan.
22. The County should fulfill every item on the MDE Source Reduction Checklist (not just the minimum needed for five percent credit).	In Chapter V of the January 2018 draft Plan, the County notes its intention to continue achieving the maximum source reduction credit each year (and historically, the County has completed additional checklist items beyond the minimum needed to earn five percent credit). Believing this to be a reasonable and sufficient goal, the County did not make any additional edits to the draft Plan on this topic.
23. The County should encourage the development of reuse and repair centers in Baltimore County.	The County already does so through the publication of a comprehensive Reuse Directory every two years, which is described in the current draft Plan’s Chapter III – Residential Materials.
24. The County should make commercial recycling mandatory.	Expanding the County Bureau of Solid Waste Management’s focus beyond the residential sector would require substantial additional funds and resources, particularly for initiatives that would require enforcement efforts. In Chapter V of the January 2018 draft Plan, the Recycling Recommendations already include the intention to “promote recycling in the commercial and institutional sectors generally.” The County believes this to be a sufficient recommendation on this topic, and did not make any additional edits to the Plan.
25. The County should use “tons per capita” as the metric for solid waste.	In Chapter V, the Waste Minimization Recommendations already use “tons per capita” as a metric for trash generation goals. The County expects to continue using this metric for both trash and recycling during the planning period.
26. The County should specify that the landfill tipping fee can only be increased, not decreased.	Chapter V’s Landfilling Recommendations include an item to “[r]eassess the commercial tipping fee (currently \$100 per ton), and other fees, at the County’s solid waste acceptance facilities as needed.” The County believes this to be a sufficient recommendation on this topic, and did not make any additional edits to the draft Plan. Note that over the previous 10-year planning period, the tipping fees have only increased, not decreased.

Summary of Issue	Bureau Response/Resolution
27. The County should start collecting recycling from businesses.	Expanding the County Bureau of Solid Waste Management’s focus beyond the residential sector in this way would require substantial additional funds and resources. In many cases, the private sector is already handling recycling collection services adequately. Therefore, this recommendation will not be added to the current draft Plan.
28. The Plan should include detailed lease information for the model airplane groups using the County’s closed landfill sites.	Chapter V’s Other Recommendations already mention that creative uses of its closed landfills include “providing runway and flight space for model aircraft and installing solar panels.” Given the scope of the Plan, the County believes this to be a sufficient level of detail to include on this topic, and did not make any additional edits to the draft Plan.
29. The Plan should include a specific list (created by the County’s Department of Recreation and Parks) of 100 possible locations for recycling containers at County parks and ball fields.	Chapter V’s Recycling Recommendations already include an item to expand recycling opportunities in Baltimore County parks. This recommendation has been edited to add a reference to this list of 100 possible container locations, and the full list of sites has been added to the Plan as Appendix C.
30. The County should strengthen its “buy recycled” procurement requirements.	Chapter V’s Waste Minimization Recommendations already include the statement that “the Bureau of Solid Waste Management should encourage revisions to the County’s buy recycled program” and encourages meeting (or exceeding) federal standards as practical guidelines. The County believes this to be a sufficient recommendation on this topic, and did not make any additional edits to the Plan.
31. The County should pursue legislation for mandatory commercial waste tonnage reporting.	While the County would welcome the ability to more accurately track tonnages of privately hauled commercial trash, a higher priority is the improvement of commercial <i>recycling</i> tonnage reporting. As such, Chapter V’s Other Recommendations have been edited to add the item “[p]ursue or support statewide legislation to mandate commercial/institutional recycling reporting, aiming for reasonable requirements that fully take the needs of businesses and institutions into account.”

Appendix E

Heated Area	Owner Name	Address				
236,460	11311 MCCORMICK LLC	11311	MCCORMICK	RD	HUNT VALLEY MD	21031-0000
150,730	9515 DEERECO ROAD LLC	9515	DEERECO	RD	TIMONIUM MD	21093-0000
199,113	BLACK & DECKER MANUFACTURING CO	703 E	JOPPA	RD	BALTIMORE MD	21286-0000
215,667	DULANEY CENTER BUSINESS TRUST	901	DULANEY VALLEY	RD	BALTIMORE MD	21204-0000
162,456	EXECUTIVE PLAZA LLC	0	SCHILLING	CIR		0 -0000
157,854	FALLSTON MEDICAL COMPLEX	409	WASHINGTON	AVE	BALTIMORE MD	21204-4920
194,598	GARRISON TOWSON LLC	0	YORK	RD	BALTIMORE MD	21204-0000
196,872	HUNT VALLEY 1031	11333	MCCORMICK	RD	HUNT VALLEY	21031-1001
206,429	INTERNATIONAL CIRCLE PARTNERS INC	307	INTERNATIONAL	CIR	COCKEYSVILLE MD	21030-0000
218,049	KATEWOOD DEERWOOD LLC	940	RIDGEBROOK	RD	SPARKS	21152-9390
190,501	MASS TRANSIT ADMINISTRATION	0	GRAND CENTRAL	AVE	OWINGS MILLS MD	21117-
177,928	MERRITT/BAVAR-TD2 LLC	1954	GREENSPRING	DR		0 -0000
151,263	SCHILLING PEPPER LOT 21	111	SCHILLING	RD		0 -0000
188,082	SFV YORK ROAD LLC	10150	YORK	RD	COCKEYSVILLE MD	21030-0000
157,524	TOWSON CITY CENTER LLC	1	OLYMPIC	PL	BALTIMORE MD	21204-0000
182,430	TRP SUBURBAN SECOND INC	8870	MCDONOGH	RD	OWINGS MILLS MD	21117-0000
221,090	TRP SUBURBAN SECOND INC	8870	MCDONOGH	RD	OWINGS MILLS MD	21117-0000
557,642	UNITED STATES OF AMERICA	0	SECURITY	BLVD		0 -0000
883,140	UNITED STATES OF AMERICA	0	SECURITY	BLVD		0 -0000
320,000	VERIZON MARYLAND MERGE CO	99	SHAWAN	RD	COCKEYSVILLE MD	21030-1301