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BOARD OF COUNTY COMMISSIONERS
August 17, 2021
OPEN SESSION AGENDA

9:30 AM MOMENT OF SILENCE AND PLEDGE OF ALLEGIANCE
CALL TO ORDER, *President Jeffrey A. Cline*
APPROVAL OF MINUTES: August 10, 2021

9:35 AM CLOSED SESSION (*To discuss the appointment, employment, assignment, promotion, discipline, demotion, compensation, removal, resignation, or performance evaluation of appointees, employees, or officials over whom this public body has jurisdiction; or any other personnel matter that affects one or more specific individuals; and to consider the acquisition of real property for a public purpose and matters directly related thereto.)*

RECONVENE IN OPEN SESSION

9:50 AM COMMISSIONERS' REPORTS AND COMMENTS

9:55 AM STAFF COMMENTS

10:00 AM CITIZEN PARTICIPATION

10:05 AM DISCUSSION TO REVIEW DEMOLITION PERMIT REVIEW POLICY
Linda Irvin-Craig, Co-Chair, Historic Advisory Committee; Ralph Young, Co-Chair, Historic Advisory Committee; Tom Clemens, Historic District Commission

10:20 AM INTERGOVERNMENTAL COOPERATIVE PURCHASE (INTG-21-0066): ONE CAB/CHASSIS WITH DUMP BODY FOR WATER QUALITY
Rick Curry, Director, Purchasing; Mark Bradshaw, Director, Environmental Management

10:25 AM PREMIUM PAY - COVID-19; AMERICAN RESCUE PLAN FUNDS
Larry Etchison, Director, Human Resources; Sara Greaves, CFO; John Martirano, County Administrator

10:35 AM DISCUSSION: REMOTE WORK POLICY
Larry Etchison, Director, Human Resources

10:45 AM APPROVAL OF AMERICAN RESCUE PLAN ACT FUNDS & REALLOCATION OF BUDGET FOR INSURANCE MANDATED CYBERSECURITY IMPROVEMENTS
Joshua O'Neal, Director, Information Systems

10:50 AM COMMUNITY ORGANIZATION FUNDING – SERVICE PRIORITY AREAS & ELIGIBLE EXPENSES FOR FY2023
Susan Buchanan, Director, Office of Grant Management

11:00 AM **PUBLIC HEARING:** 2022-2031 SOLID WASTE AND RECYCLING PLAN – *Travis Allen, Comprehensive Plan, Planning & Zoning*

11:15 AM ADJOURNMENT

Board of County Commissioners of Washington County, Maryland

Agenda Report Form

Open Session Item

SUBJECT: Discussion to Review Demolition Permit Review Policy

PRESENTATION DATE: August 17, 2021

PRESENTATION BY: Linda Irvin-Craig, Co-Chair, Historic Advisory Committee (HAC); Ralph Young, Co-Chair, Historic Advisory Committee; Tom Clemens, Historic District Commission (HDC)

RECOMMENDED MOTION: Consensus to revise the Demolition Permit Review Policy and all appropriate local Ordinances to include 1) a requirement for historical documentation of a structure as part of a demolition permit; 2) inclusion of a 90-day feasibility period after the recommendation of the Historic District Commission (HDC) to define alternatives to demolition; and 3) establish a fine to deter premature demolition.

REPORT-IN-BRIEF: The existing policy regarding demolition permit review by the HDC was adopted by the Board of County Commissioners in January 1989. Since then it is the opinion of both the Historic District Commission and the Historic Advisory Committee that the policy has often been ineffective in preventing or delaying demolition of significant historic structures and to allow an opportunity to find alternatives to demolition. The potential revisions to the policy are recommended by the HDC and HAC to create those opportunities to discover and employ alternatives which will allow retention and rehabilitation of structures that are important to the representation and interpretation of Washington County's rich cultural heritage.

DISCUSSION: There are three area of priority that have been delineated by these boards to help preserve Washington County's historic and cultural heritage. These priority topics are designed to keep a complete and up to date inventory, allow time to work with property owners to seek alternatives to demolition, and implement deterrents to premature demolition. The revisions to the policy will not completely prevent demolition but it may help save and preserve several of our significant historical and cultural resources.

FISCAL IMPACT: N/A

CONCURRENCES: Historic District Commission, Historic Advisory Committee

ALTERNATIVES: Retain current policy

ATTACHMENTS: Current Demolition Review Policy; Demolition Support Document

Demolition Support Document for Historic District Commission and Historic Advisory Committee

Part of the duties of the Historic District Commission outlined in the Zoning Ordinance include:

1. Review applications (Section 20.6-Historic Preservation, Section 5D.4-Rural Village and Section 20A-Antietam Overlay
2. Review and make recommendations regarding legislation, applications for zoning text or map amendments, special exceptions, variances, site plans, subdivisions or other proposals affecting historic preservation.
3. Recommend programs and legislation to the Board of County Commissioners and Planning Commission to encourage historic preservation
4. Serve as a clearing house for information, provide educational materials and info to the public and undertake activities that advance the goals of historic preservation
5. Development of additional duties and standards. For example, criteria to be used in the review of building and demolition permit applications
6. **Prepare, adopt, publish and amend any additional guidelines to provide adequate review materials for applications including HP, demolition and building permits**
7. Oversee the maintenance and updating of the inventory of Washington County Historic Sites Reference: Section 20.3 Historic District Commission Duties and Powers (Zoning Ordinance)

Some key points or thoughts to expand upon:

1. Washington County should continue to pursue development and retention of historic resources. We are not one or the other. We need both to be a place where people want to live.
2. Washington County's unique history drives tourism.
3. The historic resources that support the many narratives of the County should be protected within reason.
4. Not all old structures are historic. Not all historic structures can be retained but ample time should be allowed to evaluate and document historical sites and/or structures. E.g.: Log house recently uncovered on Jonathan Street prior to demolition.
5. County staff is not qualified to provide documentation services. There are small business resources available locally that are qualified.

Some initiatives being pursued outside of this discussion:

1. Promotion of the County Tax Credit program as it is, including having it more prominently available on the County's website.
2. Exploring the expansion of the County Tax Credit program
3. Education initiatives regarding topics such as tax credits with special interest groups such as realtors, builders, and owners of historic properties.
4. Improvements to the information available to property owners regarding historic properties in Washington County .
5. Targeted mailings to historic property owners who may qualify or wish to become qualified for historic tax credits through seeking specific designations for HP.
6. Updates to, and expansion of, the Historic Sites Survey inventory, including status of structures and the addition of current photographs.

Priority 1 – Documentation

Who: The Historic District Commission would require the permit applicant to provide documentation. In some cases documentation may require the support of a licensed professional such as an architect, historian, engineer or surveyor. Requiring documentation is consistent with all other applications for plan review in Washington County.

What: Documentation would include the information required for review of building permits or site plans in the HP or AO zoning overlays and historic Rural Villages. The information includes-scale drawings, documentation of historic data/significance and property history. Additional documentation may include photographs of the interior/exterior of the property and documentation of explored alternatives to demolition.

When: Documentation would be completed PRIOR to permit application and would be provided at the time of demolition permit application. Documentation may not be required in cases where demolition permit request is a result of unanticipated events such as accidental fire or natural disasters like flood or extreme storm damage. In cases where the entire structure is not completely destroyed, documentation to record what is left may serve the records for the property.

Where: Documentation would be required for all demolition requests that involve a property on the County's inventory of historic resources or any property more than 50 years old in the Antietam Overlay (AO) or Rural Village (RV) Zoning Designations in Washington County Maryland.

Why: Documentation prior to permit application achieves the following goals:

1. *Ensures a timely and equitable review of the demolition permit. Documentation guidelines can be applied consistently to application review by staff before the application is scheduled for the HDC agenda and all applications will have the same level of documentation for decision making.*
2. *Provides an update to existing documentation for both staff and the Historic District Commission members to see any changes since the last time the property was documented.*
3. *Ensures that the HDC can request additional documentation, if needed, to support the applicant's requested permit.*
4. *If the property is to be demolished, documentation prior to application will ensure that the Maryland Inventory of Historic Properties and Washington County records can be updated accordingly*

There are 4132 resources in Washington County listed by Maryland Historic Trust. There are approximately 69,000 addresses in Washington County. That's less than 6% of structures in the County.

Demolition Permits Issued by Calendar Year*:

Calendar Year	Demolition Permits Issued	Demolition Permits Reviewed by HDC/Staff	Percent of Demo Permits Reviewed by HDC/Staff
2019	70	3	4%
2018	35	7	20%
2017	43	9	21%
2016	43	6	14%
2015	45	8	18%

*Source: Accela Automation – Reports – Permits – Reports: Permit Issuance – Demo & Comprehensive Planning – Historic – Review Activities

Priority 2 – 90 Day Feasibility of Alternatives

Who: The Washington County Historic District Commission and the permit applicant would enter into this 90-day feasibility of alternatives.

What: As part of increased documentation, demolition permits would be accompanied by a narrative/supporting documents outlining why demolition alternatives are not feasible to the permit applicant. The Commission would have ninety (90) days, from the time it concludes that no economically feasible plan can be formulated, to negotiate with the owner and other parties to find a means of preserving the site or structure. This 90-day period may include posting of the property. Washington County Historic District Commission currently encourages demolition alternatives as listed in order of priority below:

1. *Redesigning the project to avoid any impact to the structure or its setting;*
2. *Incorporating the structure into the overall design of the project;*
3. *Converting the structure into another use (adaptive reuse);*
4. *Relocating the structure on the property;*
5. *Relocating the structure to another property;*
6. *Salvaging from the structure, historically significant architectural features and building materials;*
7. *Documenting the structure as a whole and its individual architectural features in photographs, drawings and/or text.*

When: This 90-day period would begin after the Historic District Commission issues a decision against demolition and could run concurrently with additional County board reviews such as the Planning Commission and Board of County Commissioners.

Where: This 90-day period would potentially apply to any demolition permit application that includes any property on the County's inventory of historic resources or is more than 50 years old in the Antietam Overlay (AO) or Rural Village (RV) Zoning Designations.

Why: This 90-day period after completion of permit review achieves the following goals:

1. *This is a conversation starter. The current 45-day review period does not provide enough time to have conversations with all partners in historic preservation to find alternatives to save the structure or site. The feasibility of demolition alternatives is often revised when more parties become aware of the structure's situation thereby increasing the chances that one or more of the demolition alternatives can be utilized.*
2. *As a Maryland Certified Local Government (CLG), this 90-day period would be consistent with current ordinance language established after Washington County became certified and would maintain our local status.*

Priority 3 – Deterrents to Premature Demolition

What we have now - $100/day Civil Citation if demolition occurs without a permit

1. The Historic District Commission has no way to deter demolition without a permit or premature demolition. Premature demolition occurs when an owner/applicant applies for a demolition permit but proceeds with the demolition before the permit is issued. This has happened twice in the last 12-month period with permits under review by the Historic District Commission.
2. A $100/day Civil Citation is a reaction to a completed demolition and is rarely enforced. This civil citation is effective for-building violations during construction. It is not effective for demolition because the citation will not cover the costs to replace or document the structure after it is already lost.

Proposed Deterrents to Premature Demolition

1. Create a mechanism for the HDC to issue fines for demolition without a permit as opposed to civil citations.
2. Establish a fine of up to $5000.
3. Impose a new construction moratorium for a minimum of 1 year when demolition without a permit or demolition by neglect has occurred.

Proposed Benefit of Deterrents

Dedicate use of any generated fines for historic preservation initiatives such as updating the Historic Sites Survey, documentation assistance or grant matching funds.

Why do we need to explore deterrents?

Our current available option of $100/day civil citation is not a viable mechanism to deter premature demolition. It is important to remember some key facts about historic buildings:

1. Old buildings have intrinsic value.
2. When you tear down an old building, you never know what's being destroyed.
3. New businesses prefer old buildings.
4. Old buildings attract people.
5. Old buildings are a reminder of a county's culture and complexity.
6. **Regret goes only one way.**

-National Trust, Six Practical Reasons to Save Old Buildings

Open Session Item

SUBJECT: Intergovernmental Cooperative Purchase (INTG-21-0066) – One (1) Cab/Chassis w/ Dump Body for the Department of Water Quality (DWQ)

PRESENTATION DATE: August 17, 2021

PRESENTATION BY: Rick Curry, CPPO, Director, Purchasing Department and Mark Bradshaw, Division Director, Environmental Management

RECOMMENDED MOTION: Move to authorize by Resolution, DWQ to purchase one (1) 6x4 Mack cab/chassis with a dump body from Baltimore Truck Center, Inc. of Hagerstown, MD. The cost of the truck is $171,557 and to utilize another jurisdiction's contract (#060920-MAK) that was awarded by Sourcewell.

REPORT-IN-BRIEF: DWQ is requesting to purchase one (1) dump truck to replace a truck that is twenty-three (23) years old and exceed the County's Vehicle and Equipment Types and Usage Guidelines. The County's replacement guidelines for vehicles greater than 33,000 lbs. GVWR is recommended at a ten (10) year economic life cycle. The replaced trucks will be advertised on GovDeals.com for auctioning.

The Code of Public Laws of Washington County, Maryland (the Public Local Laws) §1-106.3 provides that the Board of County Commissioners may procure goods and services through a contract entered into by another governmental entity, in accordance with the terms of the contract, regardless of whether the County was a party to the original contract. Sourcewell took the lead in soliciting the resulting agreement. If the Board of County Commissioners determines that participation by Washington County would result in cost benefits or administrative efficiencies, it could approve the purchase of the trucks in accordance with the Public Local Laws referenced above by resolving that participation would result in cost benefits or in administrative efficiencies.

The County will benefit with direct cost savings in the purchase of the truck because of the economies of scale this buying group leveraged. I am confident that any bid received as a result of an independent County solicitation would exceed the spend savings that the Sourcewell provides through this agreement. Additionally, the County will realize savings through administrative efficiencies as a result of not preparing, soliciting and evaluating a bid. This savings/cost avoidance would, I believe, be significant.

DISCUSSION: N/A

FISCAL IMPACT: Funds are budgeted in DWQ's Capital Improvement Plan (CIP) account 32-42010 (VEH010) for the purchase.

CONCURRENCES: N/A

ALTERNATIVES: 1. Process a formal bid and the County could possibly incur a higher cost for the purchase, or 2. Do not award the purchase of the dump truck.

ATTACHMENTS: Baltimore Truck Center, Inc. quote.

MACK

Sourcewell
Awarded Contract
Contract #080720-MAK

July 13, 2021

CUSTOMER QUOTATION

Washington County Maryland – Sourcewell Member # 18599

100 West Washington Street

Hagerstown MD 21740

Baltimore Truck Center provides the following vehicle(s) for your consideration:

(1) New 2023 Model Year Mack Granite 6x4 (GR64F) ,

- Ne MP8 455 HP / 1760 Torque Maxi-Dyne Engine
- Allison 4500 RDS Automatic Transmission
- 20,000 pound Mack Front Axle with Dual Steering boxes
- 46,000 Pound Mack Rear Axles on Mack mRide Suspension
- 197" Wheelbase
- Bridgestone Tires on Alcoa Aluminum Wheels
- 14 foot J&J Dump Body Package with trailer connections.
- Complete Chassis and body specifications provided in accompanying pages.

	One Unit (1)
Chassis List Price	$ 202,259
Member Discount Factor	61.47%
Total Discount from List	$ (77,930)
Sourcewell Customer Chassis Price	$ **124,329**
Sourced Goods	
Prep	$ 1,100
Body	$ 41,481
Added Protection Plans	$ 4,632
Subtotal for Sourced Goods	$ 47,213
Total – Chassis plus Sourced Goods =	**$ 171,557**

Board of County Commissioners of Washington County, Maryland

Agenda Report Form

Open Session Item

SUBJECT: Premium Pay for COVID-19 – American Rescue Plan Act

PRESENTATION DATE: August 17, 2021

PRESENTATION BY: Larry Etchison, Director Human Resources; Sara Greaves, Chief Financial Officer; John Martirano, County Administrator

RECOMMENDED MOTION: To provide a consensus or direction on a path forward as it relates to premium pay for Employees.

REPORT-IN-BRIEF: The American Rescue Plan Act provides Federal funding allowing State and Local Governments who provided essential services during the height of the COVID-19 pandemic to provide premium pay to Workers. As stated in the interim final rule, Workers may not receive premium pay for work performed in a telework or remote work capacity.

The County has not provided any hazard or premium pay to Employees during the pandemic. However, certain provisions were made, where possible, for the safety of our Employees. Employees who could work remotely were mandated to do so. In some cases, rotating shifts were implemented to reduce the number of Employees on site at any one time. This was done in the best interest of the health and safety of our Staff. However, as all of the County's essential services could not be provided through remote work options, this accommodation was not provided to all Employees.

The purpose of the premium pay is to compensate those Employees who faced heightened exposure and risk of COVID-19 by reporting to their onsite work locations to perform their job duties. The following proposal is being presented for your consideration and provides an equitable path for disbursement based on individual on site work requirements.

Full-time				
On Site Work performed Through 3/7/2020-3/5/21	**Average Equivalent Hours**	**% of pay**	**$ 3,000**	**$ 5,000**
100% On-Site Work	40+ hours per week	100%	$ 3,000	$ 5,000
75%-99.99% On-Site Work	30-39.99 hours per week	75%	$ 2,250	$ 3,750
50% - 74.99% On-Site Work	20-29.99 hours per week	50%	$ 1,500	$ 2,500
25% - 49.99% On-Site Work	10-19.99 hours per week	25%	$ 750	$ 1,250
10%-24.99% On-Site Work	4.0-9.99 hours per week	10%	$ 300	$ 500
0%-9.99% On-Site Work	0-3.99 hours per week	0%	$ -	$ -

Part-time				
On Site Work performed Through 3/7/2020-3/5/21	**Average Equivalent Hours**	**% of pay**	**$ 2,250**	**$ 3,750**
100% On-Site Work	30+ hours per week	100%	$ 2,250	$ 3,750
75%-99.99% On-Site Work	22.5-29.99 hours per week	75%	$ 1,688	$ 2,813
50% - 74.99% On-Site Work	15-22.4 hours per week	50%	$ 1,125	$ 1,875
25% - 49.99% On-Site Work	7.5-14.99 hours per week	25%	$ 563	$ 938
10%-24.99% On-Site Work	3-7.44 hours per week	10%	$ 225	$ 375
0%-9.99% On-Site Work	0-2.99 hours per week	0%	$ -	$ -

This benefit is proposed to be limited to currently employed personnel as of the date of disbursement. This benefit would be for eligible full time and part time personnel based on hours worked on site. This benefit would be taxable. On-site hours will be certified by both the employee and the supervisor and approved by functional Directors. On-site hours will be calculated by the total hours worked on site for the annual period, divided by 52 weeks to determine a weekly average.

FISCAL IMPACT: American Rescue Plan Funding - not to exceed $2.6 million for a $3,000 payment or $4.3 million for a $5,000 payment.

CONCURRENCES: Not applicable

ALTERNATIVES: Not Applicable

ATTACHMENTS: Not Applicable

AUDIO/VISUAL NEEDS: Not applicable

Open Session Item

SUBJECT: Remote Work Policy

PRESENTATION DATE: August 17, 2021

PRESENTATION BY: Laurence "Larry" Etchison, Director of Human Resources

RECOMMENDED MOTION: To provide a consensus or direction on a path forward as it relates to the development and implementation of a Remote Work Policy.

REPORT-IN-BRIEF:

According to a well-referenced Findstack.com online article https://findstack.com/remote-work-statistics/ , offering Employees remote work opportunities has many Employer advantages:

1. **Talent Acquisition** - 64% of Recruiters say that being able to pitch a remote work policy helps them find high-quality talent. Adding a remote work option into our total compensation package improves our ability to attract outstanding Candidates without increasing Citizen and Taxpayer costs.
2. **Retention -** 74% of Workers say that having a remote work opportunity would make them less likely to leave a company. In 2017, there was a 50% decrease in resignations in companies that allowed remote work.
3. **Increased Compensation Satisfaction -** 69% of millennials would give up on certain work benefits for a more flexible working space. Employees also benefit from reduced commuting costs which can equal hundreds (if not thousands) of dollars annually.
4. **Post Pandemic Remote Work Acceptance -** By 2028, 73% of all organizations are expected to have Remote Workers. Employer costs associated with traditional "brick and mortar" workspaces (maintenance, utilities, insurance, etc.) will diminish.

According to a Gallop ® April 2020 – April 2021 Remote Work Study, approximately seven (7) in ten (10) Clerical or General Office, Computer, Engineering, Financial, Legal, Media and Social Services Workers continue to work remotely ten percent (10%) of the time or greater.

FOUNDATIONAL REMOTE WORK POLICY SCOPE

Working remotely permits eligible Employees to work offsite at an alternate location for all or part of their workweek. Working remotely is not an entitlement and shall only be implemented when the needs of Washington County Government (hereafter referred to as "the County") are met or exceeded. It is within the sole and absolute discretion of the County to determine which positions are suitable for remote work and which Employees within those positions are eligible for remote work based on numerous factors including, but not limited to, the Employee's attendance, work performance and work behavior.

FISCAL IMPACT: The short-term fiscal impact is negligible. However, the middle to long term fiscal impact should be favorable.

CONCURRENCES: Mr. John Martirano, County Administrator

Board of County Commissioners of Washington County, Maryland

Agenda Report Form

Open Session Item

SUBJECT: Approval of ARPA funds and reallocation of budget for insurance mandated cybersecurity improvements

PRESENTATION DATE:

PRESENTATION BY: Joshua O'Neal, Division Director of Information Systems

RECOMMENDATION: Approve allocation of ARPA funds for the implementation of storage systems for disaster recovery, re-prioritize operating funds to cybersecurity improvements required to maintain current insurance coverage.

REPORT-IN-BRIEF: Request approval to allocate $175,000 in ARPA (American Rescue Plan Act) funding to establish a backup storage site utilizing equipment from the County's preferred storage vendor. This will offer the County additional protection and resiliency for systems essential to tele-working and continuity of business. Request to re-prioritize the funds previously allocated to the planned disaster recovery site to be utilized for costs related to the implementation of multi-factor authentication in the amount of $100,000, which is required by the County's insurance carrier to maintain our existing levels of coverage. The remaining $75,000 is to remain in the operating budget to cover any other expenses related to the implementation of the disaster recovery site (not requested at this time)

DISCUSSION: A planned establishment of a storage system capable of handling all of the County's storage requirements in the event of a failure, disaster, or cybersecurity incident was included in the FY22 budget at an estimated cost of $175,000. Federal ARPA funding is now available which can be utilized for this disaster recovery system. This request will allocate the $175,000 in ARPA funds to the project, returning $175,000 to the operating budget for other costs. Last minute changes to the County's cybersecurity insurance provider mandate the implementation of MFA (multi-factor authentication) for all financial systems, remote access, and email systems. These expenses, not included in the FY22 budget, are projected to cost $100,000 to implement. Of the $175,000 returned to the operating budget by allocating ARPA funds to disaster recovery, $100,000 will be re-prioritized to cover these MFA implementation costs, while the remaining $75,000 will be returned to the operating budget to cover future expenses that may be required as part of the disaster recovery implementation, but not covered by the ARPA grant.

FISCAL IMPACT: $175,000 ARPA funding request; Reallocation of $100K from disaster recovery efforts to MFA implementation.

CONCURRENCES: Sara Greaves Chief Financial Auditor, Laurence Etchison, SPHR, Director, Human Resources

ATTACHMENTS: Budget adjustment

Washington County, Maryland
Budget Adjustment Form

Print Form

(•) Budget Amendment - Increases or decrease the total spending authority of an accounting fund or department

( ) Budget Transfer - Moves revenues or expenditures from one account to another or between budgets or funds.

Transaction/Post -Finance	
Deputy Director - Finance	Kelcee Mace Digitally signed by Kelcee Mace Date: 2021.08.09 14:38:52 -04'00'
Preparer, if applicable	

Department Head Authorization		Required approval with date	
Division Director / Elected Official Authorization		If applicable with date	
Budget & Finance Director Approval		Required approval with date	
County Administrator Approval		Required approval with date	
County Commissioners Approval		Required > $ 25,000 with date	

Expenditure / Account Number	Fund Number	Department Number	Project Number	Grant Number	Activity Code	Department and Account Description	Increase (Decrease) + / -
515180	10	11000				IT - Software	100,000
600600	10	11000				IT - Computer Equipment/Software	-100,000
495100	10	12800		GRT250	FEDR	American Rescue Plan Act	175,000
600600	10	12800		GRT250	FEDR	Computer Equipment/Software	175,000

Explain Budget Adjustment: As a response to the COVID-19 pandemic, tele-working, and increases from cyber attacks nationwide, we are requesting to utilize ARPA funding for Pure Storage back up site replication node for county infrastructure protection. We request to re-prioritize those funds to be utilized for costs related to multi factor authentication, a county initiative.

Required Action by County Commissioners: ( ) No Approval Required (•) Approval Required

Approval Date if Known:

Board of County Commissioners of Washington County, Maryland

Agenda Report Form

Open Session Item

SUBJECT: Community Organization Funding - Service Priority Areas and Eligible Expenses for Fiscal Year 2023

PRESENTATION DATE: August 17, 2021

PRESENTATION BY: Susan Buchanan, Director, Office of Grant Management

RECOMMENDED MOTION(S): Move to approve the Community Organization Funding Service Priority Areas and their respective available funding amounts as presented (or amended).

REPORT-IN-BRIEF: The Community Organization Funding Committee is preparing for the fiscal year 2023 application and review process. As agreed upon, the Board of County Commissioners shall annually determine and approve the service priority areas eligible to receive funding consideration. The Board shall also set or approve the total available funding that should be dedicated to each established service priority area. In addition, discussion regarding allowing the eligibility of capital expenses will be revisited.

DISCUSSION: Historically the Board has funded six (6) service priority areas which are: Arts & Culture, Domestic Violence, Families and Children, Recreation, Seniors and Other. These service priority areas have encompassed and included all applications received and have not excluded an organization from making application for funding.

For the purposes of the Committees fiscal year 2023 considerations, Washington County's Chief Financial Officer has indicated $774,000 is available for distribution. This amount is unchanged from FY22. This total is subject to adjustment as the fiscal year 2023 budget is discussed.

It is the recommendation of the County's CFO and Director of the Office of Grant Management that the amount of funding made available for each respective service priority be set as indicated below. These funding amounts are the same as in FY22.

Service Priority Area	Funding Available	Percent of Available Funds
Arts & Culture	$107,810	14.0%
Domestic Violence	$306,900	39.6%
Families & Children	$255,380	33.0%
Recreation	$27,000	3.5%

Seniors	$67,110	8.7%
Other	$9,800	1.2%
Total	$774,000	100%

As previously agreed upon by the Board, the Committee does have the latitude to move ten (20) percent of the approved amounts from one service priority to another, but every year the amount of funding available for a specific service priority area will return to the approved base figure as set by the Board.

On October 22, 2019 the Board considered the inclusion of capital expenses as eligible costs funded through Community Organization Funding. After discussion, the Board voted against the inclusion of capital expenses, but requested the subject be revisited annually in August when setting the funding and service priority areas.

FISCAL IMPACT: The fiscal impact of Community Organization Funding is dependent upon funding decisions made by the Board during the annual budgetary process.

CONCURRENCES: Chief Financial Officer, Washington County, Maryland

ALTERNATIVES: The Board may amend service priorities and funding amounts and eligible expenses as deemed appropriate.

ATTACHMENTS: N/A

AUDIO/VISUAL TO BE USED: N/A

Open Session Item

SUBJECT: PUBLIC HEARING – 2022-2031 Solid Waste and Recycling Plan

PRESENTATION DATE: August 17, 2021

PRESENTATION BY: Travis Allen, Comprehensive Planner, Department of Planning and Zoning

RECOMMENDED MOTION: The purpose of this public hearing is to take public comment on the Plan. The Commissioners have the option to reach a consensus to either adopt the Plan as drafted after the public hearing closes or deliberate on the issue at a later date.

REPORT-IN-BRIEF: The purpose of the Plan is to outline Washington County's existing and future plans for solid waste management in compliance with State and Federal regulations.

DISCUSSION: Current State regulations require local governments to prepare plans that address solid waste management for a ten-year period. Solid waste management plans must also be reviewed and updated every three years. The current Washington County Solid Waste Management Plan will cover the period of 2022-2031.

The Plan is divided into five chapters in accordance with State requirements. The first chapter presents the Federal, State and local legal and institutional framework that governs solid waste management in Washington County and establishes the County's goals and objectives for this type of land use. Chapter 2 presents an overview of the demographic trends which affect the County's waste generation, summarizes zoning regulations pertaining to solid waste facilities and describes the intent of the County's current Comprehensive Plan. Chapter 3 describes the current solid waste management system operating in the County and presents data on solid waste trends and projections. Chapter 4 contains an assessment of the current solid waste management system and evaluates the need for and feasibility of alternatives to current collection, processing and disposal technologies. Chapter 5 presents an actionable plan for addressing solid waste during the ten-year period based upon the system evaluation in Chapter 4, including a schedule for implementation.

Tentative approval of the Plan was provided by the Maryland Department of the Environment on August 27, 2020. Input on the Plan from the Washington County Department of Solid Waste and Recycling, the Environmental Management Advisory Committee and the Washington County Planning Commission was received and incorporated during its drafting. The Planning Commission determined that the Plan was consistent with the County's adopted Comprehensive Plan at their July 19, 2021 meeting.

FISCAL IMPACT: N/A

CONCURRENCES: Washington County Planning Commission

ALTERNATIVES: N/A

ATTACHMENTS: 2022-2031 Solid Waste and Recycling Plan, MDE Tentative Approval Letter, Planning Commission Recommendation

AUDIO/VISUAL NEEDS: PowerPoint slide presentation

WASHINGTON COUNTY, MARYLAND

SOLID WASTE MANAGEMENT & RECYCLING PLAN

2022-2031

TABLE OF CONTENTS

I. INTRODUCTION

A. Plan Purpose and Organization

The purpose of this document is to outline Washington County's existing and future plans for solid waste management in compliance with State and Federal regulations. This document, and the public outreach that preceded its adoption, also serve as a link to inform local citizens about the County's plans for an essential public service.

Current State regulations (COMAR 26.03.03) require local governments to prepare plans that address solid waste management for a ten-year period. Solid waste management plans must also be reviewed and updated every three years. The current Washington County Solid Waste Management Plan, which covers the period of 2022-2031, was adopted by the County on _____ and approved by the Maryland Department of the Environment on _____.

The Plan is divided into five chapters in accordance with the COMAR requirements noted above. The first chapter presents the Federal, State and local legal and institutional framework that governs solid waste management in Washington County and establishes the County's goals and objectives for this type of land use. Chapter 2 presents an overview of the demographic trends which affect the County's waste generation, summarizes zoning regulations pertaining to solid waste facilities and describes the intent of the County's current Comprehensive Plan. Chapter 3 describes the current solid waste management system operating in the County and presents data on solid waste trends and projections. Chapter 4 contains an assessment of the current solid waste management system and evaluates the need for and feasibility of alternatives to current collection, processing and disposal technologies. Chapter 5 presents an actionable plan for addressing solid waste during the ten-year period based upon the system evaluation in Chapter 4, including a schedule for implementation.

B. Plan Approval Process

Plan preparation was performed by the Department of Planning and Zoning in consultation with the Department of Solid Waste and Recycling. Input was also gained from the Washington County Environmental Management Advisory Committee and a copy of the plan was routed to several outside agencies including the Health Department for their review and comment. A draft version of the Plan was also submitted to the Maryland Department of Environment (MDE) for a preliminary review.

Opportunities for public comment on the plan were offered through a variety of methods, including a public hearing held on ____ in accordance with Section 9-503 of the Annotated Code of Maryland's Environment Article. The public hearing was advertised in a newspaper of general circulation at least 14 days prior to the hearing. Notice of the hearing was also posted on the County's website with a link to the proposed plan. Revisions were made to the document in response to feedback from all the above entities.

C. Statement of Certification

This Plan is certified to have been prepared in accordance with COMAR 26.03.03.

D. Summary of Major Plan Updates

This Plan has been updated in numerous respects since the last major update to the Solid Waste and Recycling Plan occurred in 2014, aside from those amendments which have been made since 2014 in the aftermath of new State Legislation. Principally, goals, objectives and action items have been oriented to and organized according to the Solid Waste Management Hierarchy that includes methods of waste treatment ranging from source reduction to waste disposal.

In addition, there is a greater range of potential waste management solutions discussed and proposed for further study and/or implementation within Chapter 4 and Chapter 5. The 2011 Plan and 2014 updates were heavily oriented to the waste-to-energy facility that Washington County was jointly pursuing at the time with Frederick and Carroll Counties. That project ultimately did not come to fruition, which negatively affected many of the stated intentions imbedded within the prior Plan. Accordingly, this Plan provides a more open-ended list of options, many of which have been given recent extensive study by the County's Environmental Management Advisory Committee, within Chapter 4 and Chapter 5 that may be pursued by the County if promising opportunities arise to do so. The intent in doing so is to provide greater flexibility, both within scope of study undertaken within this Plan, and in its actual implementation under the constraints imposed by fiscal realities, changing material markets and many other factors.

II. BACKGROUND

Solid waste, as defined in Section 9-101 of the Environment Article, Annotated Code of Maryland, refers to "any garbage, refuse, sludge, or liquid from industrial, commercial, mining, or agricultural operations or from community activities." Solid waste management describes an integrated system of activities which provide for the collection, source separation, storage, transportation, transfer, processing, treatment, re-use, or disposal of solid waste.

The timely, cost-efficient and environmentally sound provision of these services by public and private solid waste management entities is an outgrowth of long-range planning to meet this essential community need. Washington County first developed its solid waste plan in 1979. Updates have occurred several times in the years since the original plan was written, most recently to comply with SB 370, passed by the State Legislature in 2019, concerning recycling in office buildings.

Due to a range of factors, solid waste management has become increasingly complex since the first Federal legislation to address the issue was passed in 1965. Environmental regulations at the Federal and State level have become stricter over the succeeding decades as measures to protect public health have broadened to include mitigating the impacts of an increasing range of pollutant or waste types. Citizen opposition to the siting of traditional solid waste disposal facilities, such as landfills, has grown due to concerns over impacts to neighboring communities and natural resources. Industry changes to the collection, processing and disposal of solid waste have also led to increasing volumes being exported to regional waste management facilities. These facilities are often operated by private entities that are subject to less stringent regulations and offer highly competitive rates for services that compete with those provided by public entities. While local governments wrestle with such challenges, the volume of solid waste continues to grow proportionally in response to population growth, economic trends, technological innovation and improvements to standards of living that result in greater material consumption.

Under those circumstances, the need to look beyond solid waste management practices which have previously met our needs for generations, has led local jurisdictions to look at alternative methods by which to deal with solid waste.

To that end, it's useful to understand that waste management constitutes a hierarchy of strategies by which to deal with solid waste. Most people are familiar with the simplified version of this hierarchy, which progresses from reduce, to reuse to recycle. This hierarchy is expanded upon in the figure below from the Federal Environmental Protection Agency (EPA).

As is evident from this image, the disposal of solid waste in a facility such as a landfill represents an, often necessary, but much less preferred technique for dealing with waste products. If feasible, more preferred techniques should be pursued such as source reduction in manufacturing processes, product reuse, recycling waste into raw materials that can be remanufactured into new products and the recovery of energy from non-recyclable material through various waste-to-energy processes. These processes increasingly represent viable alternatives to landfill disposal of solid waste which help to preserve the useful life of existing facilities that represent major capital investments for local communities.

Washington County acknowledges the need to continue evaluating the feasibility of pursuing such alternatives in an ever-changing economic and regulatory environment. Therefore, while landfill disposal will continue to play an important role in solid waste management in Washington County during the ten-year period covered by this plan, due to ample existing capacity, it is not the sole method by which the County will manage its solid waste. This plan presents the County's comprehensive vision for managing solid waste in support of its long-range land use planning goals and in accordance with State and Federal regulations.

Chapter 1

County Goals, Objectives, Policies

and Programs

Solid Waste Management and Recycling

I. Chapter Overview

This chapter describes the legal and institutional framework of solid waste management in Washington County. The County's goals, objectives and policies for solid waste management are illuminated within the context of this plan and in conformance with State and local plans and programs affecting this type of land use. The structure of County government as it relates to environmental management, including solid waste and recycling is described. Relevant Federal, State and local agencies, laws and regulations that significantly affect the planning, establishment and operation of solid waste facilities in Washington County are also discussed.

II. Goals, Objectives and Policies Established by This Plan

A. Goals, Objectives and Policies

The Goals of the Washington County Solid Waste Management Plan are to provide for facilities that are adequate to treat, recover, or dispose of solid waste in a manner consistent with all applicable State, Federal and local laws and regulations. The ultimate intent of the Plan is an effective implementation of an integrated system of solid waste management that allows flexibility to respond to changes in regulation, technology and market conditions.

Comprehensive Plan Goals

The County is currently in the midst of updating its Comprehensive Plan. The goals for solid waste management in Washington County are consistent with those in the adopted 2002 Comprehensive Plan. These are:

1. Provide opportunities for individual and self-fulfillment
2. Promote a balanced and diversified economy
3. Encourage the stewardship of the environment and the County's heritage
4. Establish parameters for managing growth

Solid Waste Management and Recycling Plan

1. Protect the health, safety and welfare of citizens and the environment in all solid waste and recycling operations.

    - Comply with all applicable County, State and Federal regulations governing water, land, and air quality standards to safeguard community quality of life.
    - Develop innovative plans for repurposing public lands where solid waste facilities are no longer active to provide continued community benefits.
    - Ensure that convenience centers are located and operated in a manner that is convenient to the public and discourages illegal dumping from occurring.
    - Provide programs and facilities as necessary for the management of special wastes which must be handled separately from the general residential and commercial waste stream.

- Monitor private waste management facilities to ensure conformance with the Solid Waste and Recycling Plan and assess their impact on public waste management facilities and services.

2. Ensure that planned growth occurs in a manner consistent with the County's long-range plans so that solid waste management can be delivered as a cost-effective public service.

    - Project waste processing and disposal capacity, as necessary, to provide for future County needs.
    - To the extent possible, track, characterize and report on all sources and types of solid waste generated within Washington County so that accurate data exists from which to evaluate changes to solid waste programs or services.
    - Regularly review and, if necessary, update County laws and regulations such as the Solid Waste Licensing Collection Ordinance and Zoning Ordinance to ensure protection of public welfare and sensitive environmental resources.
    - Review and update the Solid Waste Management and Recycling Plan on a triennial basis.

3. Strive to make solid waste and recycling programs financially self-sufficient to the greatest extent possible.

    - Maintain a budget structure independent of the General Fund that provides an accurate measure of the costs and benefits of various solid waste and recycling programs to provide a basis for long term capital investments.
    - Regularly review fees to ensure that they are competitive with other regional facilities, to incentive waste diversion and to adequately fund solid waste programs.
    - Identify and pursue efficiencies in operations and management systems that reduce costs or provide new revenue streams supporting solid waste programs and facilities.
    - Prioritize the maintenance of existing equipment and facilities over their replacement with new ones, for as long as safety and operational efficiency allow their retention, to maximize capital investments and extend the lifespan of existing solid waste management facilities.

4. Collaboratively work across jurisdictional boundaries and with diverse partners to develop innovative solutions for solid waste management.

    - Develop joint plans or programs with local jurisdictions or partner organizations to address waste streams that could be more cost-effectively managed at a regional scale when opportunities for collaboration exist.
    - Regularly explore the implementation of new waste management technologies that preserve finite County landfill space and solve shared waste management issues.

- When applicable, utilize pilot programs to test new waste management technologies or systems to provide a basis for assessing their effectiveness to achieve desired goals and signal wider adoption.
- Incentivize and recognize the achievements of individuals and organizations who demonstrate exemplary commitment or creativity to addressing the solid waste needs of Washington County.

5. Build the knowledge and capacity of the public, institutions, and the business community to understand and address solid waste management issues.
   - Continually provide education, outreach and technical assistance to individuals and organizations to efficiently achieve regulatory compliance before pursuing enforcement measures.
   - Engage the public through diverse media outlets to disseminate information that broadly reaches users of the County's solid waste management system and provides multiple points of contact by which citizens can access knowledge and resources.
6. Utilize the solid waste management hierarchy as tool by which to guide the County's priorities and expenditures for solid waste and recycling programs.
   - Strive to promote fiscal and environmental sustainability in County government operations by instituting procedures or requirements that maximize alternatives to waste disposal.
   - Investigate or create new markets for collected waste materials that can be diverted from the landfill to capture their true value as commodities.
   - Meet or exceed the State-mandated recycling and waste diversion rates through the implementation of current programs and through periodic operational improvements.
   - Develop partnerships with organizations promoting the reuse of products or materials to achieve source reduction and waste diversion objectives.

B. Policies

In order to implement and manage the adopted plan, policies must be integrated throughout County government operations relating to solid waste management that will encourage, promote, and enforce a clearly developed Integrated Solid Waste Management Program.

1. A Solid Waste Enterprise Fund will be maintained through which most costs of solid waste management will be funded.
   - Costs will include those incurred for the operation, maintenance, replacement, closure and post-closure, monitoring and maintenance of solid waste management facilities, including education, permitting, licensing, recycling and recovery, transfer, landfilling, solid waste disposal and financial assurances.

- Also included are costs incurred during administration of present and future solid waste planning and regulatory programs.

2. The Solid Waste Enterprise fund may be financed through revenues generated from:

   - Tipping fees and other special generation fees
   - Sale of assets and materials
   - Interest
   - Permits
   - Issuance of bonds
   - License fees
   - Waste Diversion Programs (i.e. Recycling, Composting, Energy recovery, etc.)
   - Grants and loans

3. Ordinances regarding inappropriate, illegal and illicit waste disposal activities will be enforced through the county code and through appropriate rules adopted by each municipality.

4. Environmentally sensitive waste management practices will be followed.

III. Conformance with Local, Regional and State Plans

The Solid Waste Management Plan's stated goals, objectives, policies and plan of action support those proposed with the County's current Comprehensive Plan. Washington County's 2002 Comprehensive Plan includes the goal:

> "*Encourage the stewardship of the environment and the County's heritage*."

Objectives in support of this goal include:

> *"Comply with all applicable County, State and Federal regulations governing water, land, and air quality standards to safeguard community quality of life."*
>
> *"Strive to promote fiscal and environmental sustainability in County government operations by instituting procedures or requirements that maximize alternatives to waste disposal.."*

Maryland's requirements for solid waste management plans are presented in Title 9, Subtitle 5 of the Environment Article, Annotated Code of Maryland, and the Code of Maryland Regulations 26.03.03. These

requirements define the plan content and mandate that a county develop and maintain a solid waste management plan that covers a ten-year planning period. The plan is required to be reviewed and updated by the county a minimum of every three years. This Solid Waste Management Plan for Washington County is prepared in compliance with these requirements.

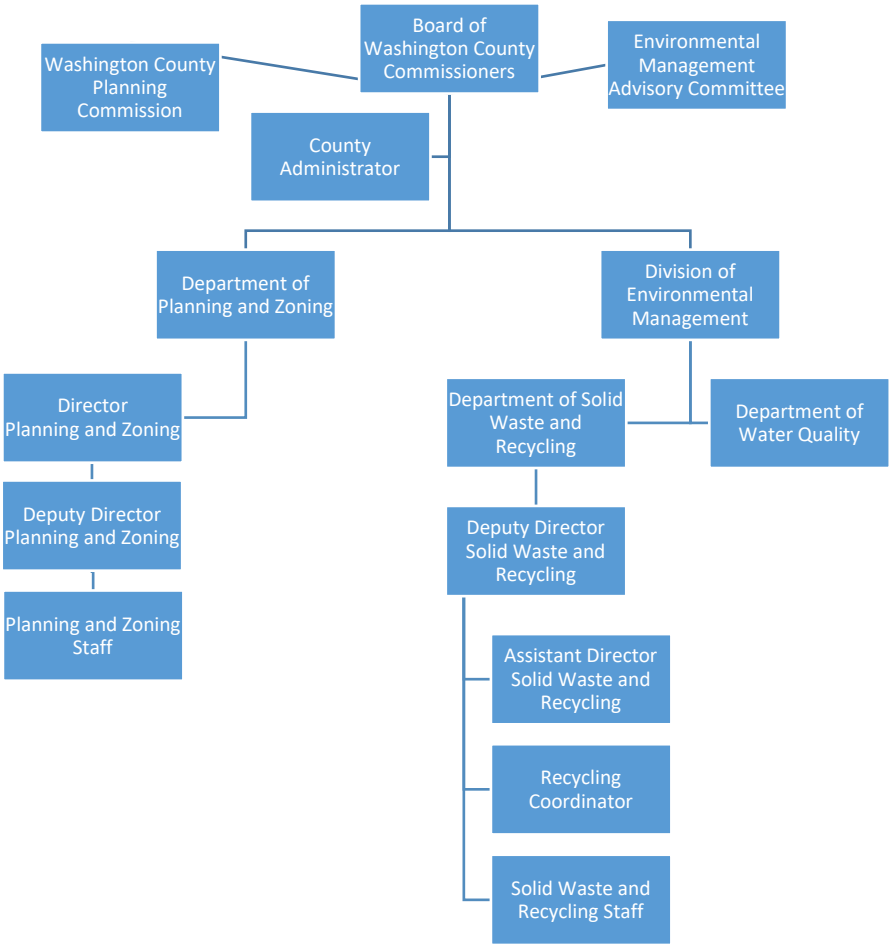
Section 9-503 of Title 9, Subtitle 5 of the Environment Article, Annotated Code of Maryland, requires that the Solid Waste Management Plan incorporate all or part of the subsidiary plans of each town, municipal corporation, sanitary district, privately owned facility or local, State or Federal agency that has existing or planned development in the County if such plans promote public health, safety and welfare. Authority over solid waste management is Countywide, excepting the nine incorporated municipalities of Hancock, Hagerstown, Boonsboro, Clear Spring, Funkstown, Keedysville, Sharpsburg, Smithsburg and Williamsport. Each of the incorporated towns have contracted hauler services and Hagerstown and Williamsport offer curbside recycling. None have any disposal facilities or produce their own solid waste management plans.

IV. County Government Structure in Relation to Solid Waste Management

A. Overview

The Division of Environmental Management (DEM) is the principal entity responsible for solid waste management in Washington County. The DEM is comprised of the Department of Water Quality, the Environmental Engineering Department, and the Solid Waste Department. Solid waste management planning is further aided by the Environmental Management Advisory Committee. All of the above administrative or advisory bodies work under the authority of the County Administrator and Board of Washington County Commissioners. Further description of these Departments and Committees is offered below, as well as a flow chart showing the structure of County government in relation to solid waste management.

Figure 1: Washington County Solid Waste Management



B. County Departments and Committees Affiliated with Solid Waste Management

❖ Department of Budget and Finance

The County Department of Budget and Finance manages the Solid Waste Enterprise Fund.

❖ Division of Environmental Management

The Division of Environmental Management is responsible for integrating Federal, State and Local environmental regulations pertaining to water, wastewater, solid waste and nutrient management and applying them to the operations of the departments noted below. Initiatives such as stormwater retrofits, stream restorations, tree plantings and street sweeping are among the Division's responsibilities to comply with various Federal and State water quality standards.

❖ Department of Solid Waste

The Department of Solid Waste, which is located at the Forty West Landfill, is responsible for the proper disposal of solid waste generated in Washington County through the daily management of recycling drop-off, landfill, and rubble transfer facilities, as well as hauler licensing.

❖ ***Department of Water Quality***

The Department of Water Quality owns, operates and maintains wastewater collections systems, wastewater treatment plants and appurtenances throughout Washington County. The Department has jurisdiction to serve any areas in Washington County, which are not incorporated or served by an incorporated municipality with public wastewater facilities. It also operates and maintains several water distribution systems and water treatment plants within the County.

C. Public Participation in Solid Waste Management Planning

▪ ***Environmental Management Advisory Committee***

The Environmental Management Advisory Committee (EMAC) is an appointed body of seven to nine members that provides an opportunity for the public to be involved in solid waste management processes. The EMAC serves as an advisory body to the County Commissioners by providing them with information on all local solid waste issues. The Committee acts as a link between the County Commissioners and the Division of Environmental Management, assists in the development of solid waste and recycling plans, and helps formulate water and sewer service policies. EMAC members may serve up to two consecutive 3-year terms. New members are recommended by the SWAC to the County Commissioners as needed. The EMAC is the successor to the Solid Waste Advisory Commission which aided in the creation of the County's first recycling plan in 1992.

▪ ***Washington County Planning Commission***

The Commission is charged with reviewing and approving subdivision plats, forest conservation plans, site plans, and development plans. The Commission also acts in an advisory capacity to the Board of County Commissioners on items such as rezoning requests, ordinance text amendments, and adoption of other land use regulations and programs. The administrative body contains seven members, six of which are appointed by the County Commissioners. The Planning Commission provides input on the development of the Solid Waste and Recycling Plan prior to its adoption by the Board of County Commissioners. The Commission's monthly meetings are typically open to the general public and some agenda items provide a forum for public comment.

V. Agencies, Laws and Regulations Affecting Solid Waste Management

This section includes discussion of major Federal, State and County laws, regulations and agencies that are relevant to solid waste management in Maryland and Washington County. The list is not intended to be comprehensive as numerous laws and regulations with at least some bearing on solid waste management have been passed since 1965. Additional information on laws and regulations can be found in the Appendix.

A. Federal Regulation of Solid Waste

Federal Agencies

➢ ***Environmental Protection Agency***

The Environmental Protection Agency (EPA) is the principal Federal agency in charge of enforcing national environmental laws and regulations. The EPA is made up of numerous sub-departments who engage in a variety of research, monitoring, standard-setting, and enforcement activities in consultation with State, local and tribal governments. Implementation of solid waste programs is delegated to State and local governments. State regulations, including those for solid waste management facilities, must meet or exceed those mandated by Federal regulations.

Federal Laws

- **Solid Waste Disposal Act (1965)**

Passed in 1965 (prior to the creation of the EPA) as Title II of the Clean Air Act, the Solid Waste Disposal Act (SWDA) focused on research, demonstrations, and training. It provided for sharing with the states the costs of making surveys of waste disposal practices and problems, and of developing waste management plans.

- **Resource Recovery Act (1970)**

The first amendment to the SWDA changed the Federal approach to solid waste management from one of efficiency of disposal to concern with the reclamation of energy and materials from solid waste. It authorized grants for demonstrating new resource recovery technology and required annual reports from the EPA on means of promoting recycling and reducing the generation of waste.

Resource Conservation and Recovery Act (1976)

With the passage of the Resource Conservation and Recovery Act (RCRA) in 1976, the Federal government embarked on a more active regulatory role in solid waste management. RCRA, which comprehensively amended the SWDA, became the most significant law regulating hazardous and solid waste. RCRA included three interrelated programs:

1. Solid Waste Program (Subtitle D) – encourages states to develop comprehensive plans to manage nonhazardous industrial solid waste and municipal solid waste, sets criteria for municipal solid waste landfills and other solid waste disposal facilities, and prohibits the open dumping of solid waste.
2. Hazardous Waste Program (Subtitle C) - establishes a “cradle to grave” system for controlling hazardous waste from the time it is generated until its ultimate disposal.
3. Underground Storage Tank Program (Subtitle I) - regulates underground storage tanks containing hazardous substances and petroleum products.

RCRA has been amended several times since its original passage, thereby increasing federal regulation over waste disposal. These amendments include the Hazardous and Solid Waste Amendments of 1984, Federal Facilities Compliance Act of 1992 and Land Disposal Program Flexibility Act of 1996.

- **Comprehensive Environmental Response, Compensation and Liability Act (1980)**

Created a Federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. EPA was given power to assign liability to parties responsible for such pollutant releases and mandate their cooperation in the cleanup.

- **Clean Air Act (1970)**

Set National Ambient Air Quality Standards for emissions from stationary and mobile sources to protect public health. Emitting facilities must meet these performance standards by using the best available technology to control various air pollutants. The original Act was amended in 1977 and 1990, adding additional regulations and extending deadlines for states to meet the new standards. The Act regulates emissions from landfill gas management systems as well as municipal solid waste combustion facilities. Landfill operators must comply with requirements of the State implementation plan established under Section 110.

- **Clean Water Act (1972)**

Like RCRA, the Clean Water Act (CWA) comprehensively amended and expanded the earlier Federal Water Pollution Control Act. The CWA led to the development of national water quality standards for pollutants in surface waters. The Act created the National Pollutant Discharge Elimination System (NPDES) to deal with point-source pollution discharges into navigable waters. In the scope of solid waste management, the Act regulates the discharge of wastewater and runoff from solid waste management facilities into surface waters. Solid waste facility siting or construction which impacts highly regulated surface waters such as wetlands may also require additional permits under Act requirements.

- **Safe Drinking Water Act (1974)**

Legislation to protect the quality of drinking water, including surface and groundwater sources by creating minimum standards to protect tap water. Owners or operators of public water systems must comply with these health standards. Landfills and resource recovery facilities must also monitor groundwater in order to detect and prevent contamination. Wellhead protection areas may affect the siting of future facilities.

- **Endangered Species Act (1973)**

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 Regulations

Federal regulations related to RCRA are contained in title 40 of the Code of Federal Regulations parts 239 through 282. A list of these regulations is contained in Appendix A. Additional information on each can be found on the EPA’s website at the following location: https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-regulations#nonhaz

B. State Regulation of Solid Waste

Monitoring and enforcement of many Federal laws related to solid waste management are delegated to individual states, who oversee compliance through various agencies. State implementation of Federal statutes must meet the minimum requirements and a state may choose to have more stringent requirements. Maryland has taken a proactive stance in regard to regulating many aspects of land use that affect the environment. Laws affecting solid waste management and associated issues are generally found in the Environmental Article of the Annotated Code of Maryland (Title 9), while regulations are located in the Code of Maryland Regulations (COMAR) Title 26 (Department of Environment).

Maryland State Agencies

Four State agencies in Maryland are principally responsible for solid waste management:

- *Maryland Department of the Environment*

Among State agencies, the Maryland Department of the Environment (MDE) has the primary responsibility for implementing all State and Federal legislation relating to solid waste and recycling. MDE's Solid Waste Program regulates residential, commercial, and non-hazardous industrial solid waste. MDE regulates Solid Waste Acceptance facilities to ensure that solid waste disposal is conducted in a manner protecting public health and the environment. The potential effect of solid waste facilities on water resources is a particular focus of the Department. MDE's Refuse Disposal Permit system regulates the design, construction, operation, and monitoring of solid waste facilities. Permit requirements for solid waste acceptance facilities also require annual reporting to MDE which identifies annual tonnages in numerous solid waste categories. MDE also reviews and comments on Solid Waste Plans prepared by local jurisdictions based upon Federal and State regulations.

- *Maryland Environmental Service*

The Maryland Environmental Service (MES) is an independent State agency that provides multidisciplinary environmental and infrastructure services to public and private entities, including State and local governments. It functions as a non-profit business unit of the State government that performs the functions of a public utility. MES was created in 1970 by the Maryland General Assembly to help local municipalities run select services, including waste disposal systems. Its powers were expanded by an Executive Order a year later when MES assumed responsibility over the operation and maintenance of all State-owned water, wastewater and solid waste management facilities. MES does not have regulatory authority but can exert broad powers over solid waste management when directed by MDE or when contracted to do so by a public or private sector client. MES is managed by a seven-member board appointed by the Secretary of the Department of Natural Resources with approval by the Governor, upon the advice and consent of the Maryland Senate.

- *Maryland Department of Health*

The Washington County Health Department is a State agency with authority delegated by Maryland Department of Health and MDE. Through programs within their Environmental Health Division, the Department addresses a variety of public health concerns that relate to waste management including on-site sewage disposal systems, on-site water systems, air quality issues, illegal dumping and more.

- *ortheast Maryland Solid Waste Disposal Authority*

The Northeast Maryland Waste Disposal Authority (NMWDA) is an independent State agency which assists in the coordination and financing of regional integrated waste disposal facilities. NMWDA serves the counties of Anne Arundel, Baltimore, Harford, Carroll, Howard, Frederick and Montgomery, as well as the City of Baltimore. The Authority's board of directors represents each of the eight participating jurisdictions. NMWDA assists its members with planning, constructing, financing, owning, and operating regional waste disposal facilities within the boundaries of local jurisdictions. The Authority's staff includes engineers, planners and financial professionals. Consultants work under the direction of Authority project managers to execute specific tasks.

State Laws and Regulations

Maryland has passed numerous laws which govern the full spectrum of solid waste management from facility planning to disposal regulations to waste diversion methods such as recycling and more. Many of the most significant State laws and regulations affecting solid waste are summarized in the Appendix. Title 9, Environment Article of the Annotated Code of Maryland contains many of the laws affecting the location, design, and operation of solid waste disposal facilities. Among the most significant, in terms of waste diversion, are the 1988 Maryland Recycling Act which mandated statewide recycling at diversion rates based upon a County's total population. 2012 amendments to this Act now require Counties with populations greater than 150,000 to achieve at least 35%, while those with less than that figure must achieve a 20% recycling rate.

Administrative rules and regulations adopted by State agencies pursuant to State laws are found in Code of Maryland Regulations. Title 26, in particular, houses the majority of administrative rules and regulations governing solid waste management. These regulations are also summarized in the Appendix.

C. County Laws and Regulations

On June 22, 1995, the Washington County Commissioners adopted an Ordinance for Solid Waste Collection Licensing in Washington County, Maryland. The Ordinance provides for the licensing of haulers, establishes minimum standards for waste handling, outlines the waste acceptance standards enforced at County solid waste acceptance facilities, bans yard waste disposal at the landfill, outlines how fees will be established and collected and provides for enforcement authority. This Ordinance is included in the Appendix.

Washington County maintains authority over the location of solid waste management facilities through the Zoning Ordinance. As a result of the comprehensive rural area rezoning approved in 2005, sanitary landfills are a permitted use in the Rural Business (RB) zone, provided the distance from any lot in a Residential "R" district or any lot occupied by a dwelling, school, church or institution for human care shall be two times the distance specified in Section 4.9 Recycling facilities are also a permitted use in the RB zone.

The "RB" Rural Business district is established to permit the development of businesses that support the agricultural industry and farming community, serve the needs of the rural residential population, provide for recreation and tourism opportunities, as well as establishing locations for businesses and facilities not otherwise permitted in the rural areas of the County. The Rural Business District is established as a "floating zone", which may be located on any parcel in an Agricultural, Environmental

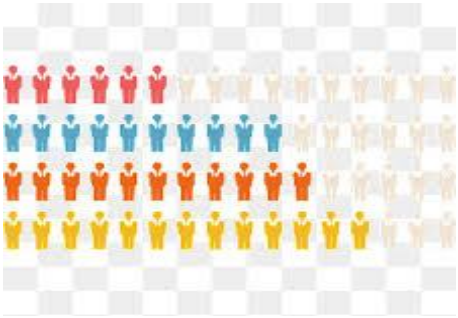
Conservation, Preservation or Rural Village zoning district provided certain design and performance-based criteria are met.

The establishment process for a new RB Zoning District enables public input into the process of solid waste management siting and design. First, a Public Information Meeting is held by the Washington County Planning Commission. Public input during this meeting becomes a part of the informational materials which accompany the Commission's recommendation to the Board of Washington County Commissioners concerning the proposed establishment of the new RB District. Following the Meeting, the County Commissioners hold a Public Hearing where opportunity for public comment is also available prior to and during the meeting. The nature of this administrative process thereby allows for flexibility in the location of new solid waste facilities while also providing a forum to address community concerns prior to the development review stage of a solid waste project.

The Forty West Landfill was established as a special exception in the former Agricultural zoning district in 2000, prior to the comprehensive rural area rezoning of 2005 which changed the zoning on the site to Environmental Conservation. The landfill is a legal non-conforming use. Recycling facilities are considered an accessory use to the primary use as a sanitary landfill.

Chapter 2

Overview of County Population and Employment Characteristics, Comprehensive Plan, Zoning Regulations, Municipalities and Federal Facilities

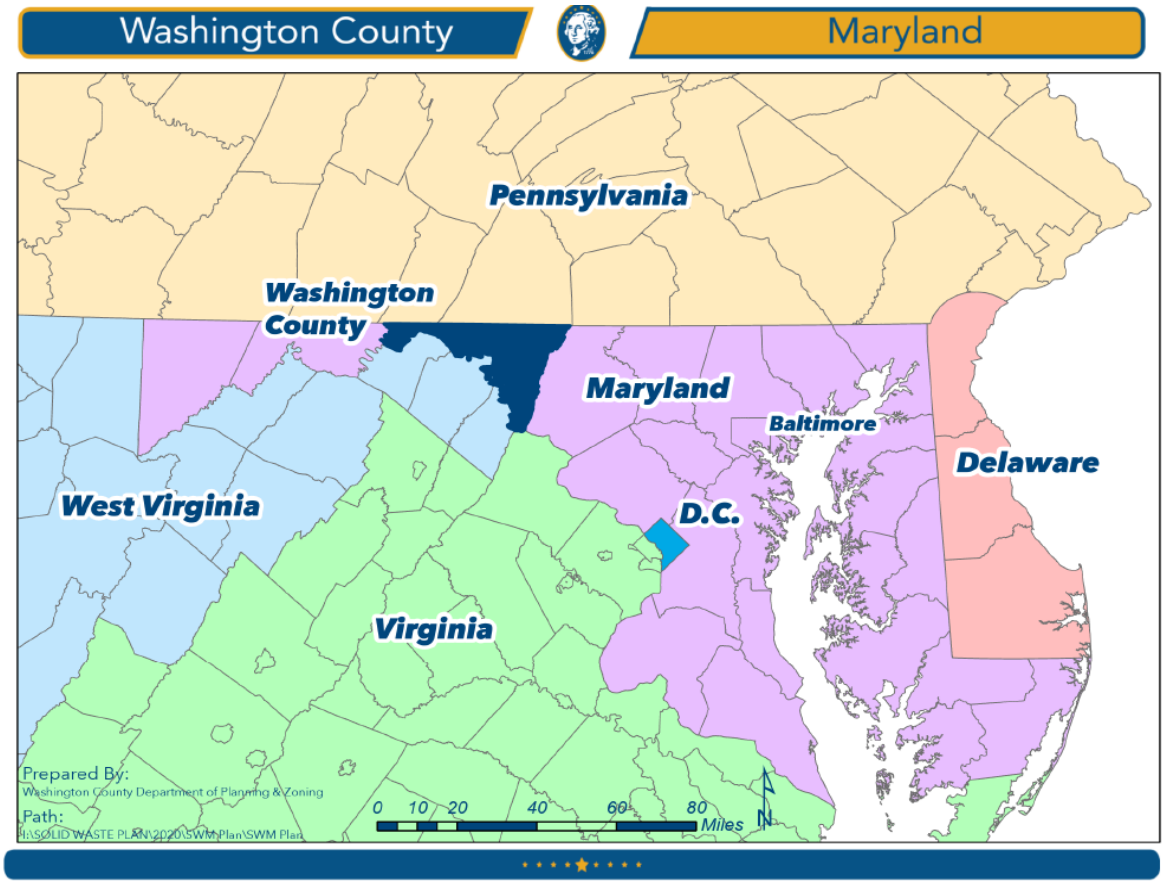


I. Chapter Overview

This chapter covers demographic and land use characteristics of Washington County. Demographic data such as population and employment characteristics and trends influence both the volume and composition of projected waste streams. These projections form the basis for making capital investments and programmatic decisions that form the County's long-term strategy to address waste management. Such decisions should be grounded in the long-term land use policy visions advanced by a local jurisdiction's adopted Comprehensive Plan. For this reason, the status and overall intent of this plan is presented in this chapter as well.

II. Introduction

Washington County, covering a total area of 467 square miles, is located in the west-central part of Maryland. The County borders Pennsylvania to the north, West Virginia to the south and west, and Virginia to the southeast. The County's immediate proximity to these other states, coupled with the abundance of major transportation facilities such as interstate highways and rail corridors, facilitate the movement of solid waste throughout the region in response to industry trends in ways that are sometimes beyond the control of local jurisdictions. Accordingly, Washington County, Maryland is lumped together with Berkeley and Jefferson Counties in West Virginia and a small portion of Franklin County, Pennsylvania for transportation planning purposes. Hagerstown, the county seat, is located approximately 70 miles northwest of Baltimore and Washington DC and 165 miles southeast of Pittsburgh. The geographic setting of the County is shown on the map below.



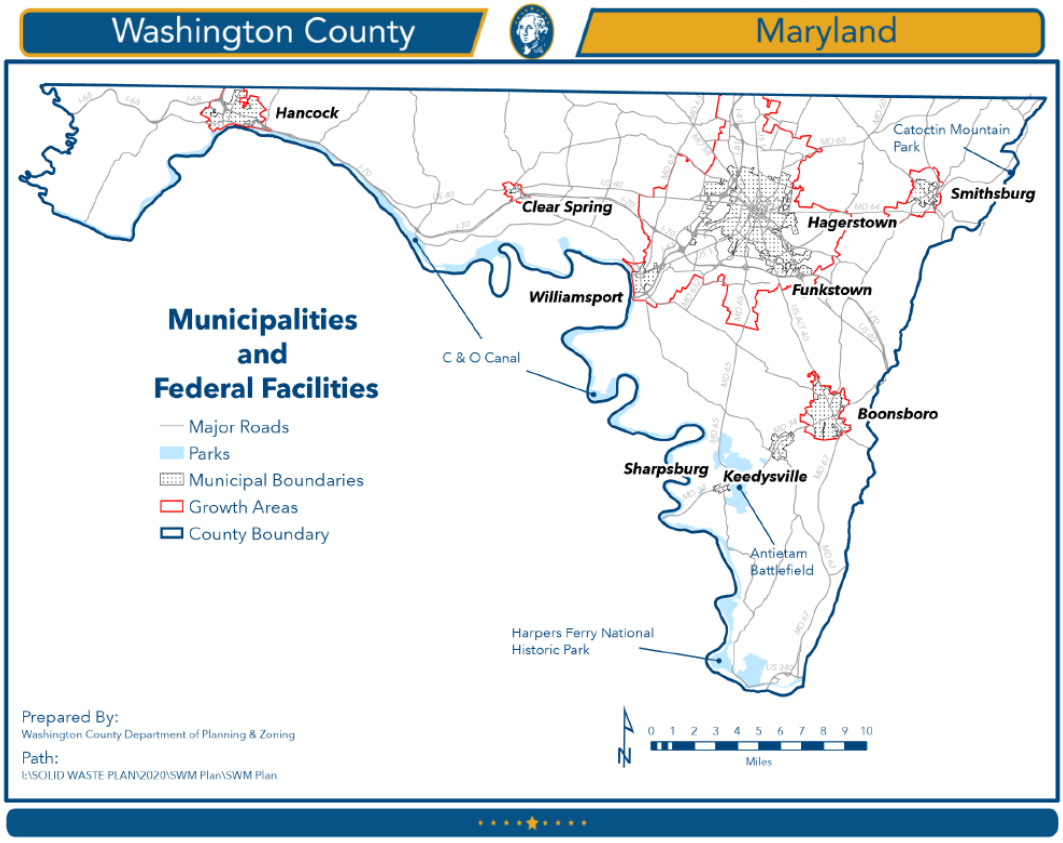
III. Municipalities

Nine incorporated municipalities are found within the County's borders: Hancock, Hagerstown, Boonsboro, Clear Spring, Funkstown, Keedysville, Sharpsburg, Smithsburg and Williamsport.

As of 2019, Hagerstown, as the largest of these municipalities, had an estimated population of 40,100 according to the U.S. Census Bureau. It serves as the center of local government (both City and County), as well as the primary location for industry, commerce and employment within the County. For long range planning purposes, the County has included the towns of Funkstown and Williamsport in its designated Urban Growth Area (UGA). Town Growth Areas are designated around Hancock, Boonsboro, Clear Spring and Smithsburg as well to guide capital planning. Each of the incorporated towns have their own contracted hauler services. Hagerstown and Williamsport offer curbside recycling.

IV. Federal Facilities

Four federal parks under the jurisdiction of the National Park Service are found partially or completely inside the County's borders. These parks include Antietam National Battlefield, Chesapeake and Ohio Canal National Historic Park, Catoctin Mountain Park and Harper's Ferry National Historic Park. These parks, which are responsible for their own solid waste management, are shown on the map below along with the incorporated municipalities. For a variety of reasons, many visitor use facilities within these parks do not offer waste disposal receptacles as visitors are required to minimize their impact upon the park by packing out their trash and disposing of it in a responsible manner elsewhere.



V. Projections

A. *Total Population*

In 2010, Washington County's total population was determined to be 147,430 people. The current population is estimated by the U.S. Census Bureau to be 151,049. This estimated population increase would represent a 2.5% increase over the nine-year period, or approximately a .3% annual population growth rate.

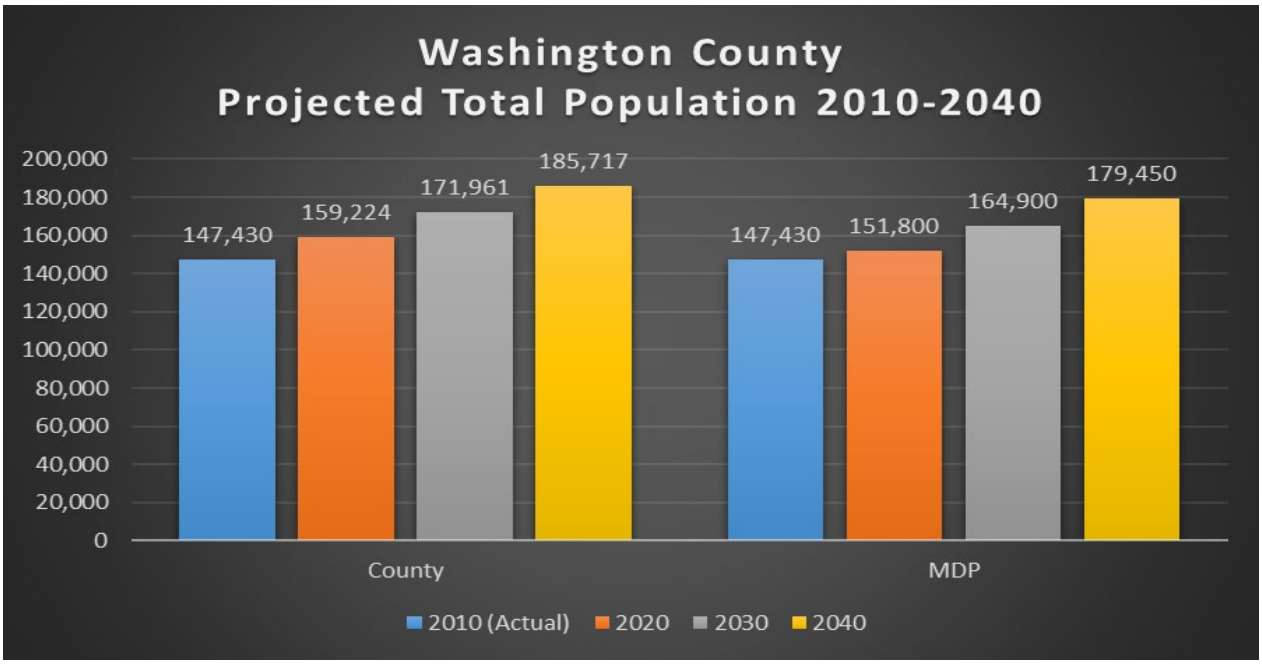
The modest estimated population growth between 2010 and 2019 noted above represents a notable decline from historic growth rates in the County according to population data from the Maryland Department of Planning[1]. The annual growth population between 1970 and 2010 was as follows: .89% (1970-1980), .73% (1980-1990), .87% (1990-2000), and 1.2% (2000-2010). Cumulatively, this averages out to a .92% annual growth rate during the 40-year period in question, which is three times the estimated annual growth rate from 2010-2020.

Economic trends affect population growth, and the County certainly experienced the effects of the Great Recession at the tail end and beginning of the millennium's first decade. Similar if not greater

[1] Maryland Department of Planning, *Washington County Demographic and Socio-Economic Outlook (1970-2040)*

economic effects are all but certain to follow the Coronavirus pandemic that has followed us into the 2020s.

However, trends in population and the economy are, at best, indirectly correlated. Thus, based upon historic growth rates calculated above, the County views the past ten years as something of an



anomaly in terms of projecting population increases for the ten-year period covered by this plan. The traditional growth rate of .92% has been used in the local population projections shown in the chart below for the purposes of this plan.

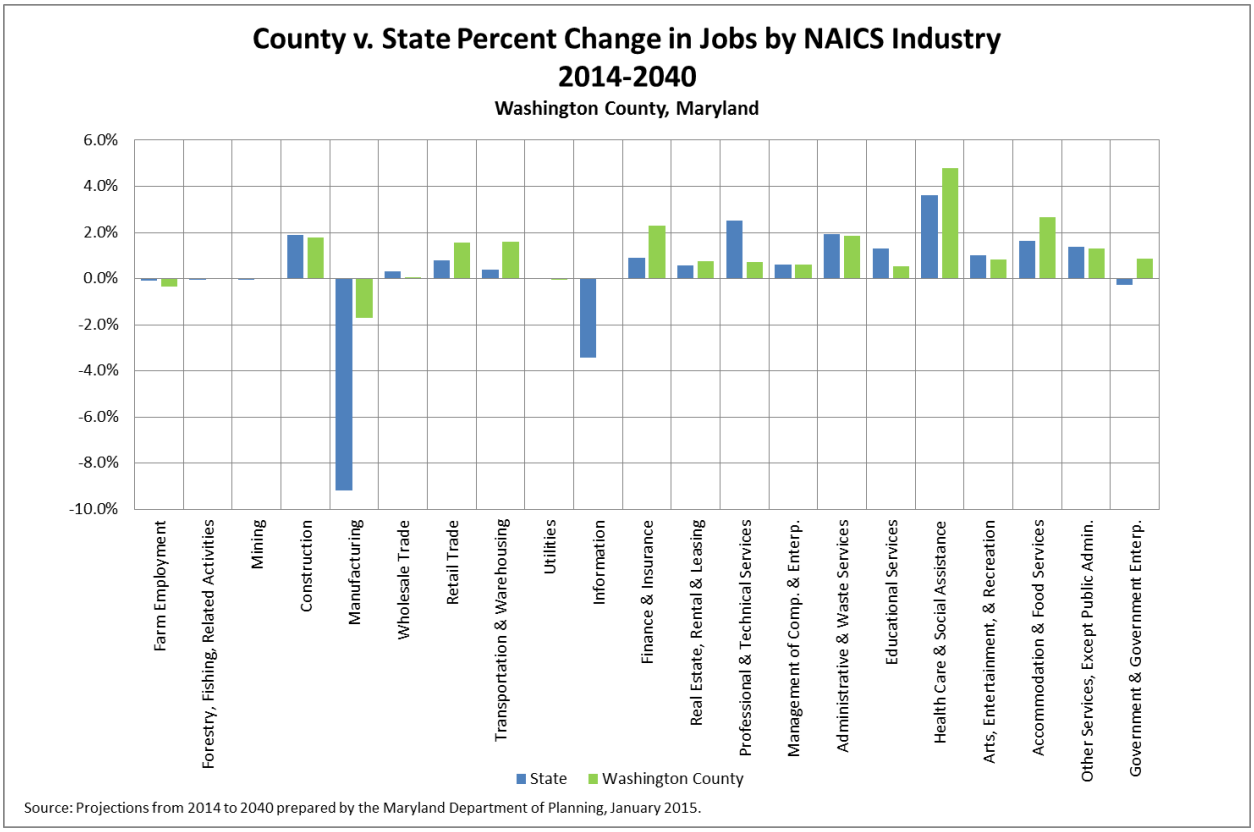
The Maryland Department of Planning's population projections differ somewhat from the County's. They have used .67% annual growth rate to project population since the 2010 Census (.29% from 2010 to 2020, .86% from 2020 to 2030, .88% from 2030 to 2040).

VI. Employment

Trends in employment also provide important information on the growth of waste streams, particularly in the commercial and industrial economic sectors. Waste stream projections are provided in Chapter 3 of this plan. Data pulled from the U.S. Bureau of Economic Analysis shows employment concentrations in Washington County using NAICS classifications in comparison to statewide averages. As shown in the table below, the top three employment industries in Washington County are Transportation & Warehousing, Health Care & Social Assistance, and Finance and Insurance. Over one third of all jobs in the County are related to these three industries. Comparatively, the State's top three employment industries include Health Care and Social Assistance, Transportation & Warehousing, and Professional and Technical Services.

NAICS Major Industry	Washington County Average Employment	Percentage	Maryland Average Employment	Percentage
Total Employment	86,882	**100%**	3,662,827	**100%**
Federal Government	1,067	1.2%	225,330	6.2%
State Government	2,265	2.6%	98,940	2.7%
Local Government	6,011	6.9%	244,173	6.7%
Government Subtotal	*9,343*	*10.8%*	*568,443*	*15.5%*
Farm Employment	1,247	1.4%	18,351	0.5%
Forestry, Fishing, Related Activities	(D)	0.2%	6,103	0.2%
Mining	(D)		4,746	0.1%
Construction	229	0.3%	11,320	0.3%
Manufacturing	4,406	5.1%	231,652	6.3%
Wholesale Trade	6,683	7.7%	114,049	3.1%
Retail Trade	3,044	3.5%	102,572	2.8%
Transportation & Warehousing	12,388	14.3%	351,893	9.6%
Utilities	5,158	5.9%	129,439	3.5%
Information	905	1.0%	51,508	1.4%
Finance & Insurance	6,764	7.8%	161,968	4.4%
Real Estate, Rental & Leasing	3,243	3.7%	184,239	5.0%
Professional & Technical Services	3,090	3.6%	362,129	9.9%
Management of Comp. & Enterp.	592	0.7%	29,570	0.8%
Administrative & Waste Services	4,731	5.4%	233,191	6.4%
Educational Services	1,171	1.3%	105,181	2.9%
Health Care & Social Assistance	11,593	13.3%	439,616	12.0%
Arts, Entertainment, & Recreation	1,606	1.8%	88,359	2.4%
Accommodation & Food Services	6,059	7.0%	247,252	6.8%
Other Services, Except Public Admin.	4,402	5.1%	221,246	6.0%
Private Sector Subtotal	*77,311*	*89.2%*	*3,094,384*	*84.5%*
U.S. BEA Table CA-25, November 2016				

The graph below provides a starting point from which to evaluate projected changes to these industry concentrations during the time horizon of this plan and beyond. The graph uses data from the Maryland Department of Planning to project industry changes locally and statewide between 2014 and 2040. The Maryland Department of Planning projects the percentage distribution of jobs to remain relatively the same; however, a few sectors are expected to shift significantly. Manufacturing jobs are projected to drop significantly over the next several decades both at the State and County level. Also projected to drop sharply at the State level are Information sector jobs. Conversely, jobs in the Health Care and Social Assistance sector are projected to sharply increase. Increases are also predicted in the Professional and Technical Services sector at the State level and in the Financing and Insurance and Accommodations and Food Services sectors at the County level.



Source: Projections from 2014 to 2040 prepared by the Maryland Department of Planning, January 2015.

VII. Current Status of the Comprehensive Plan

Washington County adopted its first Comprehensive Plan in 1971. Locally, the concept of designated growth areas around existing towns and cities was incorporated for the first time with an update of the Plan in 1981. This marked a change in emphasis on how to manage growth from previous policy which encouraged the creation of new communities. This concept built upon the creation of the County's Agricultural District program in 1980, which was designed to protect rural lands from encroaching development and support the continued success of the agricultural industry in Washington County.

Also notable in the County's planning history was the creation of the Rural Villages designation in 1999 for many small unincorporated communities in the County. This Zoning designation has helped to preserve the unique character of many rural settlements which developed historically and can sustain only moderate amounts of new growth due to infrastructural constraints and the desire to maintain Washington County's rural heritage.

The most recently adopted plan (from 2002) acted as a refinement of the growth and rural areas concept. The basic premise of the Plan has been to direct development into and around the County's five Urban and Town Growth Areas while retaining the rural character and use of the surrounding land. The five Growth Areas comprise the Urban Growth Area, which surrounds the City of Hagerstown and includes the towns of Funkstown and Williamsport, plus the Boonsboro, Hancock, Smithsburg and Clear Spring Town Growth Areas.

Growth Areas are planned locations for development in the county where infrastructure already exists to support future growth.

The provision of facilities and services, such as water and sewer infrastructure, utilities, roads, schools and parks as well as police, fire and emergency services, in these designated areas incentivizes planned growth in order to promote an efficient, environmentally sensitive and cost effective land use pattern. The goal is to maximize finite fiscal resources in areas where they can promote sustainable economic development while preserving rural character and resources where substantial growth cannot be supported.

Key recommendations of the 2002 Comprehensive Plan or subsequent amendments that have been implemented include:

- Comprehensive rezoning of the rural area of Washington County to reduce permitted density (2005)
- Extending the Boonsboro Town Growth Area boundary to include an area along Alt. US 40 to permit water line extensions to address health concerns
- Identifying Priority Preservation Areas
- Development of a State mandated Water Resources Element
- Modification of the Urban Growth Area boundary as part of a comprehensive urban area rezoning (2012)
- Preservation of more than 34,600 acres of rural lands through various local, state and federal land preservation programs in pursuit of the County's goal of 50,000 permanently preserved acres (since 1980)
- Introduction of a Special Planning Areas concept to protect sensitive areas unique to Washington County including the Edgemont and Smithsburg Reservoir Watersheds, Appalachian Trail Corridor, and the Upper Beaver Creek Basin and Beaver Creek Trout Hatchery
- Creation of the Rural Business Zoning District as a floating zone to permit the development of businesses that support the agricultural industry and farming community, serve the needs of the rural residential population, provide for recreation and tourism opportunities, as well as establishing locations for businesses and facilities not otherwise permitted in the rural areas of the County
- Amendments to the County's Adequate Public Facilities Ordinance to include the determination of impacts by new development on the adequacy of additional essential public facilities such as school capacity to ensure necessary infrastructure is available to support intended growth

An update of the 2002 Comprehensive Plan is in progress, with the majority of the Plan's elements having been presented to the Washington County Planning Commission for their review and input. The remaining elements to be presented, such as the Water Resources Element and the Land Use Plan, are generally those which require further consultation with local towns and municipalities about essential infrastructure to support intended growth, such as the availability of public water and sewer. This is particularly true with the City of Hagerstown, which owns and operates most water systems within the County. Hagerstown's current Comprehensive Plan (adopted in 2018) also designated growth areas for immediate, medium and long-term time horizons by which it will provide public water or sewer service. The City and County are continuing to work together to reconcile geographical differences between the County's Urban Growth Area and the City's Medium Range Growth Area which define imminent service to support growth in and around the City. The resolution of these discussions will be a key milestone in the eventual adoption of the new plan by the Board of Washington County Commissioners. Such decisions

will also influence waste streams under the purview of this plan, such as those originating from wastewater treatment plants.

VIII. Washington County Zoning Ordinance

As noted in Chapter 1, sanitary landfills are permitted in the Rural Business zoning district. As shown in the table below taken from the County's Zoning Ordinance, the Rural Business District is established as a "floating zone", which may be located on any parcel in an Agricultural, Environmental Conservation, Preservation or Rural Village zoning district. The currently operating Washington County sanitary landfill and related recycling activities are located in the EC – Environmental Conservation zoning district. It is a legal non-conforming use.

Permitted Zoning Districts for Sanitary Landfills

LAND USES	A(R)	EC	P	RV	RB	IM	Intensity of Use
Sanitary landfills, provided such use shall be two (2) times the distance specified in Section 4.9.	N	N	N	N	P	N	N/A

The distance requirements in Section 4.9 noted in the table above read as follows in the Zoning Ordinance:

> *"Any uses or buildings subject to compliance with this section shall be located at least two hundred (200) feet from any lot line in a RT, RS, RU, RM or RV District or any lot occupied by a dwelling, school, church, or institution for human care not located on the same lot as the said use or buildings, or any lot which is part of a duly recorded subdivision."*

The full text of the Rural Business Zoning District has been included in the Appendix.

Chapter 3

EXISTING SOLID WASTE MANAGEMENT SYSTEM

I. Existing Solid Waste Generation in Washington County: Overview

Solid waste in Washington County is generated through the daily activities of residents, businesses, industries and institutions. COMAR Section 26.03.03.03D requires that the plan report existing and projected solid waste generated within the County for the following waste categories:

COMAR Required Solid Waste Stream Categories

1) Residential (household, domestic)
2) Commercial
3) Industrial (non-hazardous) solids, liquids, and sludges
4) Institutional (schools, hospitals, government buildings)
5) Land clearing and demolition debris (rubble)
6) Controlled hazardous substances
7) Dead animals
8) Bulky or special wastes (automobiles, large appliances, etc.)
9) Scrap tires
10) Wastewater treatment plant sludge
11) Septage
12) Other

Washington County began developing accurate data on Municipal Solid Waste (MSW) in 1989 when landfill scales were put into operation. Data on additional waste streams has been collected in response to management needs in the time since. According to County reporting, Washington County generated 189,744 tons of solid waste in 2019. Current waste stream data follows shortly below and projections are shown at the end of this chapter.

Total MSW tonnages include landfilled and recycled materials such as household waste, rubble, white goods, commercial, industrial and institutional solid waste, yard trimmings, scrap tires and landfilled sewage sludge. Other wastes such as controlled hazardous substances, dead animals, liquid wastes, septage and medical wastes are addressed separately. Where records for the various wastes do not exist, estimates are provided, if possible.

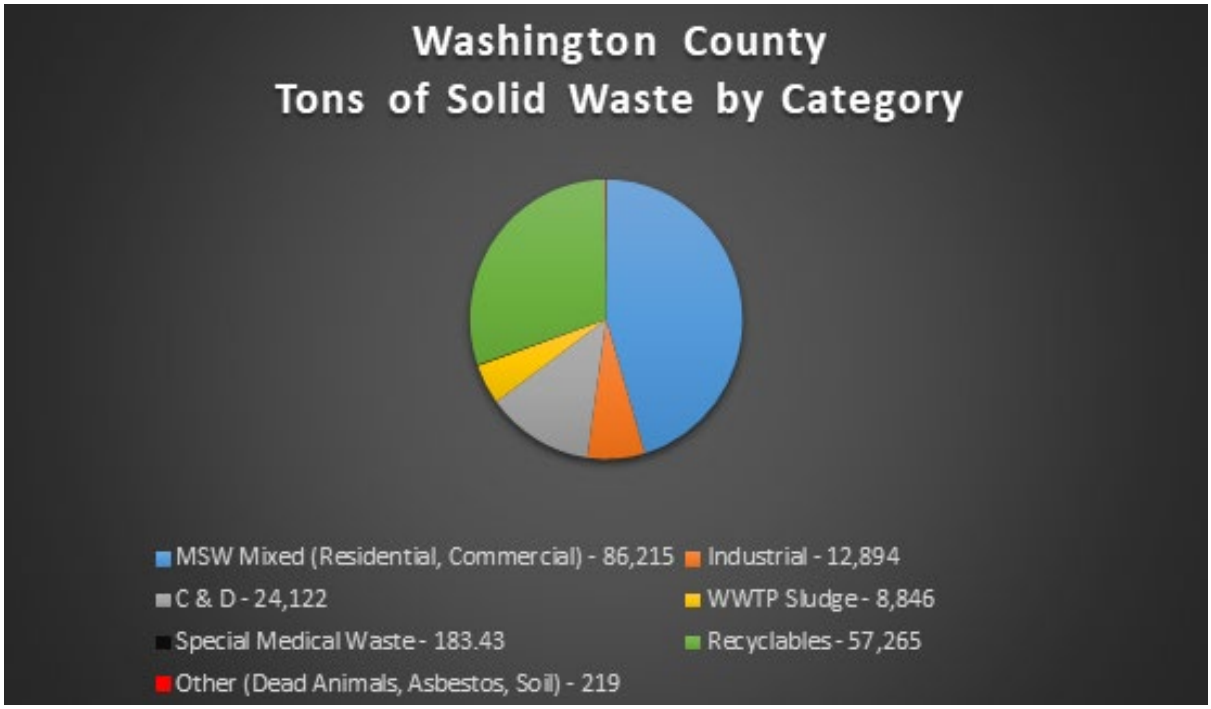
The County's Permit Program allows residents of Washington County to pay a nominal fee to drop off general household trash, from their residence only, at the Forty West Landfill or one of the Transfer Stations. Trash allowed on the permit is classified as standard kitchen and bathroom trash. Items not allowed in the permit program include construction/demolition debris, scrap tires, roofing materials, land clearing/yard debris, bulk items (i.e. furniture, mattresses, bedding, large area rugs and padding), brick/block, appliances with refrigerant and electronics. Some of these items, such as yard debris, scrap tires, appliances and electronics may be dropped off at the Landfill for recycling on or offsite after obtaining separate permits or paying separate user fees.

Other prohibited items not accepted for landfill disposal include hazardous wastes, special handling wastes without prior approval, explosives, septic sludge, bulky wastes or any waste in liquid form, except waste oil and antifreeze for recycling. A full list of unacceptable wastes is included in Section 3 of the County's Solid Waste Collection Licensing Ordinance. The landfill no longer accepts asbestos and recently discontinued Styrofoam recycling. These prohibitions also apply to all convenience centers.

II. Current Waste Generation Snapshot

The chart below categorizes the waste processed at Washington County's solid waste acceptance facilities by general category in 2019. According to the County's Tonnage Reports, mixed municipal solid waste, which contains both residential and commercial waste, represents the largest waste stream handled by the County's solid waste acceptance facilities at 86,215 tons or 45% of the total waste generated. The County's Solid Waste and Recycling Department estimates that 51,729 tons of the mixed municipal solid waste (MSW Mixed) total is comprised of residential waste while the remaining 34,486 tons is commercial. Thirty percent of the total waste stream was diverted in 2019.

This chart is not intended to be comprehensive of all waste handled in Washington County. Smaller quantities of other waste streams that are processed for recycling or out of County disposal are not included in this characterization but are reported to MDE. Waste stream projections are included at the end of this Chapter.



The County's 22.85% recycling rate (MRA Rate)[1] in 2019 represents an anomaly in its recent efforts at waste diversion as shown in the table below. Between 2010 and 2018, the County's average recycling rate was 50.8% and its waste diversion rate (WDR)[2] was 51.03%, according to MDE's annual Solid Waste Management and Diversion Report during this period.

[1] MRA Recycling Rate = (MRA recycling tonnage + resource recovery facility credit tonnage) ÷ (MRA recycling tonnage + MRA waste) x 100. "MRA Waste" for purposes of calculating the county recycling rate excludes bulky materials such as sludge, rubble, land clearing debris and ash.

[2] Waste Diversion Rate = Recycling Rate + Source Reduction (SR) Credit (based on voluntary reporting of SR activities).

The recycling rate for 2019 (22.85%) fell below mandatory recycling rate of 35%. The Maryland Recycling Act of 1988, Codified as Subtitle 17 and 9-505 of the Environment Article, Annotated Code of Maryland, requires a county with a population more than 150,000 to include a recycling plan that provides for a reduction through recycling of at least 35% of the county's solid waste stream. Under no circumstances may a reduction of less than 10% be submitted.

The substantial drop in the County's recycling rate is likely due to a number of factors, according to the County's Recycling Coordinator, most of which the County has little or no influence over. Recycling reporting from businesses continues to be an issue, and the County experienced a reduction in reporting between 2018 and 2019, including from some larger companies, despite making all efforts to obtain this data. Additionally, changes in international recycling markets have broadly impacted the flow of waste materials, including recyclables, with the tightening of the Chinese market of particular importance. Finally, the County's switch to a separate permit fee for residential recycling in 2013-2014 has likely impacted residential recycling rates. The separate fee became unavoidable however, due to declines in tipping fees and other revenues that previously helped support the recycling program. The majority of the County's recycling tonnage does however, typically come from the commercial sector, so residential recycling alone would not account for the overall reduction in the County's recycling rate. Further impacts to recycling figures are expected as a result of available staff time for recycling data collection during the Pandemic. Thus, a confluence of both local and international factors contributed the sudden decline in the County's historic recycling rate.

As might be expected given the nature of most waste generated by households and businesses, paper was the most prevalent recyclable material processed by waste acceptance facilities in the County from 2010-2018. County solid waste acceptance facilities handled an average of 63,207 tons of paper annually during this time period. Compostable items generally were the next most common recyclable material processed, although the substantially greater amount of metals collected in 2017 skews the average for that material. According to the County's Recycling Coordinator, the majority of the metal tonnage reported in 2017 was "white goods" that were likely being stockpiled by local scrap metal recyclers such as Conservit until market conditions were optimal for sale of these materials.

	MRA		Maryland Recycling Act (MRA) Materials							Non-MRA	Total
Year	Rate (%)	WDR (%)	Compost	Glass	Metals	Paper	Plastic	Misc.	Subtotal	Recyclables	Recycling
2010	42.25	43.25	1,095	1,262	1,261	53,579	2,889	2,864	62,950	37,810	100,760
2011	46.81	47.81	1,676	1,241	1,120	72,547	3,141	2,381	82,106	48,028	130,134
2012	55.11	55.11	1,993	1,024	1,330	69,742	1,441	1,747	77,277	53,881	131,158
2013	61.89	61.89	2,850	2,507	980	72,849	1,467	1,779	82,432	19,958	102,390
2014	60.59	60.59	1,458	3,163	1,049	75,917	1,512	1,923	85,022	29,303	114,325
2015	53.2	53.2	2,848	1,699	763	67,670	864	1,345	75,189	31,056	106,245
2016	52.51	52.51	2,309	983	602	64,237	2,577	240	70,948	27,254	98,202
2017	49.54	49.54	1,285	673	13,897	52,924	717	1,486	70,982	26,239	97,221
2018	35.33	35.33	2,150	1,006	402	39,399	687	2,340	45,984	25,843	71,827

- 2016 Statewide Waste Characterization Study Data

In 2016, MSW Consultants, on behalf of MDE and the Northeast Maryland Waste Disposal Authority, conducted a statewide waste characterization study to establish a baseline snapshot of the disposed waste stream for use by stakeholders in service of reducing waste disposal and increasing waste diversion. The study focused on the municipal solid waste (MSW) portion of disposed solid waste, leaving the characterization of other special waste streams tracked by MDE for future study. Washington County's Forty West Landfill was among the nine landfills that were sampled for the purposes of developing a representative analysis of MSW throughout the entire state, including rural, suburban and urban demographic regions.

The table below is taken from the 2016 study. It provides a more fine-grained look at the composition of waste being disposed at the Forty West Landfill than what is presented in the table above. Construction and demolition debris (C&D) made up the largest percentage of MSW disposed during the study at the Landfill of all major waste categories at 24.2% of the total MSW waste stream. Within the C&D category, concrete/brick/rock and other C&D waste made up the largest subcategory of C&D materials disposed at the Landfill (8.9%), followed by painted or treated wood.

That C&D waste was the largest category identified in sampling at the Forty West Landfill is notable within the findings of the entire study. It was the only one of nine landfills surveyed where C&D waste made up the largest material category identified during sampling. Paper and organic wastes were the most prevalent types identified at the majority of the other landfills used in the study.

Forty West Landfill Waste Characterization (2016)

Material Category	Est. Percent	Conf. Int (+/-)	Material Category	Est. Percent	Conf. Int (+/-)
Paper	22.2%	6.2%	Organics	18.0%	5.1%
Newsprint	3.7%	3.5%	Food Waste	11.3%	3.9%
Corr. Cardbd/Kraft Pap. (Uncoated)	5.1%	1.7%	Grass	0.1%	0.2%
Magazines	0.3%	0.2%	Leaves	0.0%	0.0%
Paperboard	1.5%	0.5%	Brush/Prunings/Trimmings	1.2%	1.3%
(High Grade) Office Paper	0.2%	0.3%	Other/Non-Compostable	5.4%	3.2%
Books	0.0%	0.0%	C&D Debris	24.2%	8.7%
Other Recyclable Paper	3.2%	1.7%	Wood - Clean Lumber	4.4%	5.1%
Compostable Paper	7.1%	2.6%	Wood - Painted/Treated	6.0%	3.5%
Non-Recyclable Paper	1.1%	0.8%	Wood - Pallets	2.1%	2.0%
Plastic	15.1%	5.9%	Non-C&D Wood	0.3%	0.3%
PET(#1) Bottles/Jars	1.2%	0.4%	Drywall/Gypsum Board	0.8%	1.2%
PET(#1) Other	0.1%	0.1%	Concrete/Brick/Rock/Other C&D	8.9%	6.0%
HDPE(#2) Bottles - Natural	0.3%	0.1%	Carpet, Carpet Padding, & Rugs	1.8%	1.6%
HDPE(#2) Color Bottle/All Non-Bot.	0.4%	0.2%	Household Hazardous Waste	0.1%	0.1%
#3 thru #7 Bottles	0.0%	0.0%	Medical Waste & Sharps	0.0%	0.0%
Plastic Packaging #3 - #7	1.3%	0.6%	Batteries - Lead Acid	0.0%	0.0%
Durable Plastic Products #3 - #7	0.9%	0.7%	Batteries - Other Rechargeable	0.0%	0.0%
Expanded Polystyrene "Styrofoam"	0.5%	0.2%	Batteries - All Other	0.0%	0.0%
Clean Film & Clean Shopping Bags	0.8%	1.0%	Other Hazardous Waste/HHW	0.1%	0.1%
Contaminated Film/Other Film	4.7%	1.8%	Electronics	0.0%	0.0%
Remainder/Composite Plastic	4.8%	6.1%	Computers/Related Elec. Prods.	0.0%	0.0%
Metal	6.3%	3.7%	Other Wastes	12.8%	6.5%
Aluminum Cans & Containers	0.4%	0.1%	Textiles & Leather Products	4.6%	3.0%
Other Aluminum	0.1%	0.0%	Diapers & Sanitary Products	2.1%	1.2%
Other Non-Ferrous	0.2%	0.2%	Bulky Items	3.5%	5.6%
Tin/Steel Containers	3.1%	3.3%	Tires	0.0%	0.0%
Other Ferrous	2.5%	1.5%	Other/Not Classified	0.5%	0.2%
Glass	1.2%	0.9%	Supermix - Fines & Dirt	2.1%	0.6%
Clear Glass Containers	0.4%	0.2%			
Brown Glass Containers	0.3%	0.3%			
Green Glass Containers	0.1%	0.1%	Grand Total	100%	
Non-Container/Other Glass	0.4%	0.4%	*No. of Samples*	*22*	

Source: 2016 Maryland Statewide Waste Characterization Study

III. Existing Solid Waste Generation by Category

Unless otherwise noted, all tonnage data is from annual Solid Waste Tonnage Reports submitted to the Maryland Department of the Environment, Solid Waste Program. All refuse material entering the landfill is categorized by origin, as determined by drivers reporting their load origin to scale house employees or by inspection. Actual waste amounts will likely vary from projections, as competition from landfills in nearby Pennsylvania and West Virginia may cause waste to be diverted due to lower disposal fees or other business decisions by waste hauling companies. Solid waste disposal in the Forty West Landfill is limited to waste generated within Washington County. Some waste materials are transported, processed and disposed of outside the County.

A. Residential Waste Generation

Approximately 51,729 tons of residential waste was accepted and disposed of at the landfill in 2019. This total is included in the MSW mixed tonnage reported above.

B. Commercial Waste Generation

Commercial wastes in Washington County are those generated by businesses and collected by front loader trucks or in roll off containers. Commercial waste accepted and landfilled in 2019 was 34,486 tons. This total is included in the MSW Mixed tonnage reported above. Privately operated processing or recycling facilities may dispose up to 20% by weight of original raw materials as residuals in the landfill.

C. Industrial (Non-Hazardous) Solid Waste

Many of the County's industrial plants are in the business of manufacturing by assembly and warehousing/distribution. Industrial solid wastes delivered and disposed of at County facilities by commercial haulers in 2019 totaled approximately 12,894 tons.

As most of the County's industrial facilities are located near or within the boundary of one of the incorporated towns, most are serviced by municipal sewage treatment plants. Therefore, non-hazardous liquid wastes are discharged into those sewer systems and directed to associated treatment plants. These plants are located in the towns of Clear Spring, Boonsboro, Hancock, Keedysville, Sharpsburg, Smithsburg, Williamsport, and Hagerstown. The two largest plants are located in Hagerstown and in the County at the Washington County Department of Water Quality, north of Williamsport. Processed wastewater is discharged through a NPDES permitted discharge (see Map below).

D. Institutional Wastes

Institutional wastes are inclusive of those generated in government offices, schools, hospitals, clinics and other similar facilities. Medical waste from Meritus Medical Center is hauled out by the contracted private haulers Curtis Bay Medical Waste Services and Triumvirate and disposed of outside of Washington County. Based on landfill records, no institutional waste was disposed of in 2019.

As required by Maryland House Bill 1290, a Public School Recycling Plan which provides for the collection, processing, marketing and disposition of recyclables by the County public school system in accordance with the Washington County Board of Education's adopted *Resource Conservation Recycling Policy* has been included in the Appendix.

E. Construction and Demolition Debris

Construction and demolition (C&D) debris is material generated as a byproduct of building demolition, construction and renovation, site clearance, excavation and roadwork. C & D materials vary greatly depending on the project, although certain components are found in each construction category. A relatively large volume of land clearing debris is common in a developing area such as Washington

County. Historically, most contractors traditionally buried such materials on the job site. Changes in Maryland regulations now prohibit that act. Construction and land clearing debris must be disposed of in a licensed landfill or it can be processed and recycled. C & D materials disposed of in 2019 totaled 24,120 tons.

F. Controlled Hazardous Substances

The total amount of Controlled Hazardous Substances, as defined in COMAR, is not limited to waste. Generators of controlled hazardous substances are not required to report amounts to the County; therefore, no current data on volume is available for such substances. All such material is banned from landfilling and is removed from the County by licensed haulers. Automobile batteries are accepted and set aside for recycling; 75.2 tons were recycled in 2019.

G. Dead Animals

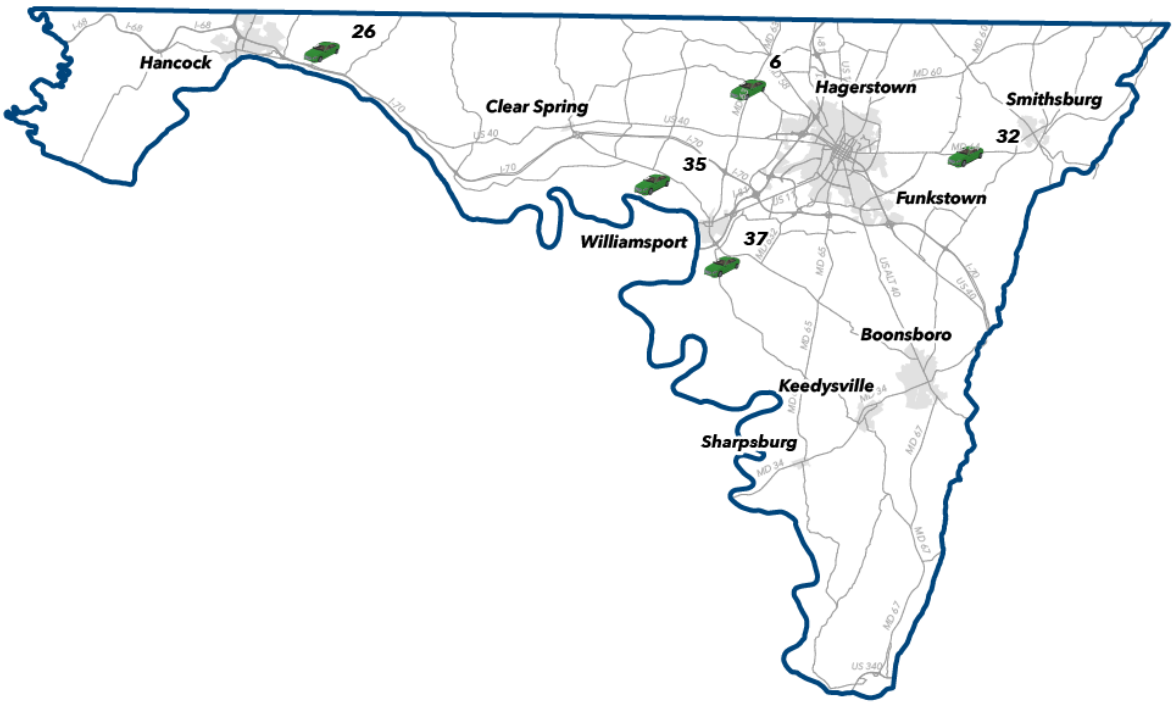
In 2017, Valley Proteins stopped service in Washington County. Since then, the Department of Solid Waste started to accept animal carcasses from local businesses. In 2019, 51 tons of animal carcasses were disposed of. In accordance with the Solid Waste Permit, the carcasses are buried immediately.

Agape Pet Services operates an existing animal cremation in the Boonsboro vicinity that collects and disposes of deceased animals from veterinary clients. Other pet medical waste is transferred by licensed haulers for disposal at facilities outside Washington County.

H. Bulky or Special Wastes (Automobiles, Appliances, Etc.)

Scrap automobiles in Washington County are handled through private industry (see Map below). The Forty West Landfill does not accept whole scrap automobiles or automobile parts for disposal per Section 3.3 of the Solid Waste Ordinance. Individuals contract with private dealers for removal, recycling and disposal of automobile wastes. Some recyclers only deal with the acceptance, dismantling and recycling of vehicles, while others mix vehicle tonnages with other scrap metals. Several other operations accept aluminum and bimetal cans and a variety of other recyclable metal products along with materials from scrap vehicles. All of these operations produce other residual non-metallic wastes, most of which are accepted at the County Landfill and reflected in the total commercial waste tonnages.

Map: Washington County Automobile Recyclers



Automobile Recycling Centers				
NUMBER	NAME	FUNCTION	ADDRESS	TOWN
6	B&J AUTOPARTS	JUNKYARD	13324 GREENCASTLE PIKE	HAGERSTOWN
26	JONHNSON JUNKYARD	JUNKYARD	14204 WHITE OAK RDG	HANCOCK
32	ELWOOD'S AUTO EXCHANGE	JUNKYARD	21411 JEFFERSON BLVD	SMITHSBURG
35	D&D AUTO RECYCLING	JUNKYARD	14829 BOTTOM ROAD	WILLIAMSPORT
37	HAMMOND'S AUTO EXCHANGE	JUNKYARD	16143 FALLING WATERS RD	WILLIAMSPORT

Bulky wastes like appliances ("white goods") are accepted at County facilities at no charge (non-freon only). Freon appliances are accepted with a charge. Freon is removed by the County's scrap metal contractor per USEPA requirements. All of the accepted "white goods" are set aside and recycled through a contractor. Washington County Forty West Landfill recycled 496 tons of "white goods" in 2019.

I. Scrap Tires

As an approved MDE secondary scrap tire facility, Washington County has an approved scrap vehicle tire acceptance area at the Forty West Landfill where tires are stockpiled and removed on a regular basis by an MDE licensed contractor. In 2018, 116 tons of used scrap tires were collected and recycled, while in 2019, 109 tons of used scrap tires were collected and recycled.

J. Wastewater Treatment Plant Sludge

Treatment for the removal of pollutants results in the production of sewage sludge and as standards become tighter, sewage sludge production also increases. The predominant method of sewage sludge management for Washington County has traditionally been landfill disposal. The primary method

of sludge disposal for the City of Hagerstown until 1990 was agricultural land application. At that time, the City constructed a pelletizer facility to dry and market sludge to the farming industry as fertilizer.

There are 12 publicly owned community water suppliers and 12 sewerage systems in Washington County. Seventy percent of the County's population has the benefit of a public water supply while 60% have public sewer service.

Washington County owns and/or operates nine wastewater plants (WWTP). These plants service the Halfway and Williamsport areas and industrial areas on the west side of Hagerstown, as well as Clear Spring, Sandy Hook, Sharpsburg, the Antietam Battlefield, Smithsburg, Saint James, and Highfield/Cascade. The sewage sludge disposed of at the landfill from these other municipal and private treatment plants in the County totaled approximately 8,846 tons in 2019, according to landfill data. The Hagerstown Sewage Treatment Plant produces the second largest volume of sludge after the County's Conococheague plant. Depending on the market, material may be processed and dried by a contractor on site and sold as fertilizer pellets. Due to the composition of the waste, the County's Industrial Pretreatment Facility located adjacent to the Conococheague WWTP (formerly operated by Spirit Services, now Valicor Environmental Services) exports its waste to Pennsylvania where facilities exist for its final disposal.

K. Septage

Septage is the residual material collected from individual residential septic systems. A significant number of Washington County's homes have such systems and contract for septage collection and disposal. It is estimated that residential septage generation in Washington County is from 3.5 to 4 million gallons per year. Traditionally, septage has been either disposed of through wastewater treatment plants or land applied. Recent Federal and State regulations have limited septage management options. Direct application of septage to land is now prohibited. In response, a treatment system has been added at the County Wastewater Treatment Plant dedicated to the disposal and treatment of septage. The plant has a peak design flow of 125,000 gallons per day (gpd) with an average daily flow of up to 8,300 gpd. Sewage sludge volumes are included in the sewage sludge management section. There are five independent septage contractors operating in Washington County. County residents rely on their services; regular maintenance of individual septic systems is imperative to uninterrupted system operation and environmental protection.

L. Other Wastes

1) Yard Trimmings

Yard trimmings include grass clippings, brush and leaves resulting from residential or commercial yard and garden maintenance. All nine of Washington County's incorporated towns provide residents with curbside collection or drop-off sites for yard trimmings. The City of Hagerstown has organized leaf and yard trimmings collection programs. It is anticipated that most of the towns' haulers will continue to use the County licensed wood waste processing facility. In May of 1994, Washington County banned yard trimmings from being landfilled. State law also bans source separated yard waste. Currently, County haulers, municipalities, businesses and residents may deliver acceptable yard trimmings, loose or in paper bags, to the Forty West Landfill. The woody materials are processed by a grinder into a mulch product.

Grass, leaves, and other yard trimmings are processed into a soil amendment. The mulch and soil amendment are made available for purchase to County residents and businesses to be used on their properties. In 2019, 4,500 tons of yard waste were delivered and processed at the Forty West Landfill.

2) Electronics

With grant funding from MDE, the County established a permanent residential electronics drop-off site at the Forty West Landfill in 2007. The program went into effect following several successful one-day electronics recycling events. The County program accepts a variety of household electronic items: computers, monitors, peripherals, televisions, telephones, cell phones and PDA's, calculators, copiers, scanners, consumer electronics, VCR and DVD players, camcorders, stereos, CD players, fax machines, projection equipment, printers, electronic typewriters, electronic toys and microwaves. The program does NOT accept refrigerators, air conditioners, dehumidifiers or lab equipment.

The electronics recycling program is for County residents only and accepts items for a fee. For businesses requiring electronics recycling services, the County Recycling Office can provide a list of recycling companies that may meet their needs. The MDE grant has been discontinued and, therefore, all costs associated with the County program became part of the Solid Waste Enterprise Fund. A fee for this program has been instituted.

3) Asbestos

The County formerly permitted the acceptance of asbestos at a designated location at the landfill with prior notification and provided the hauler meets a variety of regulatory conditions as defined in the Solid Waste Collection Licensing Ordinance. At present, however, the County is not accepting asbestos waste.

4) Mining Wastes

Mining wastes consist of overburden from mining operations and residuals from crushing. Both of these wastes are either deposited at the quarry site or are hauled, as fill, to construction sites. In each case, the material is not treated as waste. Quarry operations typically use material from overburden soil in reclamation.

5) Leachate

Leachate is defined as the combination of liquids and suspended particulates that have leached through or drained from solid waste. Its rate of generation is generally increased when above ground and subsurface waters, including rainfall, percolate through landfilled solid wastes.

Washington County collected and transported over 22.5 million gallons of leachate for treatment during 2019. Sites with leachate collection systems are the closed Resh Sanitary Landfill, the closed City/County Landfill, the inactive Reclamation Rubble Landfill, and the Forty West Landfill. Leachate is collected and primarily trucked to the Valicor Conococheague Industrial Pretreatment Plant. Leachate may also be hauled directly to the Conococheague Wastewater Treatment Plant on an as-needed basis. A project to add one or more leachate storage tanks at the Forty West Landfill is in the CIP.

6) Fluorescent and Compact Fluorescent Lights

State legislation passed in 2011 required counties to develop a strategy for the collection and recycling of fluorescent and compact fluorescent lights that contain mercury. The disposal of these materials is handled by licensed contractor. In 2019, 13.05 tons of fluorescent lights were recycled.

7) Waste Oil and Antifreeze

Individuals are allowed to drop off up to 5 gallons of both used oil and used antifreeze at the Forty West Landfill free of charge. These materials are accepted in a designated location at the Landfill and recycled. In 2019, 2,270.54 gallons of used oil and 143.23 gallons of used antifreeze were recycled.

IV. Waste Imported and Exported

A. Waste Imported

Under the County's Solid Waste Collection Licensing Ordinance, only solid waste generated in Washington County may be delivered to or disposed of at County operated facilities. Any privately operated facility recycling or processing recyclables cannot generate residue greater than 20% by weight of the original raw material for disposal at the County landfill. At present, only waste generated in the County is collected, processed or disposed of at the Forty West Landfill. These requirements help preserve landfill space for future needs, thereby reducing significant capital expenditures on solid waste management.

B. Waste Exported

Prior Federal court rulings which classified solid waste as a commodity subject to Interstate Commerce laws have had the effect of prohibiting local jurisdictions from passing laws which direct the flow of waste to a specific waste acceptance facility. As a result, local jurisdictions have less control over where the ultimate disposal of solid waste occurs, particularly when collection occurs by private haulers, as is often the case. Competition among regional solid waste acceptance facilities to offer lower tipping fees frequently results in waste being exported across state lines. Washington County's location bordering three other states makes it particularly susceptible to the out-of-state diversion of solid waste.

As a result of the open system of collection and transfer which allows individuals, towns and cities in Washington County to contract with haulers of their choosing, significant amounts of solid waste are exported by these entities across state lines. Statewide, according to MDE's 2019 Solid Waste Management and Diversion Report, 8.29% of solid waste captured by Maryland's permitted solid waste acceptance facilities was managed in Pennsylvania. Washington County's immediate proximity to solid waste acceptance facilities in Pennsylvania all but assures that this is a primary destination for waste that is not disposed of at the Forty West Landfill. This is particularly true for the City of Hagerstown, which uses the national contractor Waste Management to meet its trash and recycling needs. As one example, Waste Management's Mountain View Landfill, located just across the Pennsylvania state line in Greencastle, is a primary disposal location for Hagerstown's solid waste. As these operations are conducted by private haulers, exact figures of waste exported cannot be accurately quantified.

V. Refuse Collection Systems in Washington County

Under authority delegated from the State through the Annotated Code of Maryland, Washington County has legal authority to require, regulate or provide for the collection, removal, and disposal of solid waste, the licensing of solid waste haulers and to direct the disposition of solid wastes within its borders. The County has utilized this authority since the passage of the Solid Waste Collection and Licensing Ordinance in 1995. Any person hauling for another party on a regular basis (i.e., average 3 times weekly) must obtain a license. Licensed haulers must furnish a list of all vehicles operated in Washington County and must obtain a commercial permit sticker for each vehicle listed.

As a part of the license application process, haulers must provide a description of their plan for the collection and disposal of solid waste including recyclables. The plan must take into consideration materials designated for recycling including:

I. Commercial corrugated cardboard and office paper products, residential materials including newspapers, glass bottles and jars, food and beverage cans, and HDPE/PET plastic bottles.

Through the Ordinance, Washington County officials have the authority to:

II. Require haulers or purchasers of recyclables to furnish the County with annual reports on tonnages of recyclable materials hauled, generated, or purchased, their source and their destination
III. Establish and collect a Solid Waste Management Fee that reflects the actual cost of solid waste services projected for the next fiscal year
IV. Set operating and safety rules for county facilities
V. Assign liability to contractors for certain issues arising during collection, transport and disposal
VI. Enforce the terms of the Ordinance through the levying of fines or pursuit of other civil or criminal penalties

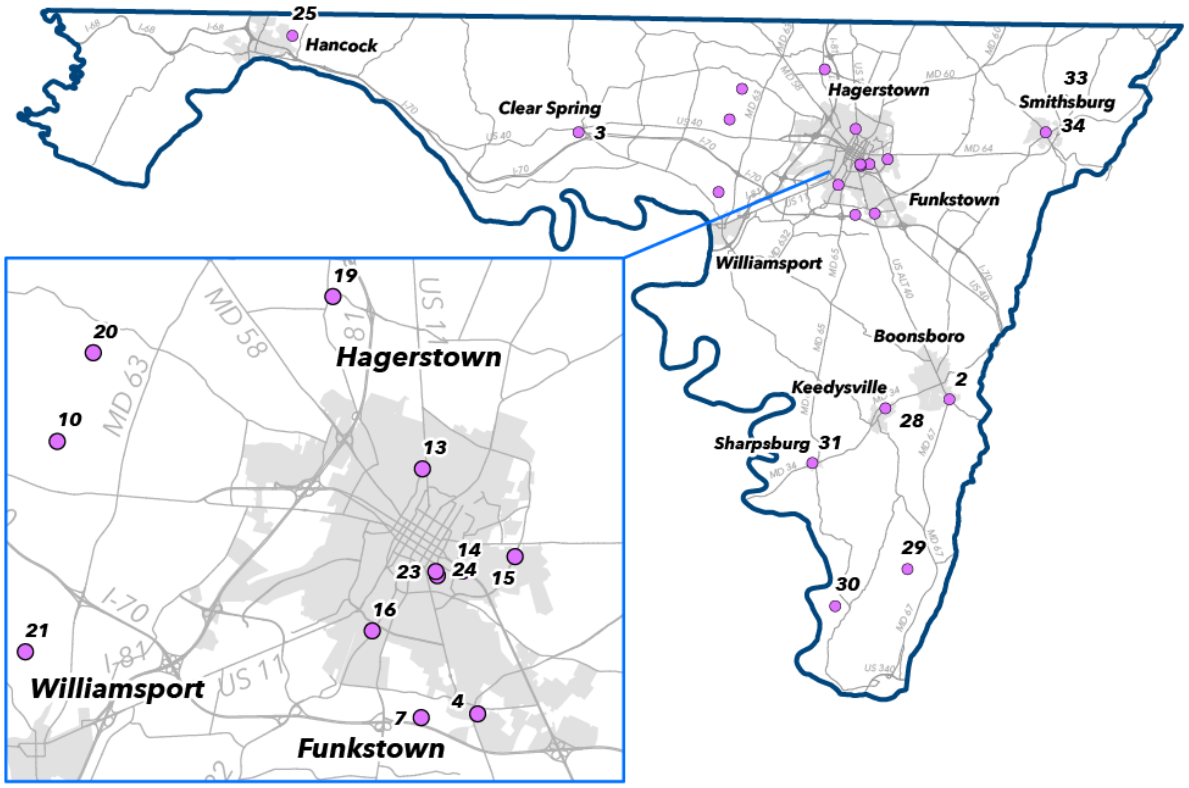
Within the unincorporated areas of Washington County, that is the areas outside of any incorporated town limits, an "open-ended" method of residential refuse pick-up exists. An "open-ended" system refers to one in which one or more waste haulers operate in a given area. Those haulers contract on an individual basis with homeowners and commercial establishments. A significant number of individuals also self-haul to the County landfill and the four convenience centers located around the County for resident's use.

Collection of solid waste and recycling materials for administrative facilities under the umbrella of Washington County's governmental operations are conducted by a contracted private hauler (currently Apple Valley Waste). Materials from these facilities are accepted for disposal or further processing at the Forty West Landfill. One exception to this system is when private parties rent the entire facility at the Washington County Agricultural Education Center. In that case, the renter is responsible for trash removal during the event.

VI. Existing Solid Waste Acceptance Facilities

Washington County's public waste handling and disposal facilities are located at the Forty West Landfill. All types of residential and commercial solid wastes are currently accepted, including white goods, scrap tires, construction rubble, and yard trimmings. The map below shows the location of public solid waste acceptance facilities.

Map: Washington County Public Solid Waste Acceptance Facilities



Public Solid Waste Acceptance Facilities				
NUMBER	NAME	FUNCTION	ADDRESS	TOWN
2	BOONSBORO PARK AND RIDE	CONVENIENCE	ROHRERSVILLE RD AND OLD NATIONAL PIKE	BOONSBORO
3	CLEAR SPRING COMMUNITY PARK	CONVENIENCE	WEST DRIVE	CLEAR SPRING
4	FUNKSTOWN TOWN PARK	CONVENIENCE	E MAPLE STREET	FUNKSTOWN
7	CLEAN EARTH-EARTHEN RECYLING	SPECIALTY	1469 OAK RIDGE PLACE	HAGERSTOWN
10	FORTY WEST	LANDFILL	12630 EARTH CARE ROAD	HAGERSTOWN
13	HAGERSTOWN (FORMER GIANT EAGLE)	CONVENIENCE	835 W HILLCREST RD	HAGERSTOWN
14	HAGERSTOWN AT DUAL HIGHWAY	CONVENIENCE	607 DUAL HIGHWAY	HAGERSTOWN
15	HAGERSTOWN GROCERY STORE	CONVENIENCE	246 EASTERN BLVD	HAGERSTOWN
16	HAGERSTOWN SOUTH END SHOPPING CENTER	CONVENIENCE	1029 MARYLAND AVENUE	HAGERSTOWN
19	MAUGANSVILLE RURITAN CLUB	CONVENIENCE	18007 MAUGANS AVENUE	HAGERSTOWN
20	RESH ROAD	LANDFILL	RESH ROAD	HAGERSTOWN
21	RUBBLE FILL AREA	SPECIALTY	11108 KEMPS MILL RD	HAGERSTOWN
23	WASHINGTON COUNTY HOSPITAL INCINERATOR	SPECIALTY	251 E ANTIETAM ST	HAGERSTOWN
24	WASHINGTON COUNTY HOSPITAL PARKING LOT	CONVENIENCE	251 E ANTIETAM ST	HAGERSTOWN
25	HANCOCK	TRANSFER	6502 HESS ROAD	HANCOCK
28	KEEDYSVILLE AT THE RED BIRD	CONVENIENCE	19409 SHEPHERDSTOWN PIKE	KEEDYSVILLE
29	KAETZEL	TRANSFER	2926 KAETZEL ROAD	KNOXVILLE
30	DARGAN	TRANSFER	2201 DARGAN SCHOOL ROAD	SHARPSBURG
31	SHARPSBURG FIRE STATION	CONVENIENCE	110 W CHAPLINE STREET	SHARPSBURG
33	GREENSBURG	TRANSFER	13125 BIKLE ROAD	SMITHSBURG
34	SMITHSBURG FIRE STATION	CONVENIENCE	22 N MAIN STREET	SMITHSBURG

The nine incorporated municipalities in Washington County have all taken responsibility for administering their own waste collection and additional disposal services, with varying degrees of expenditure in terms of dedicated personnel and equipment. All of these towns have a closed-end waste pick-up system. The term "closed-end" means that only one hauler or the town personnel operate the residential trash pick-up within that municipal area. In all cases, the routes are controlled by a bid process. Contracted haulers for Washington County municipalities are listed below.

Municipal Solid Waste Haulers

Municipality	Collector
Boonsboro	Apple Valley Waste
Clear Spring	Apple Valley Waste
Funkstown	Apple Valley Waste
Hagerstown	Waste Management
Hancock	Apple Valley Waste
Keedysville	Apple Valley Waste
Sharpsburg	Apple Valley Waste
Smithsburg	Allied Waste
Williamsport	Allied Waste

Hagerstown manages an office paper collection and recycling program in City Hall and at other municipal departments. The City's contracted waste hauler also provides once a week curbside mixed paper collection, including newspaper, phone books, catalogs, cardboard, and junk mail, and commingled plastic-metal-glass collection. The City offers a free curbside bin to residents in an effort to increase the mixed paper collection rate. City residents also have yard waste collection.

A. County Owned and Operated Facilities

1) Solid Waste Disposal Facilities

❖ **Forty West Landfill**

The County's Forty West Landfill comprises 425 acres located on US Route 40, 4 miles west of the City of Hagerstown. It opened in November of 2000 as a state-of-the art secured sanitary landfill, with a high-density polyethylene liner, leachate collection and management system, and computerized scale house. The Forty West Landfill accepts only County generated waste. The facility includes a sanitary and rubble landfill, as well as recycling, composting, transfer stations.

Forty West Landfill Site Data

- Permit #: 2019-WMF-0266A expires 12/1-2024.
- Location: 12630 Earth Care Road
  Hagerstown, MD 21740
- MD State Coordinates (1983): East 570, North 667
- Area Served: 467 Square Miles
- Population: 147,130 (2010 Census)
- Wastes Refused: hazardous wastes, explosives, motor vehicles, liquids, sealed containers.
- Cover Depth: six inches soil daily. Alternate daily cover used as approved by MDE. Twelve inches soil as intermediate cover.
- Operating Hours: 7:00 AM to 3:30 PM, Monday-Saturday
- Employees: 29
- Equipment on Site: 3 dozers, , 3 rubber tire loaders, 2 steel wheel compactors, 1 road grader, 1 farm tractor, 1 back-hoe, 1 gradeall, 1 track loader, 2 articulated dump haulers, 3500 G. water truck, 1 single axle dumper, 1 tandem axle tractor, 1 tub grinder, 1 horizontal grinder
- Acreage: 425 acres (189 acres fillable)
- Remaining Capacity 19,509,152 Cubic Yards*
- Estimated years of service life: 50 years

2) Inactive or Closed County Solid Waste Facilities

❖ Inactive Facilities

Rubble Reclamation Landfill

- Location: 11112 Kemps Mill Road
  Williamsport, MD 21740
- Permit has expired
- Acreage: 100 acres (75 acres fillable)
- Inactive since 2000, facility to be capped by 2022
- Portion of site has been repurposed to generate solar energy for County facilities

❖ Closed Facilities

City/County Landfill (1982)

- 12824 Resh Road, Hagerstown, MD 21740

Resh Road Sanitary Landfill (2000)

- 13224 Resh Rd, Hagerstown, MD 21740

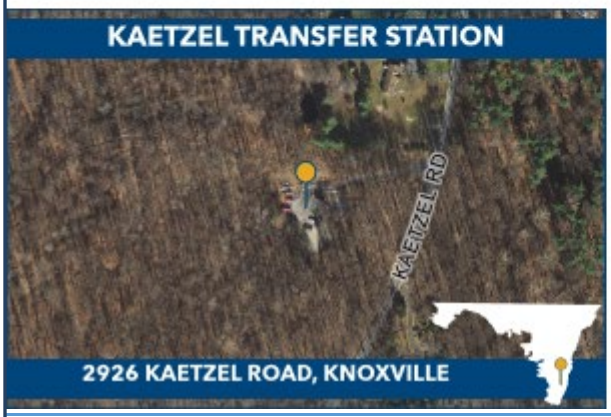
- Scheduling and budget for monitoring and leachate collection established. Leachate is trucked to the Conococheague Wastewater Pretreatment and Treatment Plant for processing.

- Portion of site repurposed to generate solar energy for County facilities

Hancock Sanitary Landfill, Hess Road (1996)

- Site of current Hancock Convenience Center
- Landfill was capped in 1996

3) County Convenience Centers and Recycling Facilities



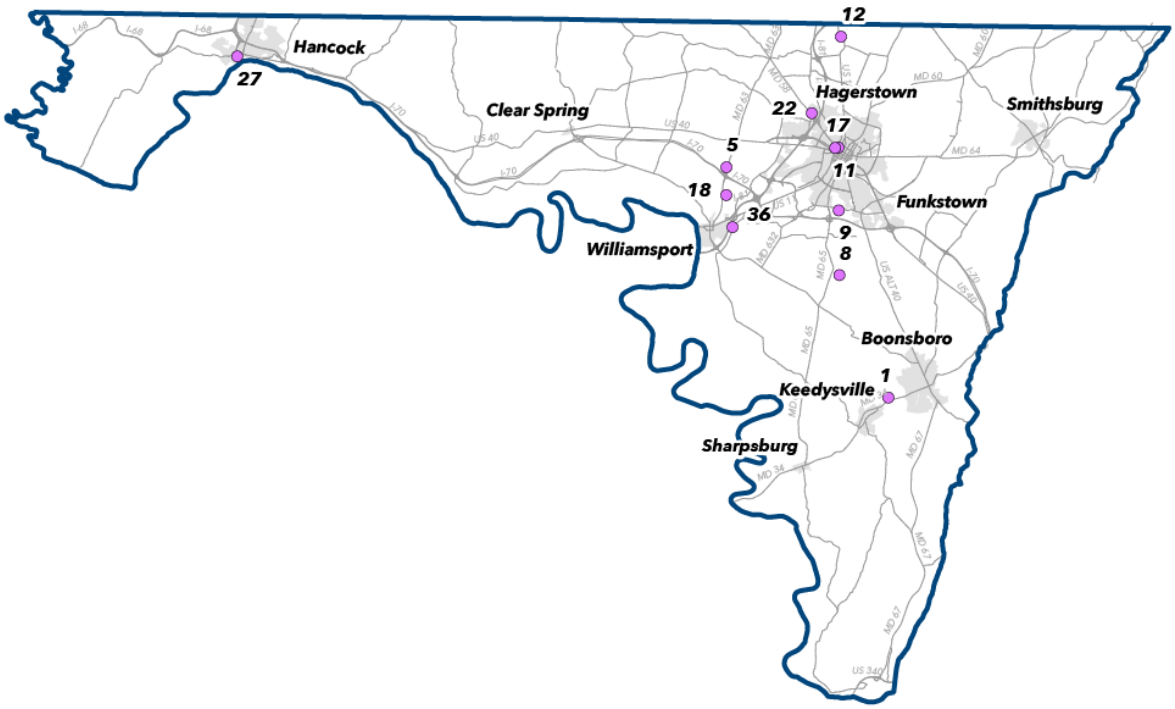
In addition to the Forty West Landfill, Washington County has convenience centers for residential use only at the following locations shown above and described below. Users of each convenience center must purchase a permit to use the facility. Convenience centers accept trash, recyclables, cardboard, oil and antifreeze.

GREENSBURG ➢ Location: Bikle Road, north of Smithsburg ➢ Hours of Operation: Tuesday – Saturday 7:00 AM to 3:30 PM, Closed Monday ➢ Attendant present during operations	**DARGAN** ➢ Location: Dargan School House Road across from firehall off Harpers Ferry Rd ➢ Hours of Operation: Tuesday – Saturday 7:00 AM to 3:30 PM, Closed Monday ➢ Attendant present during operations
KAETZEL ➢ Location: Kaetzel Road, south of Boonsboro ➢ Hours of Operation: Tuesday – Saturday 7:00 AM to 3:30 PM, Closed Monday ➢ Attendant present during operations	**HANCOCK** ➢ Location: Hess Road, east of Hancock ➢ Hours of Operation: Tuesday – Saturday 7:00 AM to 3:30 PM, Closed Monday ➢ Attendant present during operations

B. Private Facilities

Private sector waste acceptance facilities, including recycling facilities, are identified and located geographically on the Map shown below. Private sector recycling processors and marketers manage most of the recycling occurring in the county. Companies and businesses involved with collection and processing of recyclable materials such as cans, bottles, scrap metals, cardboard and electronics are included in the table accompanying this map. Detailed below are a select number of private solid waste acceptance facilities that operate in Washington County.

Map: Washington County Private Solid Waste Acceptance Facilities



Private Solid Waste Acceptance Facilities				
NUMBER	NAME	FUNCTION	ADDRESS	TOWN
1	AGAPE PET SERVICES	PRIVATE	19712 SHEPHERDSTOWN PIKE	BOONSBORO
5	ALLIED WASTE	PRIVATE	11710 GREENCASTLE PIKE	HAGERSTOWN
8	CONSERVIT INDUSTRIES	PRIVATE	18656 LESLIE DRIVE	HAGERSTOWN
9	CUMBERLAND VALLEY RECYCLING	PRIVATE	231 E OAK RIDGE	HAGERSTOWN
11	GOODWILL	PRIVATE	151 BURHANS BLVD	HAGERSTOWN
12	GOODWILL INDUSTRIES	PRIVATE	14515 PENNSYLVANIA AVE	HAGERSTOWN
17	MARYLAND METALS	PRIVATE	304 CHURCH ST	HAGERSTOWN
18	MARYLAND PAPER	PRIVATE	16144 ELLIOT PARKWAY	HAGERSTOWN
22	WASHINGTON COUNTY ASSOC. FOR RETARDED CITIZENS	PRIVATE	12919 SALEM AVENUE	HAGERSTOWN
27	TRI STATE REUSE CENTER LTD	PRIVATE	225 WEST MAIN STREET	HANCOCK
36	FREEDOM ELECTRONICS RECYCLING	PRIVATE	10420 GOVERNOR LANE BLVD	WILLIAMSPORT

1) Agape Pet Services

Agape Pet Services is a permitted waste transfer station facility that offers pet cremation services. The facility is described as follows in accordance with COMAR 26.03.03.03D:

- Location address - 19712 Shepherdstown Pike in Boonsboro, MD 21713
- Maryland Grids Coordinates – 1119543.156 East, 668190.557 North.

- Facility size in acres - 41
- Type and quantity of waste accepted in 2019 – Special Medical Waste, 13 tons.
- Ownership - Private
- Permit Status - Active, Permit No. 2015-WTS-0672, Expiration: May 1, 2022.

2) Habitat for Humanity Restore

Hagerstown's Habitat for Humanity Restore offers new and used furniture, appliances, home décor and building materials. The store acts as a fundraising arm for Habitat for Humanity of Washington County to further their mission of advancing affordable homeownership and alleviate substandard housing conditions locally.

3) Holcim Cement Company

The cement company on Security Road is an MDE permitted user of scrap tires as a source of fuel in its cement manufacturing process. The county approved site for a tire burning facility includes a feed ramp for whole tires and trailer storage areas. Approximately 380 tons of tires per hour M-F are consumed in the cement kiln.

4) Conservit, Inc.

Conservit Inc. is a ferrous and non-ferrous scrap metal recycling facility for household, commercial and industrial waste. Accepted household items include aluminum beverage cans, pet food cans, lawnmowers, washers/dryers, copper, brass, and more. Conservit, Inc. supplies roll-off container service for commercial and industrial companies. Mobile crane services are available for assisting with scrap metal clean up along with mobile car crushing for salvage yards. Conservit also recycles some materials resulting from construction and demolition projects. Their Washington County facility is located at 18656 Leslie Drive in Hagerstown.

5) Clean Earth of Maryland

Using a chemical fixation process, the company recycles non-hazardous petroleum contaminated soils, RCRA non-hazardous soil as well as aggregate based construction and demolition debris. Rubble and stone are crushed and screened to produce aggregate for sale or for use on-site. The majority of this aggregate is mixed with screened soil that has been treated with either Ca (OH)2, Portland Cement, or kiln dust or any combination thereof, to produce a stabilized material suitable for pavement sub-base and sized compactable structural fill material for construction applications.

6) Maryland Metals

Maryland Metals, Inc. has three locations in Hagerstown, two of which provide metal recycling and processing services. The third location offers new steel products and fabrication services. The company's recycling division accepts scrap metal from individuals, small businesses, and industry. Ferrous and non-ferrous scrap metals are accepted, including aluminum, copper, brass, steel, stainless steel, sheet iron, automobiles and cast iron.

VII. Waste Stream Projections

The table below projects selected major waste stream categories in two-year increments from 2021 through 2031. Total waste generation as well as individual waste stream category tonnages have been projected using the County's 1.15% historic annual growth rate. Projections for all other categories which recorded no waste disposed or which are not connected to population growth (i.e. – dead animals) remained flat based upon 2019 reported tonnages, with the exception of asbestos, which the County no longer accepts for disposal at the Forty West Landfill.

A 50.8% recycling rate, and corresponding 49.2% disposal rate (based upon averages presented in the Waste Stream Snapshot at the beginning of this chapter) have been used to project the split between Total MRA Recycling and Total NON MRA Recycling in accounting for the Total Waste Generated for each two-year period.

Solid Waste Management Plan 2022-2031
Washington County Annual Waste Generation and Projections
Table 3-1

	Actual Tons	Projections					
Waste Category	**2019**	**2021**	**2023**	**2025**	**2027**	**2029**	**2031**
MSW Residential	0	0	0	0	0	0	0
MSW Commercial	0	0	0	0	0	0	0
MSW Mixed	86,215	88,197	90,225	92,300	94,422	96,593	98,814
Industrial (solids, liquid, etc.)	12,894	13,280	13,585	13,897	14,216	14,542	14,876
Institutional (schools, hospitals etc.)	0	0	0	0	0	0	0
Demolition Debris (C&D)	24,122	24,676	25,243	25,823	26,416	27,023	27,644
Land Clearing	0	0	0	0	0	0	0
Controlled Hazardous Substance (CHS)	0	0	0	0	0	0	0
Dead Animals	51	51	51	51	51	51	51
Bulky or Special Waste	0	0	0	0	0	0	0
Vehicle Tires	0	0	0	0	0	0	0
Wastewater Treatment Plant Sludges	8,846	9,049	9,257	9,469	9,686	9,908	10,135
Special Medical Waste	183.43	187.65	191.97	196.39	200.91	205.53	210.26
Textiles	0	0	0	0	0	0	0
Asbestos	3	0	0	0	0	0	0
Soil	165	165	165	165	165	165	165
Total MRA & NON MRA Waste	**132,479**	**95,501**	**97,697**	**99,944**	**102,243**	**104,594**	**106,999**
Total MRA Recycling	**29,377**	**50,585**	**51,748**	**52,939**	**54,156**	**55,401**	**56,676**
Total NON MRA Recycling	**27,888**	**48,021**	**49,126**	**50,255**	**51,411**	**52,594**	**53,803**
Total MRA and NON MRA Recycling	**57,265**	**98,606**	**100,874**	**103,194**	**105,567**	**107,995**	**110,479**
Total Waste Generated	**189,744**	**194,108**	**198,572**	**203,139**	**207,811**	**212,590**	**217,479**

Chapter 4

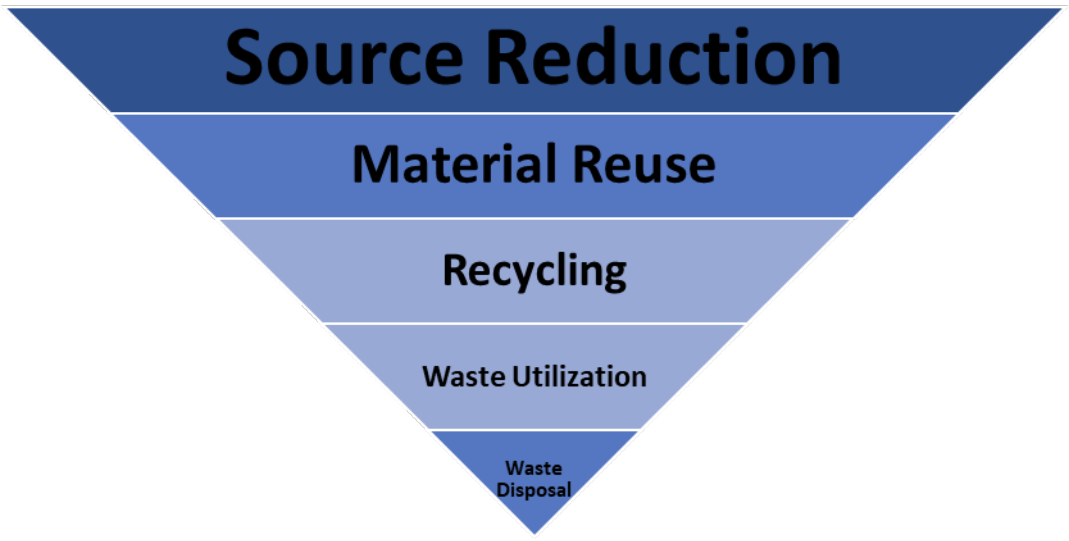
Solid Waste Management System Assessment and Alternatives

I. Assessment of Solid Waste Management Alternatives

In this chapter, the advantages and disadvantages of Washington County's existing solid waste management system are evaluated in order to determine its adequacy in meeting the goals and objectives of this Plan. Alternatives to the current system, including potential new technologies, or changes to existing solid waste and recycling programs, operations or regulations which support achieving the County's desired vision during the planning period are examined. Constraints for siting new solid waste management facilities are considered as well. This analysis, which must also account for fiscal limits in either pursuing new technologies or continuing to support existing programs and services, forms the basis for the County's Plan of Action in Chapter 5.

Washington County has established a hierarchy of solid waste management, shown below, that is used to guide the evaluation of potential technologies, from most preferable to least. It is depicted as an inverted pyramid below to demonstrate the importance of exhausting all available alternatives to waste disposal before falling back on that option. This hierarchy recognizes that, while not all waste can be diverted from disposal in a landfill, the goal should always be to limit the amount which is disposed to the greatest degree possible.

Washington County Waste Management Hierarchy



- **Source Reduction** constitutes waste and/or pollution prevention. It can take many forms, including the design, manufacture, purchase or use of materials and products in a manner which reduces either the amount or toxicity of solid waste. Source reduction represents the highest priority in waste management because of the myriad environmental, economic, and social benefits that can be attained through its achievement.

- **Material Reuse** involves extending a product's lifespan by various means, including the continued usage of a product for its original purpose, or repurposing the item for other suitable activities. Reuse

acknowledges that many products are manufactured with greater durability and utility for multiple purposes than may originally have been envisioned at the time of consumer purchase.

- **Recycling,** or waste diversion, differs from reuse in that collected waste is processed and broken down into raw materials that can be re-manufactured into something new. Composting, where organic material such as yard waste is processed into various products that can be used as fertilizer, is one familiar example of this process.

- **Waste Utilization** typically involves the recovery of energy or materials from waste for their processing into another usable form. It differs from recycling in that it requires various processing steps to remove and separate usable materials from the waste. Recycling, in contrast, usually does not require any processes for separation as sorting can be done manually. Gasification, where energy is harvested from municipal solid waste through a chemical reaction process, is an example of waste utilization.

- **Waste Disposal** represents the end stage of a product's lifecycle. Many forms of waste require treatment processes before their final deposition in a landfill or other permitted solid waste disposal facility.

II. Waste Reduction

Waste reduction, as noted in the County's waste management hierarchy, is the process of reducing the amount of solid waste generated through a variety of means at different stages of a given product's lifecycle. It includes many activities that fall within the hierarchy of source reduction, material reuse and waste diversion (recycling).

Washington County - Waste Reduction Policies

Washington County will continue to promote and encourage waste reduction through the adoption of internal goals, policies, and programs. To date, Washington County has:

- Created a Citizen's Guide to Solid Waste and Recycling brochure that provides concise information about recycling and solid waste programs in Washington County.
- Initiated electronic plan review, instead of requiring paper submissions, for select plans and permits. Such applications typically require numerous paper copies to be submitted, which are then sent out to various Departments inside and outside of County government for review and comment. Therefore, there is significant potential for the reduction of paper waste as a part of this initiative.
- Included a web page on Source Reduction linked from the Solid Waste Department home page on Washington County Government's website. The page includes a link to the Hagerstown Freecycle group. Like Craig's List, items described are available for no charge. The webpage also includes tips for residents on ways to reduce waste and provides links to other State and National organizations that provide information about Source Reduction.
- Provided technical assistance upon request about waste reduction targeted at the homeowner and small business.
- Included waste/source reduction in presentations on waste management.

- Promoted source reduction through varied media including the internet, radio, and television.
- Staffed a source reduction display at various community events.
- Networked with the Master Gardener program through the University of MD Extension Service, Washington County, to promote grass recycling and backyard composting.
- Undertaken a Clean County Initiative which includes stormwater retrofits, stream restorations, street sweeping and tree plantings that reduce nitrogen, phosphorus and sediment loads entering County waterways in compliance with Federal Clean Water Act requirements. This program also promotes citizen initiatives such as septic system stewardship, using rain barrels and cleaning up pet waste as ways to improve water quality by reducing different types of waste.
- Promotes the reuse and internal redistribution of office furniture and equipment to other County Departments of supplies through an email notification system that goes out to all County employees.
- Interoffice mail is sent with reusable mailers to reduce paper consumption.

A. Collection and Transfer

Alternatives considered for the collection of residential and other waste and recyclables include the existing free enterprise system, franchising/contracting, hauler licensing, and a County operated system. Advantages and disadvantages of each collection system are analyzed below.

1) Alternative Collection Systems

- Free Enterprise System (Subscription)

In the unincorporated areas of Washington County, most residential and commercial solid waste is collected by private haulers who contract with the individual homeowner, homeowner's association or management company, apartment complex, retail establishment, industry, or institution. All haulers operating in Washington County must secure a license from the County and are required to operate according to the requirements of the Solid Waste Collection Licensing Ordinance.

The City of Hagerstown contracts a private hauler for collection services within its boundary, as do all other municipalities in the County. Municipal taxes or designated fees are used to pay for collection costs within the municipalities.

Advantages

- Requires minimal or no involvement and financing by County government
- Individual or establishment is free to deal with the hauler of his/her choice
- System has previously served the needs of the County in a satisfactory manner
- Cost for hauling and disposal of waste billed directly to the customer or municipality by the hauler with no County involvement
- Provides opportunities for private enterprise
- Large commercial, industrial, and institutional establishments currently contract directly with private haulers for collection. These establishments often have requirements related to collection frequency, containers, and collection hours, which may be best addressed by individual contracts.

Disadvantages

- Overlapping routes are common (a neighborhood or block may be served by several private haulers)
- Potentially less cost effective than a system with assigned routes that do not overlap (accounting for labor, equipment, operation, and maintenance)
- Potential for illegal dumping to avoid fees or trips when collection is voluntary
- More difficult to implement changes to collection practices that meet Plan goals and objectives due to the number of haulers and lack of County involvement (i.e. - volume-based billing for collection services, mandatory recyclables collection by haulers)
- Less control over waste flow in and out of County

- Contract Collection (Franchise)

In contract collection, the County would be divided into collection districts with approximately equal residential populations. Municipalities could either consist of a separate collection district or could be included within an adjacent unincorporated area. One hauler is generally awarded the collection contract for each district based on competitive bidding. Alternatively, the County would pay each hauler based on their bids. This cost could be reflected on the tax rate, through a waste generation fee or through a system benefit charge. This system was recommended by the body formerly known as the Washington County Solid Waste Advisory Committee (now known as the Environmental Management Advisory Committee) in 2007. The Environmental Management Advisory Committee, which has succeeded the SWAC as the liaison between the Department of Solid Waste and Recycling and the Board of County Commissioners, has not taken an official position on a preferred collection system at present.

The County would be responsible for determining the number and geographic location of collection districts and establishing uniform performance requirements and standards for the contract. Under this system, additional County staff might be required to conduct the contract award and administration process. The following considerations must be addressed when establishing a contract system:

- The length of the contract
- Mandatory or voluntary collection within the district
- Recyclables collection
- Entity who will provide containers for both refuse and/or recyclables
- Frequency of collection for refuse, recyclables, yard waste, white goods, bulky materials
- Servicing of multi-family housing, commercial, institutional, and industrial establishments
- Collection hours and days
- Personnel Training
- Performance standards for issues such as spillage, litter, noise, equipment
- Designation of a disposal or processing facility
- Annual Adjustments to Service Rates Based on a Certified Operating Cost Statement
- Billing and bill collection procedures
- Performance bonding of collection contracts, and
- Insurance, indemnification, and record keeping

Advantages

- Elimination of redundant routes typically reduces collection costs for homeowners and commercial accounts
- Allows for the establishment of new management policies through inserting requirements in contracts (i.e. - mandatory recyclable collection and volume-based billing establishment more achievable than in the free enterprise system through greater administrative control)
- Mandatory collection may reduce illegal dumping and improve air quality by reduction in the number of collection routes
- Greater control of waste flow in and out of the County

Disadvantages

- May require additional resources (fiscal, staffing) to implement and administer this system
- Reduced competition as some haulers may be eliminated from collection system

- Hauler Licensing

A licensing system includes elements of both the free enterprise and contract collection systems. The licensing system allows private haulers to remain in business if they meet regulatory conditions imposed by the County such as vehicle/container standards or reporting requirements. Haulers are also responsible for customer billing and disposal services. In this system, the County must establish procedures, policies and performance standards for licensing and monitoring haulers.

The following considerations are typically included in a licensing system:

- Length of license
- Mandatory or voluntary collection
- Collection of recyclables
- Provision of containers for refuse and recyclables
- Collection frequency
- Performance and reporting standards.

Advantages

- Enables individual choice and promotes competition that may reduce consumer collection costs
- Greater control of waste flow than free enterprise system
- Facilitates implementation of new management policies through licensing requirements

Disadvantages

- Overlapping routes still likely
- Potential for hauler opposition to regulations on collection and disposal practices. Regulation avoidance could create alternate disposal avenues outside the County's systems to avoid the licensing requirements.
- Requires County establishment of standards and licensing procedures and policies.

- Smaller haulers may not be able to comply with requirements

Washington County adopted a Solid Waste Collection Licensing Ordinance in 1995, which is included in the Appendix. While the individual and commercial establishments are free to deal with the hauler of their choice, the licensing system gives the County the opportunity through reporting requirements to monitor waste flow. It also provides a legal framework for the establishment of new management policies through amendments to requirements of the Licensing Ordinance.

- Government Collection (Public Operation)

Under this option, collection and hauling services would be provided by County employees using equipment owned by the County. Collection could be made either voluntary or mandatory throughout the County. Financing of the system could either be through the tax system or by direct billing that reflected the true cost of maintaining the program.

Advantages

- Greatest control over waste flows for the County allows for increased source reduction, recycling, and standard quality of service
- Economies of scale could be realized to reduce capital costs of the operating system
- System would only need to be financially self-sufficient (cover costs of operation, no profit requirement)

Disadvantages

- Would require large capital expenditure by the County to purchase the necessary equipment to assume responsibility for all collection and hauling
- May cost more than private collection system due to a variety of factors (i.e. - different management objectives, operational characteristics, salaries, and benefits)
- Eliminates opportunities for private enterprise

B. Collection Billing and Source Reduction Alternatives

1) Variable Rate vs. Base Rate for Solid Waste Collection Service ("Pay-As-You-Throw")

One way for a community to provide an incentive to its residents to reduce the amount of waste disposed of is to establish a variable rate charge for collection services. Currently, most trash haulers charge a flat monthly fee (a base rate) for waste collection regardless of how much, or how little, trash they generate. As a result, there is little economic incentive for residents to reduce the amount of waste disposed of. In order to create an economic incentive to reduce the amount of waste disposed of, citizens could be charged based on the amount of refuse placed at the curb each week (a variable rate). As the amount of waste disposed increases or decreases, the cost to the individual either increases or decreases. This approach treats waste disposal services just like electricity, gas, and other utilities in which households pay a variable rate depending on the amount of service they use.

Variable rate programs are commonly referred to as "Pay-As-You-Throw" (PAYT) programs. With this service, residents place waste in specially designated bags or containers purchased from the hauler, local

government, or cooperating retail outlets. Essential to a pay-per-unit program is availability of recycling programs and educational material on methods of reducing waste. Programs exist that are totally based on a per-unit rate.

The variable rate program is available in Allegany County using a sticker program. Another alternative could use a combination of a base rate for a threshold volume and a greater per bag fee above that threshold.

Advantages

- **Environmental Sustainability** – Many communities with PAYT programs in place have reported significant increases in recycling and reductions in waste disposal, due primarily to the economic incentives inherent in PAYT. Less waste and more recycling mean that fewer natural resources need to be extracted. In addition, greenhouse gas emissions associated with the manufacture, distribution, use, and subsequent disposal of consumer products are reduced because of the increased recycling and waste reduction that PAYT encourages.
- **Economic Sustainability** - PAYT can help communities control increasing municipal solid waste management expenses. Well-designed programs generate the revenues communities need to cover their solid waste costs, including the costs of such complementary programs as recycling and composting. Residents also benefit from having greater control over their trash bills.
- **Equity** – Under traditional waste collection models, users of the system who recycle and prevent waste disposal subsidize the cost of those who recycle less and dispose of more waste as all users are charged the same flat rate. PAYT therefore, provides a more truly fair and equitable collection system where users only pay for what they throw away.

Disadvantages

- May be more expensive to implement and administer the more complex collection system that requires multiple container sizes and variable billing rates associated with different subscription levels.

III. Land Disposal

A. Existing Land Disposal System in Washington County

Currently, most of the solid waste in Washington County is disposed of at the Forty West Landfill. This is the only landfill actively used by the County, as the County's Rubble Reclamation Landfill has been inactive since 2000. This landfill has a fifteen-cell capacity with five of the cells currently operational. On average, approximately 350 tons of trash, yard debris and construction debris are brought across the scales per day. The Landfill accepted 111,466 tons of solid waste in 2018. At the current rates, it is estimated that the Forty West Landfill will reach its capacity around 2070.

The County's Permit Program allows residents of Washington County to pay a nominal fee to drop off general household trash from their residence only, at the Forty West Landfill or one of the Transfer Stations. Trash allowed on the permit is classified as standard kitchen and bathroom trash. Regular residential permits currently cost $130 annually, with discounted rates available for seniors, veterans and for households purchasing additional permits. Current Forty West Landfill fees are shown below. Alternatively, any county resident can use the landfill on a cash basis. A residential permit is not required for cash sales.

Table 7: Forty West Landfill Inbound Fees

Minimum Scale Fee (<360lb MSW/<320lb Yard/<260lb Rubble/<660lb Recycle)	$10.00
Municipal Solid Waste	$55.00/ton
Yard Debris (leaves, grass, brush)	$63.00/ton
Recycling	$30.00/ton
Domestic Sludge / Industrial Sludge	$60.00/ton
Rubble / Building Debris	$75.00/ton
High Volume/Low Weight (foam, rubber, etc.)	$120.00/ton
Tires (auto & light truck, less than 6)	$3.00 each
Tires (less than 22 inch rim size)	$162.00/ton
Tires (equipment)	$250.00/ton
Dirt (Clean Fill)	$20.00/ton
Carcasses	$100.00/ton
Appliances Containing Freon	$5.00 each

B. Sanitary Landfills

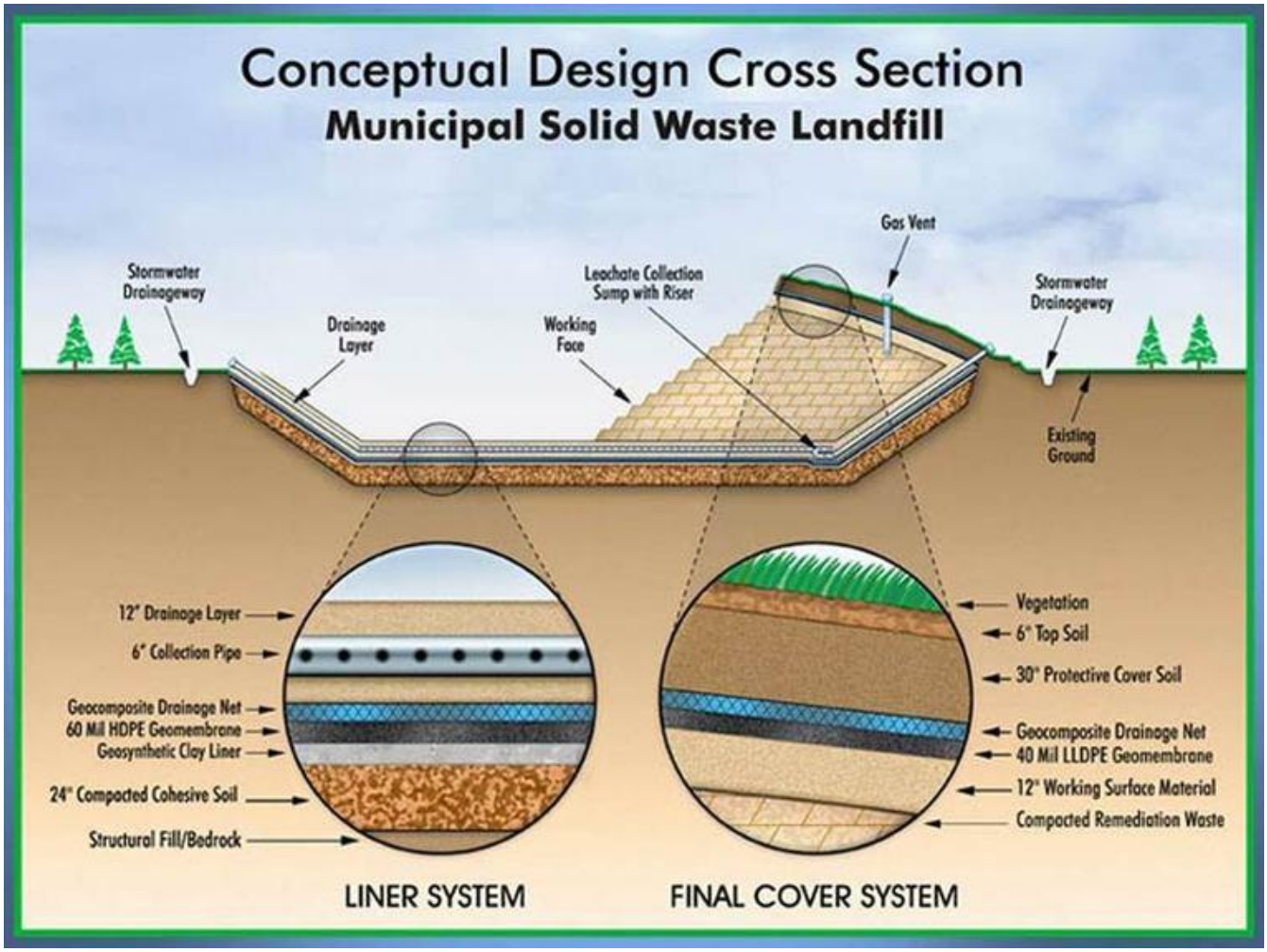
A sanitary landfill contains compacted solid waste within an enclosed lined area to minimize possible adverse environmental impacts. All landfills in Maryland must meet requirements established for construction, operation, maintenance, expansion, modification, and closure as stipulated by the Maryland Department of the Environment.

Despite environmental and public concerns associated with landfills, every integrated waste management system needs to have access to a landfill. Source reduction, recycling, composting, and material recovery can divert significant portions, but not all of the waste stream from landfill disposal. Waste-to-energy and waste-to-renewable energy facilities for solid waste management significantly reduces waste volumes, but even the most advanced facilities must dispose of residues and residual non-processable waste. Waste may also need disposal during plant shutdowns.

Modern sanitary landfills are significantly more sophisticated than the open dumps of the past, as shown in the figure below. Current landfills use a variety of specific technologies and practices including:

- Liner systems
- Leachate collection and removal systems
- Leachate treatment and disposal systems
- Closure techniques which reduce the amount of leachate generation
- Gas collection, venting/reuse, and monitoring systems
- Provisions for closure and post-closure care and maintenance
- Ground and surface water monitoring systems and
- Monitoring and control of materials entering the site.

Figure 2: Sample Landfill Cross Section



Source: http://www.projectdataresearch.com/landfills.html

C. Rubble Landfills

The County also operated a Rubble Reclamation Landfill at the Kemps Mill Road solid waste management facility for construction and demolition waste derived from building construction, demolition, or remodeling activities. Rubble waste was diverted from the incoming waste loads and disposed of in the rubble cell. Due both to cost saving measures after the opening of the Forty West Landfill, and to changes in State regulatory requirements for rubble landfills, the Rubble Reclamation Landfill ceased operations and has been inactive since 2000. Rubble waste that was delivered to the County solid waste management facility is diverted to the municipal waste cell or transferred for disposal elsewhere.

D. Repurposing Inactive or Closed Landfills

Landfills which are no longer actively receiving solid waste present opportunities to be repurposed for uses which continue to provide a beneficial use for County owned lands. Three solid waste acceptance facilities in Washington County have been repurposed as solar energy generating facilities to offset the electricity used by County government operations. The solar sites are located at the Rubble Reclamation Landfill (see image at left) off Kemps Mill Road, at the Forty West Landfill and at the closed Resh Road Landfill. Each solar site can generate 2 megawatts of electricity. A public-private partnership with Spear Point Energy,

EPG Solar and Northern Energy and Power, was pursued to realize these projects. The County's lease agreement with these entities enables it to collect annual rental and revenue payments in addition to the energy cost savings achieved from this alternative energy source. The County's solar partners assume responsibility for financing and maintenance of solar farms across the County. These agreements were transferred from Spear Point to Clara Cressingham LLC in a recent sale between the two companies.[1]

Numerous other possibilities exist for reusing the space occupied by a closed landfill. Pinesburg Softball Complex, a very well used County park, is a local example of a park created atop a closed landfill There are many other successful examples across the Country of communities creating parks or other open space land uses at such sites following closure. Installing wind turbines atop closed landfills is another potential energy generating option that would fit these sites. The fact that such lands are already in public ownership negates the need to find available real estate on the private market to achieve public benefits of this nature. Additional opportunities for capturing materials or energy from the land disposal system are discussed throughout the remainder of this chapter.

E. Transfer

A transfer station is used to gather waste from residential, commercial, and other collection vehicles into a larger vehicle for transportation cost savings. An example of this would be to take waste from two or more route collection vehicles with two-man operating crews and place the waste into one semi-truck trailer, with one driver transporting waste to the disposal facility. Savings can be realized by using less staff for transportation, by decreasing waste collection time for vehicles, and by minimizing vehicles used, thereby saving hauler operating costs for fuel, maintenance, and labor. Transfer stations can also provide a better opportunity to target materials from specific sources for diversion or recycling, such as construction and demolition rubble or high value commercial loads.

Washington County currently has four transfer stations (the Dargan, Hancock, Greensburg and Kaetzel Convenience Centers). These facilities, which require a permit to use, accept trash, recyclables, cardboard, oil, and antifreeze. These facilities are important in cost-effectively providing solid waste collection across a largely rural County, where many households are located distant to the final processing and/or disposal facility that serves the majority of the solid waste generated within the County's borders (Forty West Landfill). At present, the County does not anticipate creating another transfer facility during the period covered by this Plan.

F. Alternative Landfill Disposal Technologies

1) Bioreactor Landfill/Leachate Recirculation

As an alternative to "dry tomb" landfills, bioreactor landfills are designed to promote the rapid decomposition of the organic portion of the MSW. This is accomplished by maintaining optimal moisture conditions at or near field capacity (approximately 34 to 65 percent). At a minimum, leachate is injected into

[1] https://www.heraldmailmedia.com/news/local/washington-county-government-partially-powered-by-solar-but-cost-savings-not-as-expected/article_78347782-3b80-5f1d-a311-e82df85003a2.html

the landfill to stimulate naturally occurring micro-organisms that can be either aerobic (with oxygen) or anaerobic (without oxygen). Liquids are added to the landfill through vertical wells, horizontal pipes, or trenches. The primary purpose of a bioreactor landfill is to accelerate decomposition of the organic fraction of the MSW to less than 10 years (i.e. - rather than 30 or more years). Because decomposition and biological stabilization of the waste in a bioreactor landfill occurs in a much shorter time period than in a "dry tomb" landfill (i.e., years versus decades), the potential advantages of the bioreactor landfill can include:

- Reduced leachate disposal costs
- Increased waste decomposition and settlement that results in additional air space. This space can be- as much as 40 percent
- Reduced post-closure care periods and costs
- Increased revenues through acceptance of liquid wastes
- Shortened time periods over which air and water emissions are generated and must be controlled resulting in increased environmental protection
- Increased methane production over shorter time periods making methane recovery and use as an energy source more economical
- Faster return of the landfill to a productive end-use

a) Bioreactor Landfill Configurations:

- **Aerobic**

In an aerobic bioreactor, biodegradation occurs in the presence of air, which contains oxygen. Air is injected into the waste mass using vertical or horizontal wells to promote aerobic bacteria to accelerate waste decomposition. The degradation of waste occurs under conditions similar to compost operations. The by-products of aerobic degradation are carbon dioxide (CO2) and water (H20).

- **Anaerobic**

In anaerobic digestion, micro-organisms break down biodegradable materials in the absence of oxygen-producing harvestable methane gas and compost. Methanogenic bacteria are promoted to accelerate waste degradation in the absence of these compounds and materials. The by-products of anaerobic degradation are methane (CH4) that can be used as an alternative energy source and CO2.

Bioenergy Development Company from Annapolis, MD recently presented its technology for anaerobic digestion to the EMAC. The Company estimated that 11.4% of landfill material could be diverted through this process.

- **Hybrid (Aerobic-Anaerobic)**

In a hybrid bioreactor landfill, the waste is first degraded under aerobic conditions followed by anaerobic conditions. Aerobic conditions usually occur in the newly placed waste in the upper sections of the landfill, while anaerobic conditions occur in the lower sections. Because anaerobic conditions exist in the older, lower sections of the landfill, methane production still occurs.

- **Landfill Mining**

Landfill mining refers to excavating previously buried waste with the goals including, but not limited to, recovery of ferrous metals, screening for separation of residual fine materials, utilization in a waste to

energy or waste-to-renewable energy facility. By-products of these processes can be re-landfilled or utilized as an approved reuse product depending on the process.

- **Balefilling**

Balefilling is the process of using mechanical equipment to compress municipal solid waste into bales, then transporting, stacking, and covering them in a compact mass. Resource recovery is facilitated at the baling plant as refuse travels along conveyor belts, metals and corrugated cardboard are easily removed for recycling. Balefilling can require a large upfront investment for construction of a transfer station to sort and bale the waste. However, such a facility can also function as a transfer station if waste management processes change and balefilling is discontinued.

G. Conclusions

Typical costs for landfills include pre-development, land acquisition, landfill development, construction, operating, closure, and post-closure costs. These costs can vary considerably due to a myriad of factors. The lifetime cost of operation of the Forty West Landfill was recently estimated by the County's Environmental Management Advisory Committee to be approximately $315,000,000. Building a new landfill through the completion of the first cell is estimated to cost $390,000,000. This includes the cost of purchasing more land to use for the landfill.[2]

This considerable lifetime cost of the landfill represents an opportunity to explore source reduction, waste diversion and other waste processing technologies beyond those described above in the sections that follow in this chapter to achieve fiscal sustainability with the County's solid waste management programs, operations and facilities.

IV. Source Separation/Recycling

Source separation means the removal of materials, at the point of generation, from the municipal solid waste stream before the collection, disposal, or processing of the remaining municipal solid waste. Recycling represents the collection, processing, and marketing of separated materials. Recycling results in the ultimate reuse of specific materials separated out of the waste stream which are eventually used to manufacture new products. A range of materials can be separated from the waste disposal stream including yard trimmings, aluminum cans, ferrous metals, recyclable glass, electronics, paper, cardboard, and some plastics.

Recycling is one method by which the County meets its legislative requirements for waste reduction, but it also offers numerous benefits to communities. It's positive environmental impacts, such as decreased demand for new raw materials and a reduction in greenhouse gas emissions stemming from the lifecycle energy costs of new material production, use and disposal are well understood.

Easily forgotten, however, is the fiscal benefits that come from preserving valuable landfill space that is needed for waste that has no alternative to disposal. As outlined in the prior section concerning land disposal, the lifetime costs of operating a landfill are exceptional and public opposition to siting new landfills, combined with increasing regulation of solid waste facilities at multiple levels of government, makes it

[2] Environmental Management Advisory Committee Study presented to the Board of Washington County Commissioners November 17, 2020

imperative that local jurisdictions maximize the use of existing solid waste disposal facilities. There is no guarantee that either a suitable site or the fiscal resources needed to open a new landfill, will be available when current facilities reach capacity limits. In such situations, disposal outside of local boundaries often becomes the short-term fix which can leave Counties with limited leverage to control operational costs of solid waste management. A robust recycling program is one tool by which to avoid such issues.

A. Washington County's Recycling Program

Since 1994, Washington County has provided a comprehensive recycling program and continuously reviews various recycling and resource recovery options to meet and exceed established recycling program goals. Recycling benefits include reducing environmental impacts, reducing use of nonrenewable resources, saving landfill construction and lining costs, diversion of resources for use by business and industry, and extending landfill life. Solid waste department staff continuously reviews recycling and resource recovery options.

Recycling in Washington County can be done by private hauler recycling permit or by crossing the scales. Private haulers provide curbside recycling for residents for a fee. Businesses also contract directly with private haulers for recycling. Materials accepted for recycling vary by hauler.

For a fee of $36 per year, a resident can bring their recyclables to either the Forty West Landfill or one of the four transfer stations. Recyclables included in the permit program are:

- Newspapers
- Magazines
- Phone Books
- Office Paper
- Envelopes
- Cardboard (2ft Square, Flattened)
- All Colors of Glass Containers and Lids
- Metal Food & Beverage Containers
- Empty Plastic Containers
- Brown Paper Bags
- Junk Mail
- Cereal Boxes
- Soft Cover Books
- Aluminum Foil and Pie Tins

County residents and businesses who would like to recycle but not hire a private hauler can now cross the scales and pay $30/ton for recyclables. This option is only available at the Forty West Landfill. There is a $10 minimum charge which covers up to 660 pounds.

Various public entities provide leadership to promote recycling in Washington County. County government recycles used office paper, aluminum cans, and plastic beverage bottles at all County offices. Washington County Public Schools and the Board of Education have extensive recycling programs. The County also has a dedicated Recycling Coordinator who is responsible for the development, implementation, and management of recycling programs under the direction of the Deputy Director of Solid Waste. The Recycling

Coordinator is the primary point of contact for comprehensive and current information on waste reduction, solid waste management, and recycling issues to the public, businesses, and industries. The following are examples of methods by which the Recycling Coordinator provides this information to the public:

- Contact phone number/email on County website and in phone directory government pages
- Monthly online, radio and print media campaigns
- Presentations to professional and social organizations and school programs
- Recycling display tabling at special events and activities
- Outreach and promotion for special waste collection days, such as electronics and tire recycling

1) Recycling facilities listed on the County's Recycling webpage include:

- Drop-off facilities at five recycling collection sites around the County for components of the residential waste stream, including clear and colored glass, aluminum and ferrous metal cans, selected plastics, and paper, including pasteboard and cardboard. For added convenience glass, metal, and plastic containers can be co-mingled. The use of these facilities requires a residential recycling permit.
- Drop off facilities for white goods, scrap metals, batteries (auto and rechargeable), magazines, Styrofoam, and scrap tires at the Forty West Landfill
- Drop off facility for residential electronic equipment (scale fee charged) at the Forty West Landfill, established in 2008
- Used oil and antifreeze receptacles at each convenience center and at the Forty West Landfill
- Used cooking oil/grease receptacle at the Forty West Landfill
- Private recycling and processing businesses in Washington County, with contact Information provided

B. Adopted Recycling Legislation

1) Mandated Statewide Recycling Rates

In 2012, the Maryland General Assembly passed the Recycling Rate and Waste Diversion - Statewide Goals Act. The Act revises the Maryland Recycling Act (1988) by increasing the mandated recycling rates for all Maryland jurisdictions to at least 35% for Counties with a population greater than 150,000 or 20% for those with a population below that figure. According to the most recent Census figures, Washington County has recently exceeded a total population of 150,000, thereby requiring it to meet the 35% recycling rate. As was noted in Chapter 3, while the County's recycling rate was 22.85% in 2019, it's average recycling rate was 50.8% between 2010 and 2018, which exceeded the state mandated rate for the population.

2) Public School Recycling

State legislation passed in 2010 requires a County recycling plan to address the collection, processing, marketing, and disposition of recyclable materials from County public schools. Appendix D contains the County's Plan for public school recycling.

Recycling is mandatory for staff, students, custodians, and food service staff in each school and at the administration buildings. Materials mandated to be recycled are metal cans, #1 & 2 plastic bottles, and glass containers. Paper materials that must be separated for recycling include office paper, newspapers and magazines, manila folders and envelopes, and cardboard.

Each classroom and office are provided with a separate paper recycling container. The containers are periodically collected by custodial staff and emptied into the mixed paper recycle bin. Recyclable materials in the mixed paper bin and commingled containers bin are collected and marketed by the waste hauling contractor.

Containers for metal recycling have been utilized at the WCPS Central Office for many years. Special wastes collected include used fluorescent light tubes that contain small amounts of mercury. These are collected by custodians, placed in recycling boxes, and sent to a licensed processing facility.

3) Apartment Building and Condominium Recycling Program

In 2012, the Maryland General Assembly passed legislation that requires recycling in all apartment buildings and condominiums that contain 10 or more dwelling units. Owners and managers of sixty-one (61) apartment complexes and five (5) condominiums that fell under the scope of the law were contacted by the County about compliance with the new regulations. Materials that must be recycled under this law include plastic, metal, glass containers and paper. Appendix E contains the County's Apartment Building and Condominium Recycling Program.

4) Special Events Recycling Program

In 2014, the Maryland General Assembly established a requirement for Maryland counties to address the collection and recycling of certain materials by organizers of special events which:

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

Organizers must provide clearly labeled recycling receptacles adjacent to each trash receptacle, ensure that recyclable materials are collected and delivered for recycling, and pay any cost associated with recycling at the special event. This Plan is included in Appendix F.

5) Office Recycling Program

In 2019, state legislation was passed requiring Counties to address the collection and recycling of recyclable materials from buildings that are 150,000 square feet or greater of office space. Office building owners must provide recycling receptacles for the collection of recyclable materials and for the removal of certain materials for further recycling by October 1, 2021. The County has already amended language in its previous Solid Waste and Recycling Plan, identified and notified establishments who must comply with the new regulations and will meet all required deadlines to enforce its provisions by October 1, 2021. The County's Plan for Office Building Recycling is included in Appendix G.

D. Existing Recycling Categories

1) **Residential**

Many of the recycled materials in the County originate primarily from residential sources and are collected within incorporated communities that have comprehensive recycling programs operated mostly by contracted private haulers. Homeowners in rural areas of the County either contract directly with a private hauler for recycling or self-haul to the Forty West Landfill or one of the four convenience centers. Most residential recycling originates from single family dwelling units which make up the bulk of the County's

housing stock. State legislation has, somewhat recently, mandated recycling from large apartment buildings and condominiums which increases the overall annual recycling tonnages reported to MDE.

Potential for increasing residential recycling recovery would be gained primarily through increased recovery of material through existing or expanded curbside recycling programs, by finding expanded markets for new (i.e. – organic waste composting) or existing materials collected, or by adding additional sorting facilities or convenience centers.

2) Commercial

As mentioned above, commercial entities are responsible for their own recycling programs as a component of managing their waste stream. Recycling in this sector is provided primarily by contracted private haulers who serve businesses both large and small. Haulers may process and market the recyclables directly or bring them to the Forty West Landfill for a fee. Others may collect specific materials and recycle them at private recycling facilities. Some larger retailers ship their materials directly to market or to a centralized warehouse.

There are significant opportunities to recycle more waste from businesses. Except for a few counties, businesses in Maryland recycle on a voluntary basis. Most choose to do so for economic reasons, as it reduces their waste disposal fees and they may receive market value for recyclable materials. Data reporting on waste totals from businesses is also an issue, as it is not mandatory. The County's Recycling Coordinator makes every effort to obtain as much data from businesses as possible while working with this handicap. Therefore, current data may not accurately describe how much waste is recycled vs. disposed.

The potential for increased recycling from this sector would likely come from increased recovery of mixed recyclable containers, organics and construction and demolition materials. Corrugated cardboard and mixed paper are more readily recycled, as is reflected in the reported tonnages of MRA Recyclables in Chapter 3. These materials accounted for the bulk of reported MRA recyclables between 2010 and 2018. The 2016 Statewide Waste Characterization Study also included in Chapter 3 does, however, indicate that there is still room for further capture of various paper wastes in recycling. Additional regulation, particularly at the state level, mandating recycling from this sector would significantly boost commercial recycling.

3) Yard Debris (Compost/Mulch)

Since 1994, by state law, yard waste and leaves have been diverted from landfill disposal. The County Collection Licensing Ordinance also requires yard waste to be diverted (Sec. 3.6.1). Presently, residents can bring yard waste to the Forty West Landfill with either a permit or by going across the scales. Acceptable yard waste is the plant waste derived from gardening, landscaping, and tree trimming activities, including leaves, garden waste, lawn cuttings, weeds, and pruned branches less than 4" in diameter. The Yard Waste Permit, currently $25 as a stand-alone permit or $20 when purchased with a Regular Residential Permit, covers household yard debris only. The County Recycling Coordinator, along with agencies such as the University of Maryland Extension Service also promote grass recycling and backyard composting by means of workshops and training.

Yard waste is stockpiled at the Forty West Landfill and processed using a horizontal grinder and tub grinder. The finished product is sold at the wholesale and retail level as mulch and compost. The program has been successful enough for the County to investigate options for expansion. In 2018, the County generated 1,565 tons of mulch and 887 tons of compost.

4) Other Recycled Materials

a. Scrap Tires

County residents and businesses can bring tires to the landfill for recycling. Individual light car and truck tires are $3.00 each up to 5 tires. Tires with less than 22-inch rim size are charged at $162/ ton. Large tires and equipment tires are charge at $250/ton. Any customer hauling six or more tires to the Landfill is required to obtain a temporary scrap tire haulers license from the Maryland Department of the Environment. There is no fee for the temporary scrap tire haulers license.

b. Scrap Metal

Washington County residents can drop off any metal items at no charge at the Forty West Landfill. Scrap metal items include, but are not limited to:

- Washing Machines
- Dryers
- Metal Fencing and Posts
- Bicycles
- Metal Shelving
- Filing Cabinets
- Lawn Mowers (all fluids removed)
- Metal Furniture
- Hot Water Heaters
- Any other items made of at least 90% metal
- Refrigerators, dehumidifiers, and air conditioner units must go across the scales; there is a $5 fee for the removal of the coolant from the appliances.

c. Electronics

Electronics recycling is also available for $55/ton. Included in the Electronics Program are televisions, monitors, computers, cell phones, video games, VCR's, CD players, radios, and stereo equipment. There is a $10 minimum charge.

d. Oil and Antifreeze

Used motor oil (up to five gallons), used antifreeze (up to five gallons), used cooking oil (up to five gallons) can also be recycled for free at the Forty West Landfill.

5) Curbside Recycling

Currently, collection of Washington County residential recyclables is predominantly performed by the private sector through single stream curbside collection or by permit at the Forty West Landfill or convenience centers. At least three private sector haulers offer collection of residential recyclables as part of subscription waste collection service in selected higher-density areas of the County. Commercial and industrial recycling is performed by the private sector through contracts with individual businesses and industries.

There are various models for curbside recycling collection, including:

a. Resident/Multi-Sort

Residents segregate target materials by type into separate containers. Typically, three containers are provided to each resident for collection of newspaper or mixed paper, metal cans, glass, and plastic.

b. Dual-Stream Sort

Target materials are placed into two different containers, typically one for bottles and cans and the other for mixed paper. Collection crews keep the materials separate as they place recyclables in the collection vehicle.

c. Single Stream

Target materials are placed in a single container separate from the other residential wastes. The materials are not sorted by collection crews but placed into the collection vehicle in a mixed state.

Each of the above approaches may have differing effects on the level of participation achieved, materials processing requirements, the investment required to fund the program, and operational costs. Material processing requirements for the curbside programs are dependent upon the collection option selected, and the specific market requirements. Typically, an intermediate processing facility is used to prepare each material for market specifications and to package the material for shipment to the markets. These services may be contracted to private industry.

While there is opportunity to consider the advantages offered by switching to a different collection system, the current single stream curbside recycling program has proven successful in achieving resident participation due to the system's convenience and ease of use. Therefore, aside from considering changes in the collection system, the other likely avenue for improving recycling participation would be through the existing Solid Waste Collection Licensing Ordinance.

The Ordinance states that licensed haulers must offer or provide for recycling to their residential customers, but that requirement has not been stringently enforced previously. Accordingly, the potential for greater participation in curbside recycling exists through greater enforcement of the Ordinances' current regulations. This would seem a logical first step to consider pursuing before determining whether additional changes to the Ordinance are necessary to achieve higher participation in the County's recycling programs.

Expanded curbside recycling would assist in capturing many of the recyclable materials identified in the 2016 Statewide Waste Characterization Study which included sampling at the Forty West Landfill. The study showed that notable percentages of materials which are already recyclable at County solid waste acceptance facilities, such as various types of paper, plastic and corrugated cardboard, among other materials, are not being diverted from disposal in the current collection system. In short, greater penetration of curbside recycling across the County would likely help capture many of these recyclable materials without having to develop new facilities for their processing or sorting.

V. Waste Utilization and Energy Recovery Alternatives

The County continually investigates opportunities for improvements in waste management and recycling processes to increase efficiencies, lower costs, and extend landfill life. Most recently, over a period of eighteen months, the Environmental Management Advisory Committee (EMAC) studied long-term

solutions for waste disposal in Washington County, meeting with representatives and experts from a variety of companies offering several different solutions. Potential options included expanded recycling, composting, pelletization options, anaerobic digestion and partnerships with private companies offering comprehensive waste management resource planner solutions. These, plus several other technological solutions that find a secondary life for certain waste products or recover energy from the solid waste stream are described in the sections that follow. Chapter Five contains the County's Plan of Action for the next ten years based upon these recent studies, as well as past investigations into solid waste management alternatives.

A. Recyclable Material Processing Facilities

Processing facilities are used to recover recyclables from both residential and commercial or institutional sources. These facilities produce a sorted, recyclable material which is prepared for the end-use market. Recyclable material processing facilities include two basic types: mixed waste processing facilities and material recovery facilities. The former type must obtain a permit from MDE prior to construction and operation while the other facility type currently does not. A private recyclable processing facility, buy-back centers, are also discussed in this section.

1) Mixed Waste Processing Facility (MWPF)

A mixed waste processing facility recovers recyclables from the municipal waste stream. Use of a MWPF typically results in higher recovery rates for recyclables as there is no need for collection operations to segregate wastes at the source.

The process unfolds as mixed municipal solid waste is dumped onto the tipping floor and pushed onto a below-ground conveyor by a front-end loader. Bag-breaking, done either manually or with specialized equipment, is usually necessary if the MWPF is receiving large quantities of residential waste. Screening drums or other special equipment are then used to separate the mixed waste stream generally into two compartments:

- An "undersize" stream, which consists mostly of fine particles fewer than one or two inches in diameter; this stream contains fine aggregate materials (glass, stones, etc.) and compostables, such as soil and food particles
- An "oversize" stream, which contains recyclable food and beverage containers, paper, film, plastic, and other large objects.

One of the primary objectives of this process is to separate the compostable components of the waste stream from the larger particles of paper and plastic that are more useful as fuel. Size classification can also help improve hand-sorting efficiency. Because fine materials have already been removed, sorters picking materials from the oversize fraction do not have to dig through as much material to reach and pick out the recyclables. The first recyclable item that is typically removed is ferrous metal, typically by electromagnetic separation.

Once recyclable materials are baled, crushed, or otherwise processed, they are either stored within the building or loaded directly into waiting trucks for shipment to markets. The MWPF may further process non-recovered waste. Non-recovered waste which comes off the sorting conveyor may be shredded to make it easier to burn or compost. The shredded material is directed to an on-site fuel pelletization or composting process or loaded into transfer trailers for shipment to off-site fuel production or composting facilities.

Capital costs for a MWPF vary depending on the level of mechanization and sophistication of the facility, as well as land acquisition and site development. Capital and operations costs are higher than for a Material Recovery Facility. Contamination of materials is also a problem, which results in lower quality recyclables that are more difficult to market. The potential exists for environmental impacts from odors, aesthetics, and contaminated runoff from the facility.

2) Material Recovery Facility (MRF)

Material recovery facilities receive and process recyclables that have been source-separated from the waste stream. A MRF is designed to receive large quantities of commingled or single-stream recyclables, separate them by type, and prepare finished quantities for transportation to markets. The type of process and the equipment used depends on the types of recyclables and the collection method. Separation includes a combination of mechanical and manual processes. Some County businesses contract separately for collection and processing of recyclable materials. Such recyclables from the commercial waste stream are typically delivered either to a MRF or directly to a recycling market.

MRF's vary in level of sophistication from "recyclable transfer stations" to highly mechanized processing plants for commingled recyclables. Equipment requirements are based upon the level of separation of the incoming recyclables and the type and quality of recycled materials required. Most MRF's will include concrete storage bunkers and compaction and baling equipment.

MRFs generally produce a higher quality of recyclable materials than a MWPF. As a result, capital and operations costs tend to be lower once the facility is up and running. There is better control over the types and sources of waste that is accepted. Environmental impacts, including odors, are less of a concern than with a MWPF.

Residents and businesses must separate recyclables from their waste stream prior to collection with an MRF, which results in a lower participation and recovery rate than for the MWPF. MRFs do require a large investment of capital upfront to become operational. In addition, as with all recyclables, the sale of end products is subject to market volatility. Processing costs can also be considerable if economies of scale are not reached.

3) Buy Back Centers

Private buy-back centers operate similarly to the convenience centers run by the County, but individuals are paid for the materials they drop off based on current market prices. Buy-back centers, which can be permanent or mobile facilities, function as an intermediate collection point/processing center taking materials in and distributing them directly to the end processors. They require scales and containers for weighing and storing recyclables at minimum, with other equipment requirements being dependent on the specific approach being used.

The private ownership of buy-back centers offers the advantage of incurring no cost to local governments. In addition, direct payment for recyclable materials provides an incentive to recycle for those who might not otherwise be motivated to do so. Buy-back centers tend to have low material recovery rates however, and market prices may significantly affect participation.

B. Mixed Solid Waste Composting

Various methods of municipal solid waste (MSW) composting have been practiced for many years around the world. Composted material may be used as landfill cover, or for agricultural or landscaping

purposes. In the United States however, solid waste composting has had limited success due to high costs, product odors, technology issues, product quality and lack of markets for end products. Yet, the significant volume reductions associated with composting make MSW composting attractive as a potential means of diverting waste from landfills. According to MDE, compostable materials such as food scraps and yard trimmings make up nearly 30% of all municipal solid waste generated in the U.S. As a result, in the past decade interest in solid waste composting has increased in the United States and more facilities are being built.

MSW composting requires considerable pre-sorting of the incoming waste and screening of the finished product to remove non-compostable materials such as glass, metal, and plastic - activities that tend to be relatively costly. Additionally, the economics of solid waste composting require high landfill tipping fees to justify the high cost of capital, operation, maintenance, and product marketing. High tipping fees would be a difficult requirement to meet, given the County's geographic location bordering multiple other states with solid waste facilities competing for the same disposal fees. Finally, the market for composted municipal solid waste in Washington County and the mid-Atlantic area has not been fully developed. As with all solid waste technologies providing recovered or processed materials, determination of markets is an essential first step in evaluating benefits and cost effectiveness.

There are currently no in-county solid waste facilities that manage mixed solid waste composting operations at this time. The County's current composting facility is only permitted for yard debris. A new permit would therefore be required to expand the current composting operation. Facility upgrades would also be necessary to obtain permits to accept other types of solid waste, as well as additional acreage to accept an increase in material. A system for curbside pickup of food waste would have to be developed, in addition to educating the public on how to use the collection system (i.e. – keeping food scraps separate from other solid waste and recycling materials). Finally, participation from the City of Hagerstown would be essential to make this economically feasible. Further development of regional markets for composted materials in Western Maryland could make MSW composting more feasible for Washington County should it wish to pursue this method of waste diversion.

C. Municipal Waste Combustion and Waste to Energy (WTE)

Municipal waste incineration has evolved over time from a focus on simply reducing the volume of waste disposed in a landfill to capturing energy from waste materials that can generate power for use on or off site from the solid waste management facility. Most new incinerators have "waste-to-energy" capabilities in which they produce steam and/or electricity through as a part of the combustion process. Whether a mass-burn or a WTE facility, all incinerators include certain common elements such as air pollution controls and a residue handling system. Reuse of the ash that results from incineration as an alternative daily cover, drainage layer or structural fill at a landfill is an example of the latter system (if the ash is classified non-hazardous waste after testing under state and federal regulations).

A number of large municipalities have allowed private ventures to fund, design, construct and operate in their jurisdictions in exchange for long-term contracts for tipping, steam, and energy sales. The arrangements generally involve the sale of steam and/or electricity that is used to help offset a portion of the cost of operations. The companies agree to construct, own, and operate the facilities for a designated number of years (usually 20-30 years) on a leaseback arrangement in exchange for the agreed tipping rate. Facilities are designed in various configurations including waste separation before combustion. Materials such as glass and metals that do not add to the fuel needed for combustion can be separated and recycled. Metals are also

recovered post- combustion and offered for sale. After combustion, the revenue realized through the sale of steam and/or electricity is used to offset and minimize tipping costs.

1) Mass-Burn Incinerators

Mass-burn facilities, which can be constructed and operated with or without energy recovery, do not process incoming waste prior to combustion aside from removing bulky and non-processable objects (white goods, sofas, tires, etc.). These items are set aside for recycling or landfill disposal. Incoming waste is dumped into a tipping pit and fed into a charging hopper using a crane or conveyor. The remaining waste is transferred from the pit into the furnace by a horizontal moving ram.

The steam produced in the boiler and superheater can be used for industrial process purposes, central steam heating, or to generate electricity by channeling it through a turbine. The turbine-generator and steam circulation systems employed at mass-burn facilities are identical to those used at fossil fuel or wood fired power plants. The quantities of steam and/or electricity produced largely depend on the quantity and heating value of the waste processed at the WTE facility.

2) Refuse Derived Fuel Facilities (RDF)

RDF facilities improve the efficiency of waste-to-energy operations by reducing the incoming mixed municipal solid waste to particles less than six inches in length and removing the materials that have little or no heat value, thereby improving fuel properties. RDF facilities also aid in the recovery of recyclables, although modern RDF facilities do not sort out nearly as much recyclable material as mixed waste processing or even municipal solid waste composting facilities.

Municipal solid waste is dumped onto a tipping floor where front-end loaders and dozers compact the waste and push it onto in-feed conveyors. Bulky and non-processable items are segregated either on the tipping floor or are lifted off the in-feed conveyor by cranes at designated picking stations. The bulk of the waste enters a series of shredding and screening machines, which convert up to 95 percent of it to loose RDF. Steam generation, air pollution control, and ash handling systems are similar in design to those used at mass-burn facilities.

The processed RDF consists of paper, plastic, and other particles one to six inches in length. Fine particles (those under one inch) typically consist of non-combustibles such as dirt, food waste, and broken glass. This material is screened out by the trommels and deposited on conveyors, which load it into trailers for shipment to landfills. Ferrous metal is also collected on separate conveyors and transferred into waiting trailers for shipment to scrap markets.

After processing, the RDF is normally stored on a second enclosed tipping floor. This is an obvious difference from mass-burn systems, where the fuel product (raw waste) is stored in a pit. The RDF is pushed onto in-feed conveyors by front-end loaders and enters a feeding system, which may be a complicated series of vibrating screens, auger conveyors, and pneumatic feeders. The purpose of this system is to carefully regulate the flow of RDF into the combustion chamber, thus maximizing combustion efficiency. The furnaces and waterwall boilers utilized at RDF combustion facilities are like those at mass-burn plants. However, in RDF combustion systems, much more of the fuel burns in suspension (combusts while airborne in the furnace), as

opposed to on the grates. In addition, RDF boilers do not need to accommodate the larger, heavier objects from the waste stream. As a result, RDF boilers are generally smaller than those at mass-burn facilities.

Comparison between Municipal Waste Combustion and Waste to Energy Facilities

- Since some components of the waste stream with poorer heat value and combustion properties are removed during pre-processing, RDF facilities will produce approximately 5 percent more energy than a comparably sized mass-burn facility.
- RDF processing is a more mechanically complex process. As a result, RDF systems sometimes exhibit lower availability than mass-burn systems.
- As with mixed waste processing, very complex processing lines tend to have more mechanical shutdowns and lower overall availability.
- Due to the relative complexity of the pre-processing systems, RDF systems require operators with greater skill and experience.
- Processed RDF is stored on a separate tipping floor; therefore, a larger site is required than for a mass-burn facility.

Advantages and Disadvantages of Municipal Waste Combustion and Waste to Energy Facilities

Advantages

- **Natural Resource Conservation**: Solid waste that would otherwise end up in a landfill is used to generate energy, thus conserving fossil fuels.
- **Preserving Landfill Space**: After combustion, the volume of material requiring land disposal is reduced by 85 to 90 percent.
- **Commercial Viability**: Both mass-burn and RDF systems are commercially proven as evidenced by the number of commercial-scale facilities in operation and their cumulative years of operating experience. Particularly for mass-burn systems, there are multiple vendors with strong business positions and significant amounts of construction and operational experience.
- **Energy Production**: Waste-to-energy facilities are net energy producers.

Disadvantages

- **Public Opposition**: Though improved technology has reduced the amount of air pollution produced by waste-to-energy facilities, air pollutants are still emitted as a part of the facility's operation. Ash resulting from operations that do not qualify as non-hazardous waste when tested may be difficult to dispose of. These issues, plus siting concerns, often result in public opposition to waste-to-energy facilities.
- **Cost**: Capital costs for a waste-to-energy plant, as well as operation and maintenance costs, are generally high and vary greatly depending on the type of facility. The amount of time required for siting, permitting, and construction is considerably greater than for other waste processing and disposal technologies.
- **Energy Production**: Although waste-to-energy facilities are net energy producers, they cannot produce electricity on the scale of a normal-sized fossil-fired power plant. Revenues from energy sales usually cover a portion of the plant's operating expenses and debt service.

3) Recent Waste-to-Energy Developments in Washington County

During the previous Solid Waste and Recycling planning period, Washington County, in tandem with Carroll and Frederick Counties, explored the possibility of engaging in a public/private partnership for a waste to renewable energy facility that would have produced renewable energy products. Ultimately, both Carroll and Frederick Counties formally withdrew from the incinerator plan based on their concerns for cost and potential environmental impacts and public opposition. With the partnership needed to make the project economically viable for Washington County no longer in place, the County's immediate plans for pursuing a waste-to-energy facility were shelved.

The County has not stopped exploring opportunities to pursue waste-to-energy and waste diversion technologies that would help preserve existing landfill space, however. Most recently, the EMAC heard presentations and toured facilities from three companies about taking waste material and converting it into fuel pellets (pelletization) that would serve as an 8,000 BTU coal substitute. Private funds would likely be used to cover startup costs. The partner company would then gain its return on investment through tipping fees and revenues from the sales of end products. The County would gain revenues once the project became operational. As pelletization is not widely used across the United States at this point, there were questions about the existing market for such products which could put the County in a difficult financial position if product revenues did not yield expected returns. The County intends to engage in further inquiries about the feasibility of pursuing this technology as a long-term waste management solution.

D. Alternatives for Sludge Processing and Utilization

1) Sewage Sludge Management in Washington County

Sewage sludge is the by-product of both the water and wastewater treatment process. To ensure that the water used for domestic and commercial/industrial use is clean and not harmful, it must be treated. Treatment systems are designed individually for each water source. Sludge created when treating water for potability is not the greatest concern. Sewage sludge resulting from the treatment of domestic and industrial wastewater has a much higher potential to be contaminated with pathogens and chemicals such as heavy metals and pesticides.

Components of a sludge treatment system at a municipal wastewater treatment plant may depend, to a large extent, on the chosen sewage sludge disposal option. Sludge management options traditionally include:

- Landfilling
- Land application
- Incineration and ash disposal
- Composting

At present, sewage sludge and other residual solids (screening, grit, and grease) from the Conococheague Wastewater Treatment Plant are landfilled at the Forty West Municipal Landfill. While other jurisdictions in Maryland use land application to a greater extent, Washington County's permeable soils and limestone bedrock geology limit its usability. New state regulations are also limiting the ability to land apply in the State of Maryland, making this alternative less viable.

When sewage sludge is applied to land, the application rate is specified by the permit issued by MDE and restrictions are placed on the future use of the land. To the extent that sludge adds organic material to the soil, the process can be beneficial. Sludge contains plant nutrients including organic chemicals, nitrogen, potassium, and phosphorus. However, sludge may also contain heavy metals and other compounds that can accumulate. These elements build up in the soil with repeat applications and could result in levels that may be toxic. Synagro is one company that prepares a nutrient management plan and delivers the material to available markets.

An MDE permit to apply sewage sludge is issued for each farm and each field. The permits are not transferable. Specific soil pH must be maintained. Sewage sludge application permits also define any limitations that will be placed on the area to be treated. These include required soil depth to bedrock or groundwater, specific buffer zone requirements, and application restrictions during adverse weather conditions.

2) Sludge Generation by Washington County Public Facilities and Current Disposition Practices

There are seven County-managed community sewage systems in Washington County, as well as systems managed by Hagerstown, Boonsboro, Hancock, and the State prison complex. Valicorp, a private company, also owns and operates an Industrial Pretreatment Facility. The sewage sludge disposed of at the landfill from these other municipal and private treatment plants in the County totaled approximately 8,846 tons in 2019, according to landfill data. The City of Hagerstown has a contract to dry, pelletize and market its sludge as fertilizer.

E. Site Constraints for New Solid Waste Acceptance Facilities

Both natural physical features and existing or planned land uses affect the siting of waste management facilities. Solid waste facilities must be planned to minimize adverse impact on the environment and Washington County citizens. The following is a brief description of the technical, environmental and land use constraints imposed upon the establishment of solid waste acceptance facilities.

1) Topography

Washington County is located in the Appalachian Highlands and is part of two physiographic regions, the Blue Ridge Province and the Ridge and Valley Province, which includes the Hagerstown Valley. The topography of the County is quite varied and consists of ridge lines, steep slopes, rolling foothills, broad limestone valleys and meandering stream courses with wide floodplains. Elevations above sea level range from 260 feet at Sandy Hook in the southernmost tip of the County, adjacent to the Potomac River, to 2,145 feet at Quirauk Mountain in the northeast corner of the County. Within the County, the amount of land with severe slope is greatest in the mountainous areas in the east and west and along stream and valley embankments. Severe slopes greater than 15% cover nearly 30% of the County's land area. The Hagerstown Valley, which includes nearly half of the land area of the County, is predominantly level or moderately sloping.

Landfill sites are generally located in ravines, topographic sinks, broad, flat plateau areas, and areas which do not have steep slopes. Land with slope greater than 15% is not considered acceptable for landfills due to the considerable site grading required to develop the landfill. Low lying areas along rivers and waterways are also not desirable and are regulated by Federal, State, and local resource protection laws. Low lying areas within the 100-year floodplain are also not acceptable for development as land disposal facilities.

2) Soils

Soils in Washington County have been formed from two general types of parent material. The most extensive soil is residual formed from bedrock. The second type of parent material consists of sand, silt, clay, and rock fragments that were transported by a combination of water, wind, and gravity. Washington County has five soil development provinces:

- **South Mountain-Elk Ridge Province**--These soils are eroded from quartzites and slates with some being developed from metabasalt and phyllites. The area includes some colluvial and alluvial soils derived from materials of the same sources. Most of the bedrock becomes soil with poor native fertility. These soils are shallow to bedrock or have rock outcroppings. Approximately 6% of land in this province has a slope greater than 25%. Soils are stony and erosion is an issue in the 50,000-acre province.
- **Pleasant Valley Province**--This area is located in southern Washington County between the South Mountain and Elk Ridge Province and has relatively fertile soils derived mainly from metabasalt. The valley has 4,000 acres of which only 100 acres have severe slope limitations.
- **Great Valley Limestone Province**--This area includes approximately 160,000 acres and covers a major portion of the County. These soils are very fertile, although some are shallow to bedrock. Development is impeded in some areas by frequent outcrops of bedrock exposures and some severe slope limitations. Generally, the erosion problem is moderate.
- **Great Valley-Martinsburg Shale Province**--This belt of shallow, highly erodible soils lies near the western edge of the Great Valley. The soils here are only moderately fertile and approximately 15% of the area has severe slope limitations. Erosion is a chronic problem and has affected much of the soil in this province. Generally, the Martinsburg Shale soils provide the most preferred soil type in the County for landfill construction.
- **Ridge and Valley Province**--This area encompassing the western section of the County has over 60,000 acres. The topography is rolling, with severe slope limitations. Shallow and stony soils limit the use of some areas. Soils are derived from sandstones and shales and have low native fertility. Nearly 60% of the region is wooded. Erosion is a problem, particularly on the soils of shale origin.

A listing of preferred landfill soils was included in the Planning Department Preliminary Site Evaluations for Additional Washington County Landfill Acquisitions, conducted in January 1986.

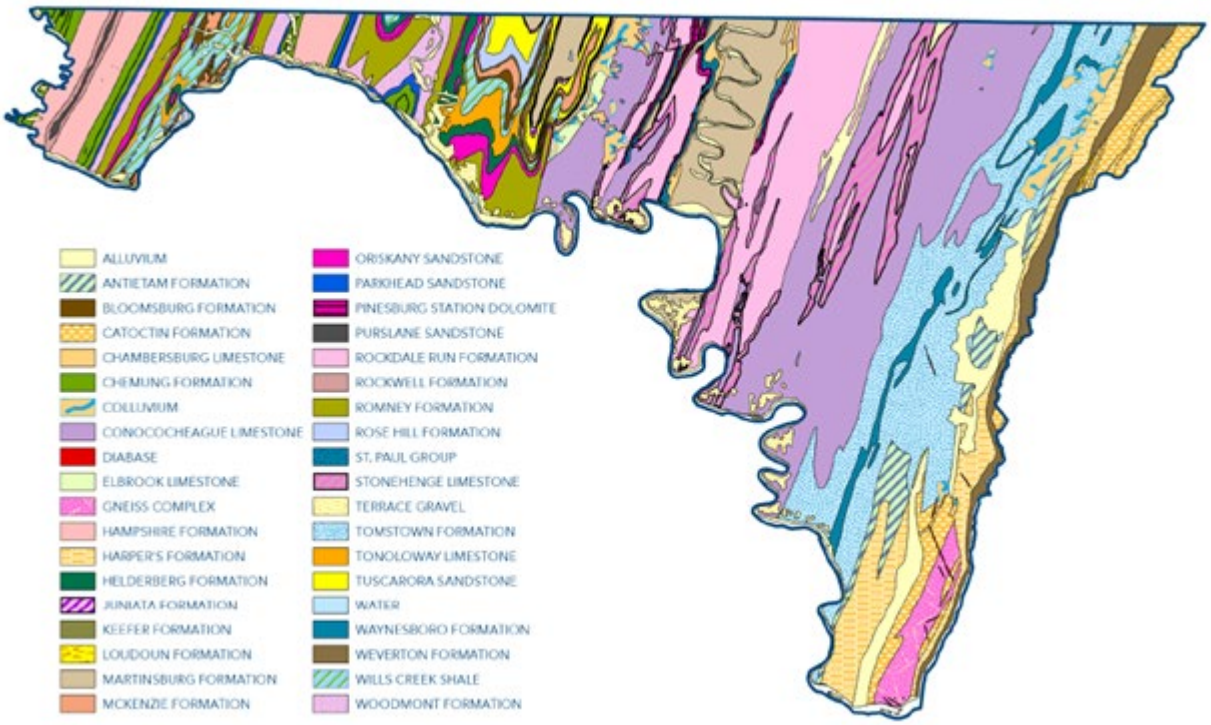
3) Geology and Geohydrology

Washington County's varied land area encompasses several physiographic provinces, as shown in the geologic map below. The eastern section is a portion of the Blue Ridge Province, which includes the high ridge called South Mountain. This area is underlain by highly metamorphosed Pre-Cambrian granite gneiss and metabasalt, phyllite, and quartzite. The Ridge and Valley Province comprises the remainder of the County and includes the Great Valley, referred to locally as the Hagerstown Valley. This valley is mainly underlain by limestone, dolomite, and shale. To the west are a series of ridges which are characteristic of the Ridge and Valley Province and are underlain with resistant sandstone, limestone, and shale.

Much of the potable water used in Washington County comes from surface water, mainly the Potomac River. The municipalities of Boonsboro and Keedysville rely on groundwater from wells. Washington County has four distinct groundwater provinces:

- **South Mountain-Elk Ridge**--Springs in this province are numerous but generally small. Chemical quality of water from this area is good and is suitable for most uses.
- **Hagerstown Valley**--This includes the area between South Mountain on the east and Fairview Mountain to the west. The hydrology of this province is complex due to a series of folds and faults that occurred in the limestone bedrock. The limestone and dolomite that underlie the Valley province furnish large groundwater supplies but are also susceptible to contamination through surface rock fissures and sinkholes.
- **Hancock-Indian Springs**--This province includes shale, sandstone, and shale limestone bedrock with a generally thin soil cover. A good part of this area has aquifers with a high yield.
- **Sideling Hill**--This includes Fairview and Powell Mountain, west of Clear Spring, extending westward to the base of the eastern slope of Sideling Hill. This area of the County consists of shales, sandstones and thin beds of limestone folded and cut by the Potomac River. As the movement of groundwater through the shales depends in part on fractures in the bedrock, flow and storage capacity for large users is limited. Springs are a common source of water within the province, particularly seeps and small springs in shale areas.

Map 6: Washington County Geology



4) Wetlands

Wetlands are valuable for water quality and are protected by Federal, State and County regulations. Eighty-four percent of the state's wetlands occur in the coastal plain region, with approximately 13% in the Piedmont region and 1% in the Blue Ridge-Appalachian Highlands region. Several small wetlands are located throughout Washington County and identified on National Wetlands Inventory Maps prepared by the United States Fish and Wildlife Service. Wetlands throughout the County are shown on the map below.

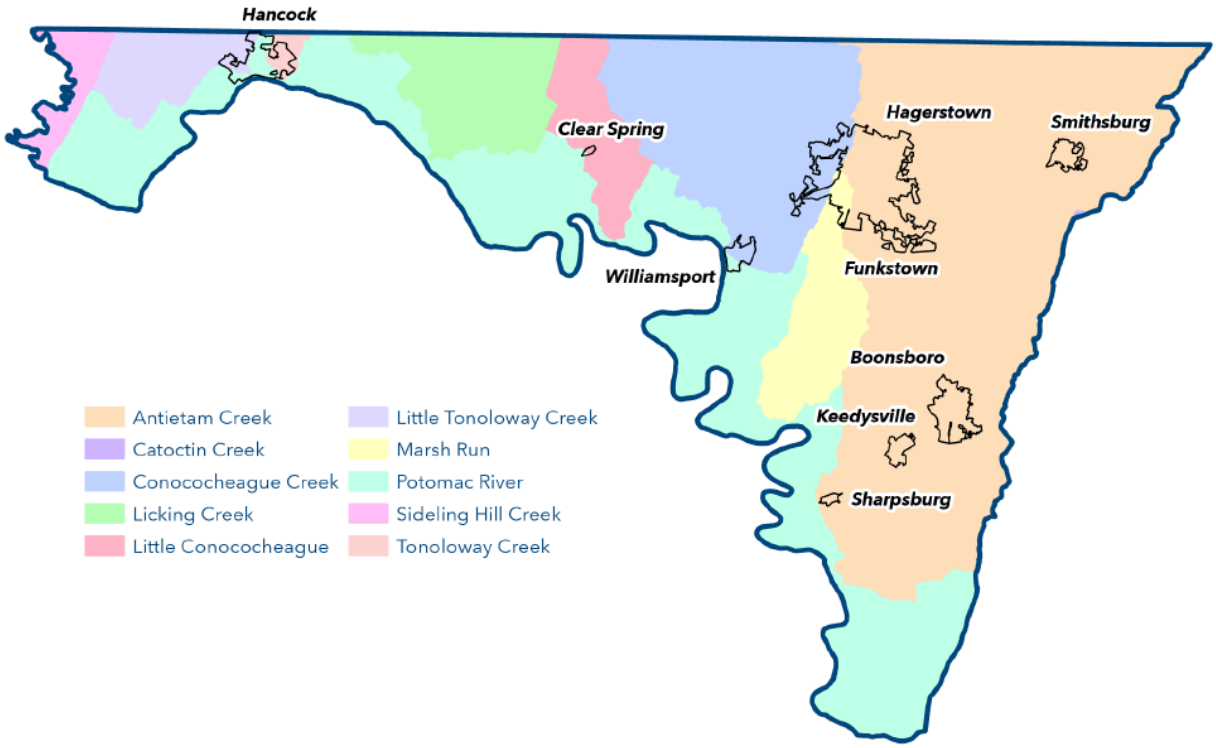
Map 7: Washington County Wetlands

5) Surface Water and Floodplains

The County is located entirely within the Potomac River watershed, of which Washington County represents 3%. The Potomac River intersects both the Ridge and Valley and the Blue Ridge physiographic Province. Nine major tributaries and several sub-watersheds in the County terminate in the Potomac River, with all but two having their origin in Pennsylvania. Watershed boundaries are shown on the map below.

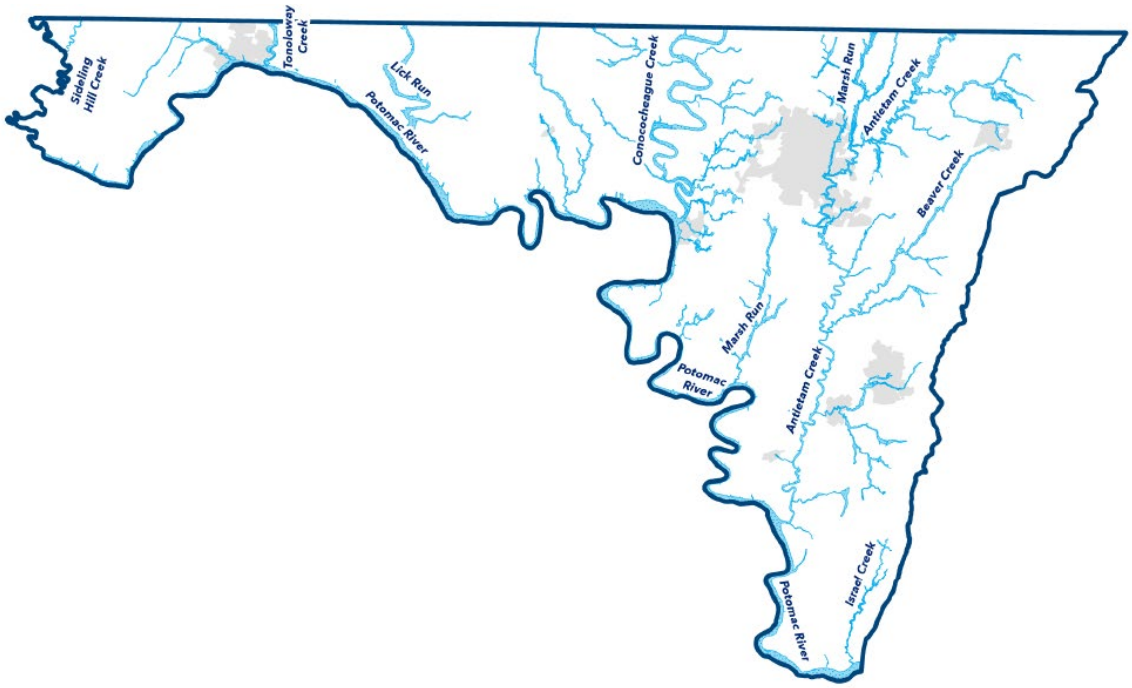
- **Antietam Creek Basin** - This basin drains approximately 40% of the County; about two thirds of the Antietam's basin is in Washington County with the remainder in Pennsylvania
- **Conococheague Creek Basin** - A relatively steep sided meandering stream draining approximately 65 square miles in Washington County. The watershed forms the western boundary of the Hagerstown Valley
- **Licking Creek Basin** - This stream drains the Bear Pond Mountain and Pigskin Ridge area west of Fairview Mountain, a drainage basin of about 27 square miles
- **Tonoloway Creek Basin** - Almost entirely in Pennsylvania, this stream enters the Potomac River east of Hancock
- **Little Tonoloway Creek Basin**-- Begins in the narrow valley between Sideling Hill and Tonoloway Ridge west of Hancock and includes several small tributaries from Pennsylvania
- **Sideling Hill Creek Basin** - Most of this basin is in Pennsylvania; the stream forms the western boundary of Washington County
- Additional tributaries include **Little Conococheague Creek**, **Marsh Run**, and **Israel Creek**.

Map 8: Washington County Watersheds



Along these creeks, streams and tributaries are areas associated with the 100-year floodplain. Floodplain soils are approximately 5.8% or nearly 17,000 acres of the total County acreage. Facilities located within the floodplain may hinder the flow, reduce the temporary storage capacity of the floodplain, or wash out the waste within the landfill and endanger human health and the environment. Construction of buildings or facilities in the 100-year floodplain is prohibited in Washington County by State and Federal regulations. 100-year floodplain areas are shown in the map below.

Map 9: Washington County 100-Year Floodplains



6) Water Quality

The Maryland Environment Service monitors water quality from 81 monitoring wells and piezometers located on and adjacent to County solid waste facilities. To date, there is no evidence of groundwater contamination from any of the County landfill facilities.

7) Land Use Compatibility

Solid waste management facilities must be sited in locations appropriate for such a use. Facilities have the potential to create odor, noise, dust, or possible traffic impacts for nearby land users. Adjacent land uses that are incompatible with solid waste management facilities include airports, hospitals, and residential areas. Most residential development is concentrated around the Hagerstown metropolitan area with low density development scattered in various rural areas of the County. Future solid waste management facilities studies will need to factor and address a broad spectrum of applicable environmental, engineering, economic and social factors to minimize or mitigate any negative impacts. Siting is also subject to the County's development review process.

The County regulates solid waste and recycling facilities siting through zoning requirements, as new facilities are allowed only in the Rural Business Zoning District (RB). The RB Zoning District is applied atop the base zoning as a floating zone which is approved through the rezoning process. Criteria within the RB Zoning District address many of the above siting concerns. Opportunity for public comment on facility siting is a required part of the rezoning process, as multiple public meetings are held in which concerns may be heard and incorporated into facility plans for a given site.

8) Planned Long-Term Development

The County Comprehensive Plan was adopted by the County Commissioners in 2002 and an update is in progress. The Plan is a policy document that provides a guide for public and private sector decisions to

be made for future growth and development for a 20-year planning horizon. It is a County-wide plan that applies directly to all the unincorporated areas of the County and indirectly to the area within Hagerstown and the other eight municipalities. The policies of the Comprehensive Plan are reinforced and made tangible through various functional plans, such as the Solid Waste and Recycling Plan, Water and Sewer Plan, and many others.

The basic premise of the Plan has been to direct development into and around the County's Urban and Town Growth Areas while retaining the rural character and use of the surrounding land. The Urban Growth Area surrounds the City of Hagerstown as well as the towns of Funkstown and Williamsport. Boonsboro, Hancock, Smithsburg, and Clear Spring comprise the Town Growth Areas. These Growth Areas are shown on the Municipalities and Federal Facilities Map in Chapter 2.

The provision of facilities and services, such as water and sewer infrastructure, utilities, roads, schools and parks as well as police, fire and emergency services, in these designated areas incentivize planned growth in order to promote an efficient, environmentally sensitive and cost effective land use pattern. The goal is to maximize finite fiscal resources in areas where they can promote sustainable economic development while preserving rural character and resources where substantial growth cannot be supported.

Growth is anticipated in all planned growth areas that have adequate public facilities, with planned residential density or commercial/industrial land use intensity decreasing as one reaches the margins of these areas. Accordingly, any new solid waste and recycling facilities would likely either be located in rural areas of the County away from residential clusters or sensitive environmental resources where adequate infrastructure exists to support operations, or within urban zoning districts that permit land uses of an industrial nature.

9) Areas of Critical Concern/Sensitive Areas

The Areas of Critical State Concern program was established by authority of the State Land Use Act of 1974. Under the law, the Counties and state agencies were to designate critical sites or structures of such County or state significance that they should be protected by state law from inappropriate development. Further requirements for the protection of sensitive environmental resources were introduced as a part of Maryland's Economic Growth, Resource Protection and Planning Act of 1992. This legislation required local governments to adopt a "Sensitive Areas" element, among other requirements, within the framework of their Comprehensive Plan. Four overarching categories of Sensitive Areas were to be considered for protection as a part of comprehensive planning.

Four categories to be considered for protection:

- *Streams and their buffers*
- *100-year floodplains*
- *Habitats of threatened and endangered species*
- *Steep slopes*

A fifth element, Special Planning Areas, was added with amendments to the County's Zoning and Subdivision Ordinances in 1996. Special Planning Areas are areas of unusual or significant importance for which regulatory definitions, special policies and land use techniques were proposed and adopted in the

above noted amendments. These elements were originally identified in Washington County's 1981 Comprehensive Plan.

All solid waste and recycling planning, operations, and future siting of facilities by the County will be consistent with the local, state, and federal regulations pertaining to protection of sensitive environmental resources.

Washington County Special Planning Areas:

Edgemont and Smithsburg Reservoir Watersheds

Appalachian Trail Corridor

Upper Beaver Creek Basin and Beaver Creek (Albert M. Powell) Trout Hatchery

10) Special Waste Management

Waste management requirements for asbestos, special medical waste and hazardous waste are discussed below.

a. Asbestos

The County formerly permitted the acceptance of asbestos at a designated location at the landfill with prior notification and provided the hauler met a variety of regulatory conditions as defined in the Solid Waste Collection Licensing Ordinance. At present however, the County is not accepting asbestos waste.

b. Medical Wastes

Medical waste from Meritus Medical Center is transported by the contracted private haulers Curtis Bay Medical Waste Services and Triumvirate and disposed of outside of Washington County.

c. Hazardous Wastes

No hazardous substances are accepted for disposal at the Forty West Landfill. Hazardous waste generators within the County contract with a licensed hazardous waste hauler for collection and disposal. Automobile batteries are accepted at the Landfill and set aside for recycling; 75.2 tons were recycled in 2019.

- **Hazardous Materials Response**

Emergency response to unplanned release of hazardous materials is coordinated through the Washington County Emergency Operations Center. All fire companies have had training in identification of hazardous materials incidents and basic response techniques. The Washington County Emergency Operation Plan lists the Washington County Division of Fire and Emergency Services and Fire Department Special Operations as the primary agencies for oil and hazardous materials incidents. Support agencies are Washington County Emergency Management, Washington County Sheriff's Department, Maryland Department of the Environment, Washington County Health Department, and the Maryland State Police.

- **Hazardous Materials Cleanup**

Chemical and petroleum spill cleanup material can be accepted at the Forty West Landfill with the following conditions:

- The spilled material is identified
- The material is not a controlled hazardous substance per COMAR 26.13.02
- The material will not harm the landfill liner
- The material is contained in an absorbent such that no free liquid residue is evident according to EPA method 9095 test

Additional disposal sites for chemical and petroleum spill cleanup material include Valicorp Industrial Pretreatment Facility and Clean Earth of Maryland on Oak Ridge Drive.

➢ Hazardous Material Planning and Issues

The County's recent update to its Hazard Mitigation Plan evaluated the risk from hazardous material (hazmat) releases into the environment by various methods. The Plan judged this potential hazard to be one of frequent probability (# of incidents), marginal severity (historic average of costs, injuries and/or deaths), and medium-high risk based upon the probability and severity of incidents.

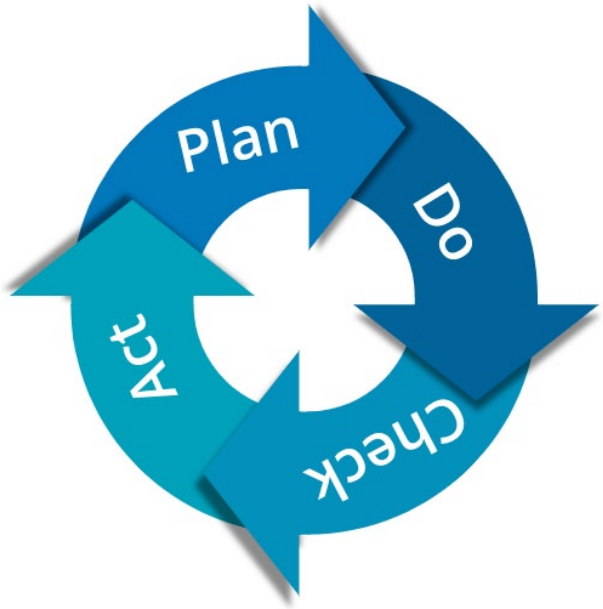
Historically, most hazmat moving through Washington County has been on the Norfolk Southern and CSX rail systems. Today, however, the bulk of hazardous materials pass through the county by truck, particularly on I-70 and I-81, which cross the county from west to east and north to south. Given the projected increase in truck traffic over the next several decades, the potential for transportation accidents involving hazmat will increase significantly.

The municipalities most susceptible to transportation Hazmat incidents include Hagerstown and Williamsport which are adjacent to I-81, and Hancock, Clear Spring, and Funkstown which are adjacent to I-70. In addition, Hagerstown, Williamsport, Smithsburg, and Hancock are adjacent to or near rail lines.

While the projected increase in truck traffic carrying hazardous materials along major arterial transportation routes does not preclude siting of solid waste or recycling facilities adjacent to these roads, it is a relevant consideration in judging the compatibility of a proposed new facility with the risks posed by the surrounding built environment. Response to hazmat incidents will be carried out by the entities identified above in accordance with the County's Emergency Operations and Hazard Mitigation Plans.

Chapter 5

Solid Waste Management and Recycling Plan of Action



I. Introduction

An integrated Solid Waste Management and Recycling Plan identifies the specific management programs and tools needed to manage the entirety of the County's solid waste stream. To effectively implement this Plan, existing solid waste and recycling programs that are successfully meeting the waste management needs of the community must be augmented with new programs that address deficiencies in the current system in a timely and cost-effective manner. Chapter 4's analysis of the County's existing system of solid waste management, as well alternatives to those current methods, forms the basis by which to appraise the appropriate course of actions over ten-year period covered by this plan.

Chapter 5 describes the programs, facilities and methods of financing for managing each of the waste streams identified throughout this Plan, in accordance with local, state and federal regulations. The manner by which these waste flows will be addressed is structured according to the County's Waste Management Hierarchy presented in Chapter 4. Therefore, the above identified elements are illuminated as a part of the County's plan to address Source Reduction, Material Reuse, Recycling, Waste Utilization/Energy Recovery and Waste Disposal.

A. Plan of Action

1) Source Reduction and Material Reuse

- Corresponding Goals and Objectives

  - Goal # 6
    - Utilize the solid waste management hierarchy as tool by which to guide the County's priorities and expenditures for solid waste and recycling programs.
      - Strive to promote fiscal and environmental sustainability in County government operations by instituting procedures or requirements that maximize alternatives to waste disposal.
      - Develop partnerships with organizations promoting the reuse of products or materials to achieve source reduction and waste diversion objectives.

- COMAR Waste Streams Managed
  - Residential (household, domestic)
  - Commercial
  - Industrial (non-hazardous) solids, liquids, and sludges
  - Institutional (schools, hospitals, government buildings)
  - Land clearing and demolition debris (rubble)
  - Bulky or special wastes (automobiles, large appliances, etc.)
  - Other (Yard and other organic waste)

- Targeted Improvements (Programs, Policies and/or Facilities)

❖ MDE Source Reduction Credits

Washington County will, within the limits of fiscal and staffing constraints, continue to pursue the maximum 5% waste prevention credit available annually from the Maryland Department of the

Environment. Credits are equal to the amount of organic material diverted from the County's total generated waste stream. Numerous actions could be undertaken to promote the source reduction of solid waste to earn these credits including:

- Create an ongoing, multi-faceted, public education program promoting grasscycling and/or home composting of yard trimmings (Partner with the University of Maryland Extension Service's Master Gardener program)
- Distribute publications 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.
- Conduct an ongoing multi-faceted, public education program promoting food donation and food composting
- Distribute publications promoting and describing the benefits of food donation and backyard food composting to at least 30% of single-family households in the County
- Provide technical assistance on waste reduction to homeowners, businesses and institutions when opportunities exist
- Conduct educational outreach in-person at community events, to community institutions and organizations about the benefits of source reduction
- Partner with various County departments to create multi-media campaigns across diverse platforms to promote source reduction benefits to waste management costs and community quality of life to residents and businesses
- Create synergy between compliance actions and campaign promotion of Washington County's Clean County Initiative and the Source Reduction of solid waste where those endeavors overlap
- Regularly update the Department of Solid Waste and Recycling's website and the Citizen's Guide Solid Waste and Recycling to provide the most up to date information on County solid waste management programs.
- School science programs are also good candidates for composting education, and schools could serve as the location for a pilot program for composting. The Claud E. Kitchens Outdoor School at Fairview offers one such avenue for both educational outreach and the location of pilot composting program for organic waste.

Implementation Timeline: Long Term (6-10 years)

❖ Electronic Plan Review

The County will continue to expand the recently introduced option for the electronic submission of select plans and permits for review by various agencies. Such applications typically require numerous paper copies to be submitted, which are then sent out to various Departments inside and outside of County government for review and comment. Therefore, there is significant potential for the reduction of paper waste as a part of this initiative.

Presently, only a limited number of land development plan applications are slated to be accepted under this new submittal method. Online building permit submittals have also been temporarily allowed for processing in response to COVID-19 impacts on daily in-person staffing of County offices. It is likely, that these submittal options will be expanded as the platform for their acceptance is refined and issues are alleviated with the rollout of this new feature.

Implementation Timeline: Short Term (0-2 years) - Initial rollout

Long Term (6-10 years) - Platform expansion

❖ Use of Recycled Products or Recyclable Materials in County Operations

The County will investigate opportunities for the expanded use of recycled products throughout all Departmental operations. County regulations and codes should be reviewed and, if necessary, revised, to promote the use of recycled products. The introduction of purchasing requirements for recycled products offers one such avenue, as participation by County Government would be instrumental in creating markets for recyclable materials. Minimum percentages of both the recycled content and total volume of paper products procured by County purchasing agents could be established for County operations.

In the purchase of non-paper commodities, purchasing agents could also be directed to procure items such as re-refined oil, plastic products, auto parts, compost material, aggregate, insulation, solvents, rubber products; and others that contains recycled content. The avoidance of toxic substances, such as utilizing non-toxic inks County publications could also be required.

The reduction of packaging waste could also be addressed by contracts specifying that materials must be packaged in recycled and recyclable materials, and by minimizing the purchase of products that are not recyclable or packaged in materials that are not recyclable.

Implementation Timeline: Long Term (6-10 years)

❖ Reduction of Paper Waste

Consider creating requirements for double-sided printing or copying of specified materials in County government operations and mandating that consultants and contractors who do business with the County must use recycled and recyclable materials printed on both sides when electronic document submission is not feasible.

Implementation Timeline: Short Term (0-2 years) – Internal operations
Long Term (6-10 years) – Reviewing agencies, Contractors

❖ Material Reuse

Material reuse programs are a critical facet of a comprehensive waste management program. This Plan recommends that the County research successful and sustainable reuse programs available in the region and participate, where appropriate, in support of these programs. The Solid Waste and Recycling Department's County webpage should be regularly updated to include information on material reuse organizations operating locally, or in the state or region, that provide outlets which offer opportunities to reduce the disposal of reusable products. Examples of successful programs include the following:

- Clothing collection program started at the Forty West Landfill and each of the 4 transfer stations in 2018. Each have collection bins from non-profit companies or local businesses.
- Internet based material reuse networks such as Hagerstown Freecycle, Bikes for the World and the Industrial Materials Exchange.
- Habitat for Humanity ReStore program
- Private secondhand shops operating in local municipalities

Implementation Timeline: Short Term (0-2 years) – Existing partnerships
Long Term (6-10 years) – New partnerships

2) Recycling

➢ Corresponding Goals and Objectives

- Goal # 4
  - Collaboratively work across jurisdictional boundaries and with diverse partners to develop innovative solutions for solid waste management.
    - When applicable, utilize pilot programs to test new waste management technologies or systems to provide a basis for assessing their effectiveness to achieve desired goals and signal wider adoption.
    - Incentivize and recognize the achievements of individuals and organizations who demonstrate exemplary commitment or creativity to addressing the solid waste needs of Washington County.

- Goal # 5
  - Build the knowledge and capacity of the public, institutions, and the business community to understand and address solid waste management issues.
    - Continually provide education, outreach and technical assistance to individuals and organizations to efficiently achieve regulatory compliance before pursuing enforcement measures.
    - Engage the public through diverse media outlets to disseminate information that broadly reaches users of the County's solid waste management system and provides multiple points of contact by which citizens can access knowledge and resources.

- Goal # 6
  - Utilize the solid waste management hierarchy as tool by which to guide the County's priorities and expenditures for solid waste and recycling programs.
    - Investigate or create new markets for collected waste materials that can be diverted from the landfill to capture their true value as commodities.
    - Meet or exceed the State-mandated recycling and waste diversion rates through the implementation of current programs and through periodic operational improvements.

➢ COMAR Waste Streams Managed

- Residential (household, domestic)
- Commercial
- Industrial (non-hazardous) solids and sludges
- Institutional (schools, hospitals, government buildings)
- Land clearing and demolition debris (rubble)
- Bulky or special wastes (automobiles, large appliances, etc.)
- Scrap tires
- Wastewater treatment plant sludge
- Septage

- Other (Yard or other organic waste, electronics, mining wastes, fluorescent lights, waste oil & antifreeze, etc.)

➢ Current Facilities

- Public: Forty West Landfill, Four Convenience Centers (Dargan, Greensburg, Hancock and Kaetzel),

- Private: Sorting facilities operated by Republic (Greencastle Pike), Apple Valley Waste (Hunters Green Parkway)

➢ Targeted Improvements (Programs, Policies and/or Facilities)

❖ Residential Recycling

The majority of recycled materials in the County originate primarily from residential sources and are collected within incorporated communities that have comprehensive recycling programs operated mostly by contracted private haulers. Homeowners in rural areas of the County either contract directly with a private hauler for recycling or self-haul to the Forty West landfill or one of the four convenience centers. Most residential recycling originates from single family dwelling units which make up the bulk of the County's housing stock.

During 2009 and 2010, the County performed a detailed study of the feasibility of a county-managed curbside residential recycling program. Study emphasis was placed on determining the most effective, economically viable recycling collection methods available to the county. Study results indicated that implementation of an incentive-based residential recycling program, such as one provided by Recyclebank, would likely provide the greatest increase in residential recycling rates while presenting the least financial impact to the participants. The Recyclebank program provides reward "points" to participating households based upon the weight of materials recycled. These "points" can be redeemed for discount coupons which can be used at local and on-line retailers to reduce costs. In summary, the study revealed that should the Recyclebank program be implemented, county-wide recycling rates could be increased by 10 MRA percentage points or more depending on program scope. The anticipated cost to the public was estimated at between $6 and $8 per residential unit per month, with a recycling rate of 340 pounds per residential unit per year as the cost "break-even" point.

The Recylebank model is an example of the variable rate collection and billing systems described in Chapter 4. As stated there, such systems create an economic incentive to reduce the amount of waste disposed which, correspondingly, tends to increase the amount of recyclables collected.

Implementation of Countywide curbside recycling was not found to be economically feasible for Washington County at the time of the study's conclusion. The County will continue to assess the costs and benefits of implementing alternative collection models such as those described above and throughout Chapter 4. Determination of how many households in the County outside of the incorporated municipalities remain unserved by curbside recycling programs offered by the private haulers who serve such areas is a potential topic for future study if the data could be obtained through a representative survey produced either by the County or a private waste management consultant.

Implementation Timeline: Long Term (6-10 years)

❖ Commercial Recycling

Businesses generate a significant percentage of the solid waste stream in a community. Commercial waste accepted at the Forty West Landfill in 2019 was 34,486 tons (18.2% of the total waste stream). Commercial entities are responsible for their own recycling programs as a component of managing their waste stream. Recycling in this sector is provided primarily by contracted private haulers who serve businesses both large and small. Haulers may process and market the recyclables directly. Others may collect specific materials and recycle them at private recycling facilities. Some larger retailers ship their materials directly to market or to a centralized warehouse.

Owners and managers of commercial establishments will continue to be educated and informed about making arrangements with waste haulers to pick up and deliver their recyclables to material processing businesses in the community and region. County involvement will consist primarily of providing information, technical assistance and recognition to encourage recycling, monitoring and reporting amounts of materials recycled based on reports submitted by collection companies. Materials that commercial establishments will be encouraged to target for recycling are primarily used office paper and old corrugated cardboard. Washington County's emphasis will be on privately provided recycling collection and marketing. The County will serve mainly as a vehicle for education and coordination of various business sectors to increase commercial recycling and data reporting.

Potential Actions

The potential for increased recycling from this sector would likely come from increased recovery of mixed recyclable containers, organics and construction and demolition materials. Corrugated cardboard and mixed paper are more readily recycled, as is reflected in the reported the tonnages of MRA Recyclable in Chapter 3. These materials accounted for the bulk of reported MRA recyclables between 2010 and 2018. The 2016 Statewide Waste Characterization Study included in Chapter 3 does, however, indicate that there is still room for further capture of various paper wastes in recycling.

Building upon the above action, the County should consider partnering with local businesses (i.e. - restaurants, bars, etc.) to implement pilot collection programs for high volume recyclable commodities such as plastic, aluminum cans and cardboard. The County could approach the Liquor Board and propose voluntary recycling as part of the local permitting requirements (i.e. Special Event Recycling) to help lower business disposal costs and raise the County recycling rates. A properly planned and implemented bar and business recycling program, using incentives and well-managed collection, can result in large quantities of used beverage containers. It is prudent to minimize the number of separations, storage requirements, and the amount of effort required from the participants.

Additional regulation, particularly at the state level, mandating recycling and/or data reporting for commercial entities would be tremendously impactful on boosting recycling. In this vein, the County could consider establishing mandatory thresholds whereby any business generating a certain annual waste stream, or any office building/office complex exceeding a specified average occupancy, must report recycling tonnage(s) annually.

Alternatively, the County could look into offering competitive grants or low interest loans to encourage the implementation of innovative waste reduction and recycling programs.

Changes such as those proposed above may require amendments to the Solid Waste Collection Licensing Ordinance.

In recent years, the County did create a separate tipping fee for recyclables ($30/ton v. trash $55/ton) to offer economic incentive to waste diversion efforts. The effect on recycling collection from this pricing structure will continue to be evaluated in the coming years.

Implementation Timeline: Short Term to Long Term (0-10 years) – Education, outreach, technical assistance; increase participation and capture of recyclable materials
Long Term (6-10 years) – Bar & restaurant voluntary recycling program
Long Term (6-10 years) – Data reporting requirements
Medium Term (3-5 years) - Incentives

❖ Expanded Recycling and Recyclable Material Markets

Expansion of the County's successful composting program for yard waste to include other organic waste will be further researched. Research will include state permitting requirements, necessary facility upgrades, the system for collection of such materials, interest in program participation among local municipalities and the education necessary citizen use of the collection system. The County will also monitor the development of markets for composable materials in the state and region to evaluate the economic feasibility of undertaking such a project.

Additional recycled product markets could also be developed locally by the use of recycled materials in County Public Works or Engineering projects. Recycled products, such as crushed glass, concrete, asphalt, and landscaping material, could be approved for use on such projects. Successful examples have been identified in both the state and region in utilizing recycled materials for these purposes.

The feasibility of collection of additional recyclables should be researched during this plan period, including items such as rigid plastics recycling (yard toys, plant pots, PVC, etc.), and buy-back programs for select materials (i.e. – aluminum).

Implementation Timeline: Long Term (6-10 years) – Composting
Medium Term (3-5 years) – County projects
Long Term (6-10 years) – Additional materials

❖ Solid Waste Collection Licensing Ordinance – Enforcement, Reporting, Amendments

The potential enforcement of existing regulations granted to the County through the Solid Waste Collection Licensing Ordinance offers a possible opportunity to improve recycling collection and reporting, without significant amendments to the Ordinance. The Ordinance states in Section 3.5 that "*A hauler who collects municipal solid waste must also collect or provide for the collection of recyclables separated from all other forms of solid waste*." This requirement has not been stringently enforced.

The County should evaluate what the overall impact would be on haulers operating throughout the system if greater enforcement of this provision were to occur, particularly on smaller haulers who may have difficulty complying with heightened enforcement. As fiscal constraints and changes in international recycling markets make it more difficult for the County to achieve past benchmarks for recycling and waste diversion, it will become important to evaluate what existing regulations in the

Ordinance could help boost the capture of recyclable materials, without making significant amendments to current hauler requirements that may not be received favorably under existing economic conditions.

Regarding reporting, the Department of Solid Waste and Recycling maintains accurate data on all solid waste and recyclables that end up making their way through the collection system to the Forty West Landfill. Less accurate data is available on solid waste and recyclables that leave Washington County, particularly that generated from businesses. The County should 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 Washington County each year, and mandatory reporting would result in more complete data and thus a more accurate calculation.

Finally, the County should review the Solid Waste Collection Ordinance in its entirety to determine where amendments are needed to support the goals of this Plan. The Ordinance was adopted in 1995 and most recently amended in 2005. Significant changes in the industry have occurred since 2005, making it important to review the Ordinance for its utility in regulating solid waste collection in the present. If determined to be deficient in supporting the goals of this Plan, opportunity for public input should be sought to the greatest extent possible to help guide its revisions.

Implementation Timeline: Short Term (0-2 years) – Ordinance review
Medium Term (3-5 years) - Amendments

- Implement Office Building Recycling Legislation

In 2019, state legislation was passed requiring Counties to address the collection and recycling of recyclable materials from buildings that are 150,000 square feet or greater of office space. Office building owners must provide recycling receptacles for the collection of recyclable materials and for the removal of certain materials for further recycling by October 1, 2021. The County has already amended language in its previous Solid Waste and Recycling Plan, identified and notified establishments who must comply with the new regulations and will meet all required deadlines to enforce its provisions by October 1, 2021. The County's Plan for Office Building Recycling is included in the Appendix.

Implementation Timeline: Short Term (0-2 years) – Initial implementation
Long Term (6-10 years) – Monitoring, enforcement

- Recyclable Material Processing

The current recycling facilities at the County's four convenience centers and the Forty West Landfill will continue to operate during the period covered by this plan. To further aid in the diversion of recyclable materials from the municipal solid waste stream, the County will investigate the costs and benefits of utilizing additional private sorting facilities. Sorting facilities may be added in combination with various waste diversion or waste-to-energy strategies highlighted in this Chapter.

Implementation Timeline: Short Term (0-2 years)

- Recycling Education and Outreach

Washington County recognizes that public education and outreach are important for increasing participation in recycling, waste reduction and reuse activities. Current educational efforts include:

- Presentation to civic groups, schools and associations
- Web based education through the county web site

Future educational initiatives to be investigated and/or implemented include:

- Continue and increase recycling collection by targeting businesses and institutions for educational and technical assistance for expanded recycling
- Recycling awards presented to businesses and other groups who demonstrate exemplary organizational efforts through the Board of County Commissioners and the Environmental Management Advisory committee
- Revisions to the county solid waste and recycling web pages
- Outreach programs to county residents; outreach programs to commercial waste and recycling generators
- Participation in popular local trade or informational shows such as the Washington County Home Show and Home and Garden Show held at Hagerstown Community College
- Expanded recycling presence on various County social media platforms, through various methods, to educate and engage the public
- Contests through the County school board potentially including design of a county recycling logo, recycling program flag, and recycling program motto; development of educational mailers or on-line recycling program surveys

Implementation Timeline: Short Term to Long Term (0-10 years)

❖ Private Sector Recycling and Partnerships

Private sector waste and recycling ventures within the County provide a strong foundation for increased recycling activities at the residential and commercial level. Current identified recycling companies actively operating in the county are identified in Chapter 3 of this Plan. This Plan recommends that opportunities be made available for the private sector to continue to explore and implement programs to increase recycling participation within the County. Additionally, public-private sector partnership opportunities should be investigated whereby the county and selected private companies develop joint plans and programs which, when implemented, can increase recycling, reuse and waste diversion within the County. To this end, the County is currently investigating creating a Bikes for the World drop-off location at the Landfill as a joint partnership with Johnson Controls.

Implementation Timeline: Short Term (0-2 years) – Support existing entities
Long Term (6-10 years) – Develop joint plans

❖ Recycling at County Parks and Community Facilities

Currently no recycling occurs at County Parks unless it falls under the Special Events Recycling Program legislation or is done by private parties by their own accord. Following a study period to determine the appropriate location, the County should consider the creation of a pilot recycling program at a single County park. The pilot program could either be undertaken by the contractor who currently services the chosen location, or, done by County staff until the program model and costs were ironed out during the trial period. Receptacles for recycling would be provided at the chosen park in addition those

currently provided for trash. This would help to divert at least some recyclable materials from being landfilled. Potential locations for the implementation of such a program could be at Marty Snook Park (either parkwide or at the swimming pool), Black Rock Golf Course, or Pinesburg Softball Complex. These locations would offer enough visitor use to provide an accurate cost-benefit analysis of such a pilot program.

The case study of Harford County could provide a model for the County to investigate. Harford County first began a pilot program in 2009 to implement single stream recycling at public school stadiums. The program expanded in 2010 to four additional schools. The program expanded again in 2011 and in August 2013, the Department expanded to all school sites as part of a County-wide implementation at all Department parks and facilities.

Later, in 2012 Harford County also started a pilot program at the Churchville Recreation site for single-stream recycling 2012. This program was partially funded through a Keep America Beautiful grant that paid for the recycling containers that were placed throughout the park site. During the first year of this pilot program, approximately 2 tons of recyclable material was collected at the Churchville Recreation site. As a result of the successful partnership with Harford County Public Schools and the pilot program at the Churchville Recreation site, the Department of Parks and Recreation fully implemented single stream recycling at all parks, centers, offices, sports fields, and special events in August 2013. Working in cooperation with the Harford County Office of Sustainability and the Department of Public Works-Division of Environmental Services-Recycling Office, Parks and Recreation purchase 400 additional recycling containers, lids, and signage to implement the "Recycling Just Like at Home" program. During the first year of the program, the Department of Parks and Recreation collected more than 50 tons of recyclable material.[1]

The example of Harford County offers one case study of a model whereby greater capture of recyclable materials at public community facilities was achieved. The pilot program model proved to be a good by which to work out the specific requirements needed to make the program successful, before expansion was attempted. Further investigation of successful pilot programs for recycling at parks or other community facilities that could be adapted to meet the needs of Washington County is advised during the period covered by this plan.

As noted previously, some additional capture of existing recyclable materials already collected at County facilities could also potentially be achieved through education, outreach and technical assistance to the corresponding institutions. Such efforts would help to address issues that may be present in current operations that lead to recyclable materials being sent for disposal instead of recycling.

Implementation Timeline: Short Term (0-2 years) – Study
Medium Term (3-5 years) – Pilot program

❖ Management of other COMAR Recycling Waste Streams

Management of bulky/special wastes, scrap tires, scrap metal, electronics, fluorescent and compact fluorescent lights and waste oil and antifreeze was discussed in Chapters 3 and 4 and will remain unchanged during the ten-year period.

[1] Harford County Solid Waste Management Plan 2015 – 2024, pages IV-6 – IV-7

Implementation Timeline: Short Term (0-2 years)

3) Waste Utilization and Energy Recovery

➢ Corresponding Goals and Objectives

- Goal # 4
  - Collaboratively work across jurisdictional boundaries and with diverse partners to develop innovative solutions for solid waste management.
    - Develop joint plans or programs with local jurisdictions or partner organizations to address waste streams that could be more cost-effectively managed at a regional scale when opportunities for collaboration exist.
    - Regularly explore the implementation of new waste management technologies that preserve finite County landfill space and solve shared waste management issues.

➢ COMAR Waste Streams Managed

- Residential (household, domestic)
- Commercial
- Institutional (schools, hospitals, government buildings)

➢ Targeted Improvements (Programs, Policies and/or Facilities)

As noted previously in the in the Introduction to this Plan preceding Chapter 1 (Summary of Major Plan Updates), the County may undertake a host of new technologies to address different aspects of its integrated solid waste management system. Pelletization, gasification, anerobic digestion, methane gas recovery and composting are waste diversion or waste-to-energy alternatives that the County intends explore further either individually or in combination. Many of these technologies were recently studied by the County's Environmental Management Advisory Committee who recommended that most be further reviewed by the Board of Washington County Commissioners for potential implementation once more financially oriented proposals were obtained from prospective companies. Final action items pursued under this umbrella will depend on fiscal constraints and the development of markets associated with end-market materials produced by such operations.

❖ Pelletization

Washington County may explore technology which converts waste material and into alternative fuels. Recently, the EMAC heard presentations and toured facilities from three companies about taking waste material and converting it into fuel pellets that would serve as an 8,000 BTU coal substitute. Private funds would likely be used to cover startup costs. The partner company would then gain its return on investment through tipping fees and revenues from the sales of end products. The County would gain revenues once the project became operational. As pelletization is not widely used across the United States at this point, there were questions about the existing market for such products which could put the County in a difficult financial position if product revenues did not yield expected returns. An RFP is currently in the review process to request bids on these waste diversion technologies.

Implementation Timeline: Long Term (6-10 years)

❖ Anaerobic Digestion

Further study of the use of anaerobic digestion to produce renewable energy and compostable materials may occur during the planning period. Beneficial uses for landfill gas could through such a process include, but not are limited to, energy production for sale to the local power utility, energy production for use at the landfill, energy production to an offsite industrial or manufacturing facility, and fueling of the County vehicle fleet. All waste diversion measures that preserve landfill space and generate economic revenue which could be used to finance solid waste operations should be considered in a cost-benefit analysis evaluating technology of this nature.

Implementation Timeline: Long-Term (6-10 years)

4) Waste Treatment and Disposal

➢ Corresponding Goals and Objectives

- Goal # 1
  - Protect the health, safety and welfare of citizens and the environment in all solid waste and recycling operations.
    - Comply with all applicable County, State and Federal regulations governing water, land, and air quality standards to safeguard community quality of life.
    - Develop innovative plans for repurposing public lands where solid waste facilities are no longer active to provide continued community benefits.
    - Ensure that convenience centers are located and operated in a manner that is convenient to the public and discourages illegal dumping from occurring.
    - Provide programs and facilities, as necessary, for the management of special wastes which must be handled separately from the general residential and commercial waste stream.
    - Monitor private waste management facilities to ensure conformance with the Solid Waste and Recycling Plan and assess their impact on public waste management facilities and services.
- Goal # 2
  - Ensure that planned growth occurs in a manner consistent with the County's long-range plans so that solid waste management can be delivered as a cost-effective public service.
    - Project waste processing and disposal capacity, as necessary, to provide for future County needs.
    - To the extent possible, track, characterize and report on all sources and types of solid waste generated within Washington County so that accurate data exists from which to evaluate changes to solid waste programs or services.

➢ COMAR Waste Streams Managed

- Residential (household, domestic)
- Commercial
- Industrial (non-hazardous) solids, liquids, and sludges
- Institutional (schools, hospitals, government buildings)

- Land clearing and demolition debris (rubble)
- Controlled hazardous substances
- Dead animals
- Bulky or special wastes (residuals)
- Wastewater treatment plant sludge
- Septage
- Other (asbestos, leachate, etc.)

➢ Current Facilities
- Forty West Landfill, Four Convenience Centers (Dargan, Greensburg, Hancock and Kaetzel)

➢ Targeted Improvements (Programs, Policies and/or Facilities)

❖ Forty West Landfill Improvements

The majority of solid waste in Washington County is disposed of at the Forty West Landfill, which has a fifteen-cell capacity and will continue to be used during the 10-year Plan period. The largest solid waste expenditure in the County's current Capital Improvement Plan (CIP) (through 2030) pertains to the design, construction and inspection of a Cell 5 at the Forty West Landfill. In excess of $3 million is budgeted for FY 2025 for the construction of this cell. Self-supported bond funding is targeted for this project.

Assuming the current waste volume continues, estimated cell construction during the next 3-year planning period is: Cells 1-4 will remain active and used as adjacent cell are filled. Cell 6/7 is currently the active cell. Cell 5 is scheduled for construction in 2025/2026.

Permit number 2019-WMF-0266A expires on December 1, 2024 for this facility. At current rates of disposal, it is estimated that the Landfill will reach its capacity around 2070. The lifetime cost of operation at the Landfill was recently estimated by the EMAC to be approximately $315 million. Building a new landfill through the completion of the first cell was estimated to cost $390 million. The source reduction and waste diversion methods previously described will be pursued to the maximum extent possible to extend the operating life of this Landfill. As described in Chapter 3, the City of Hagerstown, Williamsport, and the County are also operating recycling programs that reduce the waste stream, extending the landfill life.

Implementation Timeline: Short Term to Medium Term (0-5 years)

❖ Rubble Reclamation Landfill Closure

Another significant expenditure of note in the CIP during this period is the closure and capping of the Rubble Reclamation Landfill. It was decided in 2019 to not renew the Solid Waste Permit for the Rubble Landfill. In accordance with the Code of Maryland Regulations, once a landfill is no longer covered under an active permit, the design for the Closure Cap must begin within 24 months and construction must be complete within 36 months. $1.9 million is budgeted for construction of the cap in FY 2022. Self-supported bonds and state grant funding will be used for this project.

C & D materials disposed in 2019 totaled 24,120 tons, which represents a significant waste stream being directed to the Forty West Landfill. Further, C&D waste made up 24% of the total waste stream at

the Forty West Landfill, in samples collected at that location, during the 2016 Waste Characterization Study conducted at various solid waste facilities throughout Maryland.

Diversion or processing of C & D could play a role in extending the life of the landfill. At present, Clean Earth of Maryland, located on Oak Ridge Drive south of Hagerstown is the sole business in the County that provides crushing and processing facilities for concrete, brick, stone and pavement cement, and contaminated soils. Other processors are located in Clarksburg and in the Baltimore region.

The County will investigation alternatives to C & D rubble landfilling, including a rubble ban or diversion and processing. Some or all of the C & D waste could be processed and not landfilled under various waste diversion or waste-to-energy alternatives that may be pursued during the planning period.

An additional incentive for C & D diversion or processing is the LEED green building rating system. Green, or sustainable, building is the practice of creating and using healthier and more resource-efficient models of construction, operation, maintenance, and renovation. Among many other sustainable practices associated with the LEED rating system that a project must undertake to gain varying levels of certification, Construction and Demolition Waste Management fall under the Materials and Resources category. This credit category focuses on minimizing the embodied energy and other impacts associated with the extraction, processing, transport, maintenance, and disposal of building materials. The requirements are designed to support a life-cycle approach that improves performance and promotes resource efficiency. Each requirement identifies a specific action that fits into the larger context of a life-cycle approach to embodied impact reduction. Construction and Demolition Waste Management Planning is a prerequisite of this category which aims to reduce construction and demolition waste disposed of in landfills and incineration facilities by recovering, reusing, and recycling materials.

Table 8: LEED C& D Credits

LEED Construction and Demolition Waste Management Credits*	Points
Building Design and Construction	2
Interior Design and Construction	2
Homes	2

Source:https://www.usgbc.org/leed

Alternatives to landfilling will require life cycle cost evaluation because diversion of a significant amount of C & D debris from landfilling would mean a loss in tipping fee revenue to the Solid Waste Enterprise Fund. At present, the majority of C & D debris from larger demolition projects is being diverted and recycled.

Implementation Timeline: Short Term (0-2 years) - Rubble Reclamation Landfill closure
Long Term (6-10 years) - C&D waste diversion alternatives

❖ Operational Efficiencies and Landfill Life Extension

Solid waste and recycling programs are operated as an enterprise fund and are reliant on inbound revenue, materials sales revenue, and cost control to ensure financial stability. Operational efficiency and landfill life extension related programs recommended for evaluation during this Plan term include the following:

- Alternate Daily Cover (ADC's)

In accordance with Maryland regulations, landfilled wastes exposed at the end of the working day must be covered with at least 6 inches of soil, or a specified amount of other approved alternate daily cover (ADC) materials. Utilizing alternative cover materials saves soil, potentially decreases landfill operating costs, and potentially increases remaining landfill life. Use of a tarp daily cover was implemented in 2009 and has been successful in reducing the amount of soils used in landfill operation, thus increasing landfill life. Additional ADC's should be evaluated to determine their suitability to further reduce soil use and increase the available facility life.

Implementation Timeline: Short Term (0-2 years)

- Waste Compaction/Landfill Density Improvement

The daily objective of waste placement is generally to compact as much waste as possible into the smallest space possible, maximizing the in-place density of the compacted waste and cover materials. The more densely the materials are compacted, the less landfill space is consumed thereby maximizing landfill life. Landfill waste compactors utilize heavy steel wheels weighing in excess of 7500 pounds each to shred and compact refuse. Shredding and compaction is accomplished through a combination of the machine weight, wheel weight, and wheel cleat design. The current compactor wheels are approaching the end of their useful life.

The wheel on one compactor was rebuilt in 2019, resulting in an increase in compaction rate from 900 #/CY to 1000#/CY between 2019 and 2020. Additional existing compactor wheels may be evaluated for replacement during the period covered by this Plan.

Implementation Timeline: Short Term (0-2 years)

- Leachate Recirculation

Leachate recirculation has been proven to increase landfill life. Recirculation potential should be investigated during the term of this Plan to help increase the life of Forty West Landfill. Its implementation may coincide with various waste-to-energy technologies proposed for exploration during the planning period, such anaerobic digestion.

Implementation Timeline: Long Term (6-10 years)

- Leachate Treatment Alternatives

Leachate currently collected from the Forty West Landfill, Resh Road Landfill, Old City/County Landfill and the Rubble Landfill is trucked to the Valicor Industrial pre-treatment facility in Williamsport, MD. Approximately 19.5 million gallons of leachate was collected and treated during 2020, at an average cost of $0.064 per gallon. Trucking was found to be the most economical method of dealing with collected leachate in a study done by the County in 2012. Due to the potential cost increases over time, coupled with potential cost increases and environmental and safety related impacts of trucking, alternatives to leachate trucking be investigated periodically in the next ten years.

Implementation Timeline: Long Term (6-10 years)

- Alternative Waste Collection Methods

As described in Chapter 4 of this plan, alternatives exist to the free enterprise and hauler licensing solid waste collection system currently in place in the County. These alternatives include contract collection by district, changes to hauler licensing requirements, public ownership and operation of the collection system, or the Pay-As-You-Throw model (which would encompasses collection, billing and financing of the solid waste management system). These alternatives may, individually or in combination, offer operational or financial improvements if enacted as part of the county's comprehensive solid waste management plan. Alternative collection models are unlikely to be undertaken during the next ten years, however that could change if a waste-to-energy project is pursued by the County.

Implementation Timeline: Long Term (6-10 years)

- Reuse of Closed Solid Waste Acceptance Facility Sites

Innovative reuse ideas should be considered as part of developing final use plans for closed landfill and convenience center properties. In addition to the energy generating projects previously implemented or considered for such sites, portions of various solid waste properties could be identified as "park lands" for better utilization of open-space monies and satisfying park space needs, wetland mitigation areas or forest conservation requirements. Such plan(s) and recommended use(s) must be developed consistent with all applicable laws, rules and regulations and the County Comprehensive Plan, and in the interests of public health and safety.

Implementation Timeline: Long Term (6-10 years)

- Extended Operating Hours

The County may wish to look into the costs and benefits of expanding hours of operation at the convenience centers and Forty West Landfill. The current operating schedule (currently 7:30 am to 3:30 pm for the convenience centers Tuesday through Saturday, 7 am to 3:30 pm Monday through Saturday at the Landfill) may make it difficult for some users to access these facilities, as weekday hours fall within normal working hours for many people, and they do not operate on Sundays. Longer operational hours, such as extended hours on Saturdays or seasonally when there are more daylight hours and/or Sunday service, would provide greater convenience to residents and could potentially increase revenues. Greater accessibility of these facilities might also help to proactively deter illegal dumping from occurring.

There are, however, limitations on how significantly hours could be changed at some facilities, particularly the Forty West Landfill. Legal proceedings which occurred at the time of the Landfill's original construction limit operating hours to between 6 am and dusk and currently prohibit operation on Sundays. Therefore, at the Forty West Landfill, hours could likely only be extended seasonally to comply with the terms of this Legal Agreement.

Both at the Landfill and at the convenience centers, expanded hours would likely require overtime pay, a significant cost expenditure. Expanded hours would also have to be approved in advance by the Union for workers at the Landfill. Thus, increased revenues would have to justify the additional expenditure resulting from increased personnel costs.

For safety reasons, it would be unwise to extend operating hours during seasons in which there is limited daylight hours. Accidents are more common when daylight is limited, in inclement weather, and

when haulers may be fatigued at the beginning or end of shifts. Thus, summer would be the optimal time to consider expanding hours on days when the Landfill or convenience centers currently operate.

During the period covered by this plan, it is recommended that this option be given further study for potential future implementation. If judged to be feasible, a pilot program at one or more solid waste facilities could be undertaken to determine whether hours could indeed be expanded, safely and cost-effectively, to provide this greater convenience to the community.

Implementation Timeline: Short Term (0-2 years) – Study
Medium Term (3-5 years) – Pilot program if judged feasible

❖ Management of other COMAR Waste Streams

Management of industrial, institutional, controlled hazardous substances, dead animals, wastewater treatment plant sludge, septage and asbestos was discussed in Chapters 3 and 4 and will remain unchanged during the ten-year period.

5) Financing

➢ Goals and Objectives

- Goal # 3
  - Strive to make solid waste and recycling programs financially self-sufficient to the greatest extent possible.
    - Maintain a budget structure independent of the General Fund that provides an accurate measure of the costs and benefits of various solid waste and recycling programs to provide a basis for long term capital investments.
    - Regularly review fees to ensure that they are competitive with other regional facilities, to incentive waste diversion and to adequately fund solid waste programs.
    - Identify and pursue efficiencies in operations and management systems that reduce costs or provide new revenue streams supporting solid waste programs and facilities.
    - Prioritize the maintenance of existing equipment and facilities over their replacement with new ones, for as long as safety and operational efficiency allow their retention, to maximize capital investments and extend the lifespan of existing solid waste management facilities.

The County solid waste management system operates as an enterprise fund. An enterprise fund establishes a separate accounting and financial reporting mechanism for municipal services for which a fee is charged in exchange for goods or services. Under enterprise accounting, the revenues and expenditures of the service are segregated into a separate fund with its own financial statements, rather than commingled with the revenues and expenses of all other governmental activities. Financial

transactions are reported using standards similar to private sector accounting. Revenues are recognized when earned, and expenses are recognized when incurred, under a full accrual basis of accounting.

An enterprise fund provides management and taxpayers with information to:

- Measure performance
- Analyze the impact of financial decisions
- Determine the cost of providing a service
- Identify any subsidy from the general fund in providing a service

Enterprise accounting allows a community to demonstrate to the public the portion of total costs of a service that is recovered through user fees and the portion that is subsidized by other available funds, if any. User fees are established based on planning, land acquisition, design, permitting, operating, maintenance, monitoring, and closure requirements for the various facilities and equipment in use. Operating surplus is retained in the fund. As various modifications, enhancements, changes, or expansions, etc., of any portion of the solid waste management program are identified, funding is evaluated and made available as approved by the County Government.

Implementation of the programs and activities identified in this Plan will be funded through tipping fees or other revenues identified in Chapter 1 which support the County's Solid Waste Enterprise Fund. It is important that costs for solid waste management be kept separate from taxes which support the General Fund, so citizens are made aware of the actual costs of the program. The Table below shows the County's intended capital expenditures for solid waste management, which exceed $7.4 million, as well as funding sources for these projects, through fiscal year 2030.

Table 9: Solid Waste CIP Expenditures

Solid Waste
Capital Improvement Ten Year Summary
Fiscal Year 2021 - 2030

			Budget Year		Ten Year Capital Program				
Page	Project	Total	Prior Appr.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Future
	Project Costs									
	Solid Waste									
196	Contingency - Solid Waste	458,000	83,000	0	0	30,000	30,000	35,000	35,000	245,000
197	Close Out Cap - Rubblefill	2,091,000	0	190,000	1,901,000	0	0	0	0	0
198	SW Equipment & Vehicle Replacement	576,698	285,698	27,000	28,000	28,000	29,000	29,000	30,000	120,000
199	City/County Groundwater Investigation	156,000	0	156,000	0	0	0	0	0	0
200	40 West Landfill - Cell 5 Construction	4,083,000	0	0	0	0	440,000	3,472,000	171,000	0
201	40 West Security Upgrades	60,000	0	0	60,000	0	0	0	0	0
	Solid Waste Total	**7,424,698**	**368,698**	**373,000**	**1,989,000**	**58,000**	**499,000**	**3,536,000**	**236,000**	**365,000**
	Funding Sources									
	Solid Waste Fund	1,250,698	368,698	183,000	88,000	58,000	59,000	64,000	65,000	365,000
	Self-Supported Bond	5,309,000	0	190,000	1,036,000	0	440,000	3,472,000	171,000	0
	State Grant	865,000	0	0	865,000	0	0	0	0	0
		7,424,698	**368,698**	**373,000**	**1,989,000**	**58,000**	**499,000**	**3,536,000**	**236,000**	**365,000**

The self-sufficiency of the Solid Waste Enterprise Fund will likely be challenged by changes in private sector waste and recycling activities in Washington County. Private sector collection companies have the option of taking collected material out of county or out of state to nearby private landfills or recycling centers. Diversion of significant amounts of waste from the Forty West Municipal Landfill will result in a revenue decline to the solid waste enterprise fund.

The rising operating costs of recycling services will also challenge Enterprise Fund self-sufficiency. Recycling programs will be evaluated annually to identify opportunities for savings and efficiency. The County created a separate permit fee for recycling in 2013 to address the sustainability of recycling programs that were formerly funding by tipping fees and other revenues to the Solid Waste Enterprise fund. The permit fee was instituted in response to significant decreases in inbound waste tonnage resulting in a corresponding decrease in revenue to the solid waste enterprise fund.

The county should proactively identify and evaluate potential revenue impacts from waste exportation by private haulers and, if necessary, develop further operational alternatives to ensure fund solvency. Accordingly, tipping fees should be monitored to ensure that they are low enough to attract an adequate amount of waste to cover operations and closure costs. Fees that are too high may also encourage illegal dumping. Above all, program fees should support the true cost of waste management services offered to residents. During the succeeding ten-year planning period, Washington County may wish to perform a true cost analysis to calculate the current costs of waste and recycling programs offered to County residents.

Additionally, current federal and State of Maryland post-closure monitoring and maintenance requirements pertaining to municipal sanitary landfills extend 30 years after the landfill ceases accepting solid waste. The County needs to regularly estimate the projected costs for these State and Federally mandated future activities, and, where necessary, adjust the fees imposed on system users to collect and escrow over the operating life of the facility sufficient monies to fund these activities after closure.

Opportunities for generating additional revenue supporting the Solid Waste Enterprise Fund will be investigated. The County's installation of solar energy generating systems on closed or inactive landfill sites is an example of its willingness to investigate other revenue sources. There are currently four solar fields on three landfill sites (one at Forty West, two at the rubble Landfill and one at the Resh Road landfill), each of which produce approximately 2.5 Megawatts. Another solar energy generating system may also be installed at the Resh Road Landfill during the planning period.

Other alternate revenue sources may include other energy initiatives, such as the capture of methane from anaerobic digestion processes or the installation wind turbines on closed or inactive landfill sites. Pricing off-sets for recyclables collected through the county's recycling program offer still another fiscal alternative.

6) Planning

- Corresponding Goals and Objectives

  - Goal # 2
    - Ensure that planned growth occurs in a manner consistent with the County's long-range plans so that solid waste management can be delivered as a cost-effective public service.

- Regularly review and, if necessary, update County laws and regulations such as the Solid Waste Licensing Collection Ordinance and Zoning Ordinance to ensure protection of public welfare and sensitive environmental resources.
- Review and update the Solid Waste Management and Recycling Plan on a triennial basis.

The County will continue to provide a triennial review and update of the ten-year Solid Waste Management and Recycling Plan (SWMRP). Time bound goals as part of the 3-year review and update process will be evaluated. Municipalities are encouraged to develop their own plans with each subsidiary plan paralleling the organization of the County Plan as specified in COMAR 26.03.03.

Service and program efficiencies and convenience will continue to be evaluated and end use of landfill facilities will be considered. The Solid Waste Department may wish to update the "Comprehensive Recycling Program Work Plan" that was created for the previous Solid Waste and Recycling Plan to guide its future efforts towards recycling and other waste diversion strategies. The activities and concepts described in the prior work plan were directed at improving the quantity and quality of both residential and non-residential recycling efforts in Washington County. The plan could be updated to include a broader range of strategies falling within the hierarchy of solid waste management, including source reduction or energy recovery initiatives.

7) Future Studies, Programs and Initiatives

In 2021, the County intends to complete a study to determine if groundwater flows are influencing the leachate production at the closed City/County Landfill which is unlined. Groundwater mapping indicates the flow of groundwater through the site may indeed be influencing leachate production at this site. The Solid Waste Fund will cover the cost of this study. The study is scheduled to be complete in July 2021.

The County should support and encourage all local municipalities, particularly those which fall within Urban or Town Growth Areas, to develop their own solid waste management plans. Local municipalities may have solid waste management needs and capabilities that differ significantly from those which affect the County (i.e. – serving predominantly urban v. rural environments). Where needed the County could offer technical assistance to communities in the development of these plans.

8) Plan of Action Summary Matrix

Washington County's ten-year Plan of Action is summarized below in the Appendix.

Appendix A

Program	Description	Implementation Timeline
Source Reduction and Material Reuse		
Source Reduction Credits	Education, outreach and technical assistance to various stakeholder groups	Long Term
Electronic Plan Review	Digital submission of plans and permits for agency review and comment	Short Term (initial rollout) Long Term (platform expansion)
Recycled Materials	Purchasing requirements for recycled materials in County government operations	Long Term
Paper Waste Reduction	Implement measures to reduce paper waste in County government operations	Short Term (internal operations) Medium Term (agencies, contractors)
Material Reuse	Promote, implement or partner with groups providing outlets for reuse of various products	Short Term (existing partnerships) Long Term (new partnerships)
Recycling		
Residential	**Curbside Recycling:** Continue evaluating economic feasibility of expand in areas not currently served	Long Term
	Collection System: Ensure collection model is cost effective and meets plan goals	Long Term
	Consider alternative models if major initiatives undertaken (i.e. - Waste to Energy project)	
Commercial	**Material Capture**: Provide education, outreach and technical assistance to businesses and instituions to increase participation and capture of recyclable materials during collection	Short to Long Term
	Bar/Restaurant Recycling Program: Study feasibility of partnering with local businesses to implement pilot collection programs for high volume recyclable commodities	Long Term
	Data Reporting: Consider establishing mandatory thresholds where any business meeting waste generation thresholds must report recycling tonnage(s) annually	Long Term
	Incentives: Competitive grants or low interest loans to businesses with innovative waste diversion programs	Medium Term
Recycling Markets	**Composting**: Research feasiblity of expanding yard waste composting program to include other organics	Long Term
	County Projects: Use of recycled materials in County Public Works or Engineering projects	Medium Term
	Additional Materials: Study feasibility of collecting additional recyclables (rigid plastics)	Long Term
	Buy-back programs for select materials (i.e. – aluminum)	
Solid Waste Collection Licensing Ordinance	Review Ordinance for potential amendments to strengthen enforcement mechanisms and reporting requirements	Short Term (Ordinance review) Medium Term (amendments)
Office Building Recycling	Implement State legislation requiring collection and recycling of recyclable materials from buildings that have 150,000 square feet or greater of office space	Short Term (initial implementation) Long Term (monitoring, enforcement)
Private Sector Recycling and Partnerships	Support existing private recycling entities	Short Term
	Develop joint plans and programs with private firms to increase recycling, reuse and waste diversion within the County	Long Term
County Park Recycling Pilot Program	Develop pilot recycling program at a County park to capture materials currently landfilled	Short Term (Study)
	Success or failure of program will determine whether or not to expand to other County parks or community facilities	Medium Term (Pilot Program)
Other COMAR Recycling Waste Streams	Management of bulky/special wastes, scrap tires, scrap metal, electronics, fluorescent/CFL lights and waste oil and antifreeze	Short Term
Waste Utilization and Energy Recovery		
Waste-To-Energy Alternatives	Explore WTE alternatives such as pelletization, anaerobic digestion and landfill gas capture to divert recoverable waste from being landfilled and to create commodities that provide new revenue streams supporting solid waste programs & facilities	Long Term
Waste Treatment and Disposal		
Forty West Landfill Improvements	Cell 5 construction	Medium Term
Alternate Daily Cover	Use of tarp or other ADC's to reduce soil use and increase landfill life	Short Term
Waste Compaction/Landfill Density Improvement	Replace or rebuild waste compaction equipment at end of useful life to maximizie landfill space	Long Term
Leachate Recirculation and Treatment Alternatives	Continue to identify most cost effective solution to deal with leachate treatment (currently trucking)	Long Term
	Implementation of alternatives such as recirculation, may coincide with various WTE technologies proposed (see above)	
Collection System Model	Continue to evaluate feasibility of implementing alternative collection systems	Long Term
	Switch to alternatives collection models may coincide with implementation of various WTE technologies proposed (see above)	Long Term
Reuse of Closed or Inactive SW Facilities	Develop innovative plans for reuse of closed or inactive solid waste facilities including energy generating projects, parks and open space uses, or for use in meeting other regulatory requirements (i.e. - forest conservation mitigation)	Long Term
Extended Operating Hours	Investigate feasibility of extending operating hours at various solid waste facilities to increase convenience to system users	Medium Term
Other COMAR Waste Streams	Management of industrial, institutional, controlled hazardous substances, dead animals, wastewater treatment plant sludge, septage and asbestos	Short Term
Financing		
Solid Waste Enterprise Fund	Conduct continuing analysis to ensure program fees support true cost of waste management services offered to system users	Long Term
	Account for closure and post-closure monitoring costs for closed facilities in financial outlook for Fund solvency	Long Term
	Investigate opportunities for generating additional revenue supporting the Fund (see above)	Long Term
Future Plans, Studies, Programs		

Solid Waste and Recycling Plan	Triennial review and update of the ten-year Solid Waste Management and Recycling Plan	Medium Term
Groundwater Study	Study to determine if groundwater flows are influencing the leachate production at the closed City/County Landfill	Short Term
Local Solid Waste Plans	Support and encourage local municipalities to develop their own solid waste management plans to meet specialized waste management needs	Long Term

Appendix B

Federal and State Solid Waste Laws and Regulations

LIST OF FEDERAL REGULATIONS AFFECTING SOLID WASTE MANAGEMENT

Non-Hazardous Waste

Part 240: Guidelines for the Thermal Processing of Solid Wastes

Part 241: 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

Part 246: Source Separation for Materials Recovery Guidelines

Part 247: Comprehensive Procurement Guideline for Products Containing Recovered Materials

Part 254: Prior Notice of Citizen Suits

Part 255: Identification of Regions and Agencies for Solid Waste Management

Part 256: Guidelines for Development and Implementation of State Solid Waste Management Plans

Hazardous Waste

Part 260: Hazardous Waste Management System: General

Part 261: Identification and Listing of Hazardous Waste

Part 262: Standards Applicable to Generators of Hazardous Waste

Part 263: Standards Applicable to Transporters of Hazardous Waste

Part 264: Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities

Part 265: Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities

Part 266: Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities

Part 267: Standards for Owners and Operators of Hazardous Waste Facilities Operating Under A Standardized Permit

Part 268: Land Disposal Restrictions

Part 270: EPA Administered Permit Programs: The Hazardous Waste Permit Program

Part 271: Requirements for Authorization of State Hazardous Waste Programs

Part 272: Approved State Hazardous Waste Management Programs

Part 273: Standards for Universal Waste Management

Other RCRA Regulations

Part 279: Standards for the Management of Used Oil

Part 280 – Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (UST)

Part 281 – Approval of State Underground Storage Tank Programs

Part 282 – Approved Underground Storage Tank Programs

SUMMARY OF MARYLAND LAWS AFFECTING SOLID WASTE MANAGEMENT

Maryland State Implementation Plan (Ongoing)

Limits emissions from specific pollutant sources to prevent air quality from falling below National Ambient Air Quality Standards (NAAQS)

Non-Tidal Wetland Regulations (1990)

Prevents net loss of non-tidal wetlands by establishing a stringent permitting process

Chesapeake Bay Critical Area Protection Program (1984)

Controls human intervention in the Bay area

Maryland Recycling Act (1988)

Establishes a requirement for Maryland counties to plan and implement a recycling system by 1994 to reduce a county's waste stream by 15% or 20% based upon that county's population.

Asbestos Control – Asbestos Hazard Emergency Response Act (1990)

Deals with asbestos controls and requires completion of a teaming program by those who do asbestos related work within schools

Land Clearing Debris Landfills – Amount of Security (1990)

Addresses the amount of security required for each acre of land clearing debris landfills

Newsprint Recycled Content Act (1991)

Regulates newsprint recycling by imposing specified recycling content percentage requirements on the Maryland newspaper industry

Telephone Directory Recycling Act (1991)

Regulates telephone directory publishers to meet specified recycling content percentage requirements for telephone directories

Plastic Material Code (1991)

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

Composting Act (1992)

Includes composting in the definition of recycling

Requires that county recycling plans address composting issues and bans yard waste from landfills effective in 1994

Mercury Oxide Battery Act (1992)

Makes battery manufacturers responsible for collection, transportation and recycling or disposal of batteries sold or offered for promotional purposes in the state

Recycling Rate and Waste Diversion – Statewide Goals Act (2012)

An act revision the 1988 Maryland Recycling Act (MRA), requiring a county plan to address a reduction through recycling of at least 35% or 20%, by population greater or less than 150,000, of the county's solid waste stream by July 1, 2014. The plan must be fully implemented by December 31, 2015

Sewage Sludge Application (1993)

Land application procedures are strictly regulated to maintain the public health

Medical Waste Legislation (1988)

Regulates identification, recordkeeping, treatment, transport, and disposal of special medical wastes; infectious wastes are prohibited in solid waste landfills in the state

SUMMARY OF MARYLAND LAWS AFFECTING SOLID WASTE MANAGEMENT

Nickel Cadmium (NICD) Battery Act (1995):

Regulates the storage, transportation and destination of nickel-cadmium batteries.

Public School Recycling Plans (2010):

Requires a County recycling plan to address the collection, processing, marketing and disposition of recyclable materials from County public schools.

Fluorescent and Compact Fluorescent Light Recycling (2011):

Requires a county to develop a strategy for the collection and recycling of fluorescent and compact fluorescent lights that contain mercury.

Recycling – Apartment Buildings and Condominiums Act (2012):

Establishes a requirement for Maryland counties to address the collection and recycling of certain materials by certain property owners, managers and councils of apartment buildings and condominiums in their recycling plan, as well as a method of implementing reporting requirement. This Act also requires owners, managers and councils with ten (10) or more dwelling units to provide for recycling for residents on or before October 1, 2014.

Recycling Rates and Waste Diversion – Statewide Goal Act (2012):

An Act revising the 1988 Maryland Recycling Act (MRA) requiring a county Plan to address a reduction through recycling of at least 35 percent for a county with a population of greater than 150,000 and 20 percent for a county with a population of less than 150,000 of the county's solid waste stream by July 1, 2014. The plan must be fully implemented by December 31, 2015.

Recycling – Special Events Act (2014):

Establishes a requirement for Maryland counties to address the collection and recycling of certain materials by organizers of certain special events in their recycling plan. This Act also requires organizers of special events meeting certain criteria to provide a recycling receptacle adjacent to each trash receptacle, ensure recycling receptacles are clearly distinguished from trash receptacles, and ensure that recyclable materials are collected for recycling on or before October 1, 2015.

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 - Office Buildings (2019)

Requires Counties to address the collection and recycling of recyclable materials from buildings that are 150,000 square feet or greater of office space. Office building owners must provide recycling receptacles for the collection of recyclable materials and for the removal of certain materials for further recycling by October 1, 2021.

Recycling Rates and Waste Diversion – Statewide Voluntary Goals (2020)

The State of Maryland implemented a voluntary waste diversion goal of 60% and a voluntary recycling rate of 55% by 2020.

ANNOTATED CODE OF MARYLAND – ENVIRONMENT ARTICLE

Title 4 – Water Management

Title 6 – Toxic, Carcinogenic and Flammable Substances

Title 7 – Hazardous Materials and Hazardous Substances

Title 9 –*Regulates the location, design and operation of sanitary landfills through refuse disposal permits issued and enforced under authority of the following sections:*

Subtitle 5 – County Water and Sewerage Plans

Subtitle 17 – Office of Recycling, Created MDE's Recycling Program and defined and mandated county recycling goals

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

Section 204.1 – *Installing, Altering or Extending Incinerators*

Section 204.2 – *Installing, Altering or Extending Landfill Systems*

Section 209 – *Landfill Systems – Hearings*

Section 210 – *Landfill Systems – Prerequisites for Issuance of Permit*

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

Section 212 – *Landfill Systems – Options to Purchase*

Section 212.1 – *Landfill Systems – Denial of Permit to Nongovernment Person*

Section 213 – *Landfill Systems – Term of Permit (5 Years)*

Section 214 – *Landfill Systems – Revoking or Refusal to Renew a Permit*

Section 215 – *Landfill Systems – Closing and Covering When Operations End*

Section 225 – *Landfills Near Hospitals Prohibited (1/2 Mile Radius)*

Section 226 – *Certificate of Public Necessity Required for Hazardous Waste Landfill System*

Section 227 – *Infectious Waste in Landfill System Prohibited*

Section 228 – *Scrap Tire – Storage, Recycling and Disposal*

SUMMARY OF MARYLAND REGULATIONS AFFECTING SOLID WASTE MANAGEMENT

COMAR REGULATIONS

Under ***Title 08*** (Department of Natural Resources), the following sections must be considered in the siting of solid waste management facilities:

Subtitle 3, Chapter 8, Threatened and Endangered Species
Subtitle 9, Chapters 1-6, Forest Conservation

Title 26, Subtitle 3, Water Supply, Sewerage, Solid Waste and Pollution Control Planning and Funding, Chapter 3, Development of County Comprehensive Solid Waste Management Plans

Requires that each county maintain a current solid waste management plan and establishes the format for these plans

Title 26, Subtitle 3, Chapter 10, Financial Assistance for the Constructing of Solid Waste Processing and Disposal Facilities

Stipulates the requirements, priority listing criteria and ranking system for counties to receive financial assistance from the state

Title 26, Subtitle 4, Regulation of Water Supply, Sewage Disposal and solid Waste, Chapter 7 Solid Waste Management

Regulations for permitting, designing, construction, operating and closing municipal land clearing debris, rubble and industrial waste landfills, processing facilities, transfer stations and incinerators

Other regulations under ***Title 26*** that are important to solid waste management include:

Subtitle 4, Chapter 6, Sewage Sludge Management
Subtitle 4, Chapter 8, Scrap Tire Regulations
Subtitle 4, Chapter 9, Natural Wood Waste Recycling Facilities
Subtitle 8, Water Pollution
Subtitle 9, Chapter 1, Erosion and Sediment Control
Subtitle 9, Chapter 2, Stormwater Management
Subtitle 11, Air Quality
Subtitle 13, Disposal of Controlled Hazardous Substances

Title 26, Subtitle 5

Chapter 3, Construction on Non-Tidal Waters and Floodplains
Chapter 4, Non-tidal Wetlands
Chapter 7, Wetlands Regulations

Appendix C

Solid Waste Collection Licensing Ordinance

AN ORDINANCE TO PROVIDE FOR SOLID WASTE COLLECTION LICENSING IN WASHINGTON COUNTY, MARYLAND

Adopted June 22, 1995, effective July 1, 1995.
Revision 1, adopted June 21, 2005, effective July 1, 2005.

SOLID WASTE COLLECTION LICENSING ORDINANCE

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AN ORDINANCE TO PROVIDE FOR SOLID WASTE COLLECTION LICENSING IN WASHINGTON COUNTY, MARYLAND

SECTION 1.0 DEFINITIONS

For the purposes of this ordinance, the following definitions describe the meaning of the terms used.

Asbestos means any of the naturally occurring mineral fibers of the serpentine and amphibole series including actinolite, amosite, anthophyllite, chrysolite, crocidolite, and tremolite.

Bulky waste means large items of solid waste which because of their size or weight require handling other than normally used for solid waste. Bulky waste includes, but is not necessarily limited to, such items as tree trunks and stumps, appliances, and furniture.

Clean fill means an uncontaminated non-water-soluble, non-decomposable, inert solid such as rock, soil materials, and gravel.

Collection means the act of picking up solid waste at its point of generation or storage and placing it in a vehicle.

Construction/Demolition Waste does not include the following if they are separated from other waste and used as clean fill:

(a) Uncontaminated soil, rock, stone, gravel, unused brick, and block and concrete.

(b) Waste from land clearing, grubbing, and excavation including trees, brush, and vegetative material.

Container means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

Contaminated soil means a portion of solid waste consisting of hydrocarbon contaminated earth or fill, typically generated due to a spill or leak. Contaminated Soil is a Special Handling Waste.

Convenience Center means a solid waste acceptance facility owned or operated by or on behalf of Washington County where containers are available for household waste and household recyclables.

County means the County Commissioners of Washington County, a body politic and corporate of the State of Maryland and where appropriate to the context means the area located within the geographic boundaries of Washington County, Maryland, including the municipalities located therein. The Director of Public Works and the Director of Solid Waste are authorized representatives of the County Commissioners in all matters of solid waste.

Director of Finance shall mean the Finance Director for Washington County, Maryland.

Disposal means the storage, treatment, utilization, processing or final disposition of solid waste, specifically including the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwater.

Disposal facility means a waste management facility used for the final disposal of residual materials not currently reusable for either technological or economic reasons.

Environmentally unsound means any persistent or continuous condition resulting from the methods of operation or design that impairs the quality of the environment when compared to the surrounding background environment or violates any federal, state, county or municipal standard.

Free liquids means liquids which readily separate or can be reasonably expected to separate from the solid portion of a waste under ambient temperature and pressure when tested with paint filter test or other means.

Friable asbestos material means any material that contains more than one percent asbestos by weight and that can be crumbled, pulverized or reduced to powder, when dry, by hand pressure or otherwise could become airborne.

Generator means any person who produces any waste materials regulated by this Ordinance.

Haulage vehicle means a vehicle designed for and used to transport solid waste.

Hauler means a person engaged in the act of collection of solid waste and/or transporting such waste.

Hazardous waste means any refuse, sludge, or other waste material or combination of refuse, sludge, or other waste materials in solid, semi-solid, liquid or gaseous form, which, because of its quantity, concentrations, or chemical, physical or infectious characteristics, as defined in 40 CFR 261, may pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. Categories of hazardous waste materials include, but are not limited to, explosives, flammable, oxidizers, and reactive wastes, poisons, irritants, and corrosives.

Household Hazardous Waste means hazardous waste, as defined above, generated in a residential household, which is exempt from the regulations, governing the storage, transport, and disposal of hazardous waste, due to the relatively small volume of generation by a single generator or household.

Infectious Waste means any waste that comes from a hospital, clinic, or laboratory and that is known or suspected to be contaminated with organisms capable of producing disease or infection in humans. Infectious waste includes: (a) Disposable equipment, instruments, and utensils; (b) Contaminated needles, scalpels, and razor blades; (c) Human tissue and organs that result from surgery, obstetrics, or autopsy; (d) Feces, urine, vomitus, and suctioning's; (e) Live vaccines for human use; (f) Blood and blood products; and (g) Laboratory specimens, such as tissues, blood elements, excreta, and secretions.

MDE means the Maryland Department of the Environment.

Materials designated for recycling means those recyclable materials that the County identifies as reasonable to recycle when collection costs, processing costs, markets, and beneficial effects of reducing waste are considered. Materials designated for recycling include 1 & 2 plastic bottles - HDPE/PET, newspapers, glass bottles and jars, food and beverage cans, office paper, corrugated cardboard and other materials which may be determined to be practical by the County.

Materials recovery facility (MRF) means a central processing area that consists of a combination of equipment and handpicking to process materials designated for recycling to market specifications.

Municipal solid waste (hereinafter sometimes designated "MSW") means garbage, refuse, rubbish, trash, and other solid waste from residential, commercial, industrial, and community generators which is collected in aggregate, but does not include special handling wastes, recyclables, residual waste, auto hulks, ash, construction and demolition debris,

mining wastes, sludge, agricultural wastes, tires, and other materials collected, processed, and disposed of as separate waste streams.

Open burning means the combustion of any material without any of the following characteristics:

1. Control of combustion air to maintain adequate temperature for efficient combustion;

2. Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion;

3. Control of emission of the gaseous combustion products.

Person means an individual, trust, firm, joint stock company, federal agency, corporation (including a government corporation), corporate official, partnership, association, state, municipality, commission, political subdivision of a state, or any interstate body.

Recyclables (also recyclable materials) means those materials that when kept separate from the waste stream and processed, can be used to produce a product.

Recyclable White Goods consist of large appliances (i.e., generally weighing more than fifty pounds) including, but not necessarily limited to the following: air conditioners, clothes washing and drying machines, hot water heaters, refrigerators and freezers, or stoves and ovens.

Recycling or **reclamation** means any lawful method, technique, or process used to collect, store, separate, process, modify, convert, treat, or otherwise prepare recyclable materials.

Residue means any material that remains after completion of manual, thermal, mechanical or chemical processing.

Salvaging means the controlled removal of any solid waste from a solid waste disposal facility for reuse.

Sanitary and/or Rubble Landfill means a facility at which solid waste is deposited on or into the land as fill for the purpose of permanent disposal and which has received all necessary permits.

Scavenge or Scavenging means removal of recyclables or other items from the waste stream without the prior approval of the generator or, if removed by the generator and placed for delivery to a hauler or committed to a hauler, without the prior permission of the hauler; or removal in a manner not authorized in this Ordinance. It does not include separation or segregation of waste for purposes of implementing the County's recycling program.

Sludge means any solid, semi-solid, or liquid residue consisting of solids combined with water and dissolved materials in varying amounts generated from a municipal, commercial, or industrial water or wastewater treatment plant or process or flue gas scrubber.

Small business means any business that has fewer than five full-time employees. The business may be constituted under any legal form.

Solid waste means garbage, refuse, residue, sludge, and other non-liquid discarded materials resulting from personal, residential, community, mining, agricultural, industrial, or commercial activity, including recyclables. Solid waste does not include any hazardous waste.

Solid waste acceptance facility means any sanitary and/or rubble landfill, combustion plant (i.e. incinerator), transfer station, resource recovery facility or materials recovery facility (MRF), which has a primary purpose to dispose of, treat, or process solid wastes.

Solid waste management means the systematic and integrated administration of activities involving the collection, separation, storage, transportation, transfer, re-use of disposal of solid wastes considering adequate measures for environmental protection, sound engineering, and efficient economics.

Special handling wastes means a portion of municipal solid waste which consists of sludge, ash residue, contaminated soil, high volume/low weight waste, asbestos waste, and others that may apply.

Transfer station means an intermediate waste facility at which mixed municipal solid waste, or other materials are temporarily deposited before being transported to a processing facility or final disposal site.

Treatment means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste, or so as to recover energy or material resources from the waste, or so to render such waste non-hazardous, or less hazardous, safer to transport, store, or dispose of; or amenable for recovery, amendable for storage, or reduced in volume.

Waste stream means all MSW, industrial waste, hazardous waste, medical waste, construction waste, recyclables and sludge in any form, i.e., solid, liquid, or gaseous, that is disposed of by the generator.

Yard waste means any materials normally generated in the maintenance of gardens, yards, lawns, or landscaped areas, whether residential, commercial or public, including leaves, grass clippings, plants, shrubs, prunings and trimmings less than 4 feet in length and 2 inches in diameter. Yard waste does not include other tree waste, land clearing debris, waste pavement, or soil.

SECTION 2.0 LICENSING REQUIREMENTS

Section 2.1 LICENSE REQUIRED

2.1.1 No person whose business is solid waste collection shall engage or continue to engage in the collection, haulage or disposal of solid wastes, including the collection or purchase of recyclables, within Washington County without first filing for and obtaining a license from the County. Any person hauling for another party on a regular basis (i.e., average 3 times weekly) must obtain a license.

2.1.2 No licensee shall collect or transport any Washington County solid wastes to or from any solid waste acceptance facility with any vehicle that has not been licensed by the County for that use and displays a commercial permit sticker. Licensed haulers must furnish a list of all vehicles operated in Washington County and must obtain a sticker for each vehicle listed.

2.1.3 Licenses issued hereunder may not be assigned to any other person without the prior consent of the County, which consent will not be unreasonably withheld. Vehicle licenses issued hereunder shall be in the form of a sticker. Stickers shall only be affixed to vehicles for which they are issued and may not be transferred to any other vehicles. Licenses issued hereunder shall be and remain the property of the County. Stickers shall be firmly affixed in a prominent location on the left front (driver's side) of the vehicle so that it can be readily visible.

2.1.4 Licenses shall be issued for one year on a fiscal year basis (July 1 through June 30). There will be no proration of fees for licenses issued during the course of the fiscal year.

2.1.5 A licensee shall notify the County within thirty (30) days of any change of information supplied in its application for a license.

2.1.6 The failure to provide the information required by subsection 2.1.5 hereof shall be grounds and sufficient cause to revoke summarily the license.

2.1.7 The County may bar vehicles or containers from County Facilities if in the County's opinion the vehicle or container may cause a nuisance or an unsafe condition.

Section 2.2 APPLICATION FOR LICENSE

2.2.1 Applications for licenses issued hereunder shall be made on forms supplied by the County Commissioners for Washington County, Maryland, and shall contain all information requested by the County. An application will not be accepted or processed unless it is complete. That information shall include, but is not limited to, the following:

(1) Name of the applicant
(2) Applicant's mailing address
(3) List of the vehicles and equipment owned and leased by the applicant which are to be permitted hereunder
(4) Name, address, and telephone number of the primary contact acting as representative for the applicant
(5) The appropriate fee based on the fee schedule supplied by the Director of Solid Waste for Washington County
(6) A description of the hauler's plan for the collection and disposal of solid waste including recyclables. The plan as a minimum must take into consideration materials designated for recycling including the following materials: commercial corrugated cardboard and office paper products, residential materials including newspapers, glass bottles and jars, food and beverage cans, and HDPE/PET plastic bottles.

OFFICIAL COMMENT

A person who is in the business of collecting or purchasing Washington County generated recyclables must acquire a license. The primary purpose of this requirement is to identify the person as someone from whom a report of collection is required. As contemplated at the time of adoption of this Ordinance, licensing is primarily an identification tool, but in the event of violation, it provides a measure of security for implementation of the County's plan to reach its recycling goals. Nevertheless, in the event of violations, particularly failure to report or illegal dumping, a license may be suspended or revoked, and other penalties sought.

2.2.2 Initial applications must be filed no later than June 20 for licenses to be effective on July 1.

2.2.3 Within thirty (30) days of filing the application for license the applicant will be notified by the Director of Solid Waste whether or not the application is approved.

2.2.4 As licenses are issued for periods of one year running from July 1 through June 30, applications for license renewals must also be filed with the Director of Solid Waste no later than May 30 of each year. Short form renewals are available from the Washington County Solid Waste Department if the data listed under 2.2.1 has not changed. If the information has changed a modified full application must be filed.

2.2.5 A licensee shall notify the Director of Solid Waste within thirty (30) days of any change of information supplied on its application for a license.

2.2.6 Failure to provide any information required in connection with any license application or renewal or failure to inform the County of any change in information previously supplied in connection with any application or renewal shall be grounds and sufficient cause to either deny any pending application or to revoke or suspend any active license of a solid waste hauler.

Section 2.3 WASTE HANDLING REQUIREMENTS (General)

Any person, regardless of whether they are required to be licensed, who collects, hauls, or disposes of solid waste, shall comply with the following requirements:

2.3.1 No person shall deposit solid waste except in approved solid waste acceptance facilities in accordance with Section 3.0 of this Ordinance and all applicable federal, state, and local laws, ordinances, and regulations.

2.3.2 No person shall cause solid waste, except recyclables, to remain or to be stored in any collection or haulage vehicle. In case of inclement weather, acts of God or an emergency such as equipment breakdown or accident, no solid waste shall be allowed to remain or to be stored in any collection or haulage vehicle in excess of 24 hours. If an emergency arises or inclement weather occurs, the hauler is responsible for having the material removed to its intended destination in a timely manner.

2.3.3 No person shall cause a vehicle to be used for the collection or haulage of solid waste if the design of the vehicle is such that any material will be allowed to spill onto any roadway.

2.3.4 No person shall cause a vehicle used for hauling solid waste to be used beyond its design capabilities or in such a manner that littering, or spillage of the materials could occur.

2.3.5 All work or collection crews operating solid waste collection systems shall take reasonable care to protect the property of customers being served. Any damage or spillage of materials, occurring as a result of the collector's actions shall be the collector's responsibility.

2.3.6 No person shall collect, transport or deliver any solid waste in Washington County in such manner as to allow for littering, spillage, or the creation of a nuisance in any other manner. All loads shall be secured and covered, if necessary.

2.3.7 No person shall collect, transport or deliver to any designated County facility any material that is or shows evidence of smoking, smoldering, or burning.

2.3.8 In the event a person must dump materials in transit in an emergency due to smoking, smoldering or burning, that person shall be responsible for immediately notifying the Department of Public Works and the police and fire departments having jurisdiction and shall be responsible for cleanup of materials dumped during the emergency. Clean-up shall be accomplished promptly, but in no event later than 24 hours after dumping and the material shall then be properly disposed of.

2.3.9 No person shall manage or dispose of a part or fraction of the waste stream except in accordance with all applicable federal and state laws and regulations and this Ordinance.

2.3.10 No person shall use open burning as a means of solid waste management in Washington County unless permitted by the appropriate state or local regulatory authority. The Washington County Health Department is the permitting agency for any proposed burning.

2.3.11 No person shall manage or dispose of any part of the waste stream within Washington County in any manner which results in violation of local, state, or federal laws.

SECTION 3.0 SOLID WASTE ACCEPTANCE POLICIES

3.1 Only solid waste generated in Washington County may be delivered to or disposed of at County-operated facilities. If the solid waste is a special handling waste, it may not be delivered to a County facility unless prior approval has been issued allowing the delivery and then, only in strict compliance with the terms thereof.

3.2 Any person delivering unacceptable waste, including waste generated outside Washington County, to a County facility will be responsible for the payment of any fine that may be assessed for the removal of the unacceptable waste from the site, clean-up and remediation of any damages resulting from such delivery, and reimbursement of all costs and damages incurred by the County as a result of such delivery in addition to payment of the applicable solid waste management fee.

3.3 The following are considered unacceptable wastes and no person shall deposit or cause to be deposited any of the following materials in any County sanitary landfill.

(1) Hot ashes or any material that shows evidence of smoking, smoldering or burning;
(2) Guns, rifles, pistols, firearms or ammunition of any kind, except weapons as destroyed by law enforcement;
(3) Explosive materials or other lethal wastes;
(4) Gasoline, oil products, petroleum product waste and sludge or any combustible material;
(5) Pipe measuring over four (4) feet in length or four (4) inches in diameter;
(6) Special handling waste without a permit for same.
(7) Motor vehicles, boats, campers, mobile homes without first being dismantled.
(8) Hazardous wastes;
(9) Sealed drums, closed large containers, and tanks of any size or type;
(10) Liquids or wastes containing free liquids;
(11) Intact bulky wastes;
(12) Toxic wastes;
(13) Pathological/Infectious or other medical wastes;
(14) Radioactive wastes
(15) Any substance prohibited by any other statue, rule, or regulation;
(16) Dead animals
(17) Wet paint
(18) Pesticides
(19) Chemicals that are hazardous waste

3.4 Delivery of special handling wastes to any County-operated solid waste acceptance facility without prior approval by the County is prohibited. All special handling wastes shall be segregated from other categories of waste from the point of generation and must meet all applicable federal, state, and local laws, rules, and regulations.

3.4.1 A person wishing to dispose of special handling wastes shall apply for approval from the County for that purpose and in the manner prescribed by the County giving sufficient time for the application to be reviewed and processed prior to the date of intended delivery. Application for a permit to dispose of special handling wastes must include a complete description of the waste in question and the required fee. The County may require the submission of additional data, including the results of County-specified laboratory analyses, prior to a consideration of permit issuance. **The County reserves the right to deny acceptance of any waste.**

3.4.2 A fraction of any category of special handling wastes found in a load of any other waste category delivered to any County facility shall be grounds for the County to designate the entire load, including other loads from which the waste originated, as unacceptable waste.

343 SLUDGE

No sludge will be accepted at County facilities unless the following conditions have been met:

(a) A properly completed Request for Approval to Dispose of Sludge has been approved by both MDE and the County and a permit has been issued by MDE authorizing the disposal in the manner indicated in the permit.

(b) Each load of sludge shall be delivered to the County landfill in a dewatered state, with a solids content consistent with the requirements of thelandfill's Refuse Disposal Permit, with a cake-like texture. The sludge shall exhibit no liquid phase separation in a test which consists of either the EPA Gravity Test (as described in the Federal Register, Volume 47, No. 38, Page 8311, Thursday, February 25, 1982) or the EPA Plate Test (as described in the Federal Register, Volume 45, No. 98, Page 33214, Monday, May 19, 1980). Results of these tests shall be submitted to the County and a copy presented to the Landfill Official upon delivery for disposal.

(c) County may require laboratory test results for each load from a laboratory and in a form acceptable to County.

Pursuant to the provisions of this section, sludge may be accepted at the appropriate County facility or may be disposed of pursuant to a permit issued by MDE. Sludge shall not be mixed with any other waste when delivered to a County facility.

344 ASH RESIDUE

Non-hazardous ash residue from the combustion of fossil fuels, municipal solid waste or special medical waste may be accepted only at the County facility and only after County approval of applicable laboratory analyses. Ash residue shall not be mixed with any other waste when discharged into a County facility without prior County approval.

345 CONTAMINATED SOIL

No contaminated soil will be accepted at County facilities unless the County has received relevant test data and approved of the disposal. Contaminated soil if approved for disposal may be accepted at the County facility only by appointment. Contaminated soil shall not be mixed with any other waste when discharged into a County facility unless approved first by the Washington County Solid Waste Department.

346 ASBESTOS

Asbestos disposal must meet current federal and state regulations. Asbestos and materials containing asbestos (defined as "any material that contains more than 1% asbestos by weight and that can be crumbled, pulverized, or reduced to powder when dry, by hand pressure") may be disposed of at County facilities only under the following conditions:

(a) The asbestos or material containing asbestos must be generated or originate in Washington County; and must have license remover number, job identification and must be dated on each container.

(b) Asbestos or materials containing asbestos shall be packaged in impermeable bags with a minimum thickness of six (6) mils. The containers shall be prominently labeled (in at least 16 point type) as:

CAUTION, CONTAINS ASBESTOS **LICENSE #_____**

AVOID OPENING OR BREAKING CONTAINER **JOB DESCRIPTION _____**

BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH **DATE_____**

(c) Any container which does not meet the criteria enumerated above or which has not been adequately packaged, in the judgment of the County, shall not be accepted; and

(d) The County shall be notified at least forty-eight (48) hours in advance of the disposal of any asbestos or material containing asbestos.

(e) Large structural components containing asbestos that cannot be packaged as described in this Ordinance, will only be accepted for disposal if the component in question is itself acceptable for disposal and the asbestos is adequately wetted, encapsulated and handled in accordance with the provisions of 40 C.R.F (Code of Federal Regulations), Part 61, 1981 edition and C.O.M.A.R. 10.18.15 and 10.18.23, as those provisions may be amended from time to time.

(f) Any person hauling asbestos or materials containing asbestos to County facilities shall unload at the location designated by County's personnel. Asbestos or materials containing asbestos shall be unloaded in a manner which protects the containers from damage. No dumping of containers from vehicles is allowed and all asbestos must be unloaded manually.

(g) Any truck or other vehicle hauling asbestos or materials containing asbestos to County facilities shall have available on it protective equipment to be used in the event that accidental damage to containers of asbestos or materials containing asbestos occurs.

(h) High volume/low weight - any waste which when compacted with standard equipment cannot be expected to be greater than 660 lbs per cubic yard.

(i) Special waste requires prior approval before delivery.

3.5 RECYCLABLE MATERIALS

A hauler who collects municipal solid waste must also collect or provide for the collection of recyclables separated from all other forms of solid waste. It is the responsibility of:

a. a hauler who transports recyclables;
b. a generator who transports recyclables; or
c. a purchaser of recyclables

to furnish the County with annual reports on tonnages of recyclable materials hauled, generated, or purchased, their source and their destination. Information provided therein, concerning the source and destination of recyclable materials, is considered proprietary or confidential at the time a report is made. Upon clear designation that information contained in a report is proprietary and should remain confidential, the County will deny access to the information pursuant to State Government Article, Section 10-617(d), notify the provider of the information of any action filed to gain access to the information and the County will not disseminate the information beyond County staff or other government employees who agree to maintain the confidentiality of the information and who demonstrate a need to have the information to perform their duties. Failure to provide reports required by the County shall be sufficient grounds to suspend, revoke or deny a license issued hereunder and shall be a violation of this Ordinance. Haulers delivering solid waste to a County Facility shall segregate solid waste separately into any category as may be required by the County. Upon the passage of ninety (90) days from the County Commissioners' adoption of a resolution declaring that recycling is mandatory, haulers shall, at a minimum, provide a plan for implementation within ninety (90) additional days shall have the service implemented. Haulers shall be responsible for having all recyclables, at the time of delivery, segregated from all other waste. Plans will be reviewed and approved or rejected by the designee of the County Commissioners.

3.5.1 YARD WASTE

No person shall dispose of yard waste by commingling it with other solid waste. If yard waste is to be disposed of at a County Facility, it may be disposed of at wood waste processing areas or sites as may hereafter be designated by the County Commissioners, but only in the location designated by the County.

3.5.2 TIRES

Any individual desiring to dispose of four (4) or fewer tires within one (1) year may take the tires to any County landfill. Any non-commercial load containing more than four (4) tires or any commercial load may be delivered to the designated County facility. No more than 500 tires will be accepted from any generator or hauler in any one week. All tires must be removed from the rims and unloaded in designated tire unloading areas and segregated from other solid waste prior to delivery to the County facility. Tire haulers must be licensed by MDE and/or meet all requirements as stated in COMAR 26.04.08 concerning collection, storage, transferring, hauling, recycling and processing of scrap tires.

3.5.3 RECYCLABLE WHITE GOODS

Recyclable white goods, if delivered to a County Facility, shall be unloaded in the designated White Goods unloading area and may not be disposed of in a Sanitary Landfill, except pursuant to an approval of the Director of Solid Waste or designee.

3.5.4 WOOD

A generator shall separate tree branches, limbs and wood chips from the rest of the generator's waste and may make provision for collection and disposal at any designated area of a County sanitary landfill for processing. Treated wood shall not be considered clean wood waste for purposes of this Section. If separated from other waste, clean wood waste may be disposed of at a County facility in a designated area and in a designated manner; provided, however, clean wood waste shall not be delivered to a County facility unless it is separated from all other forms of solid waste.

3.6 Upon the request of the County, a hauler, purchaser of recyclables, or a commercial generator hauling its own solid waste shall provide the County with accurate and verifiable documentation of the types, quantities, and disposition of any solid waste which the hauler, generator, or purchaser has transported, or had transported, to any location. Information provided therein, concerning the source and destination of recyclable materials, to be considered proprietary or confidential, **MUST be clearly designated as proprietary or confidential at the time a report is made.** Upon clear designation that information contained in a report is proprietary and should remain confidential, County will deny access to the information pursuant to State Government Article, Section 10-617(d), notify the provider of the information of any action filed to gain access to

the information, and the County will not disseminate the information beyond County staff or other government employees who agree to maintain the confidentiality of the information and who demonstrate a need to have the information to perform their duties.

SECTION 4.0 SOLID WASTE ACCEPTANCE FACILITIES

4.1 All municipal solid waste shall be transported directly from the point of collection and delivered in accordance with this Ordinance to a solid waste acceptance facility (either a County facility or any other lawfully permitted facility), without any intervening transfer, unloading, processing, sorting, salvaging, scavenging, or reuse; except as may be allowed under the terms of the license issued hereunder.

OFFICIAL COMMENT

The intent of this provision is to provide for licensing of intervening processing as part of the license required in Section 2.0 of this Ordinance. Again, the licensing isprimarilyfor informational purposes, but in appropriate circumstances may take on enforcement characteristics. For example, if a hauler identified intervening processing, the County would use this information to determine proper zoning and to determine the type of information that may be required of the hauler for reporting purposes. It is not intended by this requirement that the County be unduly intrusive in the business of the hauler, but simply to ensure that the County gain sufficient information about its waste stream to provide necessary public services for its citizens over time.

4.2 Special handling wastes shall be transported from the point of collection and delivered in accordance with this Ordinance to a facility authorized by law to accept it.

4.3 Upon reasonable advance notice to the hauler, the County may designate or change the site designation for disposal of any waste or recyclable material.

4.4 No person shall use any County facility without a valid license as may be required by this Ordinance and which has been obtained from the County or use any County facility in violation of this Ordinance. A license issued pursuant to this Ordinance may be revoked at any time for any cause determined sufficient by the County after reasonable notice and an opportunity for the licensee to be heard.

4.5 No person shall possess or consume any alcoholic beverage or beverages at any County facility.

4.6 No person shall operate a motor vehicle in a reckless or unsafe manner at a County facility.

4.7 No person shall trespass on County Facility property. Only persons with valid permits shall be allowed on County Facility property and they shall be allowed only during operating hours.

4.8. Except in the course of law enforcement, no person shall discharge a firearm or other weapon such that it projects any object over or onto property of a County facility.

SECTION 5.0 FEES

5.1 SOLID WASTE MANAGEMENT FEES

5.1.1 AUTHORIZED FEES

The County Commissioners are hereby authorized in their executive capacity to establish fees and penalties for the receipt of any solid waste or unacceptable waste at a County Facility. Fees or penalties established hereunder may be changed whenever the Commissioners deem it necessary or expedient to do so. The County Commissioners may authorize the Director of Finance to adjust fees to recover the actual cost of the operation of all solid waste management services provided by Washington County. If this authorization is given, the Director of Finance shall establish as the Solid Waste Management Fee a charge that is the result of his/her determination of the projected actual cost of solid waste services projected for the next fiscal year. [Actual cost is comprised of the proposed budgets of those agencies of County government whose duties are solely related to providing solid waste services, that portion of the budgets of agencies of County government that may be attributable to the provision of solid waste management services, any surplus or deficit, depreciation, annualized cost of future development and closing, annualized cost of future facilities, and if not previously accounted for herein the cost of hazardous waste disposal, composting, and recycling.] In addition, solid waste management fees may be calculated and established on any portion of the waste stream by providing different fees for different categories of waste. If separate fees are established for different categories of solid waste, the anticipated revenue from these fees shall be used by the Director of Finance in establishing the solid waste management fee. In addition, the Director of Finance, if authorized to adjust the solid waste management fee pursuant to this Section, may adjust any fee established hereunder and establish new fees.

5.1.2 SOLID WASTE MANAGEMENT FEES

5.1.2.1 Solid Waste Management Fee.

Solid Waste will be assessed a management fee when delivered to the County Landfill. This fee is in addition to any permit or license fee.

5.1.2.2 Special Handling wastes.

Special handling wastes will be assessed a management fee when delivered to the County Landfill. This fee is in addition to any solid waste management fee, permit or license fee.

5.1.2.3 MRF Residue/Recyling Plant

Residue from the processing of an MRF or other manufacturing recycling business shall be subject to a solid waste management fee established by the County Commissioners of Washington County. The fee shall be established pursuant to 5.1.1 hereof. Any residue in excess of 20% of tonnage processed will not be accepted at any County facility.

5.1.2.4 Mixed Loads

The fee for any load containing more than one category of waste shall be equal to the fee that would be required for disposal of the load requiring the highest fee. County may reduce or waive this surcharge if the hauler demonstrates to the reasonable satisfaction of County that the mixing of waste was not due to the fault or negligence of the hauler and that the hauler has made best efforts to prevent such mixing in the future.

5.1.2.5 Additional fees

An additional fee of $100.00 per hour may be assessed to the hauler of any load of waste which requires any assistance.

5.2 Customer Notice

A hauler shall include on each invoice to a residential customer a specific statement that informs the customer of the amount of the County's solid waste management fee. For example, if the fee is $50.00 per ton the notice must read: “The fee charged by the County for each ton of solid waste we dispose of is $50.00. It is estimated that each household generates one (1) to one and one-half (1 1/2) tons of solid waste per year without recycling.”

SECTION 6.0 BILLING AND PAYMENT OF FEES

6.1 Solid Waste Management Fee

6.1.1 A solid waste management fee shall be charged on each load of solid waste delivered to a County facility and payment shall be due prior to disposal of the waste. Categories of solid waste may be charged different fees, or the County may determine not to charge a fee for categories of solid waste. A hauler may enter into a written agreement with County to establish an account

with County. County may require a hauler to provide security for the future payment of the fee in a form and amount satisfactory to County upon the establishment of a credit account and County may charge an administrative fee if a credit account is requested. All solid waste management fees shall be established by the County Commissioners of Washington County by resolution.

6.1.2 A municipality within Washington County that engages to collect all solid waste within its jurisdiction may elect to pay solid waste management fees upon a monthly basis pursuant to a schedule developed by the Director of Finance or that municipality may elect to have its hauler pay solid waste management fees pursuant to Section 6.1.1 hereof. In the event a municipality elects to pay its solid waste management fee, the municipality shall make arrangements with its hauler for providing County with a manifest identifying the source of the solid waste and the municipality's responsibility for payment of the fee. The hauler will be charged for all loads that are not properly identified as the responsibility of the municipality.

6.1.3. If a hauler has established an account with County, or if a municipality elects to pay its solid waste management fee to County directly, the hauler or the municipality, as the case may be, will be billed monthly and payment shall be due before the first of the following month of the date of the bill. County shall charge interest on unpaid balances and assess penalties for accounts that are past due.

6.1.4 Accounts not paid by the next billing period (1st of month following 60 days arrearage) after the statement date will be classified as delinquent and in addition to interest and penalties being assessed, credit will be suspended until full payment is made. (No dumping will be allowed.)

6.1.5 If an account becomes sixty (60) days delinquent a second time within 12 months, the person who has the account will lose the credit privilege for six months.

6.1.6 A person who has a credit account must charge at least $200.00 per year to maintain a credit account.

6.1.7 All additional fees will be billed separately and will be due before the first of the following month from the date of the statement and shall be subject to penalties for late payment and interest as determined by the Director of Finance.

6.1.8 The County Commissioners shall have the right to waive solid waste management fees for non-profit organizations.

6.1.9 The County Commissioners shall have the right to initiate a residential coupon system or permit system for payment of solid waste management fees.

SECTION 7.0 OPERATING AND SAFETY RULES FOR COUNTY FACILITIES

7.1 Any users of County Facilities shall unload in designated areas and immediately thereafter leave the site.

7.2 All persons other than those actually participating in the unloading must remain in vehicles as a matter of safety. Children under age 13 and pets must also be kept in vehicles.

7.3 Salvaging and scavenging are prohibited at County Facilities except with the prior written approval of the County.

7.4 No fires or open burning are permitted in County Facilities.

7.5 No firearm, weapon of any type or hunting is permitted at a County Facility.

7.6 No person may dump solid waste, recyclables, special handling waste or other waste regulated hereunder in other than an area designated for the disposal of that waste or dump solid waste, recyclables, bulky waste, or special handling wastes without a permit if required by this Ordinance to have one.

7.7 Loitering and solicitation are prohibited at County Facilities.

7.8 Boxes or other containers will be allowed to be dropped from vehicles only in areas expressly designated as untarping or unloading areas.

7.9 Vehicles and containers may not be left at County Facilities without prior County approval.

7.10 Haulers must unload Solid Waste off the rear of the vehicle in designated tipping areas. Unloading of vehicles off the sides is prohibited.

7.11 Passengers shall be in the cab of the vehicle upon arrival at the scale. Riding on the bed or tailgate between the scale and tipping areas or during unloading is prohibited.

7.12 Operators of vehicles are required to leave a minimum of six feet between vehicles during unloading at the Landfill.

7.13 Licensed vehicles, containers and the contents of vehicles and containers are subject to inspection at any time by County.

7.14 All persons unloading vehicles shall be appropriately dressed to prevent injury and shall be wearing shoes.

7.15 Owners and operators of licensed vehicles and containers shall be responsible to ensure that their vehicles are water tight, readily emptied, cleaned with sufficient frequency to prevent insect breeding or odors or other nuisances and shall be maintained in good repair and a safe condition; and all waste must be secured to the vehicle or container and enclosed or covered with secured tarpaulins to prevent leakage, spillage, dusting or litter. Such enclosures and tarpaulins must remain in place until arrival at the designated unloading or uncovering areas at the County Facility. After discharging a load of waste, the driver or operator of the vehicle is responsible for inspecting the vehicle and the container to ensure that all the waste from the vehicle and container has been discharged properly. In the event that all the waste has not been discharged, the driver or operator must remove all remaining waste or secure the remaining waste by tarping or enclosing the vehicle or container. In the event, a vehicle or container leaks, spills, dusts or litters on any County Facility, public road or private property, the Person hauling the waste will be responsible for all clean up and for paying any costs incurred or damages sustained by County in connection with performing or monitoring such clean up.

SECTION 8.0 LIABILITY

The County will not be liable for any actions, errors or omissions of any (i) contractors of County, (ii) Persons authorized to use or enter County Facilities or (iii) trespassers at County Facilities. All Persons proceeding onto County Facilities do so at their own risk.

SECTION 9.0 VIOLATIONS AND PENALTIES

9.1 Any person who violates any provision of this Ordinance by acting in a manner prohibited hereby or by failing to act as required hereby shall be liable, upon a finding by a court of competent jurisdiction that such violation has occurred, for a civil fine of up to one thousand dollars ($1,000.00) for the first violation and up to five thousand dollars ($5,000.00) for each subsequent violation.

9.2 In addition to and not in substitution for any other action authorized hereby, the County may revoke or suspend any person's permit or license upon a determination by the Director of Solid Waste that said person has violated any provision of this Ordinance or has otherwise engaged in conduct which is or may be detrimental to the solid waste acceptance facility, or to the health, safety and welfare of the citizens of Washington County.

9.3 In addition to and not in substitution for any other penalty imposed hereunder, any person who violates any provision of this Ordinance by acting in a manner prohibited hereby or by failing to act as required hereby shall be guilty of a misdemeanor and upon being found guilty by a

court of competent jurisdiction may be fined up to one thousand dollars ($1,000.00) or imprisoned for up to six (6) months in the Washington County Detention Center, or both fined and imprisoned.

9.3.1 The civil and criminal provisions of this ordinance shall be enforced by those persons or agencies designated by the County Commissioners of Washington County. It shall be a violation of this ordinance to interfere with a County employee or official in the performance of duties assigned hereunder.

9.4 In the discretion of a County employee or official to whom responsibility for enforcement of this Ordinance has been delegated by the County Commissioners, a notice of violation may be issued to any person in violation of this ordinance, or any rules and regulations adopted pursuant hereto. Such notice shall impose upon the person a penalty, pursuant to Section 9.1 hereof, as indicated by the County employee or official, which may be paid to any agency designated by the County Commissioners within thirty (30) days in full satisfaction of the violations or which may be appealed to the Director of Public Works pursuant to Section 9.3.3 hereof. In the event that the penalty is not paid within the time prescribed and no appeal is taken, the person to whom the notice of violation was issued shall be liable to the County for the full amount of the penalty established in the notice of violation and the County may institute suit in the appropriate court of this State to recover the penalty sum.

9.4.1 A person who receives a notice of violation may appeal by filing a written notice of appeal with the Director of Public Works within thirty (30) days of the date of the notice of violation.

9.4.2 The Director of Public Works shall conduct an informal hearing on the appeal in a timely manner and issue a written decision affirming, reversing or modifying the notice of violation. The decision shall be made and issued within thirty (30) days of the hearing.

9.4.3 A person aggrieved by the decision of the Director of Public Works may appeal the decision to the County Commissioners of Washington County within ten (10) days from the date of the decision of the Director. The County Commissioners shall conduct a hearing on any such appeal as soon as practical thereafter and issue a decision in writing on such appeal within thirty (30) days after the hearing thereof. A person aggrieved by the decision of the County Commissioners may appeal the decision to the Circuit Court pursuant to the Maryland Rules of Procedure within thirty (30) days of the date the decision was issued. Unless stayed by a court of competent jurisdiction, the decision of the Director of Solid Waste to suspend or revoke a license issued hereunder continues in effect until reversed or modified.

9.4 The Generator, the Person licensed, and the Person operating any vehicle shall be responsible and accountable for any non-compliance with this Ordinance, including reimbursing

County for all fees and any and all costs and damages incurred by County as a result of such violation, including reasonable attorney's fees.

SECTION 10.0 SEVERABILITY

Should any provision, section, paragraph or subparagraph of this Ordinance, including any code or text adopted hereby, be declared null and void, illegal, unconstitutional, or otherwise determined to be unenforceable by a court having jurisdiction; the same shall not affect the validity, legality, or enforceability of any other provision, section, paragraph or subparagraph hereof, including any code or text adopted hereby. Each such provision, section, paragraph or subparagraph is expressly declared to be and is deemed severable.

SECTION 11.0 SECTION HEADINGS, TITLES

Section headings, titles, etc., are for the purpose of description or ease of use and do not form a part of the text of this Ordinance or any Code or text adopted hereby.

SECTION 12.0 EXISTING LIABILITIES

This Ordinance shall not discharge, impair or release any contract, obligation, duty, liability or penalty whatever existing on the date of its enactment. All suits and actions, both civil and criminal, pending or which may hereafter be instituted for causes of action now existing or offenses already committed against any law or ordinance affected by the adoption of this Ordinance shall be instituted, proceeded with and prosecuted to final determination and judgment as if this Ordinance had not become effective.

SECTION 13.0 OFFICIAL COMMENTS

Where there appear “Official Comments” to portions of this Ordinance, those comments are included to reflect the intent of the drafters and the County Commissioners in the event it is necessary to construe that intent. These comments may be used for purposes of construction and interpretation only.

SECTION 14.0 EFFECTIVE DATE

This Ordinance shall become effective on July 1, 1995, provided it is filed with the Clerk of the Court prior to that day and provided further that a fair summary of the contents of this Ordinance is published as required by Article 25, Section 4, of the Annotated Code prior to that date. Should there be a failure so to file or so to publish prior to July 1, 1995, then this Ordinance shall become effective immediately upon the happening of the latter of the filing or publishing.

Appendix D

Rural Business Zoning District

ARTICLE 5E – "RB " RURAL BUSINESS DISTRICT

Section 5E.0 Purpose

The "RB-N" Rural Business District is established to permit the development of businesses that support the agricultural industry and farming community, serve the needs of the rural residential population, provide for recreation and tourism opportunities, as well as establishing locations for businesses and facilities not otherwise permitted in the rural areas of the County. The Rural Business New District is established as a "floating zone" which may be located on any parcel in an Agricultural, Environmental Conservation, Preservation or Rural Village Zoning District.

Section 5E.1 Principal Permitted Uses and Accessory Uses

See the Table of Land Uses [Section 3.3, Table No. 3.3(1) for identification of principal and accessory uses permitted in the RB District.

Section 5E.2 Special Exceptions

There are no special exception uses in the RB District that may be granted by the Board of Zoning Appeals. The RB District itself is analogous to a special exception and is granted through the review process described in this Article.

Section 5E.3 Non-Conforming Uses

Existing businesses not listed on the Table of Land Uses [Table No. 3.3(1)] may continue as "Non-Conforming Uses" in accordance with the Non-Conforming Use provisions of this Ordinance.

Section 5E.4 Criteria

The RB-N District may be established at a particular location if the following criteria are met:

(a) The proposed RB-N District is not within any designated growth area identified in the Washington County Comprehensive Plan.

(b) The proposed RB-N District has safe and usable road access on a road that meets the standards under the "Policy for Determining Adequacy of Existing Roads." In addition, a traffic study may be required where the proposed business, activity or facility generates 25 or more peak hour trips or where 40% of the estimated vehicle trips are anticipated to be commercial truck traffic.

(c) On site issues relating to sewage disposal, water supply, stormwater management, flood plains, etc. can be adequately addressed.

(d) The location of an RB-N District would not be incompatible with existing land uses, cultural or historic resources, or agricultural preservation efforts in the vicinity of the site.

Section 5F.4 Lot Size and Bulk Regulations:

(a) Businesses in the rural area existing at the time of adoption of these regulations and which are listed on the Table of Land Uses [Table No.3.3(1)] shall be designated on the Washington County Zoning Map as a Rural Business (RB) Floating Zone. Businesses with this description need not take any action to continue operation. Such existing uses are viewed as compatible with the character of the rural area and their continued operation is deemed consistent with the policies of the Comprehensive Plan.

(b) The RB Floating Zone District may be newly established at a particular location if the following criteria are met. Parking and access aisles are permitted in the front yard setback area. Parking and access aisles are permitted in the side and rear yard setback areas only when abutting a property with a non-residential land use.

1. The proposed RB District is not within any designated growth area identified in the Washington County Comprehensive Plan;

2. The proposed RB District has safe and usable road access on a road that meets the standards under the "Policy for Determining Adequacy of Existing Roads." In addition, a traffic study may be required where the proposed business, activity or facility generates 25 or more peak hour trips or where 40% of the estimated vehicle trips are anticipated to be commercial truck traffic;

3. Onsite issues relating to sewage disposal, water supply, stormwater management, floodplains, etc. can be adequately addressed; and

4. The location of an RB District would not be incompatible with existing land uses, cultural or historic resources, or agricultural preservation efforts in the vicinity of the proposed district.

Section 5E.5 Bulk Regulations

(a) Lot Size: Minimum 40,000 Sq. Ft.

(b) Front Yard Building Setback:

40 Feet from a Minor Collector or Local Public Road Right of Way

50 feet from a Major Collector or Arterial Public Road Right of Way

(c) Side and Rear Yard Building Setbacks:

50 Feet from a property zoned for or occupied by a Residential Land Use;

25 Feet from a property zoned for or occupied by a Non-Residential Land Use.

(d) Structure Height: 35 Feet

(e) Lot Coverage: Maximum 65 %

(f) Parking.

1. Off-street parking facilities shall be provided in accordance with Article 22, Division I of this Ordinance.

2. Parking and access aisles are permitted in the front yard setback area. Parking and access aisles are permitted in the side and rear yard setback areas only when the lot abuts a property with a nonresidential land use.

(g) Signage.

Signage shall conform to the requirements set forth in Section 22.23 of this Ordinance; however, in no case shall the total cumulative area of signage for freestanding and building mounted signage in this district exceed two hundred (200) square feet. No off-premises signs shall be approved through this rezoning process.

(h) Lighting.

Lighting shall be provided for all nighttime uses. All building mounted or freestanding lighting shall be constructed so that light and glare are directed toward the ground.

(i) Outside storage of materials is limited to those areas on a site plan designated for such storage. Additional screening may be required when outside storage is proposed.

(j) Screening.

1. Trash, refuse, or recycling receptacles shall be screened from public view through the use of fencing or landscaping.

2. Additional buffering, screening, or landscaping or other like elements may be required when the proposed RB District abuts a Historic Preservation Overlay Area or is located along a designated scenic highway.

3. Screening between a residential land use and a proposed RB district shall consist of three species that shall be a minimum of eight (8) feet overall in height and two (2) inch caliber at the time of planting. Trees shall be placed at maximum 10-foot intervals along the perimeter of the boundary to be screened except for areas that would restrict sight distance from the access points to the site. Shrubs may be required to supplement tree plantings to create an opaque screen. Shrubs may be used in place of trees if they can be shown to create the same overall screening effect. Perimeter screening in the form of a solid fence or a combination of a solid fence and vegetation may be used to meet the screening requirement.

Section 5E.6 Procedure for Creation of an RB Floating Zone District

(a) The owner of an interest in a tract of land in Washington County may apply to the Board of County Commissioners to designate the property with a “RB” Rural Business floating zone designation. The application shall include:

1. A Rezoning Application Form with a location map.

2. A location map and boundary identification of the property covered by the application. If only a portion of the property is requested to be rezoned, a detailed map including a metes and bounds description shall be submitted with the application so as to determine the limits of the portion of property to be rezoned.

3. A Preliminary Site Plan Showing:

a. Information identifying: the owners of the property and contract purchaser if appropriate, current zoning designation, proposed use(s) for the site, the estimated number of employees, hours of operation, anticipated trip generation to/from the site, and land uses within 1,000 feet of the site.

b. Identification of: existing topography, 100-year floodplain areas, forested areas, wetlands, endangered species areas, and historical or culturally significant features on or abutting the site.

c. The general location of proposed points of ingress and egress to the site.

d. The location of any existing or proposed buildings on the site and the location of building setback lines.

e. The general location of any existing or proposed well and septic system areas or public water and/or sewer lines if available.

f. The general areas to be dedicated for parking including the number of spaces to be provided.

g. The general location of landscaped areas including proposed screen plantings and any proposed on-site forest mitigation areas.

h. The general location of stormwater management facilities and an estimate of the amount of impervious area for the site.

i. The general location of proposed signage and lighting.

j. A sketch or rendering of any proposed new structures with information on scale, exterior finished and signage.

(b) The application shall be reviewed at rezoning public meeting of the Planning Commission. The Planning Staff will provide a staff report on the proposed rezoning request and the applicant will have an opportunity to present his case. Public comment will be taken at the public meeting.

(c) After the public meeting, the Planning Commission shall make a recommendation to the Board of County Commissioners based on the following:

1. The proposed district will accomplish the purpose of the RB District;

2. The proposed site development meets criteria identified in Section 5E.4 of this Article;

3. The roads providing access to the site are appropriate for serving the business-related traffic generated by the proposed RB land use;

4. Adequate sight distance along roads can be provided at proposed points of access to the site;

5. The proposed landscaped areas can provide adequate buffering of the proposed RB land use from existing land uses in the vicinity.

6. The proposed land use is not of a scale, intensity or character that would be incompatible with adjacent land uses or structures.

(d) Upon receipt of the Planning Commission's recommendation, the Board of County Commissioners shall schedule a public hearing.

(e) Based on the recommendation of the Planning Commission, staff report and testimony provided at the public hearing, the Board of County Commissioners will either approve or deny the application request. The Board of County Commissioners may approve the application with stipulation of conditions to be addressed at the time of final site plan approval. Approval of the RB District shall only be for the use(s) identified on the application and preliminary site plan. Approval of the application to create an RB District shall cover only that portion of a parcel or lot identified in the application.

(f) After approval by the Board of County Commissioners, a final site plan prepared in accordance with Article 4, Section 4.11 shall be submitted for approval by the Planning Commission or Planning Staff if so designated. Minor modifications to approved use(s) or an accessory use(s) or to the preliminary approved site plan may be approved by the Planning Commission.

(g) Approval of a site plan by the Planning Commission shall entitle the applicant to apply for a building permit in accordance with the rules and regulations for issuance of a building permit.

Section 5E.7 Changes in Land Use

Changes of land use in approved RB floating districts shall be reviewed by the Planning Commission. Applicants may present information to the Planning Commission delineating how the change of land use may or may not be consistent with the approved site plan for the property. Only land uses permitted in the RB District described in Section 3.3 Land Use Chart of this Ordinance will be considered by the Planning Commission. It will be the determination of the Planning Commission as to whether or not there has been a significant change in the use and intensity of the property that could result in the need for a new public hearing to approve the changed use.

Section 5E.8 Removal of the Floating Zone

(a) Full Termination. An individual property owner may submit a written request to the Planning Commission to remove the entire RB floating zone district from their property at any time. The Planning Commission shall review such a request during one of their regular meetings and make a recommendation to the Board of County Commissioners as to whether or not to grant the request. The Board of County

Commissioners may then approve or deny the request without a public hearing. Should the Board of County Commissioners approve the property owner's request to remove the RB floating zone district, the land will be restored to its underlying zoning district.

(b) Partial Termination. An individual property owner may submit a written request to the Planning Commission to remove a portion of the RB floating zone district from their property at any time. The written request must be accompanied by a detailed drawing showing surveyed metes and bounds of the requested change so as to determine the limits of the RB floating zone district. The Planning Commission shall review such a request at one of their regular meetings and make a recommendation to the Board of County Commissioners. The Board of County Commissioners may then approve or deny the request without a public hearing. Should the Board of County Commissioners approve the property owner's request to remove the RB floating zone district, the land will be restored to its underlying zoning district.

Appendix E

Public School Recycling Plan

I. RESOURCE CONSERVATION (RECYCLING) POLICY

"The Board of Education of Washington County firmly supports the practice of resource conservation, and seeks to fully integrate 'reduce, reuse, recycle' methods across all levels of the school system. The Board of Education encourages all employees and students to reduce the consumption of materials when possible; fully utilize (reuse) all materials prior to disposal; and, cooperate with, and participate in, recycling efforts being made by local and state government. Further, the school system will purchase, where financially viable, recycled products and will also seek to locate suppliers actively supporting recycling and resource conservation efforts. The school system will continue to develop methods for reducing the amount of paper consumption, the system's largest waste product, while boosting recycling efforts for this material. System-wide recycling efforts should be enforced daily, and appropriate recycling resources will be made available to promote this practice."

A. It is the responsibility of the Washington County Board of County Commissioners (BOCC) to insure the implementation of the County's schools' recycling programs. The BOCC has directed that the Washington County Board of Education (WCBOE) and the Hagerstown Community College Board of Trustees (HCCBOT) have the responsibility of developing the recycling plans and implementing the recycling programs for all of their respective schools. If needed, the BOCC may also direct the Washington County Department of Environmental Management, Division of Solid Waste to develop recycling plans and implement recycling programs for the respective schools.

B. Washington County Public School Recycling Plan

Washington County Board of Education recycling plans must be completed no later than October 1, 2010 and BOE school recycling programs must be operating no later than October 1, 2010. To date, all Washington County Public Schools have recycling programs in place and are participating in a recycling program.

1) Designation of School Recycling Program Implementation and Responsibility

a. WCBOE has the responsibility of securing a recycling contract for the County's public schools. This shall be awarded annually to become effective each July 1st. The current contract is for a dual-stream recycling program that accepts mixed paper, newspaper, and cardboard in one container, and glass containers, steel and aluminum cans, and plastic bottles in another co-mingled container. This may or may not change based on market conditions and requirements.

b. The recycling contractor is responsible for the marketing of the collected recyclables. This is currently performed by Allied Waste. This may or may not change based on market conditions and requirements. The method of marketing may or may not change based on market conditions and requirements.

c. The recycling contractor must report, by August 1st of each year, to the Maintenance Department Director the amount and type of recyclables collected for the previous fiscal year.

d. The recycling contractor is responsible for supplying centralized recycling containers for each county public school.

e. The WCBOE has designated the School's Maintenance Department Director (Director) as responsible for the development and implementation of a trash and recycling plan/program for each school. At a minimum:
    - The Director shall report to the WCBOE and the Division of Environmental Management, Division of Solid Waste, by August 15, on the amount and types of recyclable materials collected the previous fiscal year.
    - Each county public school shall collect all of the materials specified in the WCBOE awarded recycling contract (B.1.a., above) for recycling.
    - All county public schools shall also collect, but not be limited to, printer cartridges, electronics, metal, and fluorescent light bulbs for recycling.
    - It is the responsibility of the custodial staff at each county public school to collect recyclables for transport to the contractor recycling bins from the school recycling bins throughout the school.
    - The Director shall set a schedule for the collection of recyclables from each school by the recycling contractor.

f. The WCBOE is responsible for purchasing recycling bins for each school and distribution throughout each school (e.g., in classrooms, by copiers, etc.).

g. Each county public school is free to pursue their own separate recycling program for materials as a method of increasing their school's income to fund their school's programs. Any independent contract a school, or a club, may enter into will not exempt them from collecting the materials identified in B.1.a. above.
    - School or club must report to the Maintenance Director and the Division of Environmental Management, Division of Solid Waste, by August 1st, on the amount and types of recyclable materials collected each fiscal year independent of the County contract.

h. The Director shall advise the WCBOE and the Department of Environmental Management, Division of Solid Waste, of any recycling issues or non-compliance of any school within 30 days of the issue arising. Part of the briefing will include the steps needed to correct any issues.

i. Corrective actions must begin within 60 days of the issue arising.

j. The WCBOE may request to the BOCC that their trash and recycling program be operated by another public agency (i.e., Washington County Department of Environmental Management, Division of Solid Waste).

k. The BOCC has the responsibility to direct another public agency to operate the Washington County Public School's trash and recycling program, if deemed necessary by the BOCC or upon request from the WCBOE.

l. The BOCC must make the decision to assign a trash and recycling program to another public agency within 30 days of the WCBOE request.

m. Upon notification by the BOCC to the Washington County Department of Environmental Management, Division of Solid Waste to perform collection, it will either prepare bid specifications for collection within thirty (30) days and award a contract for collection within sixty (60) days, or perform the collection itself within one (1) month or prepare bid specifications to acquire equipment to perform collection within nine (9) months of notification.

n. The Washington County Department of Environmental Management, Division of Solid Waste will review the WCBOE recycling plan annually, based upon the annual recycling totals reported in accordance with 8.1.e ., and recommend changes to the BOCC and WCBOE by May 1st of each year.

2) School Facilities Participating in the Collection of Recyclables:

The WCBOE shall direct the Maintenance Department Director to bring all Washington County public schools and administrative sites listed below into compliance with the WCBOE trash and recycling plan.

Elementary School	Address		
Bester	30 E. Memorial Boulevard	**Maugansville**	18023 Maugans Avenue
	Hagerstown, MD 21740		Maugansville, MD 21767
Boonsboro	5 Campus Avenue	**Old Forge**	21615 Old Forge Road
	Boonsboro, MD 21713		Hagerstown, MD 2174211101
Cascade	14519 Pennersville Road	**Pangborn**	195 Pangborn Boulevard
	Cascade, MD 21719		Hagerstown, MD 21740
Clear Spring	12627 Broadfording Road	**Paramount**	19410 Longmeadow Road
	Clear Spring, MD 21722		Hagerstown, MD 21742
Eastern	1320 Yale Drive	**Pleasant Valley**	1707 Rohrersville Road
	Hagerstown, MD 21742		Knoxville, MD 21758
Emma K. Doub	1221 South Potomac Street	**Potomac Heights**	301 E. Magnolia Avenue
	Hagerstown, MD 21740		Hagerstown, MD 21742
Fountain Rock	17145 Lappans Road	**Rockland Woods**	18201 Rockland Drive
	Hagerstown, MD 21740		Hagerstown, 21740
Fountaindale	901 Northern Avenue	**Ruth Ann Monroe**	1311 Yale Drive
	Hagerstown, MD 21742		Hagerstown, MD 21742
Funkstown (Pre-K)	23 Funkstown Road	**Salem Avenue**	1323 Salem Avenue Ext
	Hagerstown, MD 21740		Hagerstown, MD 21740
Greenbrier	21222 San Mar Road	**Sharpsburg**	17525 Shepherdstown Pike
	Boonsboro, MD 21713		Sharpsburg, MD 21782
Hancock	290 West Main Street	**Smithsburg**	67 North Main Street
	Hancock, MD 21750		Smithsburg, MD 21783
Hickory	1101 Hickory School Road	**Williamsport**	1 South Clifton Drive
	Williamsport, MD 21795		Williamsport, MD 21795
Lincolnshire	17545 Lincolnshire Road		
	Hagerstown, MD 21740		

Middle School	Address
Boonsboro	1 J-H Wade Drive
	Boonsboro, MD 21713
Clear Spring	12628 Broadfording Road
	Clear Spring, MD 21722
E. Russell Hicks	1321 South Potomac Street
	Hagerstown, MD 21740
Northern	701 Northern Avenue
	Hagerstown, MD 21742
Smithsburg	68 North Main Street
	Smithsburg, MD 21783
Springfield	334 Sunset Avenue
	Williamsport, MD 21795
Western Heights	1300 Marshall Street
	Hagerstown, MD 21740

Barbara Ingram	7 South Potomac Street
School for the Arts	Hagerstown, 21740
Boonsboro	10 Campus Avenue
	Boonsboro, MD 21713
Clear Spring	12630 Broadfording Road
	Clear Spring, MD 21722
Hancock	289 West Main Street
	Hancock, MD 21750
North Hagerstown	1200 Pennsylvania Avenue
	Hagerstown, MD 21742
Smithsburg	66 North Main Street
	Smithsburg, MD 21783
South Hagerstown	1101 South Potomac Street
	Hagerstown, MD 21740
Washington County	50 West Oak Ridge Drive
Technical High School	Hagerstown, MD 21740

Other Schools	Address
Antietam Academy	40 West Oak Ridge Drive
	Hagerstown, MD 21740
Claud E. Kitchens	12808 Draper Road
Outdoor School at Fairview	Clear Spring, MD 21722
Marshall Street Education Center	1350 Marshall Street
Job Development Center	Hagerstown, MD 21740
Children's Learning Center	11402 Robinwood Drive
	Hagerstown, MD 21740

C. Hagerstown Community College Recycling Plan:

Hagerstown Community College recycling plans must be completed no later than October 1, 2010 and HCC campus recycling programs must be operating no later than October 1, 2010. To date, all Hagerstown Community College campuses have recycling programs in place and are participating in a recycling program.

The Hagerstown Community College Board of Trustees (HCCBOT) oversees and funds each campus of HCC. The Maintenance Department Director is responsible for the implementation of a recycling plan for the HCC.

1) Designation of HCC Recycling Program Implementation and Responsibility:

a. HCCBOT has the responsibility of securing a recycling contract for the County's college. This\shall be awarded annually to become effective each July 15th. The current contract is for a single-stream program that accepts paper, newspaper, cardboard, glass bottles, steel and aluminum cans, and plastic bottles for recycling. This may or may not change based on market conditions and requirements.

b. The recycling contractor is responsible for the marketing of the collected recyclables. This may or may not change based on market conditions and requirements. The method of marketing may or may not change based on market conditions and requirements.

c. The recycling contractor must report, by August 1st of each year, to the Maintenance Department Director the amount and type of recyclables collected for the previous calendar year.

d. The recycling contractor is responsible for supplying centralized recycling containers for each college/campus.

e. The HCCBOT has designated the College's Maintenance Department Director (Director) responsible for the development and implementation of a trash and recycling plan/program for each campus. At a minimum:
   - The Director shall report to the HCCBOT and the Division of Environmental Management, Department of Solid Waste, by March 15 on the amount and types of recyclable\ materials collected each calendar year.
   - Each college/campus shall collect all of the materials specified in the HCCBOT awarded recycling contract (C.1.a., above) for recycling.
   - All college campuses, where applicable, shall also collect, but not be limited to, printer cartridges, electronics, metal, light bulbs, textiles, and vegetative material for recycling.
   - It is the responsibility of the custodial staff at each college/campus to collect from the college recycling bins throughout the college recyclables for transport to the contractor recycling bins.

- The Director shall set a schedule for the collection of recyclables from each college/campus by the recycling contractor.

f. The HCCBOT is responsible for purchasing recycling bins for each school and distribution throughout each college (e.g. in classrooms, by copiers, etc.).

g. The HCCBOT will expect demolition and construction contractors providing remodeling and construction services to the HCCBOT to divert and recycle demolition and building waste (trim, packaging/containers, forms, etc.) to the maximum extent possible).

h. The Director shall advise the HCCBOT and the Division of Environmental Management, Department of Solid Waste, of any recycling issues or non-compliance of any school within 30 days of the issue arising. Part of the briefing will include the steps needed to correct any issues.

i. Corrective actions must begin within 60 days of the issue arising.

j. The HCCBOT may request to the BOCC that their trash and recycling program be operated by another public agency (i.e., Washington County Division of Environmental Management, Department of Solid Waste).

k. The BOCC has the responsibility to direct another public agency to operate the Hagerstown Community College's trash and recycling program if deemed necessary by the BOCC or upon request from the HCCBOT.

l. The BOCC must make the decision to assign a trash and recycling program to another public agency within 30 days of the HCCBOT request.

m. Upon notification by the BOCC to the Washington County Division of Environmental Management, Department of Solid Waste, to perform collection, it will either prepare bid specifications for collection within thirty (30) days and award a contract for collection within sixty (60) days, or perform the collection itself within one (1) month or prepare bid specifications to acquire equipment to perform collection within nine (9) months of notification.

n. The Washington County Division of Environmental Management, Department of Solid Waste will review the HCCBOT recycling plan annually, based upon the annual recycling totals reported in accordance with B.1.e., and recommend changes to the BOCC and HCCBOT by May 1st of each year.

2) College Facilities Participating in the Collection of Recyclables. The HCCBOT shall direct the Maintenance Department Director to bring all Hagerstown Community College campuses into compliance with the HCCBOT trash and recycling plan by the 2011-2012 College season.

Appendix F

Apartment Building and Condominium Recycling Program

APARTMENT BUILDING AND CONDOMINIUM RECYCLING PROGRAM

In 2012, the Maryland General Assembly passed legislation that requires recycling in all apartment buildings and condominiums that contain 10 or more dwelling units. To date through the cooperation of the Washington County Department of Solid Waste and Recycling, owners and managers of apartment complexes or councils of unit owners of condominiums and other stakeholders involved in the implementation of this law, the County has identified sixty-one (61) apartment complexes and five (5) condominiums that fall under the scope of the new law. The Washington County Department of Solid Waste and Recycling has notified the apartment and condominium officials and discussed the requirements of the law including identifying the materials that must be recycled as plastic, metal, glass containers and paper.

Apartment and condominium officials will identify how the materials will be collected, stored and the arrangements with reputable firms for the pickup and transportation of the recyclable materials off-site. It will be the responsibility of the apartment and condominium officials to report to the County on an annual basis the details of the required recycling activities. Other program requirements include:

1. Recyclable materials included in the program are plastic, metal, glass containers and paper.
2. Collection of Materials - Apartment and condominium officials will be responsible for providing all containers, labor and equipment necessary to fulfill recycling requirements throughout their buildings. Distinctive colors and/or markings of recycling containers may be provided to avoid cross contamination. The apartment and condominium officials will ensure pick up and transportation off-site of recyclable materials through arrangements with reputable recycling firms. Residents will be responsible for placing recyclables in building recycling bins prior to their removal on the scheduled pick up day.
3. Marketing of Materials - Marketing of the recyclable materials collected will be the purview of the firms removing the materials from the site. Apartment and condominium officials are responsible for reporting the volumes of their recyclables and waste through annual reports to Washington County.

A. Stakeholders

Stakeholders that will be involved in implementing the law are:

1. Owners or managers of the apartment buildings or councils of unit owners of the condominium are responsible for providing recycling to the residents of each apartment or condominium unit by October 1, 2014. They must secure and manage recycling contracts with a contractor for providing material collection and recycling services from the building locations. They will perform record keeping and shall report to the County on an annual basis.
2. The Board of County Commissioners is responsible for adopting the MDE approved language of the Apartment Building and Condominium Recycling Program (ABCR) in a Solid Waste Management and Recycling Plan amendment.

3. The Washington County Department of Planning and Zoning is responsible for preparing and shepherding to approval an amendment to include the ABCR Program in the Solid Waste Management and Recycling Plan.
4. The Washington County Department of Solid Waste and Recycling will be responsible for communicating the requirements of the law to the apartment and condominium officials. The Washington County Department of Solid Waste and Recycling will assist the apartment and condominium officials with development of a recycling program and its requirements with input from the officials. The Washington County Department of Solid Waste and Recycling will also develop a recycling reporting survey to be used by the apartment and condominium officials in reporting recycling activities and monitor the progress and performance of the ACBR Program.

5. The Washington County Division of Environmental Management will be responsible for oversight of the Washington County Department of Solid Waste and Recycling to assure that all apartment complexes and condominiums that are governed by the ACBR program are included.

B. Participating Apartment Complexes or Condominiums in the ABCR Program

A list of apartment complexes and condominiums that have been identified as required to participate in the ABCR Program at the time of the inclusion of this section in the Solid Waste Management and Recycling Plan is included in an attached appendix. The Washington County Department of Solid Waste and Recycling will maintain an up to date list of participants in the ABCR Program available for inspection upon request. New apartment complexes or condominium developments that fall under the requirements of the law will begin participating in the ABCR Program within 3 months of receipt of the Use and Occupancy permit.

C. Schedule for Implementation of the ABCR Program

The ABCR program will be implemented according to the following schedule:

1. December 31, 2013 - The County will distribute **MDE** approved language of the ABCR Program to the apartment and condominium officials.
2. March 1, 2014 -Apartment and condominium officials will begin to educate the residents about the ABCR Program and discuss the requirements of the law.
3. May 1, 2014 - Apartment and condominium officials will provide assistance to the residents and advise them when residents can start collecting the materials.
4. July 1, 2014 - Apartment and condominium officials finalize and secure recycling services contracts with private contractors.
5. On or before October 1, 2014 residents start collecting and recycling the materials at the participating apartment complexes and condominiums.

D. Program Monitoring

The Washington County Department of Solid Waste and Recycling will oversee the progress and performance of the ABCR Program. However, the apartment and condominium officials will conduct

inspections, review service levels, investigate reported or unreported pick-up and disposal complaints, meet with residents or recycling contractors to educate or review practices and review contractor compliance with the recycling contract. Any issues that arise that are deemed deficiencies on the part of the residents or recycling contractor will be detailed in writing and reported to the violator. The apartment and condominium official will initiate actions to correct all deficiencies within 60 days of being notified.

The apartment and condominium officials will be responsible to keep residents up to date on new regulations, laws, mandates, practices or procedures affecting recycling including new materials that can or must be recycled.

E. Program Enforcement

The Washington County Department of Solid Waste and Recycling will ensure that the recycling at apartment complexes and condominiums will be implemented in accordance with applicable portions of the Environment article of the Annotated Code of Maryland. Prior to the effective date of October 1, 2014 and with public input, Washington County will determine the methods it will use to implement and enforce the ABCR Program requirements including a decision on deferring penalties to the Maryland Department of the Environment.

Apartments and Condominiums Subject to ABCR Recycling Program

Name of Development	Type	Location
The Bradford	A	Manor Drive, Hagerstown
Brandywine/Woodbridge I	A	Woodbridge Drive, Hagerstown
Brandywine/Woodbridge II	A	Woodbridge Drive, Hagerstown
Brandywine/Woodbridge III	A	Woodbridge Drive, Hagerstown
Brightwood Garden	A	N. Edgewood Drive, Hagerstown
Brookmeade	A	Brookmeade Circle, Williamsport
C. William Brooks Mid-Rise	C	W. Baltimore Street, Hagerstown
Colonial Apartments	A	Langley Drive, Hagerstown
Colonial Robinwood	A	Langley Drive, Hagerstown
Cortland Manor	A	Little Elliott Drive, Hagerstown
Country Village	A	Orchard Manor Drive, Boonsboro
The Dagmar	A	Summit Avenue, Hagerstown
The Darby	C	E. Antietam St., Hagerstown
Eagle's Nest	A	Kings Crest Blvd, Hagerstown
Edgewood Apartments	A	Edgewood Hill Circle, Hagerstown
Edgewood Hill Condos	C	Edgewood Hill Circle, Hagerstown
Edgewood Place Condos	C	Edgewood Hill Circle, Hagerstown
Elizabeth Court	A	E Washington Street, Hagerstown
Fountainview	A	Mesa Terrace, Hagerstown
Francis Murphy	A	Rosebank Way, Hagerstown
Frederick Manor	A	Frederick Street, Hagerstown
Funkstown Apartments	A	Funkstown
The Grand	A	W. Washington Street, Hagerstown
Greenside I	A	Village Mill Drive, Maugansville
Greenside II	A	Village Mill Drive, Maugansville

Name of Development	Type	Location
Greenside III	A	Village Mill Drive, Maugansville
Greenside IV	A	Village Mill Drive, Maugansville
Highfield House	A	Cascade
Hopewell Manor	A	Hopewell Road, Hagerstown
Hopewell Station	A	Hopewell Road, Hagerstown
Hunter Hill	A	Long Meadow Road, Hagerstown
Hyde Park	A	Kensington Drive, Hagerstown
Kenley Square	A	Kenley Square, Hagerstown
Londontowne	A	Queen Annes Court, Hagerstown
Meadows	A	Langley Drive, Hagerstown
Milestone Garden	A	Milestone Terrace, Williamsport
Moller	A	Surrey Ave, Hagerstown
Monterey House	A	W. Main Street, Hancock
Monticello	A	Jefferson Boulevard, Hagerstown
Mountain View	A	Orchard Manor Drive, Boonsboro
Noland Village	A	Noland Drive, Hagerstown
Oak Hill Avenue	A	Oak Hill Avenue, Hagerstown
Oak Ridge	A	Garden Lane, Hagerstown
Pangborn Heights	A	Security Road, Hagerstown
Park Plaza	A	Highland Avenue, Hagerstown
Parkview Place	A	Security Road, Hagerstown
The Point at Smithsburg	A	Washington Court, Smithsburg
Potomac Ridge	A	Landis Road, Hagerstown
Potomac Towers	A	W. Baltimore Street, Hagerstown
Quaker Creek	A	Quaker Creek Drive, Hancock
Reserve at Collegiate Acres	A	Buckeye Circle, Hagerstown
Residence at Potomac	A	Hagerstown
Residence at The Terrace	A	Hagerstown
Richmond Terrace	A	Richmond Street, Hagerstown
Robinwood Court	A	Robinwood Court, Hagerstown
Seneca Ridge	A	Ashley Drive, Hagerstown
Springfield Farms	A	Baker Hill Lane, Williamsport
St. Claire Terrace	A	St. Claire Street, Hagerstown
St. Paul Street	A	St. Paul Street, Boonsboro
Stone Ridge	A	Haven Road, Hagerstown
Stonecroft	A	Stonecroft Court, Hagerstown
Walnut Towers	A	W. Washington Street, Hagerstown
Washington Garden	A	Security Road, Hagerstown
Woodcrest Village	C	Brinker Drive, Hagerstown
Olomega LLC (owner)	A	908 Hamilton Blvd.
Unknown	A	1106 Prospect Street

Appendix G

Special Events Recycling Program

SPECIAL EVENTS RECYCLING PROGRAM (SERP)

A. Special Events Subject to the Special Events Recycling Program:

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

1. Includes temporary or periodic 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.

In consultation with municipalities, the County has identified the public sites listed in Appendix F-1 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 street are also included in the Special Events Recycling Program. See Appendix F-1 for this list.

B. Materials and Obligations

Special Events Organizers are responsible for:

1. Providing and placing recycling receptacles adjacent to each trash receptacle at the event (except where already existing on the 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 Events Organizers may fulfill the requirement to ensure materials are processed appropriately (collected and delivered) for recycling through one or more of the following methods:

1. Contracting with a recycling hauler to collect the materials and deliver them for recycling; or

2. Receiving prior agreement from the site owner to use an existing recycling collection system available at the site.

The Special Events Recycling Program 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. As of July 1, 2015, no food scrap recycling facility operated in Washington County. If services become available, the special events 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 Washington County's Special Events Recycling Program. Recycling at municipally owned sites must follow any additional regulations established by the municipality.

C. Stakeholders

The following stakeholders will be involved in the Special Events Recycling Program:

1. The Washington County Department of Solid Waste and Recycling will be responsible for overseeing the County's Recycling Activities. It will work with applicable municipalities and public schools to identify all properties that potentially host events falling under the recycling mandate in the Environment Article, 9-1712 and list them in the SERP.

2. The Washington County Department of Solid Waste and Recycling, the Washington County Division of Public Works, municipalities and public schools within the County are responsible for communicating the requirements of the law to prospective Special Events Organizers and owners/operators of publicly owned sites in the County.

3. Special Events Organizers will be responsible for providing recycling bins and ensuring collection for recycling in accordance with the requirements in 9-1712 B, beginning October 1, 2015.

D. Program Monitoring

The Washington County Department of Solid Waste and Recycling and special events organizers will monitor progress and performance of the SERP.

Recycling at events subject to the SERP will be ensured as follows:

1. A fact sheet outlining the requirements of the SERP will be distributed with any lease and/or rental agreement issued by the County for use of County properties.

2. Municipalities and public schools will be responsible for establishing a method of communicating these requirements to special event organizers using their properties.

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 as well as 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.

E. Program Enforcement

The Washington County Department of Solid Waste and Recycling or the equivalent office of the municipality in which the event is located may conduct inspections of the event to ensure compliance with the SERP. If a violation of the SERP is detected, the County or Municipality may pursue an enforcement action against the special event organizer. A person that violates the SERP is subject to a civil penalty not exceeding $50 for each day the violation exists. Any penalties collected for violations of the SERP must be paid to the County, municipality or other Local government that brought the enforcement action.

Appendix F-1
Washington County and Municipal Sites That May Host Special Events That Require Recycling

County Parks	Street Address	City	State	Zip	Phone Number
Agricultural Education Center	7313 Sharpsburg Pike	Boonsboro	MD	21713	
Camp Harding	13029 Pectonville Road	Big Pool	MD	21711	
Chestnut Grove	3106 Chestnut Grove Road	Keedysville	MD	21756	
Clear Spring Park	12424 Big Spring Road	Clear Spring	MD	21722	
Devil's Backbone	18394 Lappans Road	Boonsboro	MD	21713	
Doubs Woods	1307 South Potomac Street	Hagerstown	MD	21740	
Kemps Mill	11114 Kemps Mill Road	Williamsport	MD	21795	
Martin Luther King Recreation Center	131 W North Ave	Hagerstown	MD	21740	
Marty Snook	17901 Halfway Boulevard	Hagerstown	MD	21740	
Mount Tammany Park	Tammany Manor Road	Williamsport	MD	21795	
Pen Mar	14600 PenMar-High Rock Road	Cascade	MD	21719	
Pinesburg Softball Complex	15323 Clear Spring Road	Williamsport	MD	21795	
Piper Lane	17556 York Road	Hagerstown	MD	21740	
Pleasant Valley	3199 Gapland Rd	Rohrersville	MD	21779	
Washington County Regional Park	20025 Mt. Aetna Road	Hagerstown	MD	21742	
Wilson Bridge	15032 National Pike	Hagerstown	MD	21740	
Woodland Way	108 Belview Avene	Hagerstown	MD	21740	
Contact: Dave Brooks, Parks Supervisor	1307 South Potomac Street	Hagerstown	MD	21740	240-313-2807

Municipal Facilities

City of Hagerstown	street Address	City	State	Zip	Phone N.Jmber
Bloom Park	346 N Potomac Street	Hagerstown	MD	21740	
Brandenburg Memorial Park	285 Mill Street	Hagerstown	MD	21740	
City Park	501 Wginia Avenue	Hagerstown	MD	21740	
Cultural Trail	Various Loeations	Hagerstown	MD	21740	
Elgin Park	40 Elgin Blvd	Hagerstown	MD	21740	
Fairgrounds	351 N Cleveland Avenue	Hagerstown	MD	21740	
Funkhouser Park	570 Jefferson Street	Hagerstown	MD	21740	
Georgia Avenue Playground		Hagerstown	MD		
Greenawalt Park	**101** East Alenue	Hagerstown	MD	21740	
Hager Park	501 Wginia Avenue	Hagerstown	MD	21740	
Hagerstown Edgemont Reservoir	None	Hagerstown	MD	21740	
Hagerstown Greens at Hamilton Run	2S Cleveland Ave	Hagerstown	MD	21740	
Hamilton Playground	1144 Fairview Road	Hagerstown	MD	21740	
Hellane Park	156 Park Alenue	Hagerstown	MD	21740	
Kiwanis Park	371 Dynasty Drive	Hagerstown	MD	21740	
Memorial Park	561 South Potomac Street	Hagerstown	MD	21740	
Mills Park	519 Northern Avenue	Hagerstown	MD	21740	
Municipal Stadium	274-292 E Memorial Blvd	Hagerstown	MD	21740	
National Road Park	806 West Washington Street	Hagerstown	MD	21740	
Noland Drive Playground		Hagerstown	MD		
Oswald Park	**211** Prospect Alenue	Hagerstown	MD	21740	
Pangborn Park	591 Pangborn Boulevard	Hagerstown	MD	21740	
Ridge Avenue Playground	348 Ridge Avenue	Hagerstown	MD	21740	
Rockwillow Playground		Hagerstown	MD		
Rotary Club of Longmeadow	325 Northern Avenue	Hagerstown	MD	21740	
Staley Park	726 Frederick Street	Hagerstown	MD	21740	
Terrapin Park	18257 Hurricane Court	Hagerstown	MD	21740	
Thomas Kennedy Park	50 E Baltimore Street	Hagerstown	MD	21740	
University Plaza	50 W Washington Street	Hagerstown	MD	21740	
Wheaton Park	449 Sumans Avenue	Hagerstown	MD	21740	
Contact Mark Haddock, Parks & Rec Manager	351 N Cleveland Ave	Hagerstown	MD	21740	301- 739-8577
Boonsboro			MD		
Kinsey Heights Rec. Jlrea	Kinsey Heights	Boonsboro	MD	21713	
Shafer Park	241 Potomac Street	Boonsboro	MD	21713	
Contact Greg Huntsberry, Jr, Public Works	21 North Main Street	Boonsboro	MD	21713	301-432-5141
Funkstown			MD		
IFunkstown Community Park	IRobert Kline Way	Funkstown	IMO	i 2173 I	
Contact Brenda Haynes, Town Manager	30 East Baltimore St.	Funkstown	MD	TN	301- 791-0948

Hancock			MD		
Breathed Park	23 W Main Street	Hancock	MD	21750	
Joseph Hancock Junior Park	167 W Main Street	Hancock	MD	21750	
Kirkwood Park	Kirk Farm Road	Hancock	MD	21750	
W dm eyer Park	Park Road	Hancock	MD	21750	
Contact: Joe Gilbert, Town Manager	126 West High Street	Hancock	MD	21750	301-678-5622
Keedysville					
Keedysville Sia-Pitch Field	None	Keedysville	MD	21756	
Taj or Park	Park Lane	Keedysville	MD	21756	
Contact: Richard L. Bishop, Administrator	**19** South Main Street	Keedysville	MD	21756	301-432-5795
Sharpsburg			MD		
Community Park	W. High Street	Sharpsburg	MD	21782	
Sharpsburg Town Pond	E. High Street	Sharpsburg	MD	21782	
Contact: Russ Weaver, Mayor	106 East Main Street	Sharpsburg	MD	21782	301-432-4428
Smithsburg					
Smithsburg Lions Com munityPark	12835 Bikle Road	Smithsburg	MD	21783	
Veteran's Park	68 W \Nater Street	Smithsburg	MD	21783	
Contact: Debra Smith, Town Manager	21 W \Nater Street	Smithsburg	MD	21783	301-824-7234
Williamsport			MD		
W D Byron Park	**11** Park Road	WIliamsport	MD	21795	
Springfield Farm	2 Springfield Lane	WIliamsport	MD	21795	
River Bottom Park	**124** W. SalisburyStreet	WIliamsport	MD	21795	
Bill Doub Park	American Legion Drive	WIliamsport	MD	21795	
Contact: Donald Stotelmyer, Town Manage	2 N. Conococheague Street	W lliam sport	MD	21796	301-223-7711

Federal	**Street Address**	**City**	**State**	**Zip**	**Phone Number**
Harpers FerryNational Historic Park	£:.0 . Box 65	l_tiarpers Ferr Yi	VW	5425 Q	04-535-60 29
.Antietam Battlefield	PO Box 158	Sharpsburg	MD	21782	301-432-5124
C & O Canal National Historic Park	W Potomac Street	WIliamsport	MD	21795	301-739-4200
Catoctin Mountain Park	6602 Foxville Road	Thurmont	MD	21788	301-663-9388
.Appalachian Trail Corridor	JP O Box 50	Harpers Ferry	VW	25425	304-535-6278

State	**Street Address**	**City**	**State**	**Zip**	**Phone Number**
Indi an Springs \/1,MA	14038 Blairs VallevRoad	Clear Spring	MD	21722	301-842-2702
Fort Frederick	**11100** Fort Frederick Road	Biq Pool	MD	**21711**	301-842-2155
FortTonolowayState Park	C&O Canal Mi le Marker **124.4**	Hancock	MD	21750	
\Nashington Monument State Park	6620 Zittlestown Road	Middletown	MD	21769	301-**791-4**767
South Mountain State Park	21843 National Pike	Boonsboro	MD	21713	301-**791-4**767
Gathland State Park	900 .Arnoldtown Road	Jefferson	MD	21755	301-**791-4**767
Greenbrier State Park	21843 National Pike	Boonsboro	MD	21713	301-**791-4**767
Brownsville Pond	MD-671Rohersville Road	Brownsville	MD	21715	
J\Jbert Powell Hatchery	20901 Fish Hatchery Road	Hagerstown	MD	21740	301-**791-4**736
WevertonlRoxburyRail Corridor			MD		
Western Maryland Rail Trail	**11100** Fort Frederick Road	Big Pool	MD	**21711**	301-842-2155
\/\,bodmont NRMA	**11761** \/\,bodmontRoad	Hancock	MD	21750	301-842-2155
Sideling Hill \/1,MA	Woodmont Road	Hancock	MD	21750	301-842-2702

Washington County Public Schools	Street Address	aty	State	Zip	Phone N.Jmber
Bester Elementarv	30 E. Memorial Boulevard	Haaerstown	MD	21740	301-766-8001
Boonsboro Elementarv	5 Campus Avenue	Boonsboro	MD	21713	301-766-8013
Cascade Elementarv	14519 Pennersville Road	Cascade	MD	21719	301-766-8066
Clear Spring Elementary	12627 Broadfording Road	Clear Spring	MD	21722	301-766-8074
Eastern Elementary	1320 Yale Drive	Hagerstown	MD	21742	301-766-8329
Emma K. Doub Elementarv	**1221** South Potomac Street	Haaerstown	MD	21740	301-766-8130
Fountain Rock Elementary	17145 Lappans Road	Haqerstown	MD	21740	301-766-8146
Fountaindale Elementary	901 Northern Avenue	Hagerstown	MD	21742	301-766-8156
Funkstown (Pre-K)	23 Funkstown Road	Hagerstown	MD	21740	301-766-8162
Greenbrier Elementarv	21222 San Mar Road	Boonsboro	MD	21713	301-766-8170
Hancock Elementary	290 West Main Street	Hancock	MD	21750	301-766-8178
Hickory Elementary	**1101** Hickory School Road	Williamsport	MD	21795	301-766-8198
Lincolnshire Elementary	17545 Lincolnshire Road	Hagerstown	MD	21740	301-766-8206
Mauaansville Elementarv	18023 Mauaans Avenue	Mauaansville	MD	21767	301-766-8230
Old Forqe Elementary	21615 Old Forqe Road	Haqerstown	MD	21742	301-766-8273
Pangborn Elementary	195 Pangborn Boulevard	Hagerstown	MD	21740	301-766-8282
Paramount Elementary	1941O Longmeadow Road	Hagerstown	MD	21742	301-766-8289
Pleasant Vallev Elementarv	1707 Rohrersviile Road	Knoxville	MD	21758	301-766-8297
Potomac Heiahts Elementarv	301 E. Maanolia Avenue	Haaerstown	MD	21742	301-766-8305
Rockland Woods Elementary	18201 Rockland Drive	Hagerstown	MD	21740	301-766-8485
Ruth Ann Monroe Elementary	**1311** Yale Drive	Hagerstown	MD	21742	301-766-8668
Salem Avenue Elementarv	1323 Salem Avenue Ext	Haaerstown	MD	21740	301-766-8313
Sharpsbura Elementarv	17525 Shepherdstown Pike	Sharpsbura	MD	21782	301-766-8321
Smithsburg Elementary	67 North Main Street	Smithsburg	MD	21783	301-766-8329
Williamsport Elementary	**1** South Clifton Drive	Williamsport	MD	21795	301-766-8415
Boonsboro Middle	**1** J-H Wade Drive	Boonsboro	MD	**21713**	301-766-8038
Clear Sprina Middle	12628 Broadfordina Road	Clear Sprina	MD	**21722**	301-766-8094
E. Russell Hicks Middle	1321 South Potomac Street	Hagerstown	MD	21740	301-766-8110
Northern Middle	701 Northern Avenue	Hagerstown	MD	21740	301-766-8528
Smithsbura Middle	68 North Main Street	Smithsbura	MD	**21783**	301-766-8353
Sprinqfield Middle	334 Sunset Avenue	Williamsport	MD	21795	301-766-8389
Western Heights Middle	1300 Marshall Street	Hagerstown	MD	21740	301-766-8403
Barbara Ingram School for the Arts	7 South Potomac Street	Hagerstown	MD	21740	301-766-8840
Boonsboro High	10 Campus Avenue	Boonsboro	MD	**21713**	301-766-8022
Clear Sprinq Hiah	12630 Broadfordina Road	Clear Sprina	MD	21722	301-766-8082
Hancock Middle/High	289 West Main Street	Hancock	MD	21750	301-766-8186
North Hagerstown High	1200 Pennsylvania Avenue	Hagerstown	MD	21740	301-766-8238
Smithsburg High	66 North Main Street	Smithsburg	MD	21783	301-766-8337
South Haaerstown Hiah	**1101** South Potomac Street	Haaerstown	MD	21740	301-766-8369
Washington CountyTechnical High	50 West Oak Ridge Drive	Hagerstown	MD	21740	301-766-8050
Williamsport High	5 South Clifton Drive	Williamsport	MD	21795	301-766-8423
Antietam Academy	1300 Marshall Street	Haqerstown	MD	21740	301-766-8447
Claud E. Kitchens Outdoor School at Fairview	12808 Draper Road	Clear Sprina	MD	21722	301-766-8138
Marshall Street/Job Development Program	1350 Marshall Street	Hagerstown	MD	21740	301-766-8214
Washington County Public Schools Main Office	10435 Downsville Pike	Hagerstown	MD	21740	301-766-2800
Contact Mark Mills, Facilities Supervisor	10435 Downsville Pike	Hagerstown	MD	21740	301-766-2978

Appendix H

Office Building Recycling Program

Office Building Recycling Plan

A. Collection and Marketing

In accordance with Section 9-1714 of the Annotated Code of Maryland passed in 2019 by the Maryland State Legislature, office building owners will be responsible for providing all containers necessary to fulfill recycling requirements throughout their buildings, as well as determining the collection schedule directly with the collection contractor. Each owner of the participating office building must provide recycling receptacles for the collection of paper and cardboard, metals, and plastic materials and for the removal for further recycling of recyclable materials deposited into the recycling receptacles. Distinctive colors and/or markings of recycling containers should be provided to avoid cross contamination. Office building owners must ensure collection and transportation of recyclable materials from office building locations to markets or tipping as commercial recycling at a processing and transfer station at the prevailing tipping fee rate. Owners and/or tenants will be responsible for placing recyclables in building recycling bins prior to their removal on the scheduled pick up day.

B. Stakeholders

Stakeholders include the owners and tenants of applicable office buildings, and Washington County, Maryland.

C. Required Participants

At the time of the implementation of this requirement, the following properties were identified through SDAT records that met the 150,000 square-foot or greater area of office space:

- Citibank Complex; 14625 Citicorp Drive, Hagerstown; approx. 441,000 sq. ft.
- First Data; 1 Western Maryland Parkway, Hagerstown; approx. 248,000 sq. ft.
- Robinwood Medical Campus; 11110 Medical Campus Road, Hagerstown; approx. 294,000 sq. ft.

D. Schedule of Implementation

By October 1, 2021:

- Washington County will post literature about the office building recycling program on the County webpage. Office building owners will begin to educate workers/tenants (as applicable) about the program and the requirements of the law).
- Office building owners will coordinate with tenants (as applicable) to reach agreements as to which entity will be responsible for carrying out the office building recycling program.
- Office building owners will provide recycling receptacles for the collection of recyclable materials.

- On or before October 1, 2021, office building owners meeting the required participant level, must have recycling services in place and operational in order to meet the requirements of the office building recycling program. Owners of all size office buildings are encouraged to voluntarily participate in this recycling effort.

E. Program Monitoring

Monitoring of recyclable materials bins will be carried out by office building owners and/or tenants.

Washington County may require the office building owner and/or tenant to report to the County, metrics associated with the office building recycling program.

F. Enforcement

The County is not required to manage or enforce the recycling activities of an office building located within the boundaries of one if its municipalities; however, an enforcement agent of the County or municipality may conduct inspections in order to enforce this program.

The Department of Solid Waste and Recycling will notify the office building owners of the implementation requirements in accordance with Sections 9-1703 and 9-1711 of the Environment Article, Annotated Code of Maryland. The County Attorney's Office will determine if a County should enforce the law and what level of enforcement actions should be used.

August 27, 2020

Ms. Jill Baker, Director
Washington County Department of Planning and Zoning
100 W. Washington Street, Suite 2600
Hagerstown, Maryland 21740

Dear Ms. Baker:

The Maryland Department of the Environment ("MDE") has completed its review of Washington County's (the "County") draft text of the office building recycling plan (OBR plan) for the County's 2011-2021 Solid Waste Management Plan (the "Plan"). The County submitted the OBR plan to MDE for its review in response to the requirement of Section 9-1703 of the Environment Article, Annotated Code of Maryland that requires the County to include the OBR plan in the County's Plan by October 1, 2020. MDE received the draft OBR plan on August 25, 2020.

Based on the review, MDE determined that the draft text of the OBR plan will meet the requirements of Section 9-1714 of the Environment Article, Annotated Code of Maryland provided that the following changes are made:

1. Under Section "Collection and Marketing", in the first line, include "Environment Article," before "Annotated Code of Maryland". In the third line, include "that have 150,000 square feet or greater of office space" before comma. In the fifth line, include "by October 1, 2021" after "provide".

2. Under Section "Enforcement", replace "9-1711" with "9-1714".

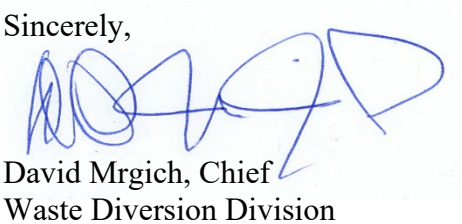
In accordance with Section 9-507(a) of the Environment Article, Annotated Code of Maryland, the draft text of the OBR plan, with edits specified, is tentatively approved.

Be advised that before the County adopts the revised OBR plan, the County is required to comply with the requirements of Section 9-506(a) of the Environment Article, Annotated Code of Maryland, regarding submittal of the OBR plan to the County's planning agency for its certification of the OBR plan. The County must also comply with the public hearing requirements of Section 9-503(d) of the Environment Article, Annotated Code of Maryland, and Code of Maryland Regulations 26.03.03.05C prior to the adoption of the OBR plan. Once the OBR plan has been adopted by the County Commissioners, the County must submit the adopted OBR plan to MDE for its review and final approval by no later than **November 27, 2020**. The

plan must be accompanied by a discussion of substantive issues raised at the public hearing and how they were resolved.

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 on these matters, please contact Mr. Tariq Masood at 410-537-3326 or *tariq.masood@maryland.gov* or you may contact me, at 410-537-3314 or *dave.mrgich@maryland.gov*.

Sincerely,



David Mrgich, Chief
Waste Diversion Division

cc: Tariq Masood, Project Manager, MDE, Waste Diversion Division

Washington County
MARYLAND
DEPARTMENT OF PLANNING & ZONING
COMPREHENSIVE PLANNING | LAND PRESERVATION | FOREST CONSERVATION | GIS

July 22, 2021

SOLID WASTE MANAGEMENT AND RECYCLING PLAN UPDATE

PLANNING COMMISSION RECOMMENDATION

RECOMMENDATION

The Washington County Planning Commission took action at its regular monthly meeting held on Monday, July 19, 2021, to recommend approval of the Solid Waste Management and Recycling Plan update. The proposed Plan was reviewed by the Planning Commission and subsequently submitted to Maryland Department of the Environment. Comments from MDE's review were received and changes were made to the draft Plan by staff.

The Planning Commission's recommendation is based upon a determination that the update is consistent with the County's adopted Comprehensive Plan.

Sincerely,

Jill Baker, AICP
Director, Washington County Dept.
of Planning & Zoning

JLB/dse