ST. MARY'S COUNTY, MARYLAND

COMPREHENSIVE SOLID WASTE MANAGEMENT AND RECYCLING PLAN

2016-2025

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INTRODUCTION

Saint Mary's County is required to prepare and adopt a Solid Waste Management Plan (Plan) which covers a ten (10) year planning period. Section 9-503 of the Environment Article, Annotated Code of Maryland requires that the Plan be reviewed and updated, if necessary, by the County every three (3) years. Up on adoption by the Commissioners of St. Mary's County, the Plan is then submitted to the Maryland Department of the Environment (MDE) for approval. The content of the Plan is defined in Title 9, Subtitle 5, Section 505 of the Environment Article, Annotated Code of Maryland and by Code of Maryland Regulations (COMAR) 26.03.03.03. This Plan represents a re-consolidation and streamlining of the previous 2005-2015 plan to mirror those specific requirements. In order to determine the appropriate course of action for the following ten years, an analysis of alternative disposal options was conducted. This analysis can be found in **Appendix A**.

Definitions regarding solid waste and recycling can be found in the Code of Maryland Annotated Regulations (COMAR) 26.04.07.02 which are subject to change and revision(s) by the State of Maryland during the ten (10) year planning period.

MISSION STATEMENTS

Recycling: *"To promote Reuse, Recycle and Reduction programs through effective communication, public education and example".*

Solid Waste: *"To provide adequate facilities for the safe handling, collection and disposal of solid waste generated in the County".*

1.0 SOLID WASTE MANAGEMENT OVERVIEW

1.1 SOLID WASTE MANAGEMENT GOALS AND OBJECTIVES

The governing authority in the County is the Commissioners of St. Mary's County ("the Commissioners"). The *St. Mary's County Comprehensive Solid Waste Management Plan 2016-2025* must be approved and adopted by the Commissioners following a formal public hearing. Once approved, the Resolution will be included in **Appendix B**. Additionally, the Plan, once approved at the local level, must be submitted to the MDE for review and approval. The letter approving the 2016-2025 Plan from the MDE will be included in **Appendix B,** as well, once received. In addition, COMAR26.03.03.05.C requires a written discussion and summary of the substantive issues that were raised at the public hearing be submitted to the MDE along with the Plan.

St. Mary's County has a strong history of citizen involvement in government and we believe citizen involvement in solid waste management will serve to improve and enhance our solid waste planning efforts. On July 27, 1993, the Commissioners of St. Mary's County established a citizen Solid Waste Advisory Committee (SWAC). Since its' first meeting in September 1993, the SWAC has been involved in solid waste management issues in the County and has provided citizen involvement in the development of the County's Comprehensive Solid Waste Management Plan. The Maryland Department of the Environment has formally acknowledged that *"the County is to be commended for its efforts in expanding the opportunities for public participation in the solid waste management planning process."* A written discussion and summary of the substantive issues that were raised at the Public Hearing were also forwarded to the Maryland Department of the Environment for their use and permanent record.

On March 9, 2010 the Commissioners of St. Mary's County, Maryland approved Resolution 2010-09 which integrated the SWAC into the Commission on the Environment ("COE"). As a result of the integration, the SWAC became a sub-committee with the COE and the SWAC retained all their prior duties as noted in their by-laws. The purpose of the integration was to ensure adequate membership within the SWAC

and utilize the resources of the COE. The COE will continue to serve on an advisory capacity to the Commissioners as originally intended, most notably with respect to any amendments to the Comprehensive Solid Waste Management & Recycling Plan. On March 9, 2010, through Resolution No. 2010-09, the Commissioners restated the establishment of the COE.

Solid waste management regulations and policies exist at the federal, state and local government levels. A summary of pertinent legislation and recent changes relating to solid waste management has been included as a part of the Plan. Traditionally, the federal government has provided the overall regulatory direction and set the minimum standards for protecting human health and environment. The implementation of these regulations is the responsibility of State and local governments. The State of Maryland established the MDE to enforce and implement federal and State solid waste management regulations.

The St. Mary's County, Maryland, Comprehensive Solid Waste Management and Recycling Plan (CSWMRP), also known as the "Plan", is intended to provide a program of solid waste collection, processing and disposal that addresses solid waste and recycling management and meets the needs of the residents and businesses in St. Mary's County for the next ten years. The County, through its planning effort, has established the blueprint to provide for the safe handling, collection, processing and disposal of solid waste to ensure adequate and efficient facilities to accommodate approved programs in the County while providing for the safe disposal of solid waste generated by the citizens, commerce and industry in the County. The County's objectives and policies are in conformance with State, regional and local comprehensive land use plans and programs. In addition, this Plan has been prepared in accordance with applicable regulations and is adopted by the Commissioners. The following policies are established in accordance with the St. Mary's County Comprehensive Solid Waste Management and Recycling Plan:

1. Any further development of solid waste processing facilities should be conditioned upon the demonstrated need within St. Mary's County.
2. To pursue an integrated solid waste management program by:

a) Assuring the protection of public health and the environment through environmentally sound methods of waste disposal;

b) Reducing (encouraging resource conservation);

c) Reusing / repurposing (practicing landfill avoidance);

d) Recycling (maximizing utilization of resources recovered from waste); and

e) Recovering (promoting proven technology to generate energy from waste which cannot be reduced, reused, or recycled).

3. To prevent contamination of the environment from solid waste disposal practices and identify site locations which minimize adverse impacts on adjacent properties.
4. To encourage public participation in solid waste policy-making;
5. To diminish reliance on landfills;
6. To utilize the productive capacity of private enterprise for the collection of solid waste, recyclables, and disposal/disposition;
7. To assure that the public is served by an efficient, effective, economical, and well-managed solid waste and recycling program;
8. To participate in regional solid waste management cooperative enterprises;
9. St. Mary's County Government-operated solid waste facilities will not accept solid waste from out-of-County sources, except under regional government agreement.
10. To encourage and promote single stream recycling programs.
11. Any solid waste facilities in the County must be in conformance with the County's Comprehensive Solid Waste Management and Recycling Plan.
12. To review and revise the County rules, regulations and ordinances as required to implement the St. Mary's County Comprehensive Solid Waste Management and Recycling Plan. An analysis of the solid waste to be generated and the review of a management plan for such wastes should be prerequisites for obtaining building permits, conditional use approvals, etc., for commercial and industrial activities.

The policies listed above are reinforced and implemented by the goals and objectives contained herein.

GOAL 1: ASSURE THE PROTECTION OF PUBLIC HEALTH AND THE ENVIRONMENT THROUGH ENVIRONMENTALLY SOUND METHODS OF WASTE DISPOSAL

OBJECTIVES:

A. Continue monitoring all waste facilities for compliance with applicable regulations.

B. Monitor the enforcement of operating conditions imposed by the County upon solid waste facilities.

C. Continue to improve guidelines for the siting of waste acceptance facilities to minimize noise, odor, pollution and traffic hazards, including guidelines regarding the nature and size of buffer zones surrounding waste facilities.

GOAL 2: CONSERVE NATURAL RESOURCES

OBJECTIVES:

A. Encourage the reduction and reuse of waste materials through the promotion, development and expansion of recycling and the use of recycled products.

B. Conserve land by minimizing the amount used for waste disposal and develop uses for such areas after they have been used for waste disposal.

C. When possible, locate solid waste facilities on land that has been degraded by previous industrial activities.

D. Conserve non-renewable natural resources with the use of energy from wastes.

E. When possible, purchase recycled content products for use in the service of our citizens.

GOAL 3: ENCOURAGE PUBLIC INVOLVEMENT IN SOLID WASTE MANAGEMENT AND PLANNING ISSUES

OBJECTIVES:

A. Promote public awareness of the growing impact of solid waste in our daily lives.

B. Promote consumer choices that will minimize waste generation.

C. Emphasize the importance of and provide incentives to encourage recycling.

D. Actively encourage citizen involvement early and throughout the process of reviewing and approving new solid waste management facilities.

E. Decision making should avoid the effect of subjecting individuals to discrimination because of their race, color, national origin, or sex.

F. Maintain a Solid Waste Advisory Committee as a sub-committee within the Commission of the Environment.

G. Maintain a system for continuous solicitation and collection of comments and suggestions about the solid waste program.

GOAL 4: IMPLEMENT THE USE OF FULL-COST ACCOUNTING TO DETERMINE ACTUAL COSTS FOR MANAGING SOLID WASTE AND RECYCLING PROGRAMS.

OBJECTIVES:

A. Establish and maintain a revenue structure that provides funding to help support the solid waste and recycling systems.

B. Provide financial incentives to reduce, reuse, recycle and recover materials or energy from wastes which cannot be reduced, reused or recycled.

C. Support and pursue initiatives that provide additional State funding for use by local jurisdictions.

GOAL 5: IDENTIFY AND ESTABLISH MARKETS FOR THE REDUCTION, REUSE, OR RECYCLING OF MATERIALS, AND RECOVER MATERIALS

OBJECTIVES:

A. Continue to develop markets and keep abreast of technological advancements to ensure their incorporation is in accordance with current State legislation.

B. Develop reporting methods and data collection mechanisms to document the County's progress towards its recycling goal.

C. Review and revise County policy to commit to the acquisition and use of recycled content products.

D. Develop pilot programs to achieve recycling goals that can be replicated, or exceed the mandated State recycling goals for a County with a population less than 150,000.

GOAL 6: FACILITATE A REGIONAL APPROACH TO SOLID WASTE MANAGEMENT

OBJECTIVES:

A. Conduct regular meetings of the Solid Waste coordinators for Southern Maryland to facilitate the exchange of information.

B. Establish a Southern Maryland Solid Waste Authority.

GOAL 7: PROVIDE SAFE, EFFICIENT, COST EFFECTIVE, AND ADEQUATE SOLID WASTE SERVICES AND INFRASTRUCTURE TO ACCOMMODATE THE CURRENT AND FUTURE RESIDENTIAL AND COMMERCIAL MUNICIPAL SOLID WASTE AND RECYCLABLES GENERATED THROUGHOUT THE COUNTY.

OBJECTIVES:

A. Design, build and maintain safe and efficient solid waste acceptance and disposal facilities to adequately accommodate the solid waste and recyclables generated throughout the County.

B. Conduct regular reviews of existing facility capacities to ensure continual collection, transfer, and disposal capability as the population continues to increase.

C. Plan and schedule the construction of new public solid waste facilities to accommodate approved solid waste programs and services according to a five-year capital improvements program.

D. Continue to improve on the present residential customer Convenience Center collection systems and program offerings.

1.2 ORGANIZATIONAL STRUCTURE OF COUNTY GOVERNMENT WITH REGARDS TO SOLID WASTE MANAGEMENT

St. Mary's County, the first county in Maryland, was created in 1637. The Town of Leonardtown is the only incorporated municipality in the County and has served as the County seat since 1735. The County covers 373 square miles and lies 35 miles southeast of Washington, DC.

St. Mary's County is governed by the Commissioners of St. Mary's County. All commissioners' powers, including authorizations to issue debt to finance its capital projects, are conferred by the General Assembly of Maryland. The five (5) County Commissioners are elected by the entire County voting population and serve for four-year terms. The Commissioners serve on a part-time basis; an appointed County Administrator is responsible for the daily administration of the County government. These meetings are held a minimum of forty eight (48) times a year at the County Governmental Center in Leonardtown, are always open to the public.

The Commissioners establish all County policies; enact ordinances which have the force and effect of law; review and approve annual budgets and work plans for all departments and agencies receiving County funds; conduct public hearings; approve County Plans; and make decisions on land use matters, including zoning, water and sewer category amendments, etc. In addition, the Commissioners appoint all department heads, members of boards, commissions, and committees; purchase and maintain County property; approve roads construction and maintenance; and serve as the County's chief elected officials in dealing with other counties, the State, and the federal government. An organizational chart of the St. Mary's County Government is shown in **Exhibit I-1**.

Issues regarding solid waste management are handled by the County's Department of Public Works & Transportation. An organizational chart of the Department of Public Works & Transportation is included as **Exhibit I-2**. The Department of Public Works and Transportation is responsible for the construction, inspection, operation and maintenance of all county owned solid waste facilities and equipment. In addition, the Department of Public Works & Transportation is currently responsible for implementing the County's Comprehensive Solid Waste Management and Recycling Plan, managing the County's recycling program, and ensuring that the County works toward achieving its waste reduction and recycling goals as established in this Plan.

EXHIBIT I-1
ST. MARY'S COUNTY GOVERNMENT
Organizational Chart

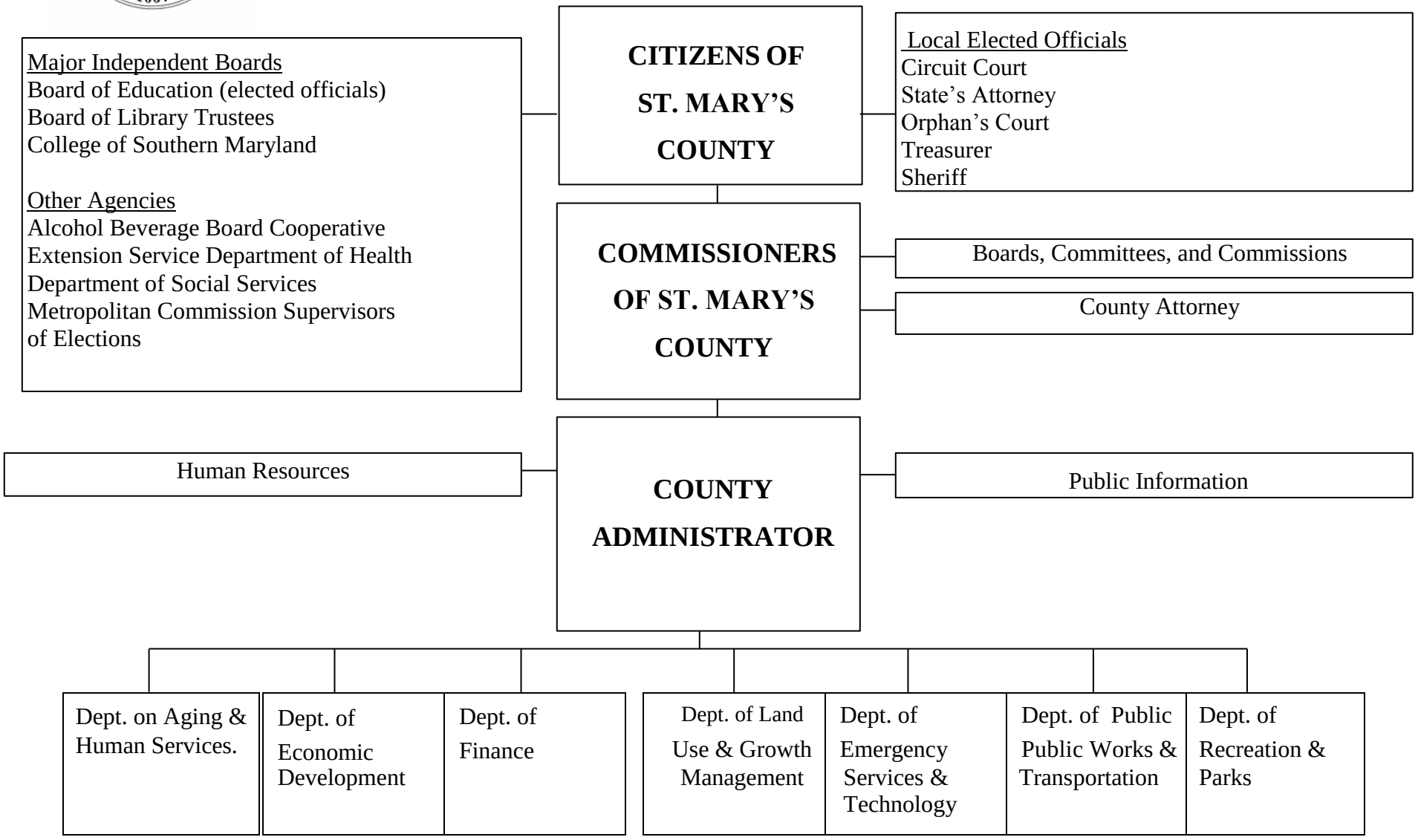
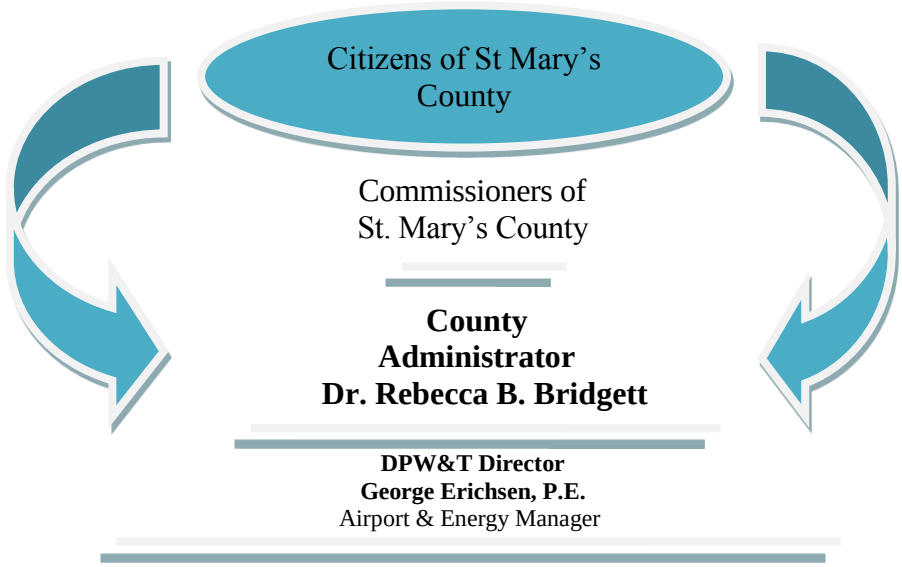


EXHIBIT I-2
ST. MARY'S COUNTY
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

Functional Organizational Chart



Mission Statement: "To serve the community of St. Mary's County by assuring its transportation / facilities management, development review, solid waste and recycling programs are properly planned, implemented and maintained".

1.3 AMENDING THE SOLID WASTE MANAGEMENT AND RECYCLING PLAN

To be considered consistent with this CSWMRP, any solid waste acceptance facility (also known as "solid waste facility" or "facility") or expansion of an existing solid waste facility, whether public or private, must be specifically described and identified, by name, in the Plan in accordance with **Appendix C.**

In accordance with § 9-507, the County submits its proposed plan or proposed revision or amendment of its plan to the MDE. The MDE may approve, disapprove, approve in part, or modify the proposal. When the MDE approves the proposed plan, the County may then adopt the proposed plan. Also, the MDE has 90 days to make its determination, which it may extend for an additional 90 days.

In accordance with Article 5 of the Comprehensive Zoning Ordinance, it is the applicant's burden to demonstrate that a need exists within St. Mary's County to site a new facility. The following section lists the factors to be considered by the Commissioners in evaluating the need for facilities; denial of permits; adoption of criteria and standards for location of facilities.

1. Each application for an amendment to the Solid Waste Management & Recycling Plan shall be accompanied by a demonstration of need for that facility in the anticipated service area, which shall be of the form and content as the Commissioners may prescribe. It is the applicant's responsibility to provide reasonable and detailed information sufficient for this determination.

2. The demonstration of need shall be specific as to the types of waste and/or recyclable material to be managed and shall include, but not be limited to:

    a) Documentation of the available capacity at existing facilities in the area to be served by the facility;

    b) Documentation of the current volume of waste/recyclables generated in the area to be served by the facility and the volume of waste/recyclables reasonably expected to be generated in the area to be served over the next twenty (20) years; and

c) A description of any additional factors, such as physical limitations on the transportation of materials or the existence of additional capacity outside the area to be served which may satisfy the projected need.

3. The Commissioners shall consider the following factors in evaluating the need for the proposed facility:

   a) An approximate service area for the proposed facility which takes into account the economics of collection, processing, transportation, treatment, storage and/or disposal;

   b) The quantity of waste/recyclables generated within the anticipated service area suitable for treatment, processing, storage and/or disposal at the proposed facility;

   c) The design capacity of existing facilities located within the anticipated service area of the proposed facility; and

   d) The extent to which the proposed facility is needed to replace other facilities, if the need for a proposed facility cannot be established under paragraphs (a) through (d), above.

   e) Response to Plan Amendment. **Appendix C** – Public & County Review Process.

4. Based on the needs of St. Mary's County, it is the intent of the Plan that there shall not be a proliferation of unnecessary facilities in any one (1) geographic area of the County.

5. If the Commissioners determines that a proposed facility is inconsistent with or contradictory to the factors set forth in subsection (3) or otherwise set forth in the Plan, the Commissioners shall deny the Application and any permit for the permitting, construction and/or operation of that facility.

6. The criteria and standards to be considered in the location and siting of facilities, developed through public participation, shall include, in addition to Chapter 4 and the information required in the applicant's preparation of a Solid Waste and Recycling Facility Application, all applicable state and federal rules and regulations, including consideration of:

   a) Hydrological and geological factors such as flood plains, depth to water table, soil composition and permeability, cavernous bedrock, seismic activity, and slope;

b) Natural resource factors such as wetlands, endangered species habitats, proximity to parks, forests, wilderness areas and historical sites, and air quality;

c) Transportation factors, such as proximity to waste generators and to population, route safety and method of transportation; and

d) Aesthetic factors such as the visibility, appearance and noise level of the facility.

1.4 EXEMPTIONS TO THE AMENDMENT PROCESS

The following solid waste activities are examples of installations that would not require an amendment to the St. Mary's County Comprehensive Solid Waste Management and Recycling Plan:

1. County-Owned Convenience Centers: any additional recycling bins in conjunction with the County's recycling contract/efforts and up to three trash compactors per site, or any structural changes, or expansions, such as the addition of buildings and/or facilities that do not intensify the use of the site or change the type of use of the site.

2. Temporary solid waste and/or recycling bins for special events, such as the County Fair, Oyster Festival, Blessing of the Fleet, etc. Bins will be removed within two (2) calendar days after the event.

3. Proposed County-Owned Solid Waste Transfer Station & Processing Facility located at the St. Andrews Landfill property, as shown in **Appendix D**.

1.5 LEGISLATION AND REGULATION

Tables I-1 through **I-3** summarize, but are not intended to be an all-inclusive list of pertinent Federal, State, and County legislation affecting solid waste management and planning in St. Mary's County. Major legislation includes the Clean Air Act, the Clean Water Act, the Safe Drinking Water Act, the Resource Conservation and Recovery Act (RCRA), the Maryland Recycling Act

(MRA), and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Maryland, like most states, has adopted the Federal guidelines under the above acts. The Environment Article, Annotated Code of Maryland and Title 26 of the Code of Maryland Regulations (COMAR) are the primary statue and regulations relating to environmental protection and regulation in Maryland. These laws and regulations contain requirements for landfills, processing facilities, transfer stations, incinerators, asbestos, medical waste, scrap tire recycling, industrial waste disposal, wood waste, newsprint, plastic container labeling, telephone directory recycling, yard waste banned from disposal facilities, battery collection, fluorescent lamps and recycling, and the annual reporting of quantities of solid waste disposed in the State and the jurisdictions where it originated and solid waste exported from the State for disposal. In addition, new regulations affecting rubble landfills went into effect in 1997.

In the spring of 1988, the Maryland General Assembly passed the Maryland Recycling Act ("MRA"), which requires each county (including Baltimore City) to develop and implement a program of recycling. The Act, which took effect July 1, 1988, required each county to develop by July 1, 1990 a Recycling Plan to reduce specified percentages of the solid waste stream. Jurisdictions with populations greater than 150,000 must submit plans to reduce at least 20 percent of their solid waste stream through recycling. Jurisdictions with populations less than 150,000 must submit plans to reduce at least 15 percent of the county waste stream through recycling. These respective MRA recycling rates and diversion goals were increased to 35 percent and 20 percent for each of the counties in 2012 as a result of the passage of House Bill 929. Full implementation of the County's recycling plan to achieve these revised goals is required by December 31, 2015. Counties must conduct a public hearing if the percentage reduction is less than the required 35 or 20 percent.

The 2009 Maryland General Assembly passed HB 1290 "Environment-Recycling-Public School Plans" which took effect July 1, 2009, and requires Counties to develop a strategy for the collection, processing, marketing and disposition of recyclable materials from the public schools.

In April, 2012, the Maryland General Assembly passed House Bill 1, "Environmental-Recycling – Apartment Buildings and Condominiums" requiring recycling in all apartment buildings and condominiums that contain 10 or more dwelling units. The law became effective on October 1, 2012.

In 2014, the Maryland General Assembly passed Senate Bill 781(Environment-Recycling-Special Events) which requires organizers of special events, meeting certain criteria, to provide clearly distinguishable recycling containers at each trash container location and ensure that recyclable materials are collected for recycling beginning on October 2015. The law amends Sections 9-1703 (b) and (g) and adds Section 9-1712 of the Environment Article, Annotated Code of Maryland. The law also requires St. Mary's County to revise its Solid Waste Management and Recycling Plan to include the SERP by October 1, 2015. For additional information about the SERP, see Chapter 3 of this Plan.

Relevant County legislation affecting Solid Waste Management and Recycling Planning includes the *Solid Waste Ordinance*, the *Rules and Regulations for Use of Solid Waste Disposal Facilities in St. Mary's County*, and the *Zoning Ordinance*, as amended from time to time.

Table I-1
St. Mary's County, Maryland
Summary of Pertinent Federal Legislation

Federal Legislation	Main Provisions	Recent Changes Relating to Solid Waste Management
Clean Air Act (1970) - sets federal standards for air quality	National Ambient Air Quality Standards (NAAQS) - designate maximum allowable levels of commonly found air pollutants. National Emission Standards for Hazardous Air Pollutants (NESHAP) - control emission of hazardous air pollutants, e.g., asbestos. New Source Performance Standards (NSPS) - regulate emissions of new sources of regulated pollutants. Includes facilities undergoing modification.	Clean Air Act Amendments of 1990: Revised standards for large (250 TPD) MSW combustors - adds emission limits for cadmium, lead, and mercury and emission limits for acid gas, nitrogen oxide, and other pollutants. Rule requiring installation of gas collection systems and incineration of captured gases, affecting landfills with 110,000 TPY capacity (summer 1993). Prohibition of open burning of designated solid wastes at all landfills (October 1991). Pending: revised standards for small MSW combustors with similar limits as large combustors. Chlorofluorocarbons must be recovered before appliances such as refrigerators, air conditioners, and dehumidifiers can be recycled.
Resource Conservation and Recovery Act (RCRA) of 1976 - provides consistent and stringent federal guidelines for the handling and disposal of solid waste.	State programs are subject to EPA approval; states must incorporate federal standards into state programs. Generation of hazardous waste is regulated under guidelines governing identification, recordkeeping, treatment, storage, and disposal; must obtain MDE permits. SARA amendments set standards for clean-up efforts and set stringent criteria for disposal of Superfund wastes.	Revised Subtitle D criteria: comprehensive federal standards for the location, design, operation, and closure of MSW landfills. Includes groundwater-monitoring regulations. Topics being considered for RCRA amendment include the transportation of solid waste, MSW source reduction and recycling, scrap tires, and used oil.

Table I-1. St. Mary's County, Maryland
Summary of Pertinent Federal Legislation (Continued)

Federal Legislation	Main Provisions	Recent Changes Relating to Solid Waste Management
Clean Water Act (1972) - sets federal standards for water quality	States must consider the designated use of the body of water and water quality criteria when setting water quality standards. Controls pollutants emanating from facilities that generate landfill leachate, ash-quench water, and surface water discharges, as well as from all publicly-owned treatment works. National Pollutant Discharge Elimination System (NPDES) - requires a state permit for any facility that discharges any waste or wastewater - any pollutants that diminish water quality. Wetland protection - any facility located in wetlands must receive a permit; prevent net loss in non-tidal wetland acreage.	U.S. Army Corps of Engineers currently designing a new manual to more clearly define criteria for wetland definition. Standards for the use or disposal of sewage sludge either by land application or surface disposal; also addresses pathogens and vector attraction reduction, and incineration (Final rule published February 19, 1993). NPDES Final Stormwater Rule - each public or private industry discharging stormwater from industrial activity must apply for a permit under one of three application options.
Resource Conservation and Recovery Act (RCRA) of 1976 - provides consistent and stringent federal guidelines for the handling and disposal of solid waste.	State programs are subject to EPA approval; states must incorporate federal standards into state programs. Generation of hazardous waste is regulated under guidelines governing identification, recordkeeping, treatment, storage, and disposal; must obtain MDE permits. SARA amendments set standards for clean-up efforts and set stringent criteria for disposal of Superfund wastes.	Revised Subtitle D criteria - comprehensive federal standards for the location, design, operation, and closure of MSW landfills. Includes groundwater-monitoring regulations. Topics being considered for RCRA amendment include the transportation of solid waste, MSW source reduction and recycling, scrap tires, and used oil.

Table I-1. St. Mary's County, Maryland
Summary of Pertinent Federal Legislation (Continued)

Federal Legislation	Main Provisions	Recent Changes Relating to Solid Waste Management
Mercury-Containing and Rechargeable Battery Act of 1996	Addresses nickel-cadmium (Ni-Cd) and small sealed lead-acid batteries. Makes possible a voluntary, private sector collection program using retail stores as a conduit for reverse distribution via the Rechargeable Battery Recycling Corp., a non- profit organization whose mission is to remove Ni-Cd batteries from the MSW stream for recycling. Simplifies the regulatory framework to enhance collection and recycling of Ni-Cd batteries. Creates national standards for engineering design for easy removal of used batteries and establishes a labeling system to inform consumers of the necessity to recycle the batteries.	
Safe Drinking Water Act (SDWA)	Regulates underground water injection systems by requiring permits.	

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Table I-2
St. Mary's County, Maryland
Summary of State Requirements

State Legislation	Main Provisions	County Responsibility
Code of Maryland Regulations (COMAR) Title 26	COMAR addresses solid waste management practices in Maryland and provides guidance for implementing intent of Maryland regulations relating to the environment. COMAR requires that an individual may not construct or operate a landfill, processing facility, transfer station or incinerator without complying with permitting and reporting requirements, among other regulations.	County must comply with all COMAR regulations, including preparing a comprehensive Solid Waste Management and Recycling Plan, complying with permitting requirements, and filing all required reports with MDE.
Maryland Recycling Act (1988) Natural Wood Waste Recycling Act (1991)	Establishes a requirement for Maryland counties, based upon the county's population, to plan and implement a recycling system by 1994 to reduce the County's waste stream by 15%. Private wood waste recycling facilities must be appropriately permitted and operated and may accept only natural wood waste.	County must plan for and implement recycling and waste reduction programs to reach State-mandated goals. Not applicable to County-owned and operated composting facilities.
Scrap Tires - Recycling - Fees (1991)	Sets forth provisions for the management of scrap tires, prohibits landfill disposal of scrap tires after January 1, 1994, and establishes a tire recycling fee on the first sale of a new tire in the State.	County has established a centralized collection center at the St. Andrews Landfill. Scrap tires have been banned from landfill disposal since 1994. County maintains a secondary Scrap Tire Collection & Hauling license from MDE.

Table I-2. St. Mary's County, Maryland
Summary of State Requirements (Continued)

State Legislation	Main Provisions	County Responsibility
Sewage sludge Application	Land application procedures are strictly regulated to maintain the public health.	County must meet regulations standards if a County-run sewage sludge land application program is developed.
Medical Waste Legislation	Regulates identification, recordkeeping, treatment, transport, and disposal of special medical wastes; infectious wastes prohibited in landfill systems in the State.	County must control against acceptance of infectious waste at County landfill.
Yard Waste Legislation	Separately collected yard waste is banned from disposal facilities after October 1994.	Counties must control against acceptance of separated yard waste in County disposal facilities.
Composting Legislation	Composting is included in the definition of recycling and can be counted toward the recycling goal.	Counties are required to study the feasibility of composting solid waste.
Mercuric Oxide Battery Legislation	After July 1, 1994, mercuric oxide battery manufacturers are responsible for the collection, transportation, recycling, and disposal of such batteries sold or offered for promotional purposes in the state. By January 1, 1995, each cell, rechargeable battery or rechargeable product (unit) sold in the state must be covered by a program or system for collection, recycling, or disposal of the item put in place by a marketer.	The County has no defined responsibility.

Table I-2. St. Mary's County, Maryland
Summary of State Requirements (Continued)

State Legislation	Main Provisions	County Responsibility
Recycled Content Legislation	Newspapers and telephone books distributed in the state must have a recycled content beginning with 12% in 1992 for newspapers and in 1994 for telephone books. This recycled content percentage increases to 40% by 2000 and all subsequent calendar years.	The County has no defined responsibility.
Labeling for Ease of Recycling Legislation	For ease in sorting for recycling, certain plastic bottle and plastic rigid containers must be labeled on the bottom with the resin type.	The County has no defined responsibility.
Waste Information and Assessment Program (1998)	Requires MDE to create a waste information and assessment program and to submit an annual report to lawmakers on the volume of certain types of waste disposed in Maryland and exported from Maryland. Requires permitted waste acceptance facilities to provide at least annually to MDE information necessary to MDE for preparation of MDE's annual report, except for information considered to be a "Trade Secret".	Counties who own permitted waste acceptance facilities shall at least annually provide to MDE information regarding the disposition of certain waste categories needed by MDE for preparation of its annual report.
Public School Recycling Program (2009)	The County amended the Comprehensive Solid Waste Management and Recycling Plan to incorporate a plan for recycling within their public school system. Submitted revised recycling plan to MDE by October 1, 2010.	Develop a strategy for the collection, processing, marketing, and disposition of recyclable materials from public schools. For additional information see Section 3.5.2.1.

Table I-2. St. Mary's County, Maryland
Summary of State Requirements (Continued)

State Legislation	Main Provisions	County Responsibility
Fluorescent and Compact Fluorescent Light Recycling (2010)	Develop strategy for the collection and recycling of fluorescent and compact fluorescent lights that contain mercury. Submit revised recycling plan to MDE by October 1, 2011.	County must provide the infrastructure for small quantity generators of waste fluorescent lamps to properly deliver this type material to an appropriate facility.
Apartment Building and Condominium Recycling (ABCR) Program (2012)	In April 2012, the Maryland General Assembly passed House Bill 1 (Environmental-Recycling-Apartment Buildings and Condominiums) which requires the all apartment buildings and condominiums that contain ten (10) or more dwelling units to recycle. Effective October 1, 2014.	County is responsible for adopting the MDE approved language of the ABCR Program and overseeing the recycling activities and assuring that all apartment buildings and condominiums that fall under the requirement are included in the ABCR Program. County is also responsible for monitoring and enforcing the law by issuing fines up to $50 per day, if violations occur. For additional information see Section 3.5.2.3.
Recycling Rates and Waste Diversion (2012)	Requires the County to revise its recycling plan by July 1, 2014. The plan must provide for a reduction through recycling of at least 35% for a county with a population greater than 150,000 or 20% for a county with a population less than 150,000 of the County's solid waste stream by weight.	County must plan for and implement recycling and waste reduction programs to reach State-mandated goals.

Table I-2. St. Mary's County, Maryland
Summary of State Requirements (Continued)

State Legislation	Main Provisions	County Responsibility
Recycling – Special Events (2014)	MD General Assembly passed SB 781 requiring the County to revise its recycling plan to include special event recycling by October 1, 2015. The law is effective October 1, 2014. Special events subject to the law: a) Include temporary or periodic use of public street, site, facility, or park; b) Serve food or drinks; and c) Are expected to have 200 or more persons in attendance.	The County must require, as a condition for approving a special event, the event organizer must provide for collection and recycling of recyclable materials. At a minimum, the plan must require recycling of glass, metal, plastic containers, and paper. Food scraps should be recycled to the extent feasible. The County may impose penalties not to exceed $50 a day. For additional information see Section 3.5.2.4.
MD Dept. of the Environment – (COMAR) 26.03.03.03 D(5) – criteria for major composting facilities that require Refuse Disposal Permit (2014).	COMAR requires the County to provide information on major composting facilities and that this information is included in the 10 Year Solid Waste Plan. MDE is in the process of developing the regulations for composting facilities.	County must ensure all composting facilities that require a composting facility permit are include in the Plan in accordance with COMAR 26.03.03.03 D and F. The current or planned composting facilities must be included in Chapter 3 or Chapter 5 of the Plan respectively.

Table I-2. St. Mary's County, Maryland
Summary of State Requirements (Continued)

State Legislation	Main Provisions	County Responsibility
HB 807 (2013) – Landfill Operator License Requirement	Requires an individual be licensed by MDE before he/she may operate a landfill in the State. Individual will need to provide evidence of successful completion of a landfill management training course approved by MDE.	The County has no defined responsibility. The County is not currently operating a landfill.
HB 1440 (2013) – Composting Facility Permitting and Operating Regulations	MDE to write, implement and enforce regulations for the permitting and operating of Composting Facilities.	The County has no defined responsibility. The County does not currently operate a composting facility.
SB 641 (2013) – Statewide Container Recycling Incentive Program	Legislation would require beverage distributors in the State to register with MDE, maintain certain records, and sell redeemable beverage containers. Along with this, distributors would be required to pay deposits on these containers to the State and collect deposits from certain retailers. In addition to this, licensed redemption centers would need to be located within each defined "convenience zone" of a county.	The County would be responsible for the licensing or operation of the "Redemption Centers" required to be established to accept empty redeemable containers from consumers in exchange for the container's refund value. By April 1, 2014, the County (along with MDE) will designate convenience zones based on population density for the purpose of establishing "Redemption Centers". The County is responsible for adopting rules and procedures for the licensing of "Redemption Centers" along with establishing verification procedures to be followed at the Centers to prevent fraud.

Table I-2. St. Mary's County, Maryland
Summary of State Requirements
(Continued)

State Legislation	Main Provisions	County Responsibility
HB 799 – Landfill Portfolio Diversion Standard.	Requires MDE to implement and manage a MSW portfolio standard for each County. Beginning in 2015, a **minimum** of 20% of a county's MSW processed through recycling and a **maximum** of 80% of unprocessed MSW disposed of in a landfill. The levels increase each year until 2031, when a **minimum** of 50% of a county's MSW processed through recycling and a **maximum** of 0% of unprocessed MSW disposed of in a landfill.	The County is required to submit an annual report each year to MDE to document the disposition of MSW handled in the County, and required to pay certain compliance fees if the established thresholds are not met. Beginning in 2015, the fee for a minimum recycling shortfall is $1 per ton. The fee is also $1 per ton for falling short of the landfill ton maximum. These fees escalate over time up to 2031, when the compliance fee is $25 per ton.
40 CFR Parts 257 and 261	The rule requires any existing unlined CCR surface impoundment that is contaminating groundwater above a regulated constituent's groundwater protection standard to stop receiving CCR and either retrofit or close, except in limited circumstances. It also requires the closure of any CCR landfill or CCR surface impoundment that cannot meet the applicable performance criteria for location restrictions or structural integrity. Finally, those CCR surface impoundments that do not receive CCR after the effective date of the rule, but still contain water and CCR will be subject to all applicable regulatory requirements	Review receiving of possible CCR in future possible expansion of St. Andrews Landfill.

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Table I-3

St. Mary's County, Maryland

Summary of Pertinent County Legislation

County Legislation	Main Provisions Relating to Solid Waste Management
St, Mary's County Solid Waste Ordinance (1988)	Defines authorized use of County solid waste management facilities. Requires licenses and vehicle identification stickers for commercial and public haulers. Vehicles delivering refuse must be covered. Violators are subject to penalties. Lists solid waste facilities operating in County system and governs their use, operation, and permitting. County allows private rubble landfills.
Rules and Regulations for Use of Solid Waste Disposal Facilities in St. Mary's County (1991)	Regulates use of St. Andrews Landfill and County transfer stations and Convenience Centers.
St. Mary's Comprehensive County Zoning Ordinance and the Comprehensive Land Use Plan	Designates that certain solid waste and recycling facilities are acceptable in agricultural, rural preservation and industrial districts as conditional uses or permitted use. Conditional uses require public hearings and approval from Board of Appeals. General zoning policies include preservation of agricultural land, minimization of contamination of surface and ground water, minimization of pollutant emissions, and so forth.

Table I-3. St. Mary's County, Maryland
Summary of Pertinent County Legislation (Continued)

County Legislation	Main Provisions Relating to Solid Waste Management
Environmental and Solid Waste Service Fee – Ordinance No. 2007-04, adopted on 5/15/2007.	All improved residential property that is residentially zoned and contains one or more dwelling units beginning July 1, 2007, is currently being charged an annual fee of $60 per dwelling unit. This fee is applied to the established Solid Waste & Recycling Enterprise Fund.
Debris Management Plan, October 2007 – State mandate as part of MEMA (Maryland Emergency Management Agency)	St. Mary's was the first jurisdiction in the State to have an approved Debris Management/Operational Plan – the Plan addresses the "removal, collection, disposal, and recycling of storm-related debris".
St. Mary's Solid Waste Advisory Committee was integrated into the Commission on the Environment – Resolution No. 2010-09, adopted on 2/23/2010, and Re-established with Resolution No. 2011-16, adopted on 6/21/11.	SWAC is currently a standing sub-committee and will continue to advise the Commission on solid waste management issues in St. Mary's County and to participate in planning.
"Watch List" • "Zero Waste" • "Bottle Bill" • Composting Facility Operator License / Certification	• Executive Order signed by Governor on 1/13/2015, with a state-wide goal of 85% waste diversion and 80% recycling by 2040 (see **Appendix F**) • Compost regulation update as of 2015

2.0 POPULATION, LAND USE, AND ZONING

2.1 POPULATION PROJECTIONS

The 2013 population in St. Mary's County was 109,633, according to the Maryland Department of Planning, Planning Data Services. This figure represents a 4.1 percent increase from the 2010 Census population of 105,151, and a 26.7 percent increase from the 2000 Census of 86,513. The Maryland Department of Planning projects the population to be approximately 113,900 in the year 2015, 125,150 in 2020, and 137,200 in 2025 in revised estimates.[1] The following table shows projected population figures for each year addressed in the Plan.

Table II-1. St. Mary's County, Maryland Population Projections 2013-2025[2]

Year	Actual Total Population
2013	109,633
2014	111,766
2015	113,900
Estimated Total Population	
2020	125,150
2025	137,200

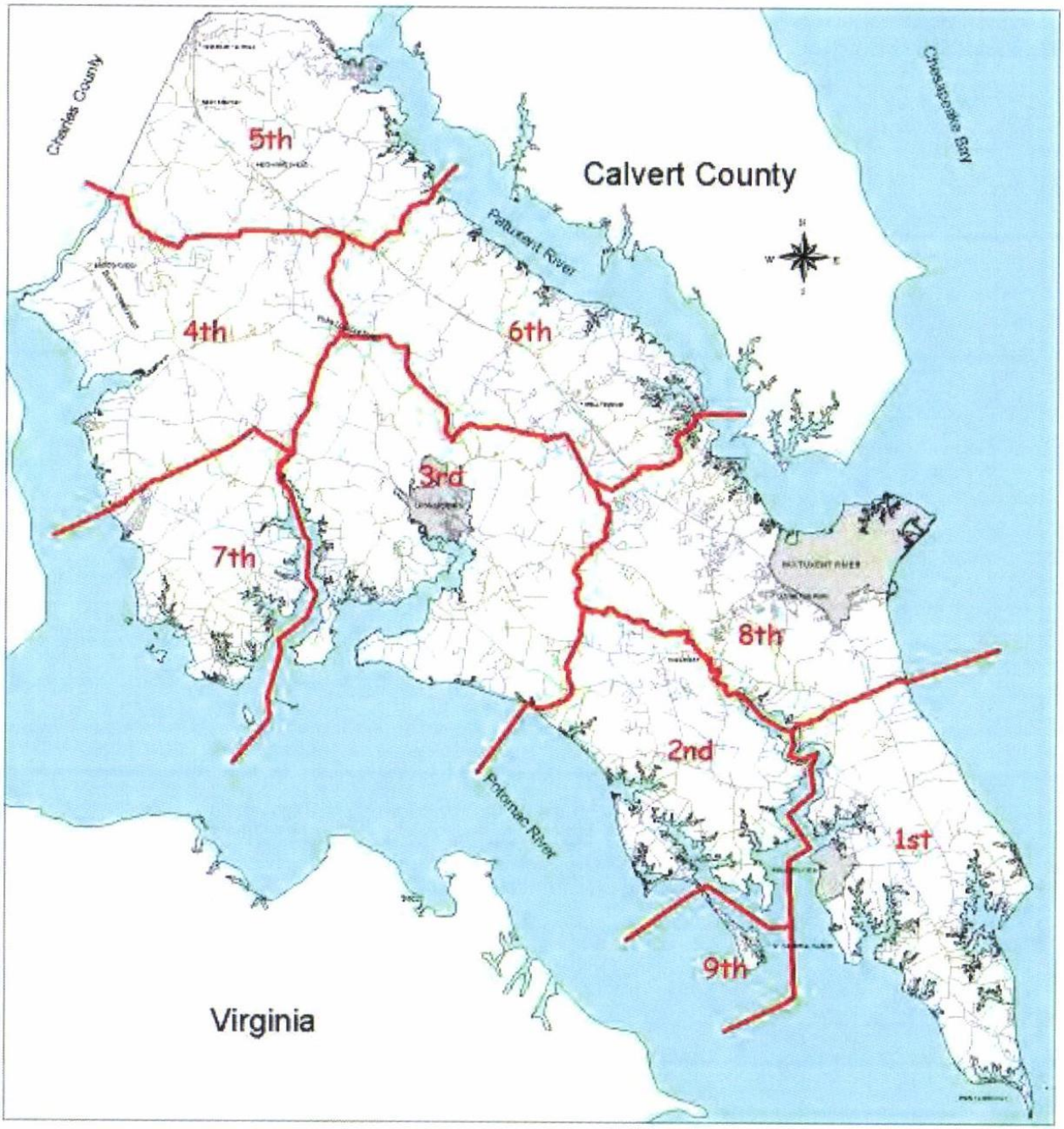
The estimates in **Table II-1** show a predicted annual population growth rate of approximately 1.87% during the 2016-2025 period, assuming the population growth follows the population growth equation ($P = P_0e^{rt}$).

[1] Maryland Department of Planning, Planning Data Services, (Revisions, January 2014).

[2] Population estimates for 2015, 2020 and 2025 as developed by Maryland Department of Planning. Values for other years are interpolated from five-year data.

2.2 MUNICIPALITIES AND FEDERAL FACILITIES LOCATION MAP

Under COMAR 2.603.03.03 C.2 a map which shows the municipalities and federal facilities must be included in the plan and is shown below. A brief description of County solid waste and recycling facilities is included for reference.



NAS Patuxent River occupies approximately 6,379 acres and is situated on the broad headland known as Cedar Point at the confluence of the Patuxent River and the Chesapeake Bay. OLF Webster Field occupies approximately 852 acres in St. Indigoes, MD, and is located approximately 7 miles to the south of Lexington Park on the St. Mary's River, just north of the confluence of the Potomac River and the Chesapeake Bay.

2.3 ZONING REQUIREMENTS

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

2.3.1 Existing Comprehensive Zoning Ordinance

In August 2010, the Commissioners of St. Mary's County approved the St. Mary's County Comprehensive Zoning Ordinance, "Zoning Ordinance", which was last amended on February 5, 2013. The Zoning Ordinance is intended to promote the orderly development of the County in accordance with the Comprehensive Plan. One purpose of the Zoning Ordinance is to promote the health, safety, order, convenience, and general welfare of the County's citizens. Another purpose is to provide for economic and efficient land development; encourage the most appropriate use of land; provide convenient and safe movement of people and goods; control the distribution and density of population to areas where necessary public services can be provided; protect historic and environmental areas; encourage good civic design; and provide for adequate public utilities, facilities, and services.

According to the Zoning Ordinance, public and privately developed solid waste acceptance, processing, transfer and/or resource recovery facilities – are considered approvable conditional uses in rural preservation districts and are considered permitted within the Industrial Zoned area under the respective limited standards. Approximately 80 percent of the land in the County is in these rural districts, although some small portion is developed with residences. In some industrial districts, recycling centers, processing facilities salvage / junk yards, solid waste acceptance facilities, transfer and/or recovery facilities, recyclable material collection facilities, and waste disposal services are permitted uses, subject to satisfying the Regulation of Use and Development Standards in Article 5

& 6 of the Zoning Ordinance. Collection receptacles for recyclable materials are allowable uses in all zoning classifications.

In addition, County-developed solid waste processing or disposal facilities or transfer stations could be approved in all districts if considered a "Government Facility" and meets the conditions identified in the Zoning Ordinance if the facility is necessary to provide adequate health, safety and welfare primarily for rural residents and all other conditions pertaining to such a facility.

All new conditional uses require public hearings and approval from the Board of Appeals. Applicants are required to give due notice to all contiguous landowners by certified mail at least ten days prior to the public hearing. Existing solid waste acceptance facilities, recycling facilities, and salvage and junkyards that were in operation prior to May 1974 are considered conforming conditional uses. The expansion or intensification of any such use is subject to approval by the Board of Appeals following a public hearing, unless the solid waste acceptance facility, recycling facility, salvage or junkyard is specifically identified in this Plan.

General zoning policies that will affect the development or expansion of solid waste management facilities include preservation of agricultural lands; minimization of contamination of surface and groundwater; minimization of soil erosion and runoff; minimization of pollutant emissions into the air and water; and maintenance of water quality, plant and wildlife habitats, protected wetlands, flood plains, steep lands, forests, woodlands, and other environmentally sensitive areas.

Another zoning consideration that is receiving increased attention with respect to solid waste acceptance or processing facilities is the creation of enterprise zones. Enterprise zones are defined geographic areas established by local and state jurisdictions as an economic development tool to stimulate investment and job creation in economically depressed areas. New or expanding companies are offered tax breaks, capital financing or various other incentives in return for locating their business operations in these areas. Recycling businesses, in particular, have benefited from enterprise zone programs. Currently, there are no enterprise zones in the County that might impact placement of solid waste management facilities.

Performance and general standards that would impact the construction of solid waste management facilities include those for the amount of land between structures (buffer yards); portion of land

area subject to disruption (building pad); building height; building distance from road (building line); floor area ratio; landscape surface ratio; surfaces which do not absorb water (impervious surface); and open space ratio. Performance and general standards were included in the last Comprehensive Zoning Ordinance update to ensure that no solid waste acceptance, processing, transfer, and/or resource recovery facility is sited within an established distance of a property line that is not part of the solid waste operations.

2.3.2 **Potential Issues for the Zoning Ordinance as Amended**

An important component of the Zoning Ordinance is the descriptions and definitions of various types of allowable and prohibited land uses. The detailed level to which descriptions are made for allowable and prohibited uses requires clear and unambiguous definitions. As types of solid waste acceptance and recycling facilities have evolved in Maryland over the past several years, so have definitions for them. Since solid waste management facilities are highly regulated by state and federal agencies (Maryland has received partial delegation regarding the implementation of the federal regulations 40 CFR Parts 257 & 258 regarding municipal solid waste and is seeking full delegation by the United State Environmental Protection Agency (USEPA), definitions for such facilities in the Zoning Ordinance that are consistent with regulatory agencies' definitions will assist the County's efforts for efficient application and review processes.

MDE requires that developers obtain permits from MDE for the construction and, in addition, for the operation of solid waste management facilities. Facilities receiving only separated recyclable materials separated from other waste materials, referred to as clean recyclables, and are exempt from permitting and operating requirements of MDE. A project developer must design a solid waste management facility such that it fits MDE's definition of a particular facility for which a permit will be sought. Should the County's Zoning Ordinance require the facility be designed such that it will not meet MDE's design standards, the developer would not be able to obtain a permit from MDE.

During development of this Plan, a number of facility types are allowed in specified zoning districts that are not specifically identified and lacking definitions in Article 9 of the current Zoning

Ordinance, but are defined in COMAR. For example Natural Wood Waste Recycling Facilities, and other regulated solid waste acceptance facilities are defined in COMAR, but are not specifically identified in the current Zoning Ordinance. A Natural Wood Waste Recycling Facility is defined in COMAR 26.04.09.02 as a facility where recycling services for natural wood waste are provided. Natural wood waste means tree and other natural vegetative refuse and includes tree stumps, brush and limbs, root mats, logs, leaves, grass clippings, unadulterated wood wastes, and other natural vegetative materials. Under the COMAR definition, a Natural Wood Waste Recycling Facility does not include a collection or processing facility operated by (1) a non-profit or governmental organization located in the State; or (2) a single individual or business that provides recycling services solely for its own employees or for its own recyclable materials generated on its own premises.

Solid waste transfer stations are allowed to be sited in the County per the Zoning Ordinance. It should be noted that the definitions of transfer stations in COMAR does not include Convenience Centers as operated by the County under their current design and method of operations. For purposes of COMAR, collecting points serving rural residential area are not considered to be transfer stations, provided that solid waste is not transferred from a collections vehicle to another transportation unit. Also, the movement or consolidation of a single generator's solid waste at the site of generation may not be considered a transfer station.

The Comprehensive Solid Waste Management and Recycling Plan references the current Comprehensive Plan and Zoning Ordinance and may be subject to revision if necessary based on amendments and revisions to the previously mentioned Plans.

2.4 LAND-USE PLAN

In March 2010, the County completed the preparation of an updated Comprehensive Plan which was adopted on April 6, 2010. The Comprehensive Plan, entitled "Quality of Life in St. Mary's County – A Strategy for the 21st Century" includes specific mandated elements as required by the Maryland Code and are; (1) Goals and Objectives, (2) Land Use, (3) Transportation, including provisions for bicycle ways, (4) Community Facilities, (5) Mineral Resources, (6) Land Development Regulations, (7) Sensitive Areas, (8) Provisions for Fisheries, (9) Economic Development and (10)

Interjurisdictional Coordination. The Comprehensive Plan also meets the minimum requirements for comprehensive planning in Maryland counties, contained in Article 66B of the Annotated Code of Maryland. The Comprehensive Plan also meets the minimum requirements for Critical Area Legislation, contained in Environmental Article 8-1808 of the Annotated Code of Maryland.

The goal of the Comprehensive Plan is to provide for planned and controlled growth to promote economic development while preserving the County's rural character and natural resources. Smart Growth initiatives as prescribed by the State are included in the Comprehensive Plan are comprised in eight general areas: (1) Development is concentrated in suitable areas, (2) In rural areas growth is directed to existing population centers and resource areas are protected, (3) Sensitive areas are prohibited, (4) Stewardship of the Chesapeake Bay and the land is a universal ethic, (5) Conservation of resources, including a reduction in resource consumption is practiced, (6) Economic growth is encouraged and regulatory mechanisms are streamlined, (7) Adequate public facilities and infrastructure under the control of the county are available or planned in areas where growth is to occur, and (8) Funding is available to achieve these areas.

Per the Comprehensive Plan, most of the expected population and housing growth in the County will occur in the development districts, namely Lexington Park and Leonardtown; therefore, community services and facilities will be concentrated in these areas. Town centers (Charlotte Hall, New Market, Mechanicsville, Hollywood, and Piney Point) and village centers (Callaway, Chaptico, Clements, Loveville, St. Inigoes, Ridge and Valley Lee) will be the areas of secondary growth, requiring a smaller increase in existing services and facility capacity. The Plan also promotes development in designated traditional rural service centers including Budds Creek, Oraville, Helen, Avenue, St. James, Dameron, and Park Hall. Development in these areas will allow the County to avoid negative impacts of non-farm development, including commercial facilities scattered along County and state roads in the rural areas and the need for extending utilities to these locations.

The Comprehensive Plan goals seek to configure housing lots into clusters rather than relying on minimum lot sizes to achieve desired densities. This will maximize efficiency in infrastructure that must be provided to home sites. Neighborhood conservation districts are scattered across the County and are expected to maintain the status quo; these districts include steep slopes, floodplains, wetlands and other features that make them too environmentally sensitive to support development.

In the context of these area designations, any new commercial development will be directed toward the development districts, town centers, village centers, and rural centers. Only development districts and town centers will be available for major new industrial or commercial facilities. Concentrated development in the development districts will prevent the extension of development to where utilities, public facilities and services, and employment opportunities cannot be expanded easily or efficiently. This practice will also ensure that the costs of providing additional facilities and services will be borne by those who stand to directly benefit. Because town centers are expected to experience some of the projected growth, they will be provided with additional services and facilities as their needs evolve. Furthermore, there is potential for some of the growth to occur in the village centers, which often are not served by central sewer and water facilities. While it is desirable to keep the village centers small in population size and physical area, they may, in time, be provided with centralized water and sewer services if a density of more than one dwelling unit per acre is reached. The remaining five classifications of County areas are expected to maintain their population and physical size.

In addition, the Comprehensive Plan specifies goals to coordinate with the Town of Leonardtown for land use, growth management, and transportation resources and with neighboring counties and the Tri-County Council for Southern Maryland for multi-county plans, programs, and activities. A policy within the Comprehensive Plan is to meet the increasing demand for solid waste management through the use of traditional and innovative methods by: encouraging participation in waste reduction, composting and recycling through public education; minimizing negative environmental impacts of proposed sites and facilities; and providing appropriate and convenient public facilities and programs.

3.0 EXISTING SOLID WASTE MANAGEMENT SYSTEM

The proper management and disposal of solid waste is essential to protect public health and the environment, as well as to preserve the quality of life and economic well-being of the State. Since the 1950s, municipal solid waste (MSW) has been managed predominantly through landfills owned and operated by local governments. Recent national trends and economic forces have resulted in the export and interstate shipment of solid waste for disposal in locations outside the political boundaries of the jurisdictions where the waste is generated. In fact, some local governments are no longer utilizing their MSW landfills, and instead are transporting waste out of Maryland for disposal. **Table III-1** below depicts the annual waste generation rates, for the St Mary's County population, through the ten year period of this Plan.

3.1 WASTE GENERATION PROJECTIONS

TABLE III-1

Annual Waste Generation in St. Mary's County
2016-2025

Waste Category	Annual Generation (Tons) [1]				
	2013 Actuals	**2016 Estimates**	**2019 Estimates**	**2022 Estimates**	**2025 Estimates**
MSW Residential	5,921	6,259	6,616	6,993	7,392
MSW Commercial	19,005	20,089	21,235	22,446	23,726
MSW Mixed	16,450	17,388	18,380	19,428	20,536
MSW Mixed - Not Accepted at Maryland Refuse Disposal Facilities	1,758	1,858	1,964	2,076	2,195
Industrial (solids, liquid, etc.)	-	-	-	-	-
Institutional (schools, hospitals etc.)	-	-	-	-	-
Demolition Debris (rubble)	17,126	18,103	19,135	20,227	21,380
Unknown Waste - Not Accepted at Maryland Refuse Disposal Sites	5,106	5,397	5,705	6,030	6,374

Land Clearing	12	13	13	14	15
Controlled Hazardous Substance (CHS)	-	-	-	-	-
Dead Animals	-	-	-	-	-
Bulky or Special Waste	-	-	-	-	-
Vehicle Tires	-	-	-	-	-
Wastewater Treatment Plant Sludges	-	-	-	-	-
Septage	-	-	-	-	-
Asbestos	2	-	-	-	-
Brick/Dirt	10	11	11	12	12
Special Medical Waste	100	106	112	118	125
Household Hazardous Waste & Antifreeze	-	-	-	-	-
Soil	107	113	120	126	134
Boats	18	19	20	21	22
Total MRA & NON MRA Waste Disposed	65,615	69,357	73,313	77,495	81,914
Total MRA and NON MRA Recyclables	60,234	63,669	67,301	71,139	75,197
Total Waste	125,849	133,027	140,614	148,634	157,111
Total Waste Generation [2]	125,609	132,773	140,346	148,350	156,811

[1]As requested in the MDE letter dated 8-11-2015, MDE data for "2013 Actuals" was used to estimate future waste generation. This data was multiplied by the observed average population growth rate in 2013-2015 to calculate the estimations.

[2] For "2013 Actuals," Total Waste Generation = Total Waste - Backend Scrap Metal Recycled = 125,609 - 240 = 125,609

3.2 BASIS FOR WASTE GENERATION PROJECTIONS

Initially, in order to provide the County with future waste generation projections, a series of estimations and calculations were used. When calculating the total MSW for the County, a unit of 4.38 pounds per person per day was utilized per USEPA guidance. Once the populations were projected this unit was applied to forecast 10 years of solid waste generation. In order to project recyclables, a 34 percent recycling rate (from the county's historical data) was used in order to

determine the amount of the waste stream which was recycled. To maintain conservative projections, no escalation factor was applied to the county's historically achieved rate. This process was also conducted to establish the Commercial, Industrial, and Institutional waste, utilizing 6.5 pounds per person per day unit and a 260 Day year. Again, the 34 percent recycling was applied and the total recycling then reported. All other numbers where projected out using the average increase on a year by year basis and estimating.

However, under the guidance of MDE, this methodology was not used in the final plan waste generation projections. Instead, data provided by MDE for 2013 waste generation was used to predict future annual waste generation, which was assumed to be directly correlated to the county population growth rate. The Maryland Department of Planning estimates for the 10-year population growth in St. Mary's County were used to derive an estimated annual growth rate. That growth rate was multiplied by the "2013 Actuals" MDE data to estimate future waste generation. The complete annual waste generation estimates are included in **Table III-1**. For more information on the population growth rate, see Section 2.1 of this Plan.

3.2.1 **Residential Waste Quantities**

In February 1989, scales were installed at the St. Andrews Landfill for accurate weighing of quantities of waste entering the facility. The State Department of Agriculture (DOA) Weighing and Measuring Device Certification must be renewed annually. Since that time, MSW originating from the residential and other sectors and construction and demolition waste quantities have been weighed at the scales prior to disposal. Beginning January 20, 1998, MDE mandated a Third Party Inspector inspect all loads prior to disposal at the rubble fill; all rejected partial or full rubble loads are directed to a roll-off container for final disposal offsite.

Landfill operations staff has prepared monthly reports of waste materials received on a weight basis since scales were installed. These reports indicate quantities received from the County's six Convenience Centers and from commercial haulers.

Based on a review of historical Landfill records, residential waste collected by private firms and previously logged in at the Landfill under the Business category is estimated to be approximately 45 percent of the category total. Although private haulers overall report an increase in residential

customers, a part or all of that increase could come from new residences constructed in the County. Also, since the County has expanded the opportunities for recycling services at the Convenience Centers, an increase in the quantity of waste received has been observed.

A small portion of residents in the more rural areas of the County have historically managed some or all of their waste on their residence property or farm. These generators have buried waste on-site, composted or burned waste (open and backyard) or used a combination of these practices. Although many residents managed waste in this manner in the past in rural areas, with the population growth in the County, expansion of collection services and the availability of the County's Convenience Centers, and with increased public education on approved waste management methods, the practice continues to decline.

The County maintains records of quantities recycled under programs it operates at the six Convenience Centers. Also, the County receives information from private firms regarding the types and amounts of materials that they recycle. Reporting firms are haulers and large generators of recyclables. When quantities recycled are added to quantities disposed, a reasonable estimate of total quantities generated results.

3.2.2 **Commercial Waste Quantities**

The "SW-Business" category was used by scale operators to record waste that was delivered to the Landfill by commercial, institutional, and industrial self-haulers and private waste collectors. Though this category is labeled as business waste by scale house reports, some residential waste also is included in this category because private haulers in the County service residential, commercial, industrial, and institutional customers and the loads are mixed, in some cases. In order to estimate quantities of waste in the "SW-Business" category that were actually generated by commercial accounts, St. Mary's Disposal now owned by Waste Management, Inc. (WMI), a private hauler in the County, was contacted to provide an estimated split among the different types of generators. Beginning on March 9, 1998, MSW from commercial sources was prohibited from being disposed of at the Landfill. Effective January 18, 2000, commercial haulers were prohibited from depositing rubble at the St. Andrews Landfill.

3.2.3 **Industrial Waste Quantities**

Industry generates two types of waste: (1) office-related and other non-bulky MSW, and (2) industrial process waste. COMAR defines industrial waste as any liquid, gaseous, solid, or other substance or combination thereof, resulting from any process of industry, manufacturing, trade, or business; or the development of any natural resource, including agriculture. Some types of industry, due to a combination of their size and the nature of their business, dispose of process waste as commercial waste. Examples of this are printing and sign businesses, and small wood products firms. Prior to the prohibition on MSW disposal at the St. Andrews Landfill, the MSW portion, except for Convenience Center deposits, was received from either commercial self-haulers or private haulers. Also, process waste that had characteristics of MSW (i.e., non-hazardous and non-bulky) was received at the Landfill under the "SW-Business" category. No attempt was made to separately categorize this type of waste.

Industrial process wastes generated in the County are nearly insignificant in quantity, a reflection of the small amount of manufacturing occurring in the County. Leonardtown Sand and Gravel generates silt as part of its mining and processing operations. Silt is dried in a designated area of the company's property and does not leave the site. Other manufacturing firms located in the County are estimated to dispose of their small quantities of process waste with MSW generated by the business.

St. Andrews Landfill received little or no agricultural wastes. Since no crop processing plants are operated in the County, agricultural waste is restricted to crop waste. Farms in the County leave crop waste on the ground after the harvest is conducted and turn this material into the soil in the following planting season.

Quantities of MSW disposed and recycled by the industrial sector are not recorded separately but are included in the commercial sector. Also, the County does not tabulate employment by sector of the economy. Thus, MSW and related employment figures are included in totals for Commercial Waste.

3.2.4 **Institutional Waste Quantities**

Institutions include schools and colleges, churches, government offices and facilities, prisons, hospitals, nursing and convalescent homes, military, and similar facilities. This waste is collected by private haulers under contract to the institutions, and portions of it that had been disposed of in the St. Andrews Landfill are categorized as "SW-Business." Due to the large size of the Patuxent River Complex in the County, institutional waste is a major component of the waste stream in the County.

The Patuxent River Complex, operated by the U.S. Navy and the largest institution in St. Mary's County, consists of two ground-based facilities: the Naval Air Station Patuxent River and Outlying Landing Field (OLF) Webster Field. Nearly all waste is generated at the Air Station, as OLF Webster Field has no quarters and only flight and flight-related activity.

MSW from the Air Station is collected under contract by Affordable Refuse since mid-2013. Affordable Refuse does provide data on quantities of waste collected. The contractor provides an array of front-load style boxes at most buildings on base and collects waste on a scheduled basis. The contractor also is responsible for providing disposal. This MSW is delivered to the Covanta Waste-to-Energy facility located in Alexandria, VA.

Waste characterization studies were conducted at the Air Station in 2000. These studies estimated that waste generation is an average of 0.32 tons per resident or employee (1.8 lbs. per resident or employee per business day). Based on an average combined residential and employee population (calendar year 2013), approximately 4,442 tons of MSW were generated. Recyclable materials collected during the same period amounted to 1,564 tons, for an estimated 2,878 tons of MSW taken to the WTE plant. There are no solid waste acceptance facilities at the Patuxent River Naval Air Station Complex. Asbestos disposal occurs during renovation or rebuilding projects, and contractors often are required to report these tonnages to the Navy.

It is estimated that the average MSW generation among various types of institutional waste generators approximates the commercial waste generation rate. As with the industrial sector, waste quantities and employment levels in the institutional sector are not separately recorded.

3.2.5 **Construction, Demolition, and Land Clearing Debris**

Defined acceptable wastes for rubble fills include non-hazardous construction, demolition, and land clearing debris. Included are materials generated at construction sites such as wood, plaster, metal, wallboard, ceramic, and packaging except for containers of hazardous substances such as paints, solvents, and adhesives and for paper products. (Paper products may not exceed ten percent of each load delivered to a disposal facility.) Similar materials generated at demolition projects also are acceptable for disposal at rubble fills. In addition, trees, limbs, roots and root mats, rock, soil, and sand generated from land clearing activities are acceptable. According to the MDE, in 2012, there were four (4) operating rubble fills in Maryland, all of which were privately owned.

The St. Andrews Landfill currently accepts only residential rubble at a flat fee rate of $10.00 per pickup truck load and $65 per ton for oversized loads effective July 1, 2006. A discounted "Green Waste" fee of $40 per ton was implemented July 1, 2012 for oversized loads of yard waste. Acceptable materials include: land clearing debris such as yard waste, brush, grass clippings, leaves, logs, tree stumps, logs and rock; residential construction and demolition debris which includes steel, concrete, bricks, lumber, plaster and plasterboard, insulation, shingles, floor tile and household appliances. Scrap tires may be accepted at the site as well. County residents are allowed five (5) passenger tires per trip for free. Excessive tire loads and oversize tires are assessed a fee of $158 per ton. Materials listed are currently sorted into scrap metal, yard waste, scrap tires and C&D waste and transported off-site to various facilities for disposal and/or recycling.

A private land clearing debris landfill, Knott Land Clearing Debris Landfill, d/b/a Great Mills Trading Post Co., Inc., which is owned and operated by Joseph Knott, is located in St. Mary's County and has been in operation since April 1991. This five-acre facility is permitted to accept land clearing debris. The facility does not have scales, but it does report estimated quantities of material received to the MDE. The site reported receiving 12 tons of acceptable material in CY 2013.

3.2.6 **Controlled Hazardous Substances**

Controlled hazardous substances (CHS) are treated under Maryland regulations as synonymous with hazardous waste. In order to classify as a CHS or a hazardous waste, a material must be a statutory solid waste, be designated by MDE to be "controlled," and fulfill the criteria of a hazardous substance. Title 40 CFR states "*Hazardous substance* as defined by section 101(14) of CERCLA, means: Any substance designated pursuant to section 311(b)(2)(A) of the CWA; any element, compound, mixture, solution, or substance designated pursuant to section 102 of CERCLA; any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act (42 U.S.C. 6901 *et seq.*) has been suspended by Act of Congress); any toxic pollutant listed under section 307(a) of the CWA; any hazardous air pollutant listed under section 112 of the Clean Air Act (42 U.S.C. 7521 *et seq.*); and any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act (15 U.S.C. 2601 *et seq.*). The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance in the first sentence of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas)."[3]

Maryland regulations divide hazardous wastes or CHS into several categories, including "Hazardous Waste from Specific Sources (State)," "Hazardous Waste from Non-Specific Sources," and "Discarded Commercial Chemical Products, Off Specification Species, Containers, and Spill Residues of These." A material that does not appear on any of these lists may still be regulated as hazardous waste or CHS if it is characteristically hazardous, namely if it is ignitable, reactive, toxic or corrosive.[4]

Private firms such as Safety Kleen provide hazardous waste collection services in the County. Primary services Safety Kleen provides in the County are the collection and recycling of petroleum naphtha used in auto parts cleaner devices, lacquer thinner used by auto body shops,

[3] 40 CFR
[4] Ibid.

and dry cleaning solvents (perchloroethylene). The company also collects other hazardous wastes. Wastes are collected and transported to the company's Glen Burnie facility for transportation to their recycling facility in Clayton, New Jersey. The other large firm providing these services in the County was Laidlaw Environmental, which recently purchased Safety Kleen, although the merged company uses the name Safety Kleen. Other firms such as Clean Venture offer hazardous waste collection services in the County, including household hazardous waste. Since 1991, MDE has not maintained records of individual generators of hazardous waste in each jurisdiction. Although each generator must report quantities and types, MDE compiles reported information and produces a summary of CHS for each year.

3.2.7 **Animal Carcasses**

Animal carcasses are disposed of by the State and County Highway Departments. According to St. Mary's County Highway Maintenance Department representatives, no records are kept on road kill counts with the exception of deer counts which are reported to the Department of Natural Resources.

When an animal carcass is reported along state or County-maintained roads, personnel are dispatched to the location. Department staff removes the animal from the roadway and disposes of it. Small carcasses are buried alongside the roadside, and larger carcasses are taken to an approved acceptance facility. The County plans to maintain these practices.

As a general rule, burial does not occur in areas with a high ground water table or in close proximity to lakes, streams, and wetland wells. In addition, precautionary measures discourage direct handling of the carcasses by employees, as animal(s) health is not known.

3.2.8 **Bulky Wastes**

Bulky waste is collected by residents self-hauling the materials to the St. Andrews Landfill. However, bulky waste collected by private waste collection firms must find alternative disposal facilities. Most bulky wastes in the County that can be recycled are targeted for recovery. Bulky wastes - such as scrap metal, large rigid plastic items or white goods that are identifiable in

incoming waste loads - are directed to the appropriate recycling collection area of the Landfill. The scrap industry has traditionally provided adequate outlets for used automobiles and other scrap metals, particularly higher value products, such as aluminum, copper, and steel.

The County has a contract with Maryland Environmental Service (MES) to recover and recycle Class I & II Chlorofluorocarbons (CFCs) from all air conditioners, freezers and refrigeration units. The scrap metal material is sold to the highest bid contractor who transports the material offsite, and it is ultimately recycled. The St. Andrews Landfill does not accept auto bodies.

3.2.9 **Scrap Tires**

Since passage of the Maryland Used Tire Storage and Disposal Act in 1989, tire dealers, recyclers, and tire collectors are prohibited from storing used tires unless they provide proof within 90 days that they have markets for them. If these tire handlers cannot provide written market agreements or document their efforts to secure markets, they must dispose of these scrap tires in a State-approved disposal system. Furthermore, the law empowers Maryland's Secretary of the Environment to initiate remedial action at sites where used scrap tire disposal is deemed to be taking place improperly or in an environmentally threatening manner.

The Maryland Scrap Tire Recycling Act, Section 9-228 of the Environment Article, effective February 1, 1992, established $1 per tire recycling fee on every new tire purchased in the State, including new tires sold as part of a new or used vehicle. A new fee of $0.80 per scrap tire, effective April 1, 2005, is collected by retail tire dealers at the point of first sale. The fee is sent to the Maryland Treasury, where it is transferred to the Used Tire Clean Up and Recycling Fund. The Act requires all scrap tire haulers, collection facilities and recyclers to be licensed. Funds from the Used Tire Clean-Up and Recycling Fund are to be used by MDE to administer and enforce appropriate

regulations, and by Maryland Environmental Service (MES) to establish and administer the system, fund stockpile abatement activities and demonstrate products made with scrap tires.

Since January 1, 1994, with the approval of House Bill 1202, scrap tires are no longer permitted to be disposed of in landfills. At that time, the Department of Public Works and Transportation established permitted scrap tire collection as a part of its services at the St. Andrews Landfill and continues to operate under an approved Secondary Scrap Tire Collection Facility License, which allows up to 1,500 scrap tires to be located on the St. Andrews Landfill property.

Residents of Saint Mary's County are permitted to drop off no more than 5 scrap tires, free of charge, at the recycling collection area located at the landfill; any residents with greater than 5 tires must pay a tip fee of $158 per ton. Commercial haulers do not have access to the facility. COMAR 26.04.08.10B (10) requires the Department prepare annual reports for submission to the State to monitor scrap tire disposal and storage activities. Up to ten (10) tires per vehicle are typically accepted. During the 2004 scrap tire amnesty day event, 32.1 tons (1,011 tires) were collected and recycled/disposed as part of the program. In addition, during the summer of 2005, the MES assisted the County with removing approximately 517 tons of tires from County-owned property in the Oakville area located on North Sandgates Road, also known as the Oakville Tire Cleanup Project.

The St. Andrews Landfill received and recycled approximately 273.61 tons of scrap tires in 2013. Based on an average weight of a passenger vehicle tire of about 20 pounds, the County total equates to approximately 9,472 scrap tires. The national average for tire discards is about one tire per person per year. In St. Mary’s County, this would have resulted in over 100,000 tires discarded. In most communities, the majority of discarded scrap tires are managed by tire dealers, since they generate discarded scrap tires with each sale of replacement tires.

In 2013, The Citizen Scrap Tire Amnesty Day collected 2,733 tires weighing 91.3 tons. MDE reimbursed St. Mary’s County $11,098 for advertising, and the cost of transport and disposal of the tires. In 2014, MDE funded an Agricultural Tire Amnesty Day which netted 128.6 tons of agricultural/farm tires from within the County. There were no limits on the amount of farm tires allowed for this event. However these events are funding dependent.

As previously mentioned, private companies provide collection services to tire dealers in the County, transporting the scrap tires to licensed tire recycling facilities within the State or facilities outside Maryland, including recyclers, retreading companies, used scrap tire dealers, combustion facilities, and landfills.

Facilities designated to be part of Maryland's Scrap Tire Recycling System must meet four requirements. First, they must have an appropriate tire recycling license issued by MDE. Second, the facility must be included in the county's solid waste management plan. Third, the operator must certify that the zoning is adequate for the facility location. Fourth, the facility operator must submit a financial assurance statement from a certified public accountant. A financial assurance statement documents the facility operator's financial capability to clean the site of scrap tires and related contamination should the facility close. A private business that is selected to be part of the Scrap Tire Recycling System has the opportunity to receive financial assistance and have scrap tires directed to that facility.

The County has a contract with WMI to transport used scrap tires from the Landfill to a permitted tire recycling facility such as the facility in Baltimore City. Under the terms of the contract, the contractor provides an open-top trailer at the Landfill for the acceptance of passenger, van, agricultural and truck tires. County personnel are responsible for loading the trailer and notifying the contractor(s) when it is full. The contractor(s) charges the County a fee to transport the trailer load of tires to a scrap tire recycling facility. Both the Landfill and contractor(s) have appropriate scrap tire handling permits. Under the agreements mentioned above, the County is able to claim up to 100% of this tonnage under the MRA report for the recycled scrap tires.

3.2.10 **Wastewater Treatment Plant Sewage Sludge**

As of January 2014, thirteen (13) Wastewater Treatment Plants (WWTPs) are located in St. Mary's County. The facilities are owned and operated by a range of organizations. The Metropolitan Commission (MetCom), an agency of the St. Mary's County Government, owns and operates five WWTPs. MetCom owns and operates the Marlay-Taylor Water Reclamation (WRF), which is the largest facility in the County, receiving more than 84 percent of all

wastewater generated in the County and producing more than 81 percent of the sewage sludge requiring management.

Ten WWTPs use a combination of biological and mechanical treatment processes that produce sewage sludge that must be removed on a regular basis, either to on-site storage or to off-site management. Three facilities use lagoon systems to treat wastewater. Sewage sludge generated remains on-site on the bottom of one or more lagoons and is removed at varying intervals. These facilities have been in operation for over 25 years and have yet to require sewage sludge removal.

3.2.11 **Other Wastes**

Due to the rural nature of the County and its modest population, other specialized waste streams generated in the County are limited. A formal Street Sweeping Program was initiated by the Department of Public Works and Transportation in the spring of 2013. This program is designed to remove winter abrasives from the roadway surface; improve appearance and safety; reduce maintenance costs; remove storm-related debris from the travel-ways; clean out the drainage-ways to assure positive drainage; and reduce pollutants from entering the Chesapeake Bay as one of the local watershed implementation plan initiatives. An unusually mild winter coupled with minimal use of abrasives and a "wet" spring often precludes the need for street sweeping. Roadways are monitored by Highway Road Foremen and prioritized through a rotating weekly schedule between maintenance service areas.

The Department of Public Works and Transportation has approval from the Metropolitan Commission (Effluent Permit SM 9955004) to use recycled, treated water for its highway maintenance vacuum truck and hydro-seeding operations.

The Town of Leonardtown contracts with T & T Sweeping for street sweeping services. Street sweepings from the Town reportedly are mostly sand and dirt and contain little if any trash. The contractor land applies street sweepings from the Town on an unimproved lot. Quantities collected under this program are unknown since they are not weighed. T & T is the major sweeping contractor in the County and provides services to shopping centers, office buildings,

and other customers. T & T does not obtain quantity data for sweepings disposed of in this manner. Although other contractors may offer sweeping services in the County, this firm is the predominant contractor in St. Mary's County.[5]

As previously described, agricultural waste in the County is restricted to crop waste - silage which is left on the field. Due to the lack of heavy industry in the County, no large quantities of specialized industrial wastes are generated. Other wastes applicable to St. Mary's County's solid waste management system are presented in this subsection.

3.2.11.1 Asbestos

The need for capacity to dispose of asbestos generally is a function of two variables: (1) the amount of asbestos waste created as a result of rehabilitation and/or demolition activities; and (2) the availability of current or projected reliable disposal capacity.

Asbestos is a Class I Toxic Air Pollutant and known human carcinogen according to *COMAR* 26.11.15.11. The Air and Radiation Management Administration, a section of MDE, specifies that asbestos must be disposed in facilities authorized by the Department for that purpose. Municipal landfills and rubble landfills can accept asbestos waste subject to certain handling procedures. Identification, handling and disposal of asbestos continue to be performed by independent certified professionals and private contractors. No quantities are estimated for historical generation of asbestos. When asbestos is encountered during a county funded building maintenance and repair project, it is removed and remediated by a licensed contractor.

3.2.11.2 Special Medical Wastes

Two Maryland agencies regulate medical wastes: MDE and the Department of Health and Mental Hygiene (DHMH). Each agency uses the term "special medical waste." Special medical wastes are considered to be Controlled Hazardous Substances (CHS) according to COMAR 26.13.11.01 (C). Whereas MDE regulations pertain to the identification, packaging, manifesting,

[16] Source: Thompson, Buddy. T & T Sweeping, personal communication.

and transporting of special medical wastes, the DHMH regulations outline acceptable methods for handling these wastes and rendering them non-infectious. Special medical wastes are considered infectious until they are properly treated. State law prohibits landfill disposal of untreated infectious waste; however, properly treated medical wastes may be landfilled.

Under COMAR 26.13.11.02 Special medical wastes include several material types include:

- Anatomical material;
- Blood that is in a liquid or semiliquid state;
- Blood-soiled articles that:
    - Would release blood in a liquid or semiliquid state if compressed; or
    - Are caked with dried blood and are capable of releasing the blood during handling of the items;
- A contaminated item that:
    - Would release other potentially infectious material in a liquid or semiliquid state if compressed; or
    - Is caked with other potentially infectious material and is capable of releasing the other potentially infectious material during handling of the item;
- Contaminated material;
- An infectious substance that can cause disease in humans;
- Microbiological laboratory waste;
- Other potentially infectious material that is in a liquid or semiliquid state;
- Pathological and microbiological waste that contains blood or other potentially infectious material; or
- Sharps.

A special medical waste generator is defined by the regulations to be "any person, business, government entity or group of people whose act or process produces a special medical waste" according to COMAR 26.13.11.02(B)(5) and (7) as well as COMAR 26.13.11.03(B). Generators that produce less than 50 pounds of special medical wastes per month, termed "small volume generators," are exempt from MDE's manifest and transport requirements but must meet

identification, packaging, and treatment regulations. Generators of more than 50 pounds per month must meet all regulations governing the management and handling of special medical wastes.

3.2.11.3 Septage

The Marlay-Taylor WRF is the only facility permitted to receive septage in the County. In 2013, the facility received and processed 2,072,990 gallons of septage from septic and holding tanks, which typically have a high BOD (Biochemical Oxygen Demand) concentration. In addition, 1,353,308,000 gallons of wastewater were treated.

Approximately 70-75 percent of the total improved properties in the County are estimated to be on septic systems. The remainder of improved properties is on public or private sewers. The frequency of septic tank pumping varies. Some residents who have malfunctioning septic systems may have their septic tanks pumped often. (Note: septage contractors utilize a number of disposal facilities in other jurisdictions, primarily at the Sweetwater WWTP in Calvert County and the Mattawoman WWTP in Charles County; because of this, it is difficult to estimate the percentage disposed of in St. Mary's.

The management protocol of septage in St. Mary's County can be identified in the Comprehensive Water and Sewerage Plan, updated November 2, 2012 and a copy is available on the County's website or at the Department of Land Use and Growth Management.

3.2.11.4 Flare Condensate

Beginning in 2013, the condensate from the landfill gas flaring process at the St. Andrews Landfill will be disposed of at the Marlay-Taylor WRF facility. MetCom has approved an annual volume discharge limit of 25,000 gallons per year ($0 charge for disposal). DPW&T will conduct semi-annual samples of the condensate and provide MetCom with the analysis. At such time the condensate is deemed stable for metals and VOCs (Volatile Organic Compounds), the sampling will be reduced to once a year. Prior to 2013, the condensate was transported and disposed of by an approved waste water treatment plant contractor at cost.

3.2.11.5 County Recreation Facility/ Special Events Waste

Due to the large amount of shoreline along the Potomac, Patuxent, and Wicomico Rivers and the Chesapeake Bay, the County has numerous parks and marinas. The inventory of parks, including some inland parks, is split between County and State ownership - collection and disposal of waste from these facilities is conducted by private haulers under contract to either the County or the State. The County's Recreation & Parks Department currently self-hauls the majority of waste and recyclables to the County Convenience Centers and supplements with private waste company collection services during the summer months.

3.2.11.6 Used Oil, Oil Filters and Anti-Freeze (Engine Coolant)

The County Convenience Centers as well as several private firms receive used motor oil and oil filters from consumers that change their motor oil. Details of this program appear in the Collection Section of this chapter. In 2013, 46,488 gallons of used motor oil were collected at the Convenience Centers. This is approximately 163 tons. 397 tons of additional used oil were (reported as) recycled by the commercial sector. The *Used Oil Recycling Act* prohibits the improper disposal of used motor oil. As of March 2013, MES collects and dispose of the used oil/filters at no cost.

A significant portion of used oil received at the Convenience Centers is being generated by consumers, or do-it-yourself oil changers. The commercial sector quantities recycled are assumed to be managed by facilities that provide oil change service to automobiles, trucks, boats, and construction equipment. In 2013, the County received 2,470 gallons of antifreeze, or engine coolant, which also is accepted at all six Convenience Centers. Due to the large intervals between changes of coolant for most vehicles, good data are not available for expected County-wide quantities generated. In fact, technology has changed during the 1990's, moving coolant changes from 36,000-mile to 100,000-mile intervals for modern passenger vehicles. Approximately 8-10 tons of used oil filters are collected and recycled by the County annually. The quantity of used oil and antifreeze collected at the six Convenience Centers and the County Public Works location for the most recent years is shown below:

Table III-2

Used Oil & Antifreeze Quantities:

	2013	2014
Used Oil (Gal.)	46,488	52,250
Antifreeze (Gal.)	2,470	1,955

3.2.11.7 Petroleum-Contaminated Soil

MDE regulates the disposal of petroleum-contaminated soil. The St. Andrews Landfill does not accept this material. Generators must use private licensed haulers to collect and dispose of this material in landfills permitted to accept it. Soil Safe, a company located in Brandywine, MD, Charles County, permitted to accept this type material, reported to MDE that they received 1,349 tons of contaminated soil from St. Mary's County in 2013.

3.2.11.8 Pharmaceuticals

There is a nationwide concern related to the abuse of prescription medication and our area is no exception. One of the easiest ways to obtain addictive drugs is in the household medicine cabinet. County residents occasionally clean out medical cabinets and may find expired, unused or unwanted Pharmaceuticals and wish to discard of the materials in a safe manner. Disposing of old or expired medication by flushing or discarding in the trash is a public and environmental concern. The traditional method of flushing pharmaceuticals down the drain is now being discouraged due to the materials being detected in our local water ways. Flushing medication has environmental concerns that include the inability for sewage treatment plants to remove all of the drug compounds during the water treatment process while certain drugs kill beneficial bacteria responsible for breaking down waste in septic systems. Many local pharmacies accept expired, unused or unwanted pharmaceuticals for free of charge. Please contact your pharmacy

for program availability and acceptance policies. In 2013, the St. Mary's County Sheriff's Office began a prescription drug disposal program. Located inside the Sheriff's Office Headquarters lobby is a secured collection bin which the public has 24 hour access to. Residents may drop off all nonprescription over the counter medications, prescription medications and pet medications. Acceptable materials include pills, liquids, ointments and lotions. Syringes, inhalers or a drug in aerosol canisters or chemotherapy drugs either in IV liquid or oral forms are **not** accepted. A pharmacist should be contacted for assistance with these particular items.

3.2.11.9 Mobile Homes, Trailers and Boats

The County accepts mobile homes and trailers for disposal at the St. Andrews landfill if all material is removed from within the unit and the trailer is dismantled and brought in on normal trucks. Any material disposed of in the landfill will be assessed a $65 per ton fee. Any material accepted for metal recycling, or any white goods would be accepted at no charge. Individuals are encouraged to obtain a copy of the County's Reuse Directory for the disposal of bedding, fabric, fuel tanks, wood, furniture, etc. within the unit that may be otherwise utilized prior to disposal. The County cannot accept any trailers that are intact as it would have to rent the necessary equipment and personnel to dismantle the trailer, such as a crane, cutting torches, etc. The trailers themselves weigh approximately five (5) tons and at the $65 per ton tipping fee would not offset the costs of disposal.

The County also accepts old and used boats, jet skis, canoes and rowboats at the St. Andrews landfill provided that: 1) they do not exceed 20 feet in length; 2) the motor and drive must be disconnected and removed, but may be disposed of at the same time as long as the customer places the motor/drive in the scrap metal pile; 3) all fluids must be drained from the fuel tank(s), oil reservoir(s) and/or holding tank(s); and 4) the battery(s) must be disconnected and removed, but may be dropped off at the same time as long as the customer places the battery(s) in the designated drop off location. All of the above mentioned criteria must be checked at the scale house prior to acceptance and is any of the above items are not met the water-craft must be rejected until such time the conditions are met. Any material disposed of in the landfill will be assessed a $65 per ton fee. Any trailer tires are accepted at no charge.

3.2.11.10 Household Hazardous Waste Days

The Department of Public Works and Transportation hosts two (2) household hazardous waste collection events every year at the St. Andrews Landfill and residents are encouraged to clean out their barns and basements; sheds, and garages; under their kitchen sinks and in their medicine cabinets; and take advantage of the opportunity to properly dispose of hazardous materials. At the collection events, the County accepts disinfectants; all kinds of paint, stains and polish; solvents and thinners; caustic cleaners; pool chemicals; lawn care chemicals; pet care chemicals; pesticides, fungicides, and herbicides; all kinds of batteries; thermometers; thermostats; fluorescent light bulbs; all kinds of aerosol cans; gasoline; kerosene; and other fuels. The County contracts with a licensed hazardous waste collection firm to characterize, segregate, properly package, transport, and provide for processing or disposal. Since 1999, the amount of material collected has increased to approximately 50 tons in 2013, at an estimated cost of $55,000.

3.2.11.11 Fluorescent Bulb and Ballast Recycling Program

The "Bulb and Ballast Recycling" Program, began in November 2005 and is designed to collect used fluorescent lamps, high intensity discharge (HID) bulbs, neon lamp tubing of all shapes and sizes, ballasts, boxes of lamps and drums for ballasts, then picked up by a certified recycler. There is no additional charge for this service at the Conv. Centers since the program is part of our Electronics Recycling initiative.

The program has been implemented at all six (6) Convenience Centers, the Building Services Division for maintenance of all County buildings and facilities, and is also being implemented by the Board of Education. Environmental compliance does not allow handlers to throw fluorescent lamps or ballast into a landfill, but required to assure they are either being recycled or disposed of in a permitted hazardous waste landfill. The Building Services and Solid Waste Divisions have purchased "The Bulb Eater". This unit crushes spent fluorescent lamps of any length into 100%

recyclable material and captures 99.99% of the vapors released. The system is mounted to a 55-gallon container and can hold up to 1,350 - fluorescent lamps.

3.2.11.12 Empty Pesticide Container Recycling

It is estimated that 25 to 35 million pesticide containers are sold each year in the United States. When empty, these containers consume valuable landfill space, and if improperly disposed, present a threat to ground water quality. To address this issue, Maryland Department of Agriculture has conducted annual collection programs since 1993. On June 11, 1996, St. Mary's County entered into a Cooperative Agreement to offer the Program to County residents.

Three (3) collection events are conducted in the State each year between June and September. Before empty containers can be accepted for recycling, they must be visually inspected by Maryland Department of Agriculture inspectors to ensure that they are clean and free of pesticide residue.

3.2.11.13 Illegal Dumping and Litter

The County has litter control program to address and help prevent ongoing littering activities primarily through several Clean Community Programs described on the County website at *http://www.stmarysmd.com/dpw/*. These activities include dedicated County Highways crews that utilize; Community Service and Inmate Work Release labor, Adopt-A-Road Programs, Community Cleanup Events (which includes the waiving of tipping fees), Neighborhood Litter Critter Program, Fall Clean-up Campaigns, Watershed Cleanups, Exhibits at Trade Fairs/County Fairs, Press Releases. The County maintains an online Maintenance Request and Clean Team Litter Report Form. The Department of Public Works & Transportation also works closely with the Health Department, Land Use & Growth Management, and the Office of the Sheriff to address known and reported illegal dumping and roadside litter areas.

3.2.11.14 Single Stream Recycling

Effective December 2006, the St. Mary's County Recycling Program implemented "Single Stream Recycling." This program offered at the six convenience centers and St. Andrews Landfill enables residents and the commercials sector to mix their recyclable items and which historically required presorting. The intent to increase the amount of materials collected for recycling simply by making it easier and simple. Following is a list of items that are acceptable as part of the Single Stream recycling: all plastics coded #1 through #7; glass containers; metal containers; aerosol cans; aluminum foil and pans; milk cartons; juice boxes and other aseptic/gable-top packaging; newspaper; magazines & catalogs; mixed paper and plastic film such as grocery bags, stretch film and/or shrink wrap.

Due to the overwhelming success of the Single Stream Recycling Program, the County has funded, procured, installed and operating stationary compactors with 40 cubic receiver boxes in order to manage the larger than expected volume of material. The stationary compactors replaced the 8 cubic yard front load and 30 cubic year roll-off boxes which do not allow the material to be compacted/compressed and transported accordingly. The new compactors enable the County to compact/compress the recycled materials and transport same in a more cost effective and efficient manner. Lastly, the new compactors utilize less space at the convenience centers, thus freeing up additional space for traffic flow, parking and additional containers as they become necessary.

3.3 DICUSSION OF WASTE EXPORTS AND IMPORTS WITHIN THE COUNTY

In this section, types of wastes and recyclables that are either exported from the County or imported into the County are discussed. To the extent that quantities of those materials are known, that information is presented. There are advantages and disadvantages to this interstate movement of solid waste. On the one hand, Maryland benefits from the lower disposal costs, preserved local landfill capacity, and increased environmental protection associated with exporting MSW to large facilities in nearby states. The long-term stability of these receivers of Maryland's waste, however, is not clear or certain and may necessitate arranging for alternative disposal options. Maryland has a strong interest in preserving its ability to manage solid waste in

the safest, most environmentally sound and cost-effective manner that maximizes the advantages of waste exports while diminishing the disadvantages of waste imports.

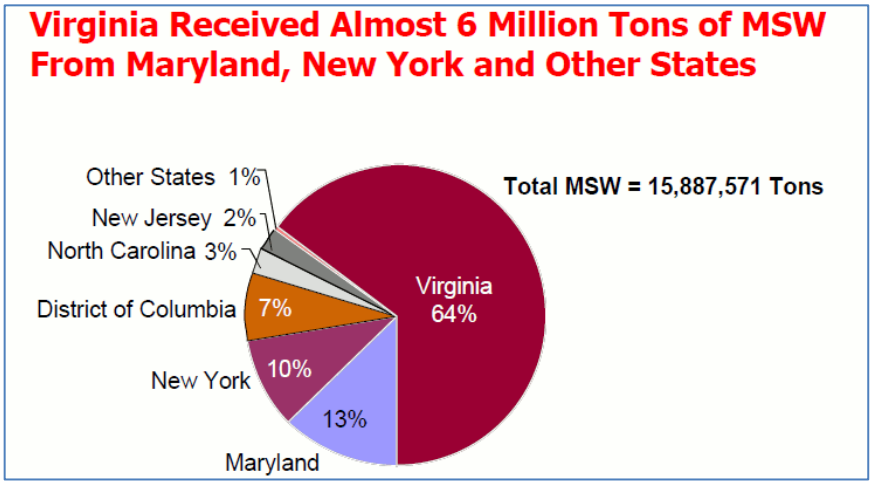
3.3.1 **Waste Export**

Changes in facilities, facilities' capacity, and disposal prices in recent years have resulted in the exportation of MSW generated in the County to publicly owned and privately owned facilities in the region and also out-of-State. Waste Management of Maryland operates the Transfer Station at the Appeal Facility, receiving waste from Calvert County sources and from other out-of-County sources, including commercial haulers operating in St. Mary's County. Calvert County's Department of Public Works owns the site and the scale house and also operates the scale house, weighing all waste deliveries to the Transfer Station. Calvert County estimates that it receives an average of over 3,000 tons per month from St. Mary's County sources, primarily from the commercial sector.

Several private companies operate large-scale landfills (mega fills) in eastern and south central Virginia. All of these landfills are merchant facilities, i.e., they were constructed to receive waste from sources outside the counties in which they are located. Daily receipts are limited only by conditions of host community agreements with the local jurisdictions where they are located or operating permits issued by Virginia Department of Environmental Quality (DEQ), and some facilities have no daily tonnage limitations. Most of these landfills have adequate long-term and daily capacity to accept quantities from St. Mary's County requiring disposal. In addition, there are WTE facilities in northern VA and MD with excess capacity beyond their immediate community disposal needs, and could be available for St. Mary's MSW.

Haulers in St. Mary's County could potentially make arrangements to use one or more of these landfills. However, as noted above, Waste Management uses the King George Landfill as its primary disposal facility, just across the Potomac River via the U.S. Route 301 bridge, for disposal of waste from its Transfer Station in Calvert County, as per its contract with Calvert County. As of July 1st 2015, the tipping fee will be $78.54.

St. Mary's County has begun assessing the availability of the excess capacity at facilities in VA and MD. At one point, the County was self-hauling and contract hauling their MSW from the Convenience Centers and the St. Andrews Landfill to VA. At present, the County is contract hauling approximately 19,000 tons to a WTE facility in VA, and the BRESCO WTE in Baltimore, MD is used as a back-up. In addition, approximately 6,000 tons of C&D is hauled direct to the King George Landfill in VA. However, for local special events, such as "Christmas in April", roughly 1,000 tons, are direct hauled to the Calvert Appeal Facility.



In addition to MSW, certain other wastes such as a portion of the construction and demolition waste, special medical waste, scrap tires, and other wastes are exported from the County for processing and/or disposal. Some of these materials, such as medical waste, require special treatment and disposal, and there are no facilities in the County for handling them. Substantially all special medical waste is exported, and the significant quantity of scrap tires is exported for processing, recycling, or disposal.

It is believed that perhaps more than half of the construction and demolition waste generated in the County, which is not otherwise reused or recycled, is transported to facilities in Prince George's County or out-of-state for disposal. Private commercial haulers utilize their own landfills in Virginia for the disposal of certain construction waste, after the removal of wood and metal and other recyclable materials. It is common practice in the industry to internalize as much waste as possible into company-owned facilities. Therefore, it can be expected that unless there is a significant cost savings to use sites other than affiliated disposal/processing facilities, private commercial haulers will continue to utilize their own facilities for most waste it collects.

3.3.2 **Recyclables Export**

With the exception of yard waste, the majority of the material collected for recycling in the County is exported for processing and/or sale to end users. Private firms located in the County receiving recyclables from programs are restricted to processing facilities that aggregate, process, and possibly upgrade materials prior to shipping them to final markets. No manufacturing firms (final markets) are reported to be located in St. Mary's County. Nearly 5,900 tons of yard waste delivered to the St. Andrews landfill in 2013 was mulched on-site and used within the County.

3.3.3 **Waste Import**

The County Solid Waste Ordinance prohibits the St. Andrews Landfill from receiving waste from sources outside the County. Only residents of the County may continue to deliver MSW to the Convenience Centers. Attendants at the Convenience Centers enforce this policy, prohibiting citizens approaching the Center that live outside the County from using the Centers, with the exception of small business operators who self-haul recyclables from businesses located in the County.

After the County reduced the tipping fee for MSW at the St. Andrews Landfill in August 1996 to $35 per ton, quantities significantly increased. The Landfill is located in proximity to the Solomon's area in Calvert County, which has a high tourist activity in summer months, and the entire southern portion of Calvert County, which has experienced significant residential growth. Because some private waste haulers service customers in St. Mary's and Calvert Counties, it would have been easy for haulers to deliver some waste collected from Calvert County sources to the St. Andrews Landfill. In March 1998, the County ceased accepting MSW from commercial haulers. In February 1999, the MSW cells were full but the rubble cell remained open and available to County residents only, thru July 2001. On July 1, 2001, the County began exporting its solid waste to alternative facilities. The tipping fee was increased to $52 per ton July 1, 2004 and then to $65 per ton on July 1, 2006. This is still the current tip fee in 2014.

The Knott Land Clearing Debris Landfill, operated by the Great Mills Trading Post, is restricted by permit conditions to receive only land clearing debris generated by sources within the County.

The County does not have enforcement personnel monitoring the inbound materials. Enforcement of this provision is difficult since material is not received from regular route collection trucks but instead is received from containers placed at demolition and construction sites which are of a short term nature, or from containers or dump trailers collecting land clearing debris at sites.

3.3.4 **Recyclables Import**

With the exception of certain recyclables collected in the Southern Maryland region by St. Mary's Disposal for consolidation and/or processing at their St. Andrew's Church Road facility, and aluminum beverage containers purchased by Guy Distributing, there are believed to be limited recyclables imported to the County for processing.

3.4 SOLID WASTE ACCEPTANCE FACILITIES

The *Annotated Code* of Maryland defines solid waste acceptance facilities as those whose primary purpose is disposing of, processing, or treating solid waste. Facilities meeting this definition include sanitary landfills, processing facilities, transfer stations, rubble (construction and demolition waste) landfills, land clearing debris landfills, and resource recovery facilities. In St. Mary's County, the County-owned and -operated solid waste acceptance facility is the St. Andrews Landfill. The County also owns six Convenience Centers where residents may drop off residential waste and recyclables. Other limited private facilities exist in the County. These are described more fully in the sections that follow.

Historical Overview. In the April 16, 1963, Commissioners of St. Mary's County minutes, eight Public Trash Disposal Areas were identified. Historically, contracts with private landowners were negotiated on an annual basis with built-in renewal options as a means for handling solid waste in the County. Eventually, the Mechanicsville (Half Way House), Old Sandgates, Maddox and Compton (off MD Route 234) Public Trash Disposal Areas were closed on March 1, 1971, as a result of the opening of the Oakville Sanitary Landfill. The current St. Andrews Landfill Area B, opened in 1981, and the Oakville site remained the primary State permitted areas with an

estimated refuse disposal rate of between 30-50 tons per day each. The St. Andrews Convenience Center was added by the County in the summer of 1981. The Ridge (4.5 acres leased July 1976 – Jan. 2002 and subsequently purchased) and Valley Lee (165.17 acres) County "Dump Sites" were finally closed and converted into Convenience Centers and equipped with compaction trailers in 1986. The Oakville Sanitary Landfill was closed in April 1983 and also converted into a Convenience Center. With the addition of the Clements Convenience Center in September 1988, the Clements Landfill Closure plans were begun and ultimately completed in October 1992. The Solid Waste Management Plan's recommendation to build a 5th Election District (Charlotte Hall) Convenience Center was eventually accomplished in 1992 on the current 118.65 acres site. The ultimate planned use of the Oakville (275.75 acres), Clements (47.13 acres) and St. Andrews (265.09 acres) sites is to provide expanded recreation and park facilities. The Clements, Oakville and Valley Lee locations will be evaluated to determine the feasibility of incorporating expanded solid waste/recycling facilities on-site.

3.4.1 **St. Andrews Landfill**

St. Andrews Landfill is the only landfill permitted in the County to receive MSW and C&D material from county residents only; however the County ceased landfilling operations at the site in July, 2001. The Landfill is owned by the County and operated by the Department of Public Works & Transportation, using a dedicated Solid Waste Division staff. In the case of extraordinary workload at the Landfill, the Department has the ability to temporarily use Highways Division personnel to assist in landfill operations. Currently, the landfill property is utilized as a homeowner drop-off site for scrap metal, used appliances, automotive batteries, gas cylinders, scrap tires, yard waste, brush, land clearing debris, rubble material, residential bulk waste, and rigid plastic recyclables along with single stream recyclables. Items are sorted and placed in dedicated areas and the materials are then transported to various solid waste and recycling acceptance facilities. During calendar year 2013, the St Andrews Landfill facility accepted 11,845 tons of waste. It is anticipated that the site has approximately 15 years of service life remaining, depending on the specific waste streams accepted in the future.

The Landfill is located at 44837 St. Andrews Church Road (Maryland Route 4), in California, Maryland, immediately behind the County Department of Public Works and Transportation building. A copy of the Master Plan for the St. Andrews facility is included in **Appendix D** and additional facility information is provided in **Appendix E.**

3.4.1.1 Site Description

The area located in the northeast section of the site, immediately behind the Public Works Operational Complex, is referred to as "Area A". It was used for landfilling until it was closed in 1980. This area is capped and for many years has been used as a storage/staging area for equipment and supplies. In September 2008 (and renewed in 2013) the County obtained MDE permit# WPT-0624 for approval of a transfer station and processing facility in "Area A" as an operation operational contingency (see **Appendix D**).

St. Andrews Landfill includes a total contiguous site of 270 acres, of which 36.8 acres is currently permitted for municipal solid waste for landfill expansion, if needed. (Area B is utilized as a residential drop off center for yard waste, scrap metal, tires, solid waste, and recycling material.) The site is divided into multiple areas. A closed area in the center of the site was used more than 30 years ago for land filling waste. This portion of the site, closed several years ago and covered with a layer of soil, has supported grasses and trees since then.

Since 1981, landfilling has been conducted in Area B, which is approximately 55 acres located in the southeast portion of the site. All traffic approaching the Landfill enters the site through the main gate on St. Andrews Church Road, stops at the scale house for weighing, and then proceeds to Area B consisting of five cells. The County constructed a final cover system and it includes a gas collection and extraction system over the entire Area B (Cells 1, 2 & 4 – 2001/Cells 3 & 5 – 2003) as per Federal and State Regulations. In 2010, Refuse Disposal Permit #2010-WMF-0138 (expires 11/7/2015) was renewed again by the Department of the Environment for an expansion of the St. Andrew's Landfill thus allowing the County to construct a new cell (Area C). The permit is maintained as a future operational contingency.

3.4.1.2 Final Use Plans

Although the best and final use of County landfills was difficult to predict 15-20 years ago, a tentative plan was developed in 1974. At that time, the plans were to set aside about five (5) acres at each landfill for community recreation such as softball fields and picnic areas. It was thought that the balance of the properties could be used to meet open space requirements, forest conservation and retention provisions, wetland mitigation banking areas or designated as school parklands. The County remains open to private sector proposals for the possible installation of solar and/or photovoltaic applications atop the St. Andrews and Clements closed landfills. It was also suggested that, the Oakville and St. Andrews areas could accommodate recreational or agricultural use.

Final Use Plans should be considered during the design stage so that an appropriate final grade plan can be developed. Aesthetics is a primary consideration which may include establishing visual buffers (berms, plantings and natural wooded buffers) from adjoining properties and within the site. Irrespective of the planned/approved final use, landfills should be allowed to "sit" for several years before construction since the greatest amount of settlement occurs at the beginning of a landfill closure. The St. Andrews Landfill continues to provide a drop-off location for scrap metal, appliances, scrap tires, yard waste, bulk waste and demolition waste for the residents of the County. These items were historically accepted when the landfill was in operation, however due to the closure and subsequent capping; accommodations were made to continue this valuable service. An asphalt parking lot and concrete retaining wall now serve the residents as supplemental service to the six (6) Convenience Centers.

3.4.1.3 Scale Facility

The scale operation consists of a single low profile scale, an adjacent scale house that houses the computer weigh-in and record keeping system. The operation is used to weigh loads of waste entering the Landfill, to monitor recycling contractors' reporting, and to issue permits. The scale meets COMAR requirements for commercial service weighing devices and the County maintains a registration for the scale with Maryland Department of Agriculture Weights and Measures

Section, which is renewed each year. The existing scale and computer hardware and software will be upgraded to accommodate an additional scale (creating separate inbound and outbound scales) for the increased usage at the facility if the landfill expansion and/or transfer station is constructed.

Waste collection vehicles are weighed when entering and again when leaving the Landfill to determine the load weight for billing purposes. Authorized waste transport vehicles have tare weights of their trucks on record at the scale house and are periodically weighed empty for verification purposes pending the installation of an outbound scale which is planned as a future facility upgrade.

3.4.1.4 Residential Permits

In order for a resident to deliver waste to the Landfill, the vehicle must display a County-issued permit sticker on the vehicle's windshield. Residents must prove residency and complete an application to obtain a sticker. No fees are imposed for obtaining a permit sticker. Residents self-hauling solid waste, rubble, or yard waste to the Landfill are assessed a $10.00 flat fee (effective 7/1/04) per standard pick-up load, approximately 500 pounds. Loads in excess of this amount are weighed and assessed a tipping fee at the commercial rate of $65 per ton (effective 7/1/06). Effective July 1, 2012 a new Green Waste Fee of $40 per ton is charged for oversize loads of yard waste, which includes: brush, leaves, grass clippings, logs, limbs and stumps. Oversize mixed loads of solid waste and yard waste will be subject to the $65 per ton fee.

The Department of Public Works and Transportation has the authority to waive the imposition of fees for various classes of clean fills, rubble, or other materials when it is determined to be beneficial to the County, such as fill dirt, trash from alongside roadways, Christmas in April events, severe weather emergencies, park litter control, community clean-up efforts, and other sources.

Residents of St. Mary's County are permitted to drop off no more than 5 scrap tires at the recycling collection area. Residents with more than 5 tires are assessed $158 per ton for the

disposal of scrap tires at the same area. Also, residents may drop off white goods, including refrigerators, freezers, washers, dryers, stoves, hot water heaters, and air conditioners at no charge. Only waste generated in the County is to be accepted for disposal at the St. Andrews Landfill. The Landfill is open 8:00 a.m. to 4:30 p.m. six days a week. It is closed on Sunday.

3.4.1.5 Rules and Regulations

Types of waste accepted at the Landfill are strictly governed by St. Mary's County's Solid Waste Ordinance and Rules and Regulations for Use of Solid Waste Disposal Facilities in St. Mary's County. The Solid Waste Ordinance describes various administrative requirements associated with the use of St. Mary's County solid waste acceptance facilities as required by MDE and Maryland Department of Health and Mental Hygiene. Penalties for improper disposal and other ordinance violations are defined.

Under Article 25 of COMAR, the County Commissioners are empowered to prescribe and enforce Rules and Regulations concerning the operation and manner of use of their solid waste disposal facilities. The first rules and regulations became effective on March 1, 1971 and were subsequently amended on August 1, 1991, August 12, 1996, and March 9, 1998. The resulting Resolutions adopted by the Commissioners describe operations, permitting, acceptable and non-acceptable waste and the fee schedule for disposal of material at all County-operated facilities. They also specify the prohibition on loitering or scavenging.

On March 9, 1998, the County put into effect amendments to the Rules and Regulations to prohibit the disposal of municipal solid waste at the St. Andrews Landfill by commercial and industrial (including institutional) waste generators. In 2004, Resolution No. 04-30 was adopted authorizing the Commissioners to set facility hours of operation. Resolution No. 2006-40 allows Commissioners to establish a schedule of fees for use of the Solid Waste Acceptance Facilities. Effective July 1, 2012 the Rules and Regulations were amended to include a new Green Waste Fee for oversize loads of yard waste. Copies of the Rules and Regulations are made available to the public at the offices of the Department of Public Works & Transportation and are posted on the County's website.

3.4.1.6 Reporting Requirements

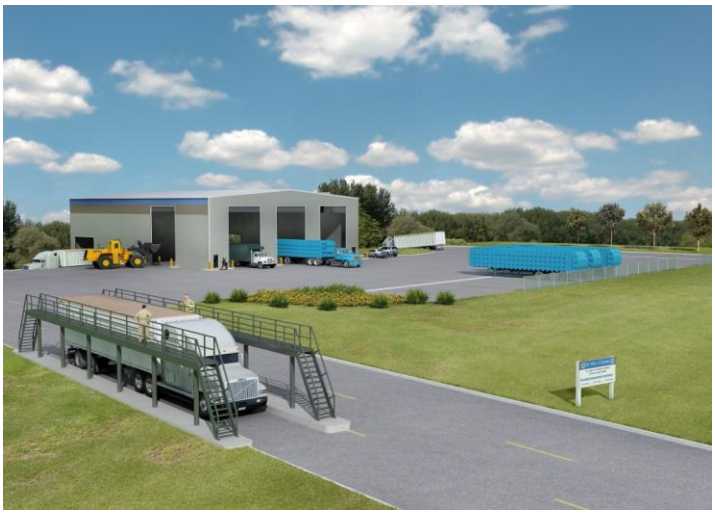
In accordance with the County's current Refuse Disposal Permit, MDE requires the County to submit an annual report concerning the operation and status of the St. Andrews Landfill for each calendar year. The report includes total quantities of waste received and transported from the Landfill; estimated remaining capacity; the projected date at which the Landfill will reach its permitted capacity; and a topographic map of the facility prepared within the last three months of the reporting period. Separately, in accordance with the Maryland Recycling Act (MRA), the Department annually prepares and submits a report to the MDE's Recycling Services Division that includes the total quantity of (MRA) waste generated in the County, types and quantities of materials recycled, and the overall recycling rate.

3.4.1.7 Approved Expansion Plans

In October 1995, MDE issued Refuse Disposal Permit No. 1993-WSF-0138-0 to the Department of Public Works and Transportation for the upgrade, expansion, and continued operation of the Landfill in the area known as "Area C." The most current permit is 2010 WMF-0138 Area C was designed and approved to consist of three cells that meet all Federal and State design and operational standards. Area C is planned to be constructed on a 55-acre parcel adjacent to the existing Landfill site, which was purchased by the County in January 1987. An additional expansion area known as Area D (See **Appendix D**) could be designed and permitted to provide an additional 1.5 million cubic yards of capacity. The design includes a leachate pre-treatment facility and/or a storage facility, a state-of-the-art liner system, and a series of surface and groundwater monitoring wells.

The County has not constructed Area C but retains the permit and design as one of the County's contingency plans. The site would then have an additional 13 to 15 year life-span (residential waste from convenience centers only) or 7 to 8 years (residential & commercial waste), if the County chooses to proceed. In lieu of on-site leachate treatment, the County will consider the efficiency associated with a haul & treat alternative. In addition, the County initiated the Phase I application process for the Area D portion of the site, which would provide additional disposal

capacity, comparable to Area C. To date, no additional evaluations regarding the feasibility of developing, operating, and closing the area.



As mentioned previously, the County has obtained local and state approval to construct a transfer station and processing facility under the initial Refuse Disposal Permit No. 2013-WPT-0624 (subsequently renewed, remains active). The approved St. Andrews Transfer Station and processing facility is permitted to be constructed in the "Area A" portion of the landfill site (**Appendix D**), and is designed to accommodate up to 100,620 tons per year of municipal solid waste generated within St. Mary's County. The permitted capacity of the facility can be modified upon request. Further discussion is provided in Chapter 5.2.2 of this Plan.

3.4.2 **County Convenience Centers**

As discussed in section 3.5.1.1, St. Mary's County owns and operates six (6) facilities where County residents may drop off waste, recyclables, used motor oil, used antifreeze, fluorescent bulbs, etc. Maryland State Grid Coordinates for the Convenience Centers are shown in **Table III-3.** For further information, consult section 4.4.3 of this Plan.

3.4.3 **Knott Land Clearing Debris Landfill**

Aka – "Great Mills Trading Post" owns and operates a private land clearing debris landfill in St. Mary's County. The company also operates a sand and gravel mine at the same site. The landfill has been in operation since 1991. The company accepts loads of naturally occurring materials from land clearing operations from commercial contractors. Material accepted for disposal includes stumps, limbs, soil, rock, and roadway debris generated by land clearing and road

construction activities. Five (5) acres were permitted for use as a landfill. The company reported in 2011 that approximately 80 percent of the permitted capacity had been utilized and that less than 1% percent of the remaining capacity is being consumed each year. Based on this report, it is assumed that as of 2011, the facility had a remaining life of approximately 20 years. During calendar year 2013, the facility accepted 12 tons of waste. It is anticipated that the site has approximately 15 years of service life remaining as of the writing of this Plan. Metal, scrap tires, and asbestos are not accepted at the facility. The site is not equipped with scales. Additional facility information is provided in **Appendix E**.

Great Mills' crushing operation was granted a special exception by St. Mary's County in October 1990 and has been operating since then. The company accepts loads of asphalt and concrete rubble for crushing and subsequent marketing. The company operates a mobile jaw-type crushing machine, which can be operated at the site or taken to an off-site project. Essentially all material processed by the crusher leaves the site, destined for customers, per Great Mills Trading Post personnel.

3.5 WASTE AND RECYCLABLES COLLECTION SYSTEM

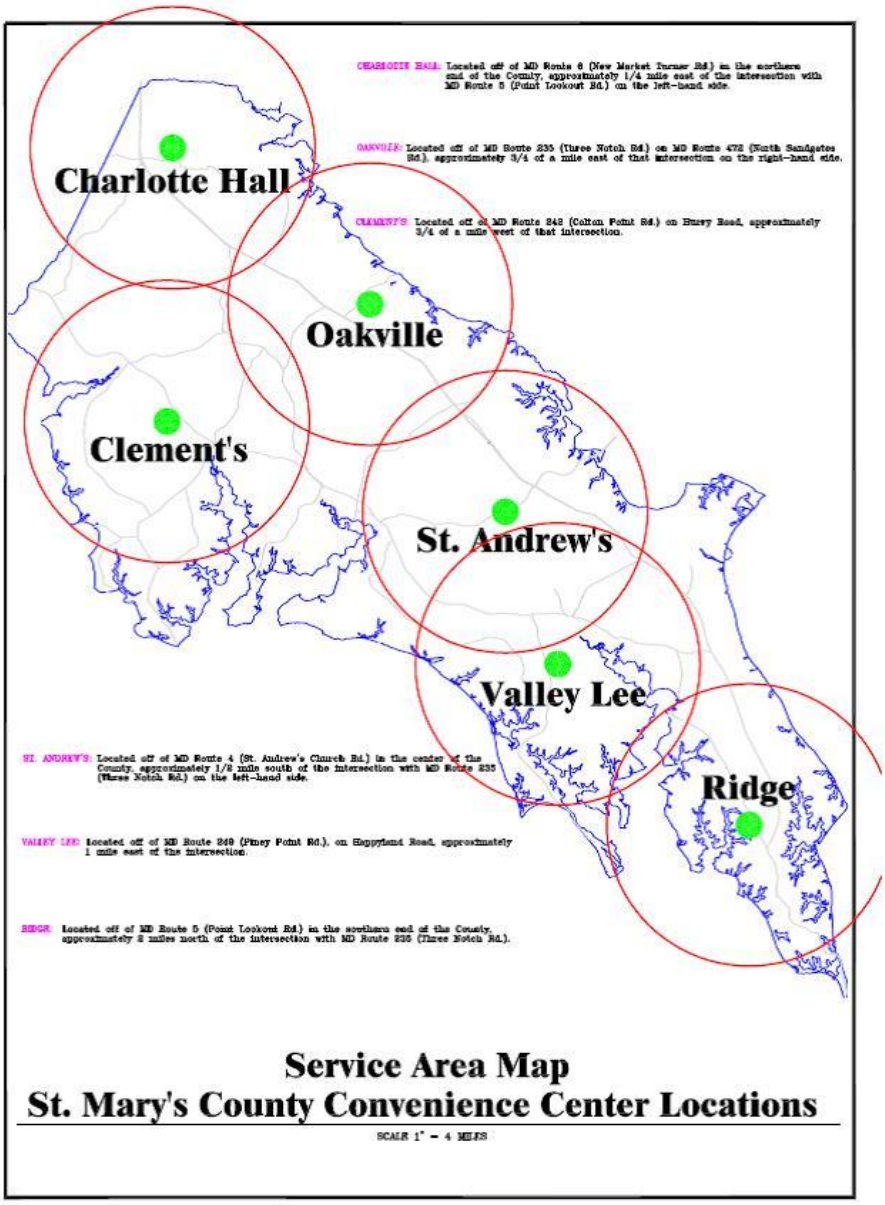
Resources provided by St. Mary's County government and by private firms to collect various types of waste and recyclables are an essential part of the solid waste management system. Existing resources of personnel, vehicles, and facilities used to provide collection services need to be clearly identified to facilitate feasible changes that might be needed in the future. In this section, these collection resources are described.

3.5.1 **Solid Waste**

Both the County and private firms provide collection services in the County, as described in the section below:

3.5.1.1 County Convenience Centers

St. Mary's County owns and operates six facilities where County residents may drop off waste, single stream recyclables, used motor oil, oil filters, antifreeze, electronics, fluorescent bulbs and ballasts, used cooking oil and grease, textiles, rechargeable batteries, and seasonal phone book, and oyster shells, and Christmas tree recycling. The Centers are open Monday through Friday from 9:30 a.m. to 5:00 p.m., and on Saturday and Sunday from 8:00 a.m. to 5:00 p.m. year round. The Centers are closed for seven (7) major holidays per year – New Year's Day, Easter Sunday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.



In the recent past the County has conducted customer surveys regarding site hours, and has even experimented with expanded hours, but it was determined the current opening/closing times are the most suitable for the public. Although typical Service Areas may vary from site to site, (as low as 2-3 miles in higher populated urban areas) the County's Convenience Centers were planned based on a ten (10) mile radius which provides Countywide-coverage in a rural community setting. Specific site information regarding each site is shown on the table below:

Table III-3

CONVENIENCE CENTER SITE INFORMATION

Site Name / Address	Size (Acres)	Acquisition Date	Permit Status	Maryland E (US ft E)	Maryland N (US ft N)
Valley Lee 45350 Happyland Road	117.17	5/5/1970	NA	1,454,249.00	197,681.02
Oakville 26630 North Sandgates Road	244.75	8/1/1967 & 3/31/1969	NA	1,418,292.69	266,173.74
Ridge 13939 Point Lookout Road	4.5	1/18/2002	NA	1,491,086.19	168,787.23
Clements 24547 Horseshoe Road	47.43	7/28/1971	NA	1,379,787.83	246,461.28
Charlotte Hall 37766 New Market Turner Road	118.65	12/4/1978	NA	1,377,337.56	294,346.95
St. Andrews 44595 St Andrew's Church Road	Site A&B 270.65 Site C- 55.41	1971-1984 2/11/1987	Active	1,449,368.98	227,398.85

Each Convenience Center is secured with fencing and a locking gate which maintain an operational area of between 5 to 10 acres. Each site has the following equipment:

- Recycling compactor with a front loading "hopper" and a 40 cubic yard container for accepting Single Stream recycling material.
- Waste oil receiving tank(s) and oil filter container(s).
- Used antifreeze receiving tank(s).
- Enclosed sealed container for electronics.

- A minimum of one (1) compacting style transfer trailer with a front loader hopper to receive residential solid waste. St. Andrews and Charlotte Hall have two (2) trailers, and other Centers may use roll-offs to provide backup capacity.

Residents may deliver up to four 35-gallon containers of waste, or the equivalent, per trip to the Convenience Centers. Residents with a greater amount of waste must deliver it directly to the St. Andrews Landfill. Certain waste types may not be delivered to the Convenience Centers, including scrap tires, yard waste, white goods or other bulky wastes. Instead these items must be delivered to the St. Andrews Landfill. No special wastes such as asbestos or medical waste may be delivered to the Convenience Centers or the Landfill. Each Convenience Center is staffed with an attendant to direct users to segregate wastes and recyclables and deposit them in the designated container. The attendant also directs residents having prohibited materials such as bulky items to the Landfill. When the recyclable and/or MSW container(s) are full and need to be serviced, the attendant contacts the scale person at the landfill who calls the contractor to pull the appropriate containers at their site.

3.5.1.2 Private Haulers

For many years, private haulers applied to the County Department of Public Works and Transportation for a license to collect waste, and the Health Department inspected the vehicles. In addition, each collection vehicle received a sticker to identify the hauler billing account at the Landfill scales. This practice may resume if and when private haulers are permitted to use the St. Andrew's Landfill facility and/or transfer station in the future, or if the current Solid Waste Ordinance is revised to include such inspections.

Residents not wanting to use the Convenience Centers can contract with one of the permitted private haulers in the County. An exception to this is the municipality of Leonardtown, where residents' waste is collected by a private hauler under contract to the Town. In all other parts of the County, residents must contract individually with a hauler.

As a result of previous actions by the Commissioners of St. Mary's County via Resolution dated March 9, 1998, the St. Andrews Landfill Facility no longer receives MSW or rubble from private

haulers; only residential rubble and excess amounts of residential waste not accepted at the convenience centers are allowed to be delivered to St. Andrews Landfill. Private haulers must take MSW and C&D waste out-of-County to a facility of their choice.

Companies such as - Waste Management Inc., Goode Trash Service, Bay Area Disposal, Affordable Refuse, Calvert Trash Service, Evergreen, etc., - provide collection service throughout the County to residential and commercial customers alike, including temporary roll off service at construction sites.

3.5.2 **Recycling**

The following additional recycling programs are provided in the County on an ongoing basis, as described below:

3.5.2.1 St. Mary's County Public School Recycling Program

1. St. Mary's County Public Schools' Recycling Plan

The intent of Environment Article, Annotated Code of Maryland § 9-1703(b)(10), is to require recycling in public schools. The code required that the public school system's strategy for recycling in public schools be included in the update to the county's Comprehensive Solid Waste Management & Recycling Plan by October 1, 2010.

It is the responsibility of the Commissioners of St. Mary's County (CSMC) to ensure the implementation of the county schools' recycling programs. The CSMC works with the Board of Education of St. Mary's County to provide resources and information for the continued development of the recycling plan for the public schools. If needed, the Commissioners may also direct the St. Mary's County Department of Public Works & Transportation, Division of Solid Waste, to develop recycling plans and implement recycling programs for the respective schools.

St. Mary's County Public Schools' (SMCPS) recycling plans must be completed no later than October 1, 2010, and public school recycling programs must be operating no later than October 1, 2010. To date, all St. Mary's County Public Schools have recycling plans in place and are participating in a recycling program.

SMCPS' comprehensive Green School Program has a mission to, "Educate, encourage, and support participation in sustainable activities that better use natural and economic resources and take into account the needs of future generations, as we "Work, Live, and Learn for Tomorrow." Recycling is a major initiative of the Green School Program. SMCPS began its recycling program by recycling cardboard in 1998. In January 2007, SMCPS began consolidating recycling efforts by partnering with a service provider that offered the ability to collect recyclables through a single stream recycling program. The single stream process allows recyclable items to be commingled, making collection of the items easier. This provides SMCPS with the opportunity to increase the amount of items recycled and reduce the amount of refuse. In July 2007, single stream recycling was fully implemented in all school sites and office buildings. Currently, all locations remain committed to single stream recycling.

The details of the SMCPS recycling program include:

a) SMCPS follows the single stream guidelines provided by the St. Mary's County Department of Public Works and Transportation and our service provider.

b) Recycling containers are located in classrooms, offices, cafeterias, kitchens, and common areas such as mail rooms, teacher lounges etc., and sporting fields where recyclable waste may be generated. Collection containers are placed in strategic locations throughout each school, typically within main corridors. Thirty-five gallon containers are used in main locations while classrooms reuse boxes as recycling containers in support of source reduction efforts. Schools are encouraged to allow students to decorate the recycling containers in support of the educational commitment to teaching the reduce portion of, "Reduce, Re-use, and Recycle." SMCPS is committed to reducing our demand for consumable products, which reduces our carbon footprint and saves our financial resources.

c) During the week students collect the recyclable items from their classrooms, while building service staff collects the recyclable items from the other areas. These items are placed into the central collection containers. The central collection containers are later emptied by the building service staff into the 8 yard containers outside of the building where the items are finally collected for recycling by our service provider.

d) When schools are in session, the 8 yard containers are picked up according to the following schedule:

- Elementary schools: once every week or every other week, depending upon the size of the school
- Middle schools: once a week
- High schools: twice a week
- Other schools and offices: once a week
- When schools are not in session, recycle pick up is on an as needed basis

e) Items that are included in the SMCPS single stream recycling program include:

- Flattened corrugated cardboard
- Magazines
- Office & classroom paper
- Brown paper bags
- Newspapers
- Paperboard (cereal boxes, cracker boxes, etc.)
- Aseptic packaging (milk cartons, juice containers, etc.)
- Junk mail
- Phone books
- Plastic bottles and containers #1-7
- Glass bottles and jars (all colors)
- Aluminum cans
- Tin and steel cans

2. Designation of School Recycling Program Implementation and Responsibility

The Board of Education of St. Mary's County has the responsibility for securing a recycling contract for the county's public schools. This shall be awarded with a three-year contract

with two renewal years with each contract year becoming effective on November 1st. 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.

a) The recycling contractor is responsible for the marketing of the collected recyclables. This is currently performed by Waste Management. 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.

b) The recycling contractor must report, by February 14th of each year, to the County School Department of Operations Director (Director) the amount of recyclables collected for the previous calendar year (*e.g.*, each February 14, 2010, contractor report would contain the totals for calendar year 2009).

c) The recycling contractor is responsible for supplying centralized recycling containers for each county public school.

d) SMCPS has designated the Director of Operations and the Coordinating Supervisor of Capital Planning and Green Schools as responsible for the development and implementation of a trash and recycling plan/program for each school. At a minimum:

    - The Director of Operations and Coordinating Supervisor of Capital Planning and Green Schools shall report to the SMCPS and the Department of Public Works & Transportation, Division of Solid Waste, by March 1st, on the amount and types of recyclable materials collected each calendar year in a format mutually agreed to by the Department of Public Works, Division of Solid Waste.
    - Each county public school shall collect all of the materials specified in the SMCPS awarded recycling contract (#2) for recycling.
    - All county public schools shall also collect, but not be limited to, printer cartridges, electronics, metal, light bulbs, and glue bottles for recycling.
    - It is the responsibility of the schools to develop a recycling program for their individual school that encourages student participation in the recycling program in accordance with the SMCPS recycling program. Custodial staff at each county

public school shall ensure that collected recyclables are transported to the contractor recycling bins from the school recycling bins throughout the school.

- The Director of Operations and Coordinating Supervisor of Capital Planning and Green Schools shall set a schedule for the collection of recyclables from each school by the recycling contractor.

e) SMCPS provides collection recycle bins, distributed throughout each school (*e.g.*, in classrooms, by copiers, etc.). SMCPS encourages the reuse of boxes and other containers for use as recycle bins as a part of the source reduction education component. These bins could be decorated by students and are identified with the Reduce, Re-use, and Recycle logo information.

f) Each county public school is free to pursue their own separate fundraising recycling projects as a method of increasing their school's income to fund their school's programs. Any independent recycling fundraiser will not exempt the school from having to collect the materials identified in the SMCPS contract (#2 above).

- The school or club must report to the Director of Operations and Coordinating Supervisor of Capital Planning and Green Schools, by February 1st, on the amount and types of recyclable materials collected each calendar year, independent of the SMCPS contract.
- The St. Mary's County Department of Public Works, Division of Solid Waste, will review the SMCPS recycling plan annually, based upon the annual recycling totals reported in accordance with #2b above, and recommend changes to the CSMC and SMCPS by May 1st of each year.

3. School Facilities Participating in the Collection of Recyclables

SMCPS shall direct the Director of Operations and Coordinating Supervisor of Capital Planning and Green Schools to bring all St. Mary's County public schools into compliance with the SMCPS trash and recycling plan. Schools include:

Elementary:

Benjamin Banneker Elementary School 27180 Point Lookout Road, Loveville, MD 20656	(301) 475-0260
Captain Walter Francis Duke Elementary School 23595 Hayden Farm Lane, Leonardtown, MD 20650	(240) 309-4658
Chesapeake Public Charter School (K-5) 20945 Great Mills Road, Suite 501 Lexington Park, MD 20653	(301) 863-9585
Dynard Elementary School 23510 Bushwood Road, Chaptico, MD 20621	(301) 769-4804
Evergreen Elementary School 43765 Evergreen Way, California, MD 20619	(301) 863-4060
George Washington Carver Elementary School 46155 Carver School Blvd., Lexington Park, MD 20653	(301) 863-4076
Green Holly Elementary School 46060 Millstone Landing Road, Lexington Park, MD 20653	(301) 863-4064
Greenview Knolls Elementary School 45711 Military Lane, Great Mills, MD 20634	(301) 863-4095
Hollywood Elementary School 44345 Joy Chapel Road, Hollywood, MD 20636	(301) 373-4350
Leonardtown Elementary School 22885 Duke Street, Leonardtown, MD 20650	(301) 475-0250
Lettie Marshall Dent Elementary School 37840 New Market Turner Rd, Mechanicsville, MD 20659	(301) 472-4500
Lexington Park Elementary School 46763 South Shangri La Drive, Lexington Park, MD 20653	(301) 863-4085

Mechanicsville Elementary School
28585 Three Notch Road, Mechanicsville, MD 20659 (301) 472-4800

Oakville Elementary School
26410 Three Notch Road, Mechanicsville, MD 20659 (301) 373-4365

Park Hall Elementary School
20343 Hermanville Road, Park Hall, MD 20667 (301) 863-4054

Piney Point Elementary School
44550 Tall Timbers Road, Tall Timbers, MD 20690 (301) 994-2205

Ridge Elementary School
49430 Airedele Road, Ridge, MD 20680 (301) 872-0200

Town Creek Elementary School
45805 Dent Drive, Lexington Park, MD 20653 (301) 863-4044

White Marsh Elementary School
29090 Thompson Corner Rd, Mechanicsville, MD 20659 (301) 472-4600

Middle:

Chesapeake Public Charter School (6-8)
20945 Great Mills Road, Suite 501 Lexington Park, MD 20653 (301) 863-9585

Esperanza Middle School
22790 Maple Road, Lexington Park, MD 20653 (301) 863-4016

Leonardtown Middle School
24015 Point Lookout Road, Leonardtown, MD 20650 (301) 475-0230

Margaret Brent Middle School
29675 Point Lookout Road, Helen MD 20635 (301) 884-4635

Spring Ridge Middle School
19856 Three Notch Road, Lexington Park, MD 20653 (301) 863-4031

Senior:

Chopticon High School
25390 Colton Point Rd., Morganza, MD 20660 (301) 475-0215

Great Mills High School
21130 Great Mills Rd, Great Mills, MD 20634 (301) 863-4001

Leonardtown High School
23995 Point Lookout Road, Leonardtown, MD, 20650 (301) 475-0200

Other Schools and Facilities:

Dr. James A. Forrest Career and Technology Center
24005 Point Lookout Road, Leonardtown, MD (301) 475-0242

Fairlead Academy
20833 Great Mills Road, Great Mills, MD 20634 (301) 863-4090

Bethune Technology Center
22975 Colton Point Road, Bushwood, MD 20618 (301) 769-4600

Central Office
23160 Moakley Street, Leonardtown, MD 20650 (301) 475-5511

Division of Supporting Services
27190 Point Lookout Road, Loveville, MD 20656 (301) 475-4256

4. SMCPS Program Schedule

SMCPS is committed to a source reduction and recycling program, implemented through a coordinated educational program and implementation schedule. All new facilities added to the public school system after Oct. 1, 2010 will automatically be required to participate in the recycling program outlined in this Plan, within 3 months of the opening of the new facility.

5. *SMCPS Program Continuity*

a) The Director of Operations and Coordinating Supervisor of Capital Planning and Green Schools shall advise SMCPS and the Division of Public Works & Transportation, 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.

b) Corrective actions must begin within 60 days of the issue arising.

c) SMCPS may request to the Commissioners of St. Mary's County Commissioners (Commissioners), that their trash and recycling program be operated by another public agency (*i.e.*, St. Mary's County Department of Public Works & Transportation, Division of Solid Waste)

d) The Commissioners have the responsibility to direct another public agency to operate the St. Mary's County Public Schools' trash and recycling program if deemed necessary by the Commissioners or upon request from SMCPS.

e) The CSMC must make the decision to assign a trash and recycling program to another public agency within 30 days of the SMCPS request.

f) Upon notification by the Commissioners to the St. Mary's County Department of Public Works & Transportation, Division of Solid Waste, to perform collection, the Department of Public Works, Division of Solid Waste 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.

6. *SMCPS Program Highlights*

a) SMCPS educates students about how to Reduce, Re-use, and Recycle in unique ways. Wattson, SMCPS' Green Detective, visits elementary schools throughout the year to educate the students on single stream recycling and the Recycling Program. Students help Wattson sort through a bag of trash to determine what can be recycled and what has

to go in the trash. The goal is to encourage students to understand what can be recycled, as well as to determine what ways we can reduce our use of consumable products therefore reducing our volume of trash.

b) During the Farm-to-School Week in early September, elementary students are taught how to pack a waste free lunch. Students see how much trash can be generated by the typical packed lunch and how packing a waste free lunch can truly be done. In addition, students are taught how products from their lunch can be reused to make other products such as juice pouches being made into pencil pouches. Composting of appropriate food scraps is also discussed and how it can be used as soil amendments for the fresh foods that were grown and are served for lunch that day.

c) SMCPS participates in a recycling program for fluorescent light bulbs. Schools and office locations return burnt-out fluorescent light bulbs to the service provider.

d) SMCPS participates in the United States Green Building Council Leadership in Energy and Environmental Design recycling credit components for new construction projects.

e) A Green School Coordinator at each school is responsible for spearheading the recycling program at their specific location. Locations also involve students in the collection of recyclables. Some schools have created friendly classroom competitions to see which class can recycle the most in one month.

f) SMCPS has a program manager dedicated to working out all of the logistics of pickups with our recycling service provider. This person is also responsible for handling contract issues with the provider. A monthly report is provided by our service provider that has the estimated pounds of recyclables collected at each location. This information is relayed to the Green School Coordinators.

g) SMCPS has a coordinated strategy for marketing the recycling strategy to the public schools and offices. The departments of Capital Planning and Green Schools, Operations, and Food and Nutrition Services provide a cohesive approach to increasing the rate of recycling in the cafeterias and kitchens through a marketing and education campaign.

h) Schools may opt to participate in additional recycling programs beyond the programs that are implemented as part of SMCPS' Green School Program.

i) These programs provide additional funding for Green School initiatives at the school or provide for community outreach and volunteerism within the school system. Some of these programs are:

- TerraCycle Recycling Programs for juice bags and snack wrappers
- Elmer's Glue Crew Recycling Program for empty glue bottles and glue sticks
- Cans for Habitat for Humanity
- Printer Cartridge Recycling "Staple's Rewards" Program

3.5.2.2 Community College of Southern Maryland Leonardtown Branch Recycling Program

This Plan is to be implemented in compliance with State Law as of October 1, 2010.

Community College of Southern Maryland Leonardtown Branch (CCSMLB) recycling plan must be completed no later than October 1, 2010. To date, the CCSMCLB has a recycling plan in place and is participating in a recycling program.

The Community College of Southern Maryland Board of Trustees (CCSMBOT) oversees and funds the CCSMLB of the CCSM. The CCSMBOT is responsible for the implementation of a recycling plan for the CCSMLB.

1. Designation of School Recycling Program Implementation and Responsibility:

a) CCSMBOT has the responsibility for securing a recycling contract for the CCSMCLB. This shall be awarded annually and become effective each July 1st. 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 is currently performed by Southern Maryland Recycling. 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 February 14th of each year, to the College Maintenance Department Director (College Director) the amount and type of recyclables collected for the previous calendar year (e.g., the February 14, 2010 contractor report would contain the totals for calendar year 2009).

d) The recycling contractor is responsible for supplying centralized recycling containers for each county college.

e) The CCSMBOT has designated the College's Director as responsible for the development and implementation of a trash and recycling plan/program for each college. At a minimum:

- The College Director shall report to the CCSMBOT and the St. Mary's County Department of Public Works & Transportation, by March 1st, on the amount and types of recyclable materials collected each calendar year from each location in a format determined by the St. Mary's County Department of Public Works & Transportation .
- The CCSMCLB shall collect all of the materials specified in the CCSMBOT awarded recycling contract (C.1.a., above) for recycling.
- The CCSMCLB 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 CCSMCLB to collect recyclables for transport to the contractor recycling bins from the college recycling bins throughout the college.
- The College Director shall set a schedule for the collection of recyclables from the CCSMCLB by the recycling contractor.

f) The CCSMBOT is responsible for purchasing recycling bins, distributed throughout the CCSMCLB (*e.g.*, in classrooms, by copiers, etc.), for the CCSMCLB.

g) The College Director shall advise the CCSMBOT and the St. Mary's County Department of Public Works & Transportation, of any recycling issues or non-compliance of the CCSMCLB within 30 days of the issue arising. Part of the briefing will include the steps needed to correct any issues.

h) Corrective actions must begin within 60 days of the issue arising.

i) The CCSMBOT may request to the Commissioners of St. Mary's County (CSMC) that the CCSMCLB trash and recycling program be operated by another public agency (*i.e.*, St. Mary's County Department of Public Works & Transportation).

j) The CSMC has the responsibility to direct another public agency to operate the CCSMCLB trash and recycling program if deemed necessary by the CSMC or upon request from the CCSMBOT.

k) The CSMC must make the decision to assign a trash and recycling program to another public agency within 30 days of the CCSMBOT request.

l) Upon notification by the CSMC to the St. Mary's County Department of Public Works & Transportation, to perform collection, the St. Mary's County Department of Public Works & Transportation, 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.

m) The St. Mary's County Department of Public Works & Transportation will review the CCSMBOT recycling plan annually, based upon the annual recycling totals reported in accordance with B.1.e., and recommend changes to the CSMC and CCSMBOT by May 1st of each year.

College Facilities Participating in the Collection of Recyclables:

The CCSMBOT shall direct the College Director to bring the CCSMCLB into compliance with the CCSMBOT trash and recycling plan. The college included in this Plan is the:

Community College of Southern Maryland Leonardtown Branch
22950 Hollywood Road
Leonardtown, MD 20650-1758
240-725-5300

3.5.2.3 Apartment Building and Condominium Recycling (ABCR) Program

In April 2012, the Maryland General Assembly passed House Bill 1(Environmental-Recycling-Apartment Building and Condominiums, which required all apartment buildings and condominiums that contain 10 (ten) or more dwelling units to recycle. The law became effective on October 1, 2012 (amending Section 9-1703 of the Environment Article, Annotated Code of Maryland). Section 9-1703 (b) (12) of the Environment Article, Annotated Code of Maryland required St. Mary's County to revise its Solid Waste Management and Recycling Plan to include the ABCR Program and all apartment buildings and condominiums containing 10 (ten) or more dwelling units were required to implement a recycling plan by October 1, 2014.

1. Apartment Building & Condominium Recycling Program

Through the cooperation of the St. Mary's County's Department of Public Works Solid Waste/Recycling Division and owners or managers of apartment buildings or councils of unit owners of condominiums ("apartment and condominium officials"), and other stake holders involved in in the implementation of this law, the County has identified 26 (twenty-six) apartment buildings and 12 (twelve) condominiums that fall under the scope of the law. The Solid Waste/Recycling Division has contacted the apartment and condominium officials outlining the requirements of the law including the materials that must be recycled.

It is the responsibility of the apartment and condominium officials to identify how the recyclable materials will be stored, collected, and transported to the recycling market. Apartment and condominium officials must report to the County on an annual basis, details regarding their recycling activities.

2. *Materials Included In ABCR Program*

Apartment and condominium officials must recycle (at a minimum) the following:

- Plastic
- Metal containers
- Glass containers
- Paper products

3. *Collection of Materials*

Apartment and condominium officials are responsible (directly or through a contracted collection vendor) for providing all containers, labor, and equipment necessary to fulfill recycling requirements throughout their buildings. Distinctive colors and/or markings of the recycling containers should be provided to avoid cross contamination. The apartment and condominium officials must ensure collection and transportation of recyclable materials from apartment and condominium locations to markets. Suitable recycling container(s) are to be used for the collection of a building's recyclable materials. Residents will be responsible for placing the recycling material in the recycling collection container(s) prior to the scheduled pick-up day.

4. *Marketing of Materials*

Apartment and condominium officials are responsible for the marketing of their recyclables. The apartment and condominium officials shall submit annual reports detailing the recycling and solid waste tonnage removed from the apartments and condominiums and the market destination.

5. *Responsible Stakeholders Involved in Implementing the Law*

a) St. Mary's County Commissioners:

- Responsible for adopting the MDE approved language of the ABCR Program for the Solid Waste/Recycling Plan amendment.

b) St. Mary's County DPW&T (Solid Waste/Recycling Division)

- Provide the ABCR Program information and requirements received from the State to the apartment and condominium officials whose buildings fall under the scope of the law and assist in developing a recycling program.
- Monitor the progress and performance of the ABCR program.
- Update the County's Solid Waste/Recycling Plan to include ABCR Program.
- Update the list of participating apartment buildings and condominiums in the ABCR Program every 3 (three) years.
- Provide a copy of the annual MRA recycling report form to be used by apartment and condominium officials in reporting their year-end recycling activities.

c) Owner or Manager of the Apartment Building or Councils of the unit Owners of the Condominium

- Responsible for providing recycling services to the residents of each apartment building and/or condominium by October1, 2014.
- Secure and manage recycling contract(s) with contractor to provide recycling collection and marketing service.
- Provide suitable recycling collection/storage container(s) that residents can use for their recyclable materials. Also designate specific location(s) on site where recyclables are to be collected and transferred to market.
- Perform record keeping and submit annual report form (MRA recycling report) to the County.

6. Schedule for the Development and Implementation of the Program

- October 31, 2013-January 31, 2014, the County will distribute approved language of the ABCR Program to the apartment and condominium officials for implementation.
- April 1, 2014, the apartment and condominium officials will educate their residents and discuss the requirements.

- July 1, 2014, apartment and condominium officials will provide training/assistance to their residents and advise of start-up date.
- August 1, 2014, apartment and condominium officials finalize and secure recycling service contract(s) with private contractors.
- October 1, 2014 (on or before) participating apartment and condominium complexes can begin recycling.

7. Program Monitoring

The County's Solid Waste/Recycling Division of the Department of Public Works and Transportation will oversee the progress, performance, and compliance of the ABCR Program.

The apartment and condominium officials will conduct inspections, review service levels, investigate complaints, and take such action to correct any deficiencies and maintain compliance with the ABCR Program.

The apartment and condominium officials will be responsible to keep residents current on new regulations, laws, and mandates affecting recycling and provide new practices, procedures, and educational material as needed.

8. Program Enforcement

The County's Solid Waste/Recycling Division will ensure that the recycling at participating apartments and condominiums will be implemented in accordance with the Sections 9-1703 and 9-1711 of the Environment Article, Annotated Code of Maryland.

Upon receiving a report of non-compliance (recycling or reporting requirements), an investigation may be conducted by the County. If a violation exists, a written notice may be issued to the responsible party detailing the deficiency with corrective action required to be completed within 90 (ninety) days. A citation for a civil infraction may be issued with a fine of not more than $50.00 (fifty) dollars per day (beginning on the 31st day of the written

notice and continuing daily until compliance is reached), payable to the St. Mary's County Government.

New apartment buildings and/or condominiums that meet the requirements of the Maryland ABCR Program shall began participating in the program within 3 (three) months of being notified by the County's Solid Waste/Recycling Division.

9. Participating Apartment Buildings and Condominiums

A complete list of the apartments and condominiums that participate in the ABCR program is shown in the **Table III-4** below.

TABLE III-4
Participating Apartments & Condos in the ABCR Program

NAME OF PREMISES	PREMISES ADDRESS	# OF UNITS	APT OR CONDO	NAME OF OWNER	CONTACT MAILING ADDRESS
Abberly Crest Apartment Homes	46850 Abberly Crest Ln. Lexington Park, MD 20653	250	APT	Abberly Farms Lexington Park Phase I LP	c/o H H Hunt Corp. 800 Hethwood Blvd. Blacksburg, VA 24060-4207
Abberly Crest Apartments Homes	46900 Aberly Crest Ln. Lexington Park, MD 20653	492	APT	Abberly Crest Lexington Park Phase II LP	800 Hethwood Blvd. Blacksburg, VA 24060-4207
Apartment at Londontowne	22030 Oxford Ct. Lexington Park, MD 20653	36	APT	Londontowne Development Corp.	c/o Daniel J. Guenther P.O. Box 623 Leonardtown, MD 20653
The Apartments of Wildewood	23239 Bond Cir. California, MD 20619	229	APT	Piney Point LLC	P.O. Box 490 Joppa, MD 21085-0490
The Apartments of Wildewood, Phase II	44755 Jeeter Way California, MD 20619	136	APT	Saxon Woods LLC	P O Box 490 Joppa, MD 21085-0490
Chancellors Run Apartments	45882 Chancellors Run Ct. Great Mills, MD 20634	40	APT	Chancellors Run Assoc LP	15825 Shady Grove Rd., Ste. 55 Rockville, MD 20850-4046
Crossroads Apartments	21403 Great Mills Rd. Lexington Park, MD 20653	21	APT	FDR Holdings LLC	43310 Pine Ridge Ct. Hollywood, MD 20636
Elan Settlers Landing Apartments	45086 Voyage Path California, MD 20619	240	APT	GS/TPRF II Settlers Landings LLC	750 Bering Dr. Houston, TX 77057
Fox Chase Village	45970 Foxchase Dr. Great Mills, MD 20634	134	APT	Fox Chase Village Apts LP, A Maryland LP	6851 Oak Hall Ln., Ste. 100 Columbia, MD 21045-5815
Great Mills Court Apartments	45990 Great Mills Ct. Lexington Park, MD 20653	44	APT	New Great Mills 1 LTD Partnership, A Maryland LP	15825 Shady Grove Rd., Ste. 25 Rockville, MD 20850-4033

TABLE III-4 (Continued)
Participating Apartments & Condos in the ABCR Program

NAME OF PREMISES	PREMISES ADDRESS	# OF UNITS	APT OR CONDO	NAME OF OWNER	CONTACT MAILING ADDRESS
Greens at Hilton Run Apartments	46860 Hilton Drive. Lexington Park, MD 20653	328	APT	G&I Greens at Hilton Run LLC	c/o DRA Advisors 220 E 42nd St., FL27 New York, NY 10017-5819
Greenview Village Apartments	45782 Church Dr. Great Mills, MD 20634	65	APT	Housing Authority of St. Mary's County	21155 Lexwood Dr. Lexington Park, MD 20653
Hunting Meadows Apartments	44860 Hunting Meadows Ct Callaway, MD 20620	32	APT	Patuxent LP	3423 Olney Laytonsville Rd., Ste. 7 Olney, MD 20632
Indian Bridge Apartments	45910 Indian Way Lexington Park, MD 20653	112	APT	Four Rivers Community Loan Fund Inc.	21155 Lexwood Dr., Ste. C, Lexington Park, MD 20653
Joe Baker Village	21260 Joe Baker Ct. Lexington Park, MD 20653	36	APT	Great Mills Elderly Assoc. LP	c/o TMAM 15825 Shady Grove Rd., Ste. 55 Rockville, MD 20650-4008
Lexington Park Active Adult Community	21895 Pegg Rd. Lexington Park, MD 20653	110	APT	Lexington Park Senior Housing LP, A Maryland LP	P.O. Box 160 709 N Main St. Aynor, SC 29511-3109
Lexington Village	21633 Liberty St. Lexington Park, MD 20653	36	APT	Lexington Village 779	77 West St., Ste 210 Annapolis, MD 21401-2458
Lexwoods Apartments	21284 Lexwood Dr. Lexington Park, MD 20653	78	APT	Lexwoods Too LP	c/o TM Assoc Management Inc. 15825 Shady Grove Rd., Ste. 55 Rockville, MD 20850-4046
The Park Villas Apartments	21295 Mayfaire Ln. Lexington Park, MD 20653	144	APT	Cover Property Management LLC	P.O. Box 6724, Annapolis, MD 21401
Queen Anne Park Apartments	21691 Eric Dr. Lexington Park, MD 20653	102	APT	Queen Anne Park LP, A Maryland LP	101 Chestnut St., Ste 110, Gaithersburg, MD 20877-2139
Spring Valley Apartments	46528 Valley Ct. Lexington Park, MD 20653	128	APT	Spring Valley Work Force Housing LP	7170 Riverwood Drive, Columbia, MD 21046
Spyglass at Cedar Cove Apartments	21602 Spyglass Way. Lexington Park, MD 20653	152	APT	St. Mary's Oxford Assoc. LP	Three Galleria Tower, 13155 Noel Rd., Ste. 100 LB 73 Dallas, TX 75240
St. Mary's Landing Apartments	21540 Pacific Dr. Lexington Park, MD 20653	283	APT	Lexington West LLC	c/o JHP Dev Co. Inc., 751 PK of Commerce Dr, Ste 128, Boca Raton, FL 33487-3623
Valley Drive Estates	22001 Valley Dr. Lexington Park, MD 20653	38	APT	Valley Drive Apartments	77 West St, Ste 210, Annapolis, MD 21401-2458
Victory Woods	22611 FDR Blvd. Lexington Park, MD 20653	75	APT	Immaculate Heart of Mary Church	c/o Victory Woods LLC 11400 Rockville Pike, Ste. 505 Rockville, MD 20852
Wilderidge Apartments	27260 Laurel Glen Rd. California, MD 20619	84	APT	Wilderidge Apartments	10705 Charter Dr., Ste. 450 Columbia, MD 21044-2992

TABLE III-4 (Continued)
Participating Apartments & Condos in the ABCR Program

NAME OF PREMISES	PREMISES ADDRESS	# OF UNITS	APT OR CONDO	NAME OF OWNER	CONTACT MAILING ADDRESS
Beechwood Condo Assn.	Elm Ct. Lexington Park, MD 20653	36	Condo	Council of Owners	Beechwood Condo Assn. c/o Judity A. Burns 45764 Elm Ct., Lexington Park, MD 20653
Chestnut Oak Community of Wildewood	Chestnut Oak Ct. California, MD 20619	72	Condo	Council of Owners	Chestnut Oak Condo Assn. 23250 Chestnut Oak Ct., Unit 1073 California, MD 20619
The Gateway Condos	Lexwoods Dr. Lexington Park, MD 20653	34	Condo	St. Mary's County Housing Authority	Housing Authority of St. Mary's Co. 21155 Lexwoods Dr. Lexington Park, MD 20653
Residences of Wildewood, Bldg. 2	23580 FDR Blvd. California, MD 20619	30	Condo	Council of Owners	Sentry Management 2200 Defense Hwy., Ste 405 Crofton, MD 21144
Residences of Wildewood, Bldg. 3	23460 FDR Blvd. California, MD 20619	30	Condo	Council of Owners	Community Association Professionals 5348 Dunteachin Dr. Ellicott City, MD 21043
Residences of Wildewood, Bldg. 7	23520 FDR Blvd. California, MD 20619	30	Condo	Council of Owners	Community Association Professionals 5348 Dunteachin Dr. Ellicott City, MD 21043
Rosewood Condo Assn.	Rosewood Ct. California, MD 20619	72	Condo	Council of Owners	Rosewood Condo Assn. 23239 Rosewood Ct. California, MD 20619
Sugar Maple Condo Assn.	Sugar Maple Ct. California, MD 20619	36	Condo	Council of Owners	Sugar Maple Condo Assn. P.O. Box 1423, California, MD 20619
White Birch Condo Assn.	White Birch Ct. California, MD 20619	36	Condo	Council of Owners	White Birch Condo Assn. P.O. Box 836 California, MD 20619
White Oak Condo Assn.	White Oak Ct. California, MD 20619	36	Condo	Council of Owners	White Oak Condo Assn. 45910 Church Dr. Great Mills, MD 20634
Wildewood Village Condo Assn.	Cobblestone Ln. California, MD 20619	48	Condo	Council of Owners	Wildewood Village Condo Assn. 23140 Cobblestone Ln., Box 100 California, MD 20619
Wood Lake Condo Assn.	Woodland Dr. California, MD 20619	60	Condo	Council of Owners	Wood Lake Condo Assn. P.O. Box 34 St. Inigoes, MD 20684

3.5.2.4 Special Events Recycling Program (SERP)

In 2014, the Maryland General Assembly passed Senate Bill 781(Environment-Recycling-Special Events) which requires organizers of special events, meeting certain criteria, to provide clearly distinguishable recycling containers at each trash container location and ensure that recyclable materials are collected for recycling beginning on October 2015. The law amends

Sections 9-1703 (b) and (g) and adds Section 9-1712 of the Environment Article, Annotated Code of Maryland. The law also requires St. Mary's County to revise its Solid Waste Management and Recycling Plan to include the SERP by October 1, 2015.

1. Special Events Subject to the Recycling Program

As required in Section 9-1712 of the Environment Code, a special event organizer must provide for collection and recycling of recyclable materials that meet the following three criteria:

i. Includes temporary or periodic use of a public street, publicly owned site or facility, or public park;
ii. Serves food or drink; and
iii. Is expected to have two hundred (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.

The County has identified the following public sites within the County that host or may host special events meeting the above criteria.

2. Federal, State, and Municipal-Owned sites

Recycling at a Federal, State, or a municipally owned site must follow that jurisdiction's requirements. If no such requirements exist, then the special events organizer must adhere to the SERP. Also, any special event taking place on local, State, or Federally owned streets, meeting the above criteria, not specifically listed, are to be included in the SERP.

TABLE III-5
Federal, State, and Municipal-Owned Sites

Federal				
Name	Address	City	State	Zip
Naval Air Station, Patuxent River	22268 Cedar Point Road Bldg. 409	Patuxent River	MD	20670
State				
Greenwell State Park	25420 Rosedale Manor Lane	Hollywood	MD	20636
St. Mary's College	47645 College Drive	St. Mary's City	MD	20686
Municipal				
Leonardtown Wharf Park	State Hwy. 326	Leonardtown	MD	20650
Leonardtown Town Square	Washington Street	Leonardtown	MD	20650

3. County-Owned sites:

TABLE III-6
County-Owned Sites

County Parks				
Name	Address	City	State	Zip
Cardinal Gibbons Park	16923 St. Peter Claver Road	Ridge	MD	20680
Carver Heights Community Park	47382 Lincoln Ave	Lexington Park	MD	20653
George B. Cecil Park	19241 St Georges Church Rd	Valley Lee	MD	20692
Chancellor's Run Regional Park	21905 Chancellor's Run Road	Great Mills	MD	20634
Chaptico Park	26600 Budd's Creek Road	Mechanicsville	MD	20659
Judge P.H. Dorsey Memorial Park	24275 Hollywood Road	Leonardtown	MD	20650
Elm's Beach Park	19350 Back Door Road	Lexington Park	MD	20653
Fifth District Park	37880 New Market Turner Rd	Mechanicsville	MD	20659
Hollywood Soccer Complex	44345 Joy Chapel Road	Hollywood	MD	20636
Jarboesville Park	46760 Thomas Drive	Lexington Park	MD	20653
John G. Lancaster Park	21550 Willows Road	Lexington Park	MD	20653
Laurel Ridge Park	38425 Golden Beach Road	Mechanicsville	MD	20659
John V. Baggett Park	26929 Three Notch Road	Mechanicsville	MD	20659
Miedzinski Park	23145 Leonard Hall Drive	Leonardtown	MD	20650
Myrtle Point Park	24050 Patuxent Blvd.	California	MD	20619
Nicolet Park	21777 Bunker Hill Drive	Lexington Park	MD	20653
Seventh District Park	23035 Colton Point Road	Bushwood	MD	20618
St Andrews Estates Park	44110 St. Andrew's Lane	California	MD	20619
St. Clement's Shores Park	22300 Meadow Lane	Leonardtown	MD	20650
Town Creek Park	5750 King Drive	Lexington Park	MD	20653

TABLE III-6
County-Owned Sites (Continued)

St. Mary's County Public Schools- Athletic Fields Seasonal Use				
Name	Address	City	State	Zip
White Marsh	29090 Thompson Corner Rd	Mechanicsville	MD	20659
Mechanicsville Elementary	28585 Three Notch Road	Mechanicsville	MD	20659
Margaret Brent Middle School	29675 Point Lookout Road	Mechanicsville	MD	20659
Oakville Elementary	26410 Three Notch Road	Mechanicsville	MD	20659
Dynard Elementary	23510 Bushwood Road	Chaptico	MD	20621
Banneker Elementary	27180 Point Lookout Road	Loveville	MD	20656
Leonardtown Elementary	22885 Duke Street	Leonardtown	MD	20650
Spring Ridge Middle	19856 Three Notch Road	Lexington Park	MD	20653
Park Hall Elementary	20343 Hermanville Road	Park Hall	MD	20667
Piney Point Elementary	44550 Tall Timbers Road	Tall Timbers	MD	20690
Green Holly Elementary	46060 Millstone Landing Rd	Lexington Park	MD	20653
GreenView Knolls	45711 Military Lane	Great Mills	MD	20634
Carver Elementary	46155 Carver School Blvd	Lexington Park	MD	20653
Esperanza Middle	22790 Maple Road	Lexington Park	MD	20653
Hollywood Elementary	44345 Joy Chapel Road	Hollywood	MD	20636
Evergreen Elementary	43765 Evergreen Way	California	MD	20619
Leonardtown Middle	24015 Point Lookout Road	Leonardtown	MD	20650
Lettie Dent Elementary	37840 New Market Turner Rd	Mechanicsville	MD	20659
Leonard Hall Recreation Center	23145 Leonard Hall Drive	Leonardtown	MD	20650
Northern Senior Center	29655 Charlotte Hall Road	Charlotte Hall	MD	20622
St Clements Island Museum	38370 Point Breeze Road	Coltons Point	MD	20626
St. Mary’s County Fairgrounds	42455 Fairgrounds Road	Leonardtown	MD	20650
Southern Maryland Higher Education Center	44129 Airport Road	California	MD	20619
College of Southern Maryland	22950 Hollywood Road	Leonardtown	MD	20650
For a list of other St. Mary's County Public Schools that may host special events go to: www.smcps.org/schools				

4. Program Communication

Special events are organized by various groups, at all times of the year, and in many locations through-out the County. It can be a real challenge to communicate these requirements to the various special events organizers. In order to reach the responsible special events organizers, the Recycling and Solid Waste Division of the St. Mary’s County

Department of Public Works and Transportation, will: (a) Maintain a webpage on the County's website detailing the special event recycling requirements. (b) Include information regarding special events recycling on special events permits applications and/or pertinent webpages.

5. *Materials and Obligations*

Special events organizers are responsible for:

- Collecting at a minimum, acceptable plastic, metal, and glass containers and clean paper products;
- Providing and placing clearly distinguished recycling containers (by color or signage) adjacent to each trash container at the event, except where already provided on site;
- Providing all labor, equipment, and associated recycling costs necessary to carry out recycling at the special event;
- Ensuring that the recyclables are collected and delivered to a recycling facility; and
- Providing separate containers for organic and non-organic recyclable materials if food-scrap recycling services are available.

Special events organizers may fulfill their obligation under item "d)" above, by any of the following methods:

- Self-hauling the materials to the County Convenience Center recycling site,
- Receiving prior approval from the site owner to use the existing recycling collection system on site, or
- Contracting with a recycling hauler to collect and deliver to a recycling facility.

6. *Stakeholders*

The following stakeholders will be involved in the SERP:

a) The St. Mary's County Department of Public Works & Transportation Recycling and Solid Waste Division will be responsible for overseeing and assuring that all properties that potentially host special events falling under the recycling mandate are included in the SERP.

b) The Recycling and Solid Waste Division, along with the assistance and cooperation of the Department of Recreation & Parks, the Department of Natural Resources, the St. Mary's County Public Schools, Leonardtown, and the Naval Air Station Patuxent River, will all be responsible for communicating the requirements of the law to the special events organizers within their own specific jurisdiction.

c) Special Events Organizer(s) are responsible for providing recycling bins and ensuring the collection for recycling is in accordance with the requirements outlined in the SERP, beginning October 1, 2015.

7. Program Monitoring

The Recycling and Solid Waste Division of the St. Mary's County Department of Public Works and Transportation will have the right to inspect any special events subject to this Plan for compliance. The special events organizer is responsible for the implementation of recycling at the site of the special event, the placement and labeling of the recycling containers, and the collection and delivery of the recyclables to a recycling facility. If a recycling contractor is used and a problem occurs, it is up to the special events organizer to take prompt action and correct the deficiency.

8. Program Enforcement

The St. Mary's County Department of Public Works and Transportation, Recycling and Solid Waste Division may conduct inspections of the events to ensure that the requirements of the SERP are being followed. If a violation exists, a special events organizer may be issued a citation for a civil infraction with a fine of not more than $50.00 (fifty) dollars per day for each day the violation occurs, payable to the St. Mary's County Government.

4.0 COUNTY ASSESSMENT OF SOLID WASTE DISPOSAL SYSTEM

In this Chapter the County's system for solid waste management is evaluated for its adequacy to meet the County's needs during the next ten years. A detailed description of the existing system is presented in Chapter 3.

4.1 SIGNIFICANT ISSUES AND NEEDS

Changes occurring in the County, as well as waste management goals and objectives previously set forth by the County or the State, have raised significant issues or precipitated important needs, which are discussed in this section.

4.1.1 Disposal Capacity

Since the County affected a ban on receipt of waste delivered by commercial haulers at the St. Andrews Landfill, and due to the closure of the St. Andrews Landfill, haulers have depended on out-of-County disposal facilities, either directly or through the use of transfer stations in the Maryland-Washington, D.C. region. The transfer station at the Appeal site in Calvert County, due to its location less than eight (8) miles from the St. Mary's County line, is likely receiving most of the non-recycled MSW generated in the County. Other facilities are much more distant from the County (i.e., transfer stations in Washington, D.C. or Anne Arundel County). Also, WMI is now the dominant collector in the County, and the Appeal transfer station has charged tipping fees that make use of the station competitive with more distant facilities.

The Appeal transfer station, coupled with the ultimate disposal of MSW it receives, provides for St. Mary's County's commercial sector's disposal needs along with the residential waste collected by private hauling companies, e.g. Waste Management, Inc., Bates Trucking, Republic Services, etc. When the transfer station was planned by Calvert County, both St. Mary's County and Charles County were approached by Calvert County to be partners in a regional project. In February 2002, St. Mary's County executed a MOU (Memorandum of Understanding) with Calvert County to utilize the Lusby, MD facility for the transportation and disposal of its

residential MSW. St. Mary's County has since terminated this MOU, effective September 1, 2012.

The County does not have legislated flow control capability to reverse the use by private haulers of out-of-County facilities. Thus, construction of new landfill capacity by the County and imposing a market rate tipping fee would not necessarily reverse the flow of waste out of the County. Also, by using the transfer station/disposal services in place, the County avoids the issuance of substantial new debt to finalize a landfill expansion. For these reasons - the proximity of the transfer station to the County, the competitive tipping fees it charges, the avoidance of further near term debt, and the inability to legislate flow control - these are significant disincentives, at least in the short run, for St. Mary's County to implement or construct landfill capacity for MSW within the County. As an alternative, the County obtained a permit from MDE to construct a transfer station if and when the cost of disposing of the County's waste increases to a point which justifies the capital expenditure to do so.

By letter dated January 4, 2000, the Commissioners of Calvert County notified St. Mary's County that their Board had agreed to allow the acceptance of St. Mary's County waste at the Appeal Transfer Station. The current Capital Improvement Program does not include the construction of a County transfer station and/or a possible future partnership funding for a future expansion to the Appeal Transfer Station. To provide a back-up disposal capacity for St. Mary's County waste in the event of an interruption to the Appeal facility, on August, 2009 the County executed a new MOU with Charles County. This agreement provides for interim disposal capacity in the Charles County landfill for St. Mary's County waste in the event that the Appeal Transfer Station in Calvert County becomes unavailable through December 31, 2015. This MOU was subsequently terminated effective September 1, 2012 and the County's waste was redirected to the Covanta Waste-to-Energy facility in Fairfax County, VA, and/or the Wheelabrator RRF facility in Baltimore, MD. The previously mentioned MOUs can be found in **Appendix G**.

The County has also undertaken pro-active initiatives with Calvert County, Charles County, King George County and the Patuxent Naval Air Station to formalize additional waste management and recycling initiatives during the planning period. It is interesting to note that, according to the Environmental Protection Agency, the number of municipal solid waste

landfills decreased substantially over the last twenty plus years from about 8,000 in 1988 to down to 1,908 in 2010—while the average landfill size increased.

On February 12, 2002 the Commissioners of Calvert County, Maryland and the Commissioners of St. Mary's County, Maryland established a cooperative working arrangement via a MOU for the acceptance of municipal solid waste and construction debris materials from St. Mary's County at the Appeal Solid Waste Facility. On February 25, 2010, the St. Mary's County Department of Public Works & Transportation requested the Commissioners of Calvert County, Maryland extend the "Project Period" of the MOU from 2010 through the remainder of the "Term", specifically July 1, 2017, as per Section 6 of the MOU. On April 6, 2010, the Commissioners of Calvert County notified the St. Mary's County Department of Public Works & Transportation that the extension was granted and all terms and conditions of the MOU will remain in effect.

4.1.2 **Funding Mechanisms**

Making cost-effective and informed decisions about MSW management programs requires access to a broad spectrum of information. Local government officials need to know what solid waste management really costs. Full Cost Accounting (FCA) provides a common-sense approach to identifying and assessing the cost of managing solid waste operations. It offers a framework to aid decision-makers with short and long-term program planning and it can help identify measures for streamlining and improving operations. Unlike other common methods of accounting that record only current outlays of cash, FCA takes into account all of the monetary cost of resources used or committed to MSW programs.

The County has historically relied upon a combination of tipping fees and allocation from the County's general operating budget to fund solid waste system capital and operating expenses. Since March 1998, when the County ceased taking waste from commercial haulers except for C&D waste, tipping fee revenue was greatly reduced. The annual tipping fees collected since Fiscal Year (FY) 1990 are shown on the Tipping Fee Summary below and were expected to continue to significantly decline. Effective July 1, 2004, the residential flat fee for customers was increased from $5.00 to $10.00 per standard pickup truck load and the oversize/bulk rate was increased from $35.00/ton to $52.00/ton, and then up to $65/ton on July 1, 2006 (still

current). However, a discounted "Green Waste" fee of $40/ton went into effect July, 2012, for oversize yard waste loads. These increases are an attempt to generate additional revenue to offset the increasing costs of transfer and disposal. The County has relied on a subsidy from the general operating budget to fund solid waste and recycling expenses which is also supported by an environmental and solid waste service fee. The County maintains a MDE permit to construct a new transfer station under their current contingency plan. Tip fees from the commercial sector should offset the operating costs and would be utilized to reduce deficit/bond financing.

On May 15, 2007 the Commissioners of St. Mary's County, Maryland approved Ordinance 2007-04 which enacted the Environmental and Solid Waste Service Fee ("Fee") for the purpose to fund environmental and solid waste and recycling programs. The new funding mechanism includes the establishment of an environmental and landfill service fee, procedures for setting and modifying the fee, payment and collection and establishment of an appeal process. The fee is used to fund staffing, administration, capital outlay, equipment replacement, debt service, operations, maintenance, capital projects and other direct and indirect costs associated with the solid waste and recycling programs. The fee is evaluated each fiscal year and adjusted accordingly based on the current and planned fiscal obligations. In FY 2016, the Equity Fund balance in the Enterprise Fund was utilized to remove the $1M General Fund subsidy and to avoid increasing the Environmental Fee.

Also, the County incurred substantial closure and capping costs for the St. Andrews Landfill, which includes post-closure maintenance and monitoring, which under the current system, will have to be funded from a combination of low interest loans from the Maryland Water Quality Revolving Loan Fund (MWQRLF) and the general operating budget. In order to remove solid waste system costs from the operating budget, the County would need to implement other funding mechanisms, such as an assessment or user fee directly to waste generators. A form of assessment is applied in neighboring Calvert and Charles Counties, as well as several other Maryland counties, to help fund solid waste system costs, and many counties in Maryland and throughout the nation have structured their solid waste systems as an enterprise fund.

4.1.3 **Lack of Curbside Waste and Recycling Collection**

Curbside recycling collection has been demonstrated to generate the greatest levels of participation by the residential sector in recycling programs. While quantities of recyclables collected at the County's six Convenience Centers have increased over the years, data from curbside programs elsewhere indicate that participation levels and quantities collected are substantially higher in curbside collection programs. Methods to increase the number of residences that receive curbside collection in the County will be evaluated to increase the amount of materials recycled by the residential sector.

Curbside recycling collection programs have been implemented at the initiative of private haulers and certain residential communities. The County has not mandated curbside collection programs. Curbside programs have been implemented more often in suburban communities where the housing density is greater than in rural areas, thus enhancing the economics of collection. The County has experienced significant growth in the last decade, a major portion of which occurred in new developments and suburban areas that will have greater cost-effectiveness for curbside collection of waste and recyclables. The suburban nature of the growth recently enhances the need for more curbside collection to be evaluated and possibly implemented to achieve four objectives:

1) Increase the County's residential recycling performance;
2) Increase the cost-effectiveness of waste and recyclables collection for the overall system,
3) Shift the collection costs for waste and recyclables from the County-provided Convenience Centers to the affected homeowners, and
4) Begin to decrease the load on the Convenience Centers, which have experienced greater demands on their capacity, and, therefore, greater costs and increased traffic, over the last few years.

The estimated cost for a residential collection program varies based on a number of factors such as housing density, traffic and traffic patterns, location of set outs, frequency of collection, and container and collection equipment types. Curbside collection of recyclables typically is only

offered to neighborhoods that also have curbside waste collection. Thus, the first step toward implementing curbside collection of recyclable materials is to offer waste collection.

Waste collection by privately managed route collection firms is practical only when several criteria are met. First, housing density must be relatively high to bring truck operation costs to desirable levels. Curbside collection in the most rural areas, where houses are separated by great distances, is usually not cost-effective. Second, historical practices have to be changed. The momentum of homeowners, that have long standing practices of burying or burning their waste on-site or have taken it to a Convenience Center for years, is often not easy to change, especially when use of the Convenience Center does not involve a fee. Third, the comprehensive system of Convenience Centers, while an important component of the County's existing solid waste management system, is a deterrent to a large portion of the County's population to switch to curbside collection of waste. In order to achieve greater curbside collection of waste, the County may have to phase down the availability of, and therefore the reliance on Convenience Centers. The consolidation of certain Convenience Centers could be a first step in such a process.

Waste collection firms have poorer cost efficiencies when collection routes, even though in relatively dense housing neighborhoods, serve only a portion of the residences. When waste collection in a neighborhood is a combination of multiple waste haulers and a Convenience Center, no single hauler can expect to have optimized cost-efficiencies. The result is likely higher cost to residents in comparison to those expected when one hauler provides all collection.

Changes to the collection system to solve these needs would not be one-sided. Benefits such as greater recycling and greater collection cost-efficiencies can only be obtained through careful planning and implementation strategies, possibly voluntary by haulers or through County-managed collection districts, and possibly including the elimination of one or more Convenience Centers on a phased basis. In the meantime, in order to encourage recycling participation, the County began Single Stream recycling at all of the residential Convenience Centers in December 2006.

4.1.4 **Lack of Reporting**

The County has not received consistent reports from businesses, institutions, collectors, processors, recycling firms, and disposers. There is no mandatory County reporting requirement. Adequate and regular reports also are essential to develop an accurate description of recycling activities in the County, including special waste types such as C&D materials. A definitive reporting requirement is needed, along with County staff allocation in the Public Works Department in order to support the effort and to engender consistent, accurate reporting by businesses, institutions, MSW haulers, C & D debris and special waste haulers, and certain other recyclables generators and processors.

4.1.5 **Regional Cooperation and Partnerships**

The County could satisfy some critical solid waste management and recycling needs through regional cooperation and partnerships. It could facilitate reporting through regional cooperation to avoid duplicate counting of recyclables, gain insights into firms operating in the County but based in another county and better monitor those firms and their activities and obtain reporting from them. Some of these initiatives are underway and are discussed earlier in this Chapter.

Also, should the County implement any one of several types of service to be offered on a Countywide basis for either recycling or waste disposal or processing, it may be possible for the County to obtain a better arrangement, in terms of costs, capacity, and term of commitment by contractors. The County may be able to take advantage of privately- or publicly-owned facilities that are located in the partnering county or serve as the location or provider for certain facilities or services, such as a material recovery or processing facility, which it could share with neighboring counties in Southern Maryland.

Regional cooperation could be provided through a Letter of Intent or a Memorandum of Understanding.

4.1.5.1 Letter of Intent

A Letter of Intent usually involves a communication signed by the governing body indicating the jurisdiction's intent to undertake a specific action. It is made subject to the availability of legal authority and appropriations. Should either of these items not be forthcoming, the letter of intent has no legal standing and remains only an expression of the entity's intent to take action when and if circumstances permit.

4.1.5.2 Memorandum of Understanding

A Memo of Understanding (MOU) is somewhat more detailed and stronger in its enforceability than a letter of intent, such as **Appendix G**. While not usually as detailed as a written contract, an MOU is an agreement and describes, in detail, actions to be taken by the governmental entity and another party. It may be initiated or signed by the authorized representative of the county commission (e.g., county attorney) and followed by a vote of the jurisdiction's governing body.

4.1.6 **Adequacy of Inspections**

Unfortunately, in a bureaucracy involving regulation and inspection (at the State and County level), issue resolution is not easy. Consideration should be given to a mechanism wherein unresolved issues between Counties and State can be elevated and solved within a reasonable time period. Local government control should include oversight of the landfill or transfer station operations, oversight of what is being dumped, disclosure of the origin of the dumped material before it is dumped, and the right of local government to test the material before it is dumped. Citizens should also have the right to test the material before it is dumped at their own expense.

The relationship between the counties and the State should be one of partnership, with the State having enough resources, funding and personnel to assist counties in exercising control. More importantly, working relationships between the State and counties in regulatory and inspection matters cannot be adversarial.

4.2 {THE SECTION IS RESERVED}

4.3 PHYSICAL CONSTRAINTS TO DEVELOPMENT OF NEW SOLID WASTE ACCEPTANCE FACILITIES

The St. Andrews Landfill expansion planning and permitting process was completed prior to this Solid Waste Management Plan Update. As a result, potential environmental constraints to development and community impacts were identified. Therefore, any potential constraints to expanding the St. Andrews Landfill, due to topography, soil types, geology, location, proximity to aquifers, wetlands, location of surface waters, water quality conditions, land use, growth patterns, or applicable laws and critical areas, have been addressed.

At present, there are no plans to develop additional County-owned solid waste acceptance facilities other than an expansion to Areas C and D or possibly a transfer station & processing facility atop the Area A or B landfills or within the limits of Areas C and/or D as shown on the St. Andrews Master Plan. If a County-owned solid waste acceptance facility at a new location is deemed necessary or desirable in the future, the planning and permitting of this future facility will take into account the complete list of potential constraints and will satisfactorily address each item. If the County should decide to implement a processing facility for municipal solid waste or other waste type, a disposal facility for land clearing debris or rubble, or any other solid waste acceptance facility during the ten years covered by this Plan, appropriate site identification and engineering methods would be used to select sites that are acceptable and appropriate for such facilities. Expansion of the Appeal Transfer Station in Calvert County is also a potential option. Constraints that affect the siting of a proposed solid waste acceptance facility in St. Mary's County include the following:

4.3.1 **Physical**

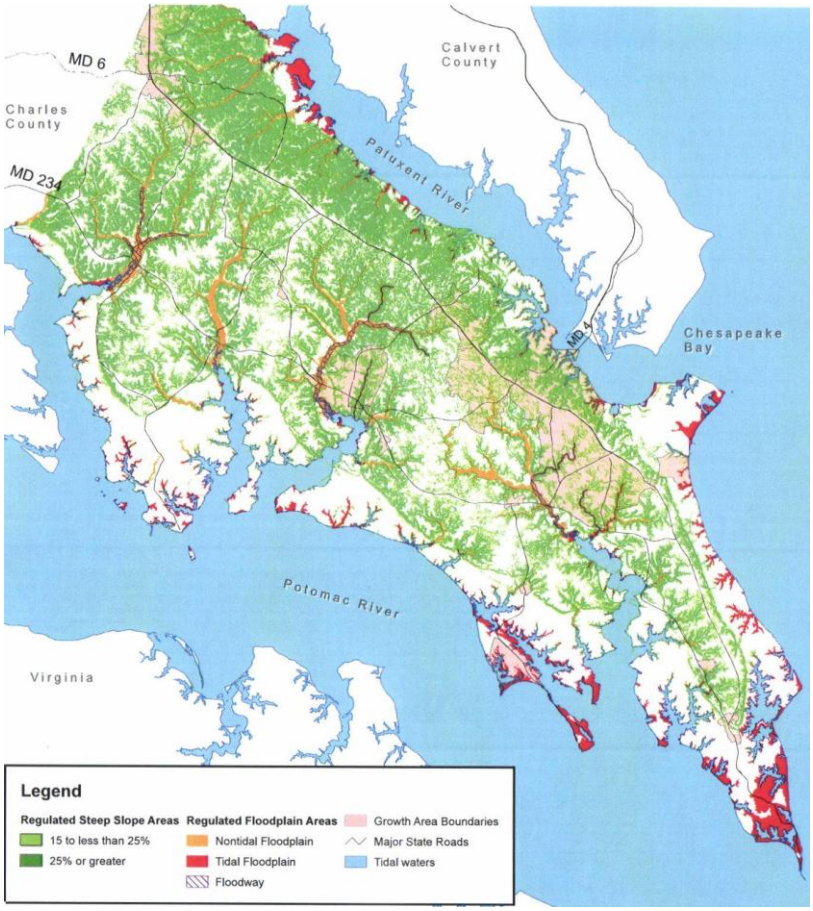
The physical location of any new or expanded facilities must meet all applicable federal, state, and local zoning, planning, and permitting requirements. Proposed new facilities must be

included in this Plan through the formal public hearing process. The following sections describe these constraints in greater detail, as specified in COMAR 26.03.03.03E (3).

4.3.2 **Topography**

The topography of St. Mary's County is divided into three major physiographic divisions; the Southern Maryland Upland, which dominates the interior length of the County, a series of lowland flats and valleys bordering most of the watercourses on both sides of the County, and dissected knobby topography at the northeast border parallel to the Patuxent River. The lowlands are flat plains located along the Wicomico River and Potomac River to the west and southwest, and along the Patuxent River and Chesapeake Bay to the east and northeast. These areas generally rise from sea level to 40 or 50 feet above sea level, extending inland beyond the larger bays and estuaries at the west and southwest, creating the associated valleys.

The dissected knobby topography generally is northeast of Maryland Route 235, which is located at the approximate drainage divide between the Potomac River and the Patuxent River/Chesapeake Bay drainage systems. This topographic feature is characterized by relatively short streams, which occupy small V-shaped valleys with steep gradients prior to emptying into the Patuxent River. Cutting of the valleys has occurred in the Uplands.



The current Upland area generally is west of the drainage divide with streams showing a gradient lower than that of the dissected knobby topography due to a significantly longer path to sea level. The high point in the County, about 190 feet above sea level, occurs in the vicinity of Charlotte Hall, and slopes along the divide to about 90 feet near Ridge.

"Steep slopes" are land areas where the inclination of the land's surface from the horizontal is 25%, or greater. Steep slopes are vulnerable in that they generally are situated along stream corridors and generally occur in highly erodible soils. The degree or severity of erosion is based on the amount of existing vegetative cover. Construction and approval of development along steep slopes can increase the rate of storm water runoff, which may result in increased flooding in low lying areas. Development of steep slopes, especially adjacent to stream corridors, can increase erosion of stream banks, resulting in severe siltation and pollution with overall degradation of water quality. From other aspects, construction activities on steep slopes can lead to failure of structures, and where steep slopes occur in areas not serviced by public water supply, failure of the system can result in failure of on-site disposal systems. In general, solid waste management facilities should be developed within the Upland Areas.

4.3.3 **Soils**

Southern Maryland is wholly underlain by unconsolidated sediments several hundred feet thick. Most of the soils in the County are acid with low fertility, consisting of gravels, sands, silts, and clays with a mantle of loam and topsoil in most areas. About 80 percent of the land area in the County is suitable to be cultivated; the remainder is steep, eroded, or wet, precluding significant development. Specific areas of highly erosive soil types (Evesboro-Westphalia, Westphalia, and Croom) have also been identified by the Soil Conservation District, which require special sediment and erosion control measures.

A geotechnical report may be required to be performed by the applicant that will identify the types and depths of on-site soils and will include specific written recommendations / requirements to address any soil-related concerns. In general, soil characteristics (and soil associations) follow three (3) major physiographic divisions; lowland flats, dissected knobby

terrain and upland soils. Areas of soils that are considered either erodible or hydric should be avoided.

Along the shores of the County, soils in the lowland flats are moderately well to poorly drained, level, and developed on silty or clayey deposits. These soils are associated with flood plains and wetlands subject to flooding by tidal water. In the northeast, soils in the dissected knobby terrain are well drained, rolling to hilly, and developed on sandy or silty deposits. These soils are medium to moderately coarse textured. The Upland soils are characteristically well to moderately drained (with a fragipan), undulating to rolling, and developed on sandy and silty deposits. These soils are medium to moderately coarse textured.

4.3.4 **Geology**

As previously noted, Southern Maryland is wholly underlain by unconsolidated sediments several hundred feet thick. St. Mary's County occupies a northwest trending trough bounded by structures extending into Charles County (to the northwest) and Chesapeake Bay (to the southeast), roughly parallel to the Patuxent and Potomac Rivers. The County may overlie faults in the crystalline basement rock, inferred by sparse deep drill-hole data. However, the data do not suggest any significant ground movement in Holocene time. Proposed facilities must demonstrate their ability to preserve unique or unusual ecological communities or geologic formations.

4.3.5 **Location**

Generally, assessment of location is performed upon siting a specific solid waste management acceptance facility. General Solid Waste Facility Siting Criteria has been included in the St. Mary’s County Comprehensive Zoning Ordinance, in addition to federal and state requirements, as previously discussed. Consideration is also given to the remaining capacity of existing landfills in the County and region, the need for local versus a regional facility, site accessibility, screening from adjacent properties, the amount of material expected to be generated in the service area, the maximum height and depth to which materials can be placed,

the rate of daily compaction and the period of time the site may remain in operation, among other factors as described in **Appendix C**.

4.3.6 **Aquifers and Ground Water Quality**

Southern Maryland relies almost wholly on wells for its water supply. As of 1984, it was reported that at Lexington Park, only one well had been drilled into crystalline rock, to a depth of 2,623 feet below land surface. Limited seismic data suggest that crystalline bedrock ranges from 2,000 feet below sea level in northwestern St. Mary's County, to about 3,000 feet in southeastern St. Mary's County. Most rock above these elevations is unconsolidated and consists of aquifers and confining beds.

Aquifers identified as important sources of water in the County include the Piney Point, Nanjemoy, and Aquia Formations. The Aquia is deepest and the primary source of water in St. Mary's County. The Piney Point and Nanjemoy Formations are hydraulically connected and display transmissivities up to 10,000 gallons per day per foot, and the Aquia shows similar transmissivities. Wells into these aquifers, especially the Aquia, can be easily drilled to depths up to 500 feet. Small to moderate yield, shallow water supply wells can be drilled or dug into upper soils of the lowland and Upland deposits. In the Upland, these deposits provide recharging water for the lower aquifers.

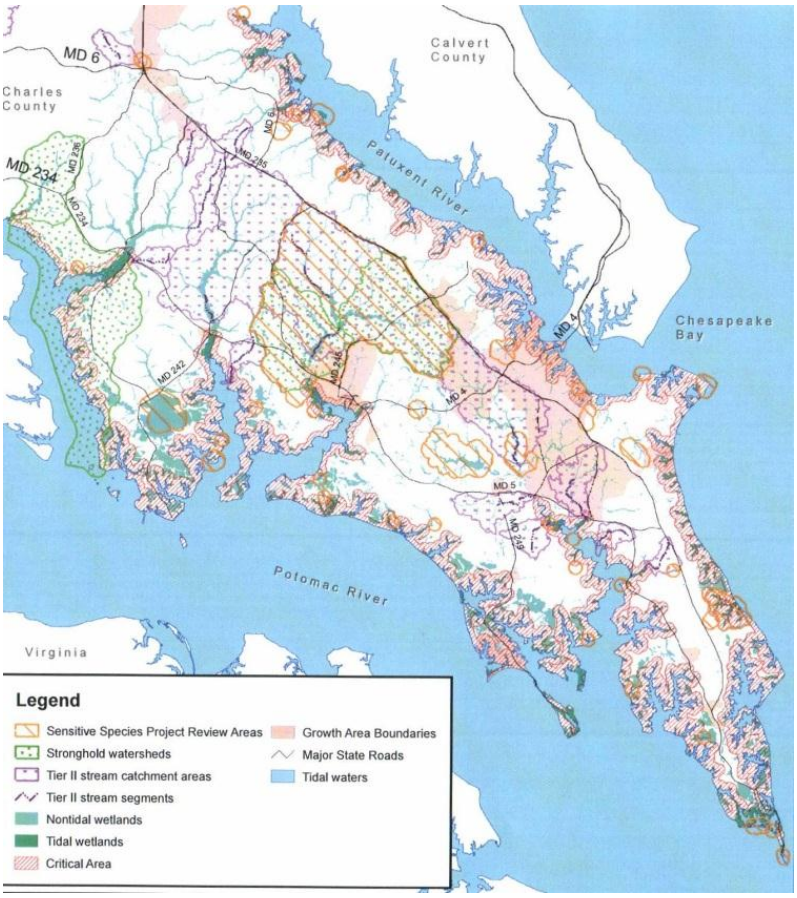
In general, quality of water is good in St. Mary's County. For instance, water from the Aquia Formation is characterized as high bicarbonate, low sulfate-chloride, and generally low in iron. Water pumped from the Nanjemoy-Piney Point aquifer generally is somewhat harder and more mineralized than that of the Aquia. Increased ground water usage in southern Maryland has caused water levels in the Piney Point, Aquia, and Magothy aquifers to decline. The policy of the Water Rights Division (Maryland Department of the Environment) is to ameliorate the impact of falling water levels on current users, particularly domestic well owners, by deflecting new water demand to the deeper, Patapsco aquifer system. The Patapsco aquifer system is the only remaining, relatively untapped, ground water source in the region (except for northwestern Charles County where it is currently being pumped). As a result, the Patapsco aquifers (upper,

middle, and lower) are becoming the primary target for new ground water appropriators in southern Maryland.

The greater depth to important sources of water, and character of unconsolidated deposits, generally would not present a deterrent to landfill development. However, when constructing and operating a landfill, ground water must be monitored and caution always applied to prevent pollution of ground water.

4.3.7 **Wetlands**

Wetlands are identified by notation on maps of the National Wetlands Inventory and by location of hydric soils in the County Soil Survey, which either follow criteria for hydric soils or are presented in the National Hydric Soil List. Accordingly, wetlands are located in narrow strips along most streams and rivers in the County, around ponds, lakes, estuaries, and in extensive areas of the lowland flats along the Wicomico and Potomac Rivers and the Chesapeake Bay. Fewer wetlands appear to be located in the Upland, which shows relatively large tracts of more-or-less level ground devoid of streams and other water bodies. Solid waste management facilities generally should not be developed in or near wetlands.



4.3.8 **Surface Water Sources, Flood Plains, Watersheds and Water Quality**

Surface water sources are located at the head of each river or stream system and tributary, which delineate watersheds for individual systems. These watersheds include, for example, the St. Mary's River, McIntosh and Glebe Runs, which empty into Breton Bay, St. Clement Creek into St. Clement Bay, Chaptico Run into Chaptico Bay, and others. Flood plains normally border the lower reaches of most streams and border virtually all marine and estuarine shorelines. The 100-year flood plain generally coincides with or is part of the Chesapeake Bay Critical Area in the County. The flood plain also extends much of the way upgradient in most streams and rivers. The lake formed by damming the Western Branch St. Mary's River at the St. Mary's River Fish Management Area also constitutes a surface water source. Facilities should not be located at or near surface water sources and flood plains and caution should be applied within watersheds.

Water quality criteria describe the quality of water that will support a given designated use. Under authority of section 304 of the Clean Water Act, USEPA publishes, on an advisory basis, water quality "criteria" that reflect available scientific information on the maximum acceptable concentration levels of specific chemicals in water that will protect aquatic life or human health.

Water quality standards apply to surface waters of the United States, including rivers, streams, lakes, oceans, estuaries and wetlands. Water quality standards consist, at a minimum, of three elements: 1) the "designated beneficial use" or "uses" of a waterbody or segment of a waterbody; 2) the water quality "criteria" necessary to protect the uses of that particular waterbody; and 3) an anti-degradation policy. Typical designated beneficial uses of waterbodies include public water supply, propagation of fish and wildlife, recreation, agricultural water use, industrial water use and navigation.

4.3.9 **Land Uses and Planning**

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

The Comprehensive Plan addresses current and planned land uses in the County. Solid waste collection, processing, transferring and handling facilities are permitted in the Rural Preservation

District zoning district as a conditional use and permitted in the I zoning district as a limited use. Areas that should either preclude development of landfills and solid waste facilities, or where caution should be applied, include: development districts and incorporated areas; town and village centers; historic preservation districts; the critical area; naval facilities; parkland; and power transmission lines.

4.3.10 **Planned Long-Term Growth Patterns**

The Comprehensive Plan and Comprehensive Zoning Ordinance for St. Mary's County are written to ensure that solid waste facilities are located in suitable areas to avoid adverse impacts on adjacent land uses and to ensure compatibility with long term growth patterns. Code requirements further define specific site development requirements, such as setbacks and buffers, and operational requirements, such as vehicle traffic controls, established to minimize impacts on neighboring development. Applicable code/zoning regulations are discussed further in Chapter 2 of this Plan.

4.3.11 **Areas of Critical State Concern**

This criterion responds to laws at the various levels that restrict or preclude certain types of development on designated acreage. Also, areas of critical State concern are areas designated by the Maryland Department of State Planning for restricted or no development. Three areas in St. Mary's County have been designated in conjunction with the Department of State Planning as areas of critical State concern, including Chaptico Run, the combination of Killpeck and Trent Hall Creeks including their confluence, and the Potomac River area.

Chaptico Run is located in the northeastern portion of St. Mary's County south of Route 5. It empties into Chaptico Bay, which is a sub estuary of the Wicomico River, which in turn flows into the Potomac River. The critical area includes approximately 1,050 acres. Critical area boundary extends to approximately the 60-foot elevation contour and includes tidal and non-tidal wetlands. This area provides habitat for numerous species of plants and wildlife, as well as

providing nutrient value to the Wicomico and Potomac Rivers. The area comprising the Potomac River and its wetlands is designated as a critical area.

Killpeck and Trent Hall Creek are located in the northeastern portion of St. Mary's County north of Route 5. They empty into the Patuxent River. The area, including tidal and non-tidal wetlands, provides habitat for significant plant and wildlife species.

As part of the management strategies for these areas, St. Mary's County considers them to be exclusionary for siting solid waste facilities. Any buffer area for a solid waste facility proposed near these bodies of water would not be allowed to encroach within the perimeter of the critical area.

4.3.12 **Wildlands**

The potential effects of proposed facilities on the designated St. Mary's River Wildland Resource Management Plans must also be considered. The 1996 Maryland General Assembly passed legislation titled "Wildlands and open areas – designation of new Wildlands," adding almost 23,000 acres to the State's existing 14,000 acres of Wildlands. Wildlands, according to Maryland law, are "Limited areas of land or water which have retained their wilderness character, although not necessarily completely natural or undisturbed, or have rare or vanishing species of plant or animal life or similar features of interest of preservation for the use of present and future residents of the State. This may include unique ecological, geological, scenic and contemplative recreational areas on State lands." All newly designated Wildlands are on State lands.

4.3.13 **Rare, Threatened, or Endangered Species**

Passed in 1973 and reauthorized in 1988, the Endangered Species Act (ESA) regulates a wide range of activities affecting plants and animals designated as endangered or threatened. By definition, an endangered species is an animal or plant listed by regulation as being in danger of extinction. A threatened species is any animal or plant that is likely to become endangered

within the foreseeable future. A species must be listed in the Federal Register as endangered or threatened for the provisions of the act to apply.

The following is a summary of the salient points of the ESA:

- Prohibits taking (includes harassing, harming, pursuing, hunting, shooting, wounding, trapping, killing, capturing, or collecting) of endangered species, and also provides for:
- Protection of critical habitat (habitat required for the survival and recovery of the species); and
- Creation of a recovery plan for each listed species.

4.3.14 **Waste Flow**

One of the most significant constraints to waste processing or disposal facility development is waste flow control or, more likely, the ability to provide such control. Flow control is the ability to control where waste originating in a certain area is transported, processed, or disposed. For years, flow control was typically achieved through legislation in the form of local ordinances and their enforcement. Flow control ordinances usually require waste collectors operating in a jurisdiction to dispose of waste they collect at a facility or facilities designated by the jurisdiction. Such control ensures the waste supply to the designated facility and the revenues associated with that waste delivery. Often, legislated flow control was necessary to finance facilities as well as other solid waste programs and services which local governments were mandated to provide. While over the years legislated flow control was challenged in the courts in many locations, it was only in 1994 when the U.S. Supreme Court in C & A Carbone, Inc. v Town of Clarkstown struck down a flow control ordinance as violating the Commerce Clause of the United States Constitution and, thus, greatly constrained the ability of local governments to enact and/or enforce "legislated" flow control where interstate commerce is involved.

While there are some situations where legislated flow control has been upheld, particularly where only intrastate commerce is involved, local governments are now forced to consider alternative strategies of flow control in the wake of Carbone. Since Carbone, there have been several bills in the U.S. Congress to authorize legislated flow control, but none have been

enacted. Also, there have been several bills limiting interstate waste shipment and providing for import ban powers. There is clearly heightened interest in Congress regarding the flow of waste and its control; however, as in other years, the outcome of these proposed bills is uncertain. Therefore, unless some form of national legislation is enacted to address legislated flow control, the primary strategies available to local governments to ensure a sufficient flow of waste to a publicly owned facility are (1) public collection of waste, (2) contract flow control, (3) franchise flow control, or (4) economic flow control.

Public collection is the collection of waste with municipal vehicles and employees as a public function. Many municipal governments conduct waste collection and see it as their ultimate responsibility in protecting public health and safety. Through public collection, a local government or county can ensure that waste is delivered where the government prefers. However, the majority of local governments have chosen not to engage in public collection, particularly the collection of commercial waste. St. Mary's County, through its Convenience Center system, maintains a form of public collection for the portion of residential waste received at those facilities.

Contract flow control is achieved when a local government contracts with one or more collectors to provide collection services on its behalf. The contract usually includes a negotiated provision whereby the local government designates where the waste is to be taken for processing or disposal. Since the collector(s) is (are) able to negotiate provisions, and is (are) under no obligation to enter into the contract, and receives a benefit from the negotiated terms, it is a mutually voluntary agreement entered into by the local government and the collector(s).

Franchise flow control is similar to contract flow control; however, it provides for a certain level of regulation and grants to the hauler(s) a "property right" of a franchise territory and rights to use certain public streets and ways to provide solid waste collection services. The ability of local governments to grant franchises for solid waste collection is typically derived from state legislation. A franchise is different than a mere license to do business or a contract for services since it is normally considered to be property, and the franchisee has certain rights that are protected by state and federal constitutions. The franchise is also a contract, which is voluntarily entered into by the local government and the franchisee.

Solid waste collection franchises can be exclusive, nonexclusive, or partially exclusive, and in franchising, haulers may have more of an opportunity to negotiate terms of the contract and a greater security in their rights.

The fourth option to legislated flow control is economic flow control. This is achieved when waste haulers deliver waste to a facility because the costs of disposal at that facility (e.g., tipping fees and transport costs to get there) are the same or lower than alternative facilities. Economic flow control can be achieved through use of user fees or generator fees, which are assessed to and collected from the users (e.g., residents, businesses, and institutions). Revenues from these fees support the solid waste system costs and allow a reduction or elimination of tipping fees, making the system pricing more competitive and, therefore, allowing the system to retain waste that would otherwise "leak" to other facilities. Of course, taxes and other forms of revenue could also be used.

4.4 SOLID WASTE MANAGEMENT OPTIONS

In this section, alternatives for managing solid waste streams generated in the County are discussed. Primary methods of solid waste management that will be maintained or implemented by the County in the ten-year planning period are source reduction and reuse, recycling, transfer and landfilling. Other alternatives, including waste-to-energy, MSW composting, material / resource recovery, and C&D waste recycling/reuse are assessed in this Chapter in order to discuss the ability to meet the long- term solid waste processing and disposal needs of the County. Zero Waste initiatives are discussed in **Appendix F** and may impact the County's future decisions.

4.4.1 **Source Reduction and Reuse**

Reduction of waste at the source is the preferred option in the USEPA's and Maryland's solid waste management hierarchy. Source reduction efforts focus on 1) decreasing the volume of materials that are produced, consumed, and disposed; and 2) reducing the toxicity of materials that are disposed. Source reduction initiatives can be either consumer-oriented or policy-

oriented. Consumer-oriented source reduction methods are generally aimed at making consumers smarter shoppers and waste managers. Policy-oriented methods generally are geared toward businesses and institutions, encouraging practices and regulations that promote source reduction.

Reuse is the second option in USEPA's solid waste management hierarchy. Reuse involves multiple use of materials that otherwise might be disposed of after one use. Examples of reuse are donated used clothing and reuse of construction materials obtained during remodeling or demolition of buildings. Ongoing initiatives by the County for source reduction and reuse address several materials. The County includes information on specific techniques for source reduction on their website. MDE utilizes a "Source Reduction Checklist and Credit Report" to determine the percent credit able to be obtained by each county, with a maximum of up to 5 percent source reduction credit available. In 2014, the County achieved a 4 percent credit through this program.

An important element of a waste reduction program is education and information made available to the public to increase the awareness of solid waste management challenges and to demonstrate how individuals can contribute to reducing the quantity and toxicity of solid waste. Another element is a program to separately dispose those materials generated that have a high degree of hazard. Materials such as petroleum-based solvents, some cleaners, oil-based paints, pesticides, and other materials are quite hazardous, and when mixed with other solid waste, they increase the overall toxicity of the waste stream. In contrast to requirements that businesses generating such materials must dispose of them in hazardous materials processing and disposal facilities, federal regulations allow such materials generated by residents to be disposed along with other solid waste. The County has several programs that address the needs of education and separate disposal of household hazardous waste (HHW).

Due to the challenges with identifying quantities of materials previously generated that have become a component of the County's program for waste reduction, the County has not quantified the effects of its reduction program discussed in this section.

The County maintains a “Reuse Directory”, a list of businesses and institutions that accept items for reuse. The County updates this directory on an ongoing basis. This list is made available to residents that call the Department of Public Works and Transportation.

County residents can drop-off used motor oil; oil filters antifreeze, used cooking oil, and kitchen grease at each of the six Convenience Centers. This initiative prevents these materials from being land-filled. County residents may also drop off used textiles and clothing at each of the Convenience Centers. Textiles are recycled; used clothing is donated for reuse.

Since 1994, the County instituted two disposal bans. The first followed a State law banning commercially generated loads of segregated yard waste. Since this ban was mandated by State law, it will survive the closure of the St. Andrews Landfill to commercial waste. In the second initiative, the County banned disposal at the St. Andrews Landfill of non-segregated loads of yard waste. It is not known if private haulers have continued this practice since the Landfill ceased accepting commercial waste. Details of these programs are presented in Chapter 3. The County will consider implementing several additional initiatives described below during the ten-year planning period:

- Provide educational messages targeted to residents and landscape maintenance firms, encouraging them to leave grass clippings on the lawn, as opposed to bagging them for collection. Messages would instruct lawn care providers about the benefit of "grass cycling" and dispel misunderstandings such as that it causes thatch.
- Promote bulk purchases in consumers' reusable containers to save packaging and grocery bags. Also, consumers would be encouraged to buy products that are packaged in recyclable materials and that do not have excess materials.
- Promote improved maintenance of appliances, vehicles, and other repairable items. Instead of disposing of these materials, consumers would be encouraged to repair them or donate them to charitable organizations that will repair them.
- Encourage consumers to buy rechargeable batteries, products with extended warranties, and other products that have longer useful lives that can reduce disposal quantities. A federal law, the Mercury-Containing and Rechargeable Battery Act of 1996, discussed in Chapter 1 of this Plan, makes possible a voluntary, private sector collection program using retail stores for collection of used rechargeable batteries.

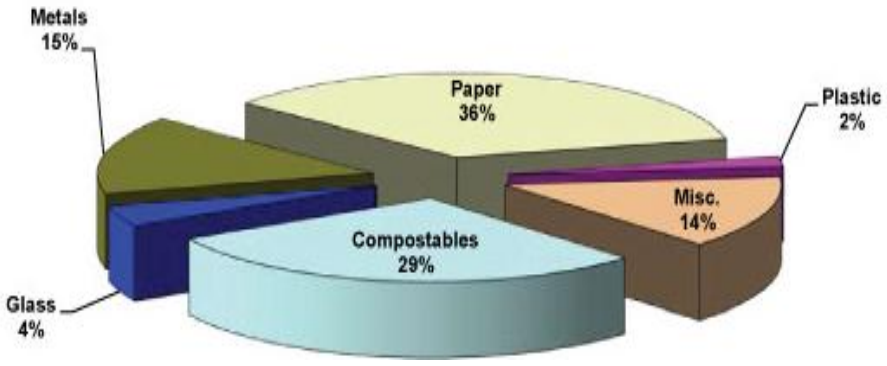
It also simplifies regulatory requirements to provide an incentive for recycling rechargeable batteries. In addition to federal law, there is also a State law regarding rechargeable batteries.

- Publicize ways to help consumers to remove their names from third class catalog and solicitation mail lists.

St. Mary's County also will encourage source reduction efforts by leading through example. The County has ongoing initiatives:

- The County has a Buy Recycled Policy, implemented in September, 1994, and applicable to all departments within County government. The policy includes a buy recycled preference in all procurements.
- The County will encourage reusable products in County government, so less waste is generated.

4.4.2 **Recycling**



In the County's 1990 Recycling Plan, a 15 percent recycling goal was identified, to be applied to all waste materials allowed by the Maryland Recycling Act. The State's mandate to the Counties was increased to 20 percent on October 12, 2012, by House Bill HB929, for local jurisdictions with a population of less than 150,000. The population of St. Mary's County is expected to remain below this 150,000 population threshold for the full 10 year period of this Plan. This bill required that the 5 percent increase be achieved by December 31, 2015. For jurisdictions with a population of greater than 150,000, the mandated recycling rate is 35 percent. Program elements implemented and operating within the County have resulted in the County exceeding these goals since 1994, with a reported recycling rate of 41.31 percent in 2013

for materials considered as "qualified" under the Maryland Recycling Act. Approximately 36,000 tons of other materials were also recycled in the County in 2013. Recycling system results in other jurisdictions in Maryland underscore the opportunity to achieve a greater level of recycling and the challenge that exists in St. Mary's County. Higher recycling rates in other jurisdictions are due to a combination of higher performance in the residential and the commercial/institutional/industrial sectors.

As previously discussed, increased levels of recycling in the residential sector can be achieved if greater numbers of households have curbside collection of recyclables. Also, the commercial/institutional/industrial sectors would have to increase levels of recycling, and equally important, provide the County with adequate annual reporting to demonstrate actual levels. These opportunities and challenges are addressed with the alternatives presented in this section. According to the MDE 2013 Maryland Recycling Activities Report, Maryland achieved a MRA recycling rate of 44.5%. The total MRA tons recycled in MD in 2013 was 2.8 million tons. The breakdown by type of material, as shown on the MDE website, as shown above, with paper and compostable recycling comprising the largest portion.

4.4.3 **Drop-Off System at Convenience Centers**

The most significant recycling program initiative is the County's recyclable drop-off facilities implemented at the Convenience Centers. These Centers serve as collection sites for newspapers, corrugated cardboard, magazines, mixed paper, glass, plastic, steel, and metal and aluminum containers. Also, as previously mentioned, used motor oil, oil filters, antifreeze, used cooking oil, kitchen grease, fluorescent bulbs and ballasts, textiles and clothing, rechargeable batteries, and electronics may be dropped off at the sites. Commercial and institutional organizations may use the Convenience Centers to drop off these same materials provided that quantities are not excessive.

Effective December 2006, residents using the six (6) Convenience Centers no longer needed to pre-sort recyclable items or manage multiple recycling containers at home. The development of this program represents a major step forward in the County's long term waste resource

management strategy. Newspaper, magazines, catalogs, cereal boxes, mixed paper (printer paper, copier paper, mail, etc.), old corrugated cardboard, phone books, plastics, glass, aluminum, and steel containers could be co-mingled into the same recycling container(s). Effective November 10, 2008, items such as aerosol cans, aluminum foil and pans, aseptic packaging/gable top milk/juice cartons, bagged plastic film such as grocery bags, stretch film and shrink wrap were also determined to be acceptable as part of the single stream recycling.

4.4.3.1 Single Stream Recycling

Effective December 2006 the St. Mary's County Recycling Program implemented "Single Stream Recycling." The new program offered at the six convenience centers and St. Andrews Landfill enables residents and the commercials sector to mix their recyclable items and which historically required presorting. The intent to increase the amount of materials collected for recycling simply by making it easier and simple. Following is a list of items that are acceptable as part of the Single Stream recycling: all plastics coded #1 through #7; glass containers; metal containers; aerosol cans; aluminum foil and pans; milk cartons; juice boxes and other aseptic/gable-top packaging; newspaper; magazines & catalogs; mixed paper and plastic film such as grocery bags, stretch film and/or shrink wrap.

Due to the overwhelming success of the Single Stream Recycling Program, the County has funded, procured, installed and operating stationary compactors with 40 cubic receiver boxes in order to manage the larger than expected volume of material. The stationary compactors replaced the 8 cubic yard front load and 30 cubic year roll-off boxes which did not allow the material to be compacted/compressed and transported accordingly. The new compactors enable the County to compact/compress the recycled materials and transport same in a more cost effective and efficient manner. The new compactors also utilize less space at the convenience

centers, thus freeing up additional space for traffic flow, parking, and additional containers as they become necessary.

Advantages of the drop-off system include:

- Established system of six Centers widely known among residents and operating for several years.
- Combination of waste disposal and segregated materials receiving facilities incorporated into each Center, providing an ongoing education to residents about the materials that can be brought to them, and a "one stop" outlet for both residential waste and recyclables for self-haulers.
- Facilities lend themselves to adding materials as markets become available.
- County control of the Centers provides flexibility to change operations according to available contractor capability and changing needs of the County.

Disadvantages of the drop-off system include:

- Curbside programs have been proven to result in greater participation and higher quantities of recyclables collected compared to drop-off systems.
- The County must provide direct personnel as well as contractor resources to manage the drop-off system.
- Curbside collection is more convenient.
- Expanding County population and increased traffic at Centers leads to traffic management problems and congestion.
- Challenges to private haulers of include the trend for contractors to discourage residential recycling.

4.4.4 **Other Recycling**

The County has implemented policies to encourage the use of recycled paper and double-sided printing by contractors for the printing of reports and documents and by County employees in all departments. These efforts will continue. Under a service agreement with MES, the County has

periodic mulching of brush and leaves aggregated at the St. Andrews Landfill. MES periodically brings a mobile tub grinder to the Landfill to grind piles of brush and leaves. The Department of Public Works and Transportation may choose to purchase a tub grinder as a part of its future yard waste and composting programs. The County uses mulched material as ground cover material for dressing ditches, constructing trails, to alleviate stormwater induced erosion along road right-of-ways and provides the material to the residents of the County free of charge. This program will continue.

4.4.4.1 Recycling Reporting

To better assess progress toward its recycling goals, the County will consider instituting a mandatory reporting requirement for all businesses in the County that exceed a threshold size (minimum number of employees, for example). This reporting requirement would direct businesses to document actual or estimated types and quantities of materials being recycled, the hauler/processor/market receiving the materials, and any plans for revisions of recycling activities. Other relevant demographic/business activity data also would be obtained to enable the County to more accurately document recycling and waste disposal rates and better plan for its future solid waste management system needs.

The County also plans to institute an Annual Environmental Recognition Awards Program that recognizes leaders in the community based on the total amount (by weight) of recycled material reported and/or implementation of new recycling programs/initiatives. In addition, the County will work through the Department of Land Use and Growth Management and the Department of Economic and Community Development to encourage businesses expanding or locating in the area to plan for recycling and include adequate storage space for the collection of recyclable materials in their building plans.

4.4.5 **Regional Materials Recovery Facility (MRF)**

In order to facilitate greater levels of recycling, the County may consider becoming a participant in a MRF that would serve generators in St. Mary's County and potentially Calvert and Charles Counties. According to the MDE, there are several privately owned materials recovery facilities

and some publicly owned MRF's located in Maryland: Baltimore County Recovery Facility (state-of-the-art single stream facility opened in November 2013); Montgomery County MRF; Prince George's County MRF); Prince George's County (Georgetown Paper Stock Company, Inc. & Universal Recycling); Washington County (BFI, Inc.), and Howard County (WMI-Recycle America), amongst others.

These facilities receive recyclable materials from existing collection programs in the region. The County relies on this capacity outside the County for the processing of most recyclables brought to its Convenience Centers, and some private haulers and self-haulers from businesses also use these facilities. Participation in a regional MRF would be desirable if existing private firms do not have adequate capacity to take greater quantities or additional material types that would result from expanded recycling in the County, or if it would be more cost-effective to process for markets the collected recyclables in the County and reduce the costs of transport. For a facility to be cost-effective, it would likely require participation of Calvert and/or Charles County and the cooperation of private haulers who collect recyclables at curbside in the County and these other counties in southern Maryland.

Advantages of a regional MRF include:

- Potential ability to obtain better marketing arrangements due to greater quantities of materials.
- Flexibility to add or delete materials or markets as conditions require, and according to County needs and desires.
- Better economies of scale for operating costs.
- Promotes cooperative regional effort with neighboring Calvert and/or Charles Counties.
- Ability to outsource development and operation to private sector, to create new jobs and economic growth in the County and southern Maryland through a public/private partnership.

Disadvantages of a regional MRF include:

- Long-term commitments needed from project participants to share in costs associated with facility.
- Transportation costs would be incurred to deliver materials from local collection areas to MRF.
- May duplicate or displace facilities and services already in place and performing satisfactorily in private sector or facilities proposed by private sector in the County and/or adjacent counties.
- Requires adequate commitment of recyclable materials, without which the MRF may not manage cost-effectively for either the County or the region.

One option that could be included with a residential and commercial recyclables MRF, to improve the economics and also to increase the diversion of waste generated in the County and the region from landfill, is a combined MRF designed and equipped to process certain construction and demolition waste. Such a facility could potentially recover materials as wood, metals, corrugated containers, and possibly aggregate, drywall, and other materials, depending on markets or local beneficial use applications for those materials.

Limited outlets exist for the processing of construction and demolition (C&D) waste for recycling in the region, and there are no facilities located in the County that accept mixed C&D waste for processing and materials recovery. Most C&D waste generated in the region is landfilled. The County encourages the recovery and reuse/recycling of C&D waste to the extent possible as part of this Plan, but recognizes that for this to occur, the cost must be competitive with other legal outlets for C&D waste.

Locating a MRF at the St. Andrews landfill which could also accept and process selected C&D waste, particularly if regional cooperation could be achieved with Calvert and/or Charles Counties, the building community, and private haulers that collect C&D waste at construction and demolition sites, could be a logical development and elevate the recycling levels of C&D waste in southern Maryland. It should be noted, however, that some C&D materials generated at

construction sites in St. Mary's County are currently recovered from the waste collected by Waste Management and other haulers before they deliver loads to out-of-County facilities. In addition, Great Mills Construction Company processes some C&D waste, primarily concrete and brick, at its facility in the County. Input and cooperation from these private firms would be important to the success of any initiative for processing C&D waste. With further planning and cooperation of the private sector and neighboring counties, an opportunity may exist for a public/private partnership in MRF development at the St. Andrews Landfill, with or without a C&D waste component.

4.4.6 **Expanded Curbside Recyclable Collection**

The prior approved Recycling Plan called for curbside collection in entire election districts that had development sufficiently dense to make it economical. However, to date, development of residential curbside collection has been limited, even though significant suburban growth has occurred. As discussed earlier in this Chapter, the County would consider regulation of waste and recyclables collection through franchising to ensure implementation of residential curbside recyclables collection. Alternatively, the County would consider the phased consolidation and reduction of Convenience Centers and would work with private haulers to encourage curbside recycling collection programs.

Advantages of expanded curbside collection of recyclables include:

- Greater quantities of recyclables would be expected compared to the existing drop-off system, resulting in the County improving its recycling rate and decreasing quantities of waste which must be disposed.
- The County would experience less dependence on drop-off facilities at Convenience Centers, possibly allowing elimination of one or more Centers and reducing the costs of maintaining the Convenience Centers.
- Collection costs per customer could be expected to be reduced due to a larger customer base, and collection efficiency would be improved.
- Back yard burning could be reduced if curbside collection were mandatory in certain sections of the County.

- Traffic problems at Convenience Centers could be reduced as long as expansion of curbside collection outpaced any reduction in the number of Centers or consolidation of certain centers.

Disadvantages of Expanded Curbside Collection include:

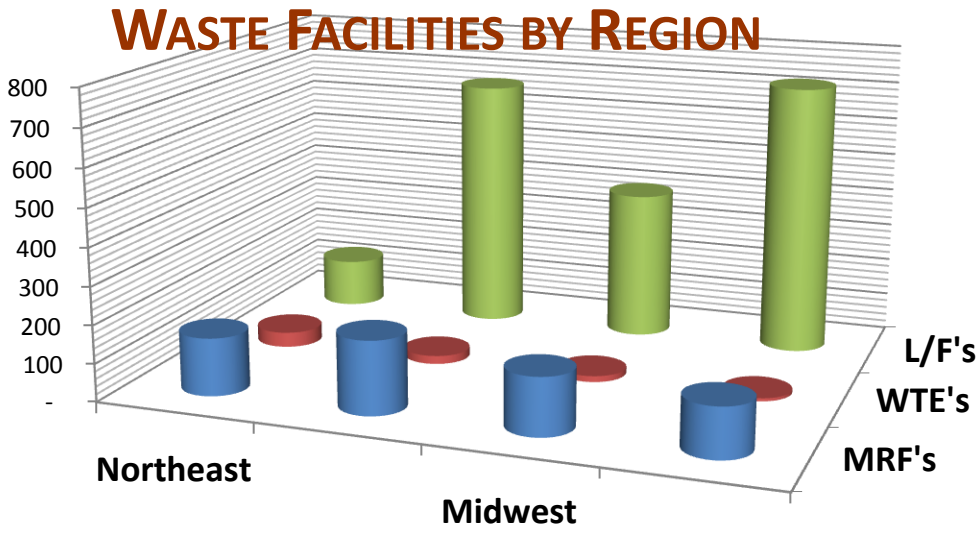
- Typical curbside collection programs can vary between $5- $25 per month depending on the density of the service area, number of pickups, types of collection provided (ie. Food, yard, bulk waste, recycling, household trash, etc).
- Participants would incur a cost for collection (as opposed to self-hauling to Convenience Centers).
- Curbside collection of recyclables is impractical to implement at present in some rural areas that are not receiving curbside waste collection.
- Certain residents who have used the Convenience Centers for years will perceive any reduction in the number of Convenience Centers as taking away a service and will put pressure on elected officials to retain them.

4.4.7 **Waste-to-Energy (WTE) Options**

St. Mary's County has long been interested in WTE. The Tri-County Council prepared a WTE feasibility study in February, 1990. The feasibility study identified potential WTE facility configurations and energy markets that could serve the County only, and, alternatively, one that would serve St. Mary's, Calvert, and Charles Counties. The conceptual facility described in the feasibility study included all of the environmental controls required at the time, including state-of-the-art air pollution control equipment. SMECO was identified as the likely energy market to purchase electricity produced by a WTE facility. The study concluded that WTE was technically, but not economically, feasible and implementation was not recommended.

Since then, factors affecting economics of the sale of electricity have not improved, with expectations that the contribution to a WTE facility's economics by the energy markets would remain unattractive. Also, federal regulations resulting from the 1990 amendments to the Clean Air Act have added more air pollution requirements to WTE facilities, increasing costs. General

inflation in capital and operating costs for WTE facilities also has been experienced. Finally, the cost of landfill disposal in large, private landfills is substantially lower than waste-to-energy options, even considering transfer station and long distance transportation costs. Therefore, it is not expected that the economic feasibility would be different than when the study was prepared.



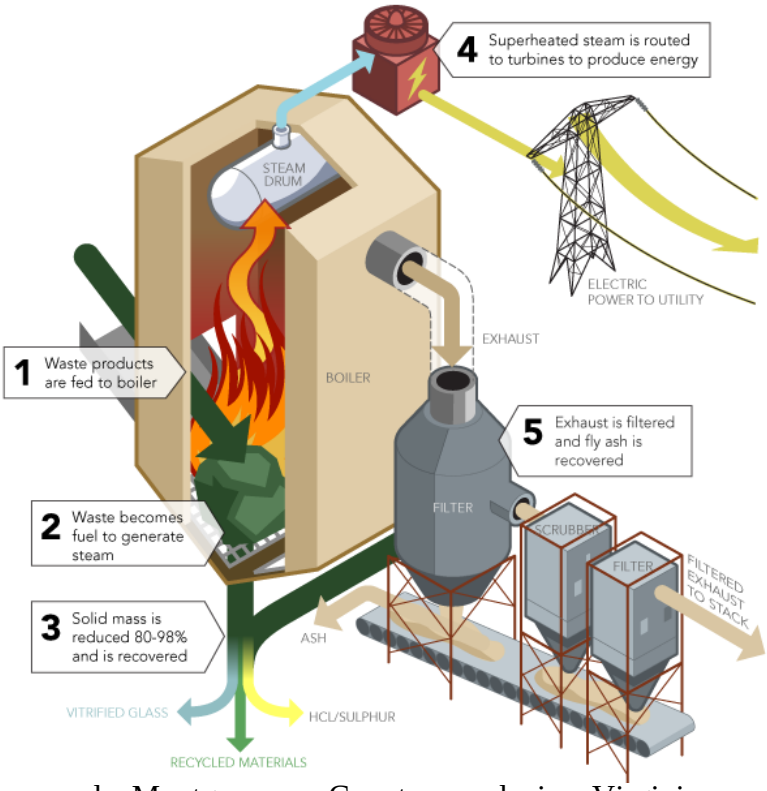
	Northeast	South	Midwest	West
MRF's	153	195	153	132
WTE's	40	22	16	8
L/F's	128	668	394	718

According to the USEPA, in 2014 there were 86 operational WTE projects in the country with total design capacity of 96,164 tons per day. This includes mass burn, modular and refuse-derived fuel combustion facilities.

4.4.7.1 Mass Burn

Mass burn WTE refers to combustion facilities that receive loads of MSW directly from collection vehicles and burn the MSW with no processing. Several designs have been commercialized and constructed in the mid-Atlantic and northeast regions. Mass burn facilities have heavy-duty grate systems to handle the wide range of particle size experienced with MSW.

Mass burn facilities generate steam, which is usually converted to electrical power and sold to an electrical utility.



Facilities have been implemented with modern combustion controls and air pollution control equipment to ensure complete combustion of the waste and the ability to meet the USEPA's stringent air emission standards. Representative facilities implemented since the mid-1980s in the region in Maryland include Baltimore RESCO, Harford County, and Montgomery County, and in Virginia - Arlington/Alexandria and Fairfax County.

In-depth studies of WTE options and feasibility, as noted above, have been conducted for the Tri-County Southern Maryland region. Due to the capital intensive nature of WTE, the conceptual WTE facility option was sized to include projected quantities of MSW generated from St. Mary's, Calvert, and Charles Counties. Projected economics would be better for this larger facility serving all three counties than for a facility serving only St. Mary's County.

The County remains open to the concept of WTE; however, the County understands that the economics and development constraints since that time have not changed to a favorable position. In addition, invalidation of local flow control ordinances that restrict movement of waste to out-of-state locations, by the U.S. Supreme Court in 1994 removed a critical mechanism that numerous other local jurisdictions relied upon to secure the economic success of WTE facilities. Separately, since the mid-1990s, additional large scale privately managed landfills have commenced operation in Virginia. These landfills have offered disposal capacity at lower costs than those experienced by St. Mary's County in operating the St. Andrews Landfill

and have been significantly more competitive than WTE options. It is anticipated that mass burn WTE will not be a feasible option in the near future.

4.4.7.2 Processed Fuel

Processed fuel WTE facilities refer to waste combustion facilities with energy recovery that first process MSW prior to burning it. The process facility can be contiguous with the combustion facility or it can be separate. One such facility is located in Portsmouth, Virginia, with a capacity of 2,000 tons per day. This facility, managed by Southeastern Public Service Authority, receives waste from the entire Tidewater region of southeastern Virginia. Processed fuel, with a nominal maximum particle size of four inches, is delivered via an underground conveyor to a US Navy boiler system located across the street from the processing facility. Ferrous metal is recovered and recycled and some (but not all) other non-combustible materials are removed in the processing operation.

Potomac Electric Power Company (PEPCO) manages two electric generating stations near St. Mary's County that could be considered as a potential user of processed MSW. PEPCO's Chalk Point Generating Station, located adjacent to the Patuxent River and Swanson Creek in Prince George's County, includes two combination coal and oil units, two gas and oil units, and six combustion turbine units. The coal/oil units are of the pulverized coal type, burning the fuel in suspension. This is a similar design to the Baltimore Gas and Electric Co. (BG&E) Crane Station in Baltimore County that burned limited amounts of processed fuel for several years in the 1980s that were produced at an MSW processing facility in Baltimore County. BG&E experienced numerous difficulties with burning processed waste fuel and eventually discontinued it. In addition, revisions to air emission regulations since that time would preclude burning processed fuel without making significant upgrades to existing air pollution control equipment.

PEPCO also manages the Morgantown generating station in Charles County, adjacent to the US Route 301 Potomac River Bridge. This station has two large coal/oil combination units. PEPCO conducted a test to burn processed fuel several years ago. PEPCO identified operational challenges associated with burning processed fuel and ruled it out as being a desirable alternative

to coal and oil. In addition, in 1999, PEPCO announced its intention to sell all of its generating stations, and to remain in the electrical power business as an operator of transmission equipment and as a provider of local distribution service. As a result of operational challenges and costs identified to burn processed fuel, air emission requirements, and PEPCO's business plans, PEPCO does not have an interest in burning processed fuel. It is anticipated that a processed fuel WTE will not be a feasible option in the near future.

4.4.7.3 Resource Recovery Facilities (RRFs)

Under Environment Article, §9-1703(d), Annotated Code of Maryland, the only facilities deemed an RRF are facilities which incinerate waste to produce heat and or energy which were built prior to January 1st, 1988. The three plants which apply are the Wheelabrator (BRESCO) RRF, Smith Island RRF, and Harford RRF. Plants which were created after this date will not be eligible form the 5% recycling credit offered by the State.

Advantages for WTE include:

- Capital and operating costs for WTE can be quite stable over the 20 years or longer life of a facility, given stable energy markets.
- A WTE facility must be repaired or rebuilt in time but does not become consumed as a landfill does. Modern mass burn facilities with proper repairs and replacements can be expected to have a life in excess of 35 years.
- Volume requirements for disposing of ash residue are approximately 10 percent of that of unprocessed waste.

Disadvantages for WTE include:

- Waste quantity commitments and attractive energy markets must be obtained to make a WTE facility economically viable, neither of which are currently available in St. Mary's County nor are they anticipated to be available in the future without federal legislation to facilitate legislated local flow control or energy prices increasing to improve energy markets.
- Landfill disposal capacity must be secured for ash residue generated.

A WTE facility will convert waste to a form of energy that has value to existing utility or industrial energy systems. When properly sized to handle only the portion of the waste stream that is not recovered for recycling, WTE facilities can be compatible with waste reduction and recycling programs.

Siting, permitting, procurement, and construction time for a WTE facility in southern Maryland, particularly environmentally sensitive St. Mary's County, could be expected to be a minimum of five years from the time a decision would be made to pursue a project in earnest. Few WTE projects are now being planned or constructed in the U.S.

4.4.8 **Solid Waste (MSW) Composting**

While composting of homogeneous waste streams such as yard trim have had success in the U.S. for a number of years, and food scrap composting is increasing, successful composting of mixed solid waste is limited. Mixed solid waste composting is the composting of residential or commercial trash streams. Municipal solid waste composting processes all of the biodegradable components of the waste-stream that decompose readily—paper, food waste and wood in addition to yard trimmings.

As traditional landfills fill to capacity, governments are increasingly looking for ways to divert organic matter such as food scraps to composting facilities. Currently there is widespread interest on the part of local Governments in incorporating municipal solid waste (MSW) composting into their integrated solid waste management systems. Unfortunately, the wholesale infrastructure for composting programs does not yet exist on the East Coast. In addition, there is little information on the costs of MSW composting and how those costs compare with the costs of alternative forms of waste disposal (especially traditional land disposal). The growing interest in MSW composting has been stimulated by a desire to minimize the amount of garbage entering landfills—either as a way of meeting waste diversion targets or as a way of extending landfill life. Capital costs for mixed solid waste composting facilities vary substantial depending upon the technology utilized and location. In 1997, Anne Arundel County solicited proposals for a 250

ton per day composting facility. Capital costs proposed were $35,000,000 which equated to a capital cost of $140,000 per ton of daily processing capacity.

In 2004, New York City did a Life-Cycle Analysis for a theoretical 300 ton per day Research and Development Pilot Materials-Recovery and Composting Facility. Total capital costs were $58,600,000 which equaled approximately $195,000 per ton of daily operating capacity. Total operating costs were $8,200,000. The calculated first year cost per MSW ton was $75.00, with a calculated cost of $100.00 per ton for bio-solids. This gave an $85.00 per ton blended cost, assuming 90,600 tons per year of MSW and 60,400 tons per year of biosolids (Source: Chapter 7, Cost Estimates, *http://www.nyc.gov/html/nycwasteless*).

Communities contemplating establishment of a mixed solid waste composting facility face significant obstacles to implementation, including the environmental consequences of landfills vs. composting, the relative political costs of siting landfills and composting facilities, and the economic implications of the alternatives. The significant volume reductions associated with composting and the possible uses of compost make MSW composting attractive as a potential means of diverting waste from landfills. On the other hand, MSW composting requires considerable presorting of the incoming waste and screening of the finished product to remove un-compostable materials such as glass, metal and plastic—activities that tend to be relatively costly.

Facility costs, and related tipping fees, are generally not competitive with other available waste disposal options, particularly landfilling. Odor control is a significant design consideration and the potential exists for offsite odor as a result of operational problems or odor control system breakdown, even for a well-run facility. To insure a high quality usable end product, inorganic materials such as plastic, wire, household hazardous waste and metal must be removed from the waste stream at some point in the composting process. Based on experience at existing composting facilities, it is estimated that 35 to 45 percent of incoming solid waste quantities will require landfilling or incineration as residue. Residue includes inorganic materials and organics which may not be fully composted.

It is estimated that the capital cost for a facility located in St. Mary's County would be at the high end of the cost range given the need for aggressive odor control and other conservative design features since the facility would be located in a developed area.

It is also noted that residue generated from the mixed solid waste composting operations (35 to 45 percent of incoming solid waste quantities) would require land-filling or incineration. Residue disposal costs would be in addition to compost facility costs. It is assumed that an MSW composting facility would be located within the County since the total facility capacity would be needed to process the County's residential waste stream. Collected waste would be delivered directly to the facility, and waste transfer costs would not be applicable.

Given the potential for odors from a mixed solid waste composting facility, it would be inappropriate to site such a facility in the vicinity of residences or other sensitive receptors. It is unlikely that a suitable site for such a facility could be located in St. Mary's County. Considering the relatively low tipping fee for waste disposal available under the County's existing waste export contract and the relatively high per-ton cost of mixed solid waste composting compared to other disposal alternatives, mixed solid waste composting would not present a competitive alternative. Therefore, implementation of a mixed solid waste composting facility in the County is most likely not feasible during the planning period, but the County will remain open to regional discussions with neighboring jurisdictions.

4.5 CONSUMER EDUCATION PROGRAMS

4.5.1 **Media Relations**

The County has established good press relations to ensure consistent media coverage for its programs. Use of the local radio stations, county government television channel, local newspapers and periodicals provide an opportunity to assist with ensuring an adequate understanding of solid waste and recycling issues. The County has also implemented the following initiatives within its education and information program, which also includes scheduled appearances at the Trade Fair, Blessing of the Fleet, America Recyclers Week, Earth

Day, County Fair, Patuxent River Air Expo , presentations to the public and non-public schools. The public education program includes the promotion of grass-cycling and the home-composting of yard trimmings.

The expansive website *www.stmarysmd.com/dpw*, further describes all of these County programs. Users of the website will find there have been informational videos added to the site demonstrating appropriate procedures for recycling various items. The County distributes source reduction materials- brochures, fliers, etc. - to more than 30% of the County businesses through annual events, mailings or publications. In addition, the County publishes an annual Solid Waste Guide in the local newspapers.

In 2013, the County added an on-line Single Stream Recycling informational brochure in Spanish (Reciclaje de un Solo Flugo) to help reach other population segments within the County.

4.5.2 **School Presentations**

Since 1995, the Department of Public Works and Transportation has made staff available for educational presentations to both public and parochial school students. The presentations are designed to help students understand the practical aspects of solid waste and recycling and bring awareness to how they can participate in source reduction and recycling in their everyday lives.

4.5.3 **Promotional Days**

On April 21, 1998, the Department of Public Works & Transportation presented a 12' x 8' display to the Commissioners of St. Mary's County in conjunction with the celebration of Earth Day. The portable display was made possible through a Chesapeake Bay Trust Grant that was received through a cooperative effort between the County and the Southern Maryland Resource Conservation and Development, Inc.

The updated display includes six panels of educational information and free brochures such as the County Fair, Chamber of Commerce, Trade Fair, and Earth Day activities; but will also be made available by request for display in public buildings (Governmental Center, Schools, Libraries, etc.). Recycling stickers, coloring books, informational brochures, are also available. The County also has an "A to Z" recycling listing at *www.stmarysmd.com/dpw*.

4.5.4 **Student Participation**

In September 1999, the Board of Education approved the mascot for the Millennium Contest, sponsored by the Department of Public Works & Transportation, for participation by all students in the County School System (both public and private) for the 1999-2000 school year. The DPW&T selected a logo (at right) for the Recycling Program as a symbol for the new Millennium. This logo has been trademarked with the State of Maryland thru October 20, 2019. The first, second and third place entries were presented with handsome plaques in honor of their efforts and cash reward for capturing the rich heritage and spirit of St. Mary's County while promoting recycling. "Digger the Worm" was selected as the mascot to represent the County's yard waste mulching program and to draw awareness to home yard/food waste composting programs. During the 2009 Maryland General Assembly legislative session, House Bill 1290 (Environment-Recycling-Public School Plans) was passed and became effective July 1, 2009. The new law amended § 9-1703 of Environment Article, Annotated Code of Maryland and requires Counties to amend their Comprehensive Solid Waste Management & Recycling Plans ("Plan") as per §9-505 of the Environment Article, Annotated Code of Maryland. The County Public Schools have developed a strategy for the collection, processing, marketing and disposition of recyclable materials from public schools, which is further described in Section 3.5.2.

4.5.5 **Community Surveys**

Periodic customer satisfaction surveys are conducted by the Department of Public Works and Transportation. Prior surveys were performed at the six County-operated Convenience Centers, to gather data on the posted hours of operation, specifically Monday through Friday. The surveys were conducted due to inquiries and requests made by the residents to increase or shift hours later in the day during the work week, thus allowing additional users the ability to dump solid waste and recyclables after work, rather than during the weekend. Based on the survey, approximately 92% preferred that the hours of operation remain as currently posted from 9:30 a.m. to 5:00 p.m. Monday through Friday or be extended with later hours. The remaining 8% preferred additional hours during the morning (i.e. prior to 9:30 a.m.). Based on the survey and input from the Commissioners of St. Mary's County, "Summer" and "Winter" hours of operation were established as follows: 11:00 a.m. to 6:30 p.m., Monday through Friday (May 1 – Oct. 31) and 9:30 a.m. to 5:00 p.m., Monday through Friday (Nov. 1 – April 30). Saturday and Sunday remained unchanged at 8:00 a.m. to 5:00 p.m., year round. Due to customer confusion and dissatisfaction with the new hours, the operations returned to the original posted hours.

In November 2014, an updated survey was conducted at the St. Andrews Landfill scale house and the six convenience centers. A brief Customer Service Questionnaire was utilized and is currently posted online for ongoing input and suggestions from the public. Based on the survey, 77% of the user polled indicated that they actively recycle. From the suggestions received, citizens indicated that they would like the County to consider providing the following additional recycling programs at the convenience centers: ongoing household hazardous waste, tire recycling, brush / yard waste, standard car batteries, mattress / large appliances / furniture and perhaps remaining open for longer hours (earlier or later).

4.5.6 **Informational Promotional Programs**

In 1999, the Department developed an extensive website for information on Solid Waste and Recycling Programs within the County, and it is updated on a continual basis. The site includes

links to federal and State and is found at www.stmarysmd.com/dpw. In May 2014, the County completed an extensive makeover resulting in a more user-friendly website.

The Solid Waste Division maintains a current listing of businesses and organizations that accept items for reuse. Copies of this Reuse Directory are provided to residents that call the Division and make a request, and also are available on the website.

The County installed "Message Centers" at each of the convenience centers to provide additional information about recycling and any other programs/events the County may be sponsoring. The message centers are weather proof and made from recycled plastic.

In 2015, the County obtained used surplus recycling igloo containers at no cost from the MES. The igloo containers were refurbished and positive program messages were added to promote recycling and source reduction to visitors / users of the six (6) convenience centers.

4.5.7 **Retired and Senior Volunteer Program**

The Retired Senior Volunteer Program (RSVP) helps people age 55 and older find service opportunities in their home communities. RSVP participants can serve from a few to over forty hours a week to meet needs that strained local budgets cannot afford. The personal interests and skills of seniors can be utilized to provide general office work, manning educational booths, providing student tours, setting up computerized information and tracking systems, distribution of promotional materials, data gathering from the business/commercial sectors, etc. In order to utilize this valuable resource, a MOU must be developed with the sponsoring organization, the St. Mary's County Office on Aging.

4.6 DISPOSAL CAPACITY NEEDS FOR ASBESTOS

As indicated in Chapter 3, the largest generators of asbestos waste in the County would be expected to be the public schools and the Navy. The County Public Schools continue to have periodic projects that require the removal of asbestos. All asbestos is removed by contractors for the school system, and most if not all is removed by contractors for the Navy. Contractor-removed quantities could not be estimated; however, private sector removal and transportation capacity exists.

WMI provides for asbestos disposal in some of the landfills it manages. Non-friable asbestos, such as floor tile, is accepted at the company's King George County, Virginia, landfill for $35 to $40 per ton. Friable and non-friable asbestos is accepted at the company's Amelia County, Virginia, landfill, located west of the City of Richmond, for $95 per ton, and at their Southern Alleghenies Landfill in western Pennsylvania near Johnstown, for $60 per ton. At each of these landfills, no appointment is necessary. There is a two (2) ton minimum charge for asbestos delivery. Also, since no manual unloading is allowed at the landfill, no pickup trucks or similar vehicles are allowed to deliver asbestos. Self-unloading vehicles, such as dump trucks or roll-off containers, must tip their loads of asbestos directly at the working face of the landfill.

Each of the WMI landfills that can receive asbestos has an expected remaining life beyond the ten-year planning period, and there are several landfills in Virginia and Pennsylvania owned by other service providers which also accept asbestos, subject to their rules and procedures.

4.7 EMERGENCY SPILL AND LEAKAGE PLANS FOR HAZARDOUS MATERIALS

The St. Marys' County Hazardous Materials Response Team (HM18) along with St. Mary's County Fire/EMS Service responds to events of hazardous materials being spilled or leaked, whether on land or on bodies of water within or along County borders. The makeup of the team is through the membership of the St. Mary's County Volunteer Fire and EMS Departments. St. Mary's County also solicits aid from Naval District Washington Fire Department Patuxent River, Charles County Emergency Services, and Prince Georges Fire and EMS Services. These teams

respond to any event in St. Mary's County if requested. For every Hazardous Materials event, the St. Mary's County Hazardous Materials Response Team is alerted as well as the Hazardous Materials Response Team from Naval District Washington Fire Department Patuxent River. St. Mary's County may also solicit assistance from the Maryland Department of the Environment (MDE), the Maryland State Department of Natural Resources, or the United States Coast Guard for both water and land based incidents.

Hazardous materials are over packed for shipment by the Hazardous Materials Response Team or members of the responding Fire Company. In the event that Hazardous Waste needs to be stored until it can be properly disposed of, the St. Mary's County Department of Public Works provides storage for a short period of time at a location they deem suitable. The St. Mary's County Department of Public Works may also offer assistance for a Hazardous Materials response by providing equipment or supplies such as sand, gravel, or dirt. The St. Mary's County Hazardous Materials Team works in conjunction with MDE to ensure proper removal and disposal of all Hazardous Materials waste. MDE ensures that the responsible party or parties are held accountable for an incident, including costs incurred.

5.0 SOLID WASTE MANAGEMENT PLAN OF ACTION

5.1 SOLID WASTE DISPOSAL SYSTEMS AND FACILITIES

This section of the Plan provides a description of the solid waste collection, processing, and disposal systems that are in place or planned in the ten-year planning period to serve the residents, businesses, and institutions of St. Mary's County. The focus, as part of the three-year update of the Plan, is on recommended actions to be taken in the short term, medium-term and long-term to ensure a sound, reliable solid waste management system for the County. Implementing these actions can improve the overall management of waste and recyclables in the County; increase the levels of waste reduction and recycling; provide for a self-supporting revenue structure; promote regional cooperation in development and use of facilities, services, and information; and utilize the resources of the private sector for certain facilities and services where it is deemed advantageous and cost-effective to do so. This Plan will be evaluated on an on-going basis and amended as needed through progress reports due every 2 years and reviews due every 3 years.

5.2 PLAN OF ACTION

5.2.1 Comprehensive Land Use Plan Conformance

The approved Comprehensive Land Use Plan for St. Mary's County describes the use of both traditional and innovative methods for providing appropriate and convenient public solid waste management facilities. These efforts are to include waste disposal, recycling, waste/source reduction, re-use policies and stronger public education initiatives, to name a few. At the forefront of achieving these goals, and to conform to the Maryland Recycling Act and achieve success of new programs, is the minimization of negative environmental impacts. The recommendations below are intended to provide a plan of action for the County as it moves into the new millennium.

5.2.2 **Public Systems and Facilities**

The existing publicly owned solid waste management system in St. Mary's County has been described in previous chapters of this Plan and includes an administrative component; a collection/transportation system, including the six County Convenience Centers; a closed landfill at St. Andrew's Church Road which serves as a drop-off location for yard waste, scrap metal, white goods, scrap tires, and bulk waste. During the ten-year planning horizon, the administration of the County's solid waste management programs is expected to continue to be the responsibility of the Department of Public Works & Transportation and the organizational structure of this Department, as described in Chapter 1, is not anticipated to be significantly modified. The County will allocate new positions as needed to ensure that the solid waste management system is operated smoothly. Staff will be added to the Convenience Center sites, and St. Andrew's Landfill drop-off location, as needed, to provide sufficient labor for the efficient operation of all County-owned facilities and programs open seven days a week.

As described in previous chapters of this Plan, the County currently owns and operates a system of six satellite Convenience Centers for the collection and transportation of residentially generated solid waste not collected by private haulers. The sites are equipped with - compacting trailers; attendants' buildings; tanks for collecting used oil, used oil filters and antifreeze; stationary compaction units with accompanying 40 cubic yard "break-away" compactor containers for collecting single stream recyclables; transportable storage containers for recycling electronic equipment; textile collection boxes; and designated areas for the collection of compact fluorescent lamps (CFLs) and fluorescent tubes.

Each site is staffed to ensure that only acceptable materials and properly sized loads are deposited in the compactor units. Site attendants operate the compacting equipment as needed and notify the appropriate party when collection containers are full. These sites are anticipated to remain in operation during the ten years covered by this Plan and will be maintained in a manner that will prolong the life of the equipment and the sites; however, the County will monitor and evaluate the need for all six facilities as curbside collection of solid waste and recyclables advances with population growth and other factors.

The sites have been modified with roll off compaction units to accommodate the collection of single stream recyclables, and may need further modification for other items to be recycled, such as scrap tires, yard waste etc. The need to provide site modifications will be assessed on an on-going basis, and any modifications would be addressed in the updates to this Plan, prepared every three (3) years for submission to MDE.

The County will use a combination of out-of-County WTEs, RRFs, and landfill disposal facilities for residential waste received at the six Convenience Centers in the foreseeable future. The planned St. Andrews transfer station will remain a contingency option. This residential waste is trucked directly to the Fairfax, Virginia. WTE facility, or the Wheelabrator RRF plant in Baltimore, through an arrangement with Lucky Dog Industries, a trucking transportation company. Lucky Dog has a back-up plan to deliver the County's residential MSW to the King George Landfill, if the WTE / RRF facilities are unavailable. Commercial waste is privately hauled directly to the Appeal Transfer Station in Calvert County or other permitted facilities by the individual collection companies. The County anticipates continuation of this Plan or the use of other back-up and more cost-effective solutions over the ten years as described by this Plan.

The Town of Leonardtown currently does not own or operate a collection system for the waste generated by residents or businesses within the municipal boundaries; instead, the Town contracts for collection with a local private hauler. All waste collected from the Town is hauled out of the County for disposal. The Town provides for curbside collection of recyclables from residents through a contract with a private hauler, and these materials are also processed at an out-of-County facility operated by the private sector.

The St. Andrews drop-off location continues to accept scrap tires, white goods, yard waste, scrap metal and bulk waste. The existing scale house continues to be used for inventory, supplies, weighing MSW loads from the convenience centers prior to exportation, courtesy weighing for commercial haulers to verify legal load limits, etc. The installation of a second scale to expedite both in and outbound traffic is part of the County's future plans.

In addition, the County provides yard waste grinding and mulching in order to process leaves, grass and brush into useful products, such as mulch or wood chips, at the St. Andrews drop-off location. MES performs the grinding service on a periodic base. The mulch produced is available free of charge to County residents. The County expects to continue this operation throughout the ten-year period of this Plan. A description of this facility is provided in Chapter 3 of this Plan. In Maryland, the new Prince George's composting program operates out of the Western Branch Yard Waste Composting Facility in Upper Marlboro. Howard County's publicly run Alpha Ridge composting facility, is also experimenting with composting food waste but on a much smaller scale than Prince George's. The estimated annual cost to operate a compost facility at the St. Andrew's Landfill, based on the Howard County model is approximately $1 million. Additional information is included in the Zero Waste Goal - Yard Waste and Food Waste Recycling / Composting discussion in **Appendix F**.

As previously noted in this Plan, the County plans to design, construct and operate a Transfer Station to manage municipal solid waste and recyclables generated within St. Mary's County, Maryland. The 2005 Update to the Comprehensive Solid Waste Management and Recycling Plan identified the Transfer Station in the short-term recommended actions (one-two years). The Commissioners of St. Mary's County decided to forego any further action with the Transfer Station construction and operation due to significant budgetary pressures during the 2011 fiscal year and subsequent fiscal years. The Transfer Station construction and operation schedule has been revised and will now be identified in the long-term recommended actions (five-ten years and longer) in Section 5.2.18. A permit (#2006-WPT-0624) to construct and operate the Transfer Station was issued by the MDE on September 12, 2008 and will be renewed accordingly until the Transfer Station is constructed and made operational.

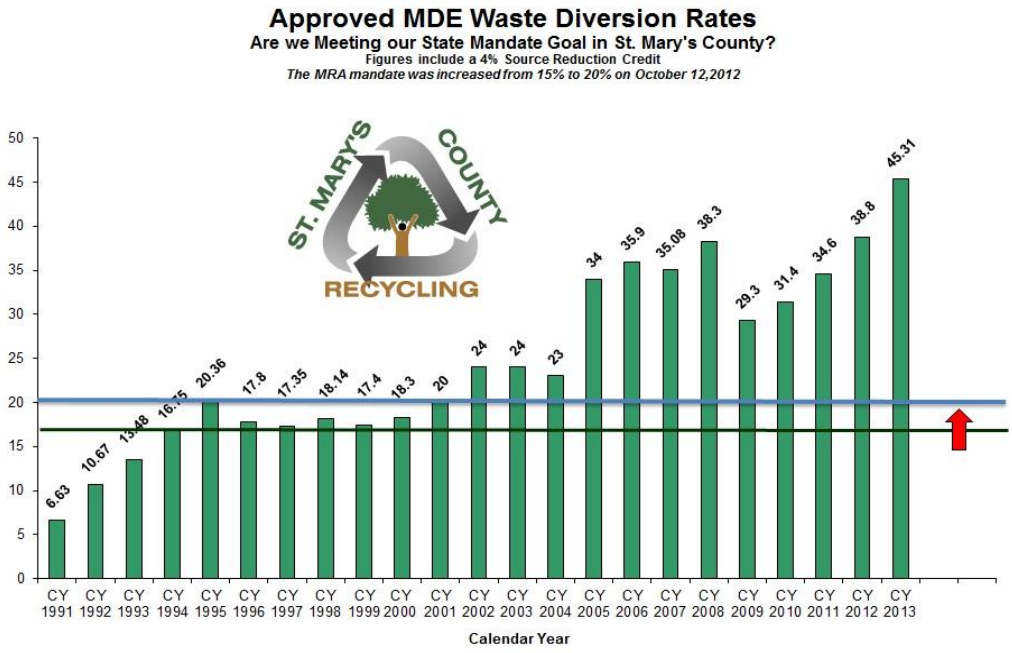
The County may also consider implementing other publicly-owned solid waste acceptance or processing facilities in the future that could include mixed waste processing or composting system i.e. food and agricultural waste, a waste-to-energy facility, a materials recovery facility, a municipal solid waste landfill or transfer station, or other similar solid waste management facilities. The viability or necessity of such facilities and programs (such as curbside collection) has been examined in this Plan and in other previous studies by the County, and the County will

further evaluate certain of these facilities with other counties in the region and/or as public/private partnership opportunities during the next ten years. However, in general, the need for and feasibility of such facilities will be monitored on an on-going basis and will be continually reassessed and implemented as updates or out-of-cycle amendments to this Plan.

5.2.3 **Private Systems and Facilities**

As the County prepares updates to this Plan every three years, or as needs may arise, and in accordance with established laws, policies and procedures, local ordinances (i.e. Comprehensive Zoning Ordinance), new or proposed solid waste acceptance facilities in the County will be addressed and incorporated as necessary into the County's Comprehensive Solid Waste Management & Recycling Plan.

5.2.4 **Management System and Schedule for the County Solid Waste Management Program over the Ten-Year Period**



The adequacy of existing collection and disposal systems for each of the County's major waste streams has been discussed in Chapters 3 and 4 of this Plan. The Plan and schedule for managing these waste streams over the next ten years is described in the chapter. In a February 2000 Senate Joint Resolution, it was stated that Maryland cannot rely indefinitely on waste exports to other states to conserve Maryland's landfill space. "Recycling efforts offer a better alternative in terms

of extending landfill life, conserving natural resources, saving energy, reducing pollution, and creating jobs and economic development opportunities." "Source reduction, the practice of preventing waste in the first place, and reusing materials rather than recycling or disposing of the material, is the most cost-effective and environmentally sound option available." In 2013, the MDE reported a statewide waste diversion rate of 48.2 percent and a recycling rate of 44.5 percent. EPA indicates the national recycling rate was 34.3% compared to 2012's rate of 34.5%. The Governor's Solid Waste Management Task Force had previously recommended that Maryland establish a voluntary statewide diversion goal of 40 percent by the year 2005. This voluntary statewide diversion goal was to have been accomplished through the cooperative efforts of waste generators, State agencies, local governments, the waste industry, the recycling industry, environmental groups, boards of education, and other interested parties. It was further resolved that each county's diversion rate would be defined as the sum of its recycling rate, as calculated under the Maryland Recycling Act, plus up to five percent for counties that qualify for a source reduction credit. St. Mary's County has increased the overall recycling rate to 41.31 percent (includes 5 percent RRF bonus) and an overall diversion rate to 45.31 percent in 2012 (ranking the County #11 overall in the State and #3 for jurisdictions with populations below 150,000) through educational programs, increasing overall awareness and initiating new recycling programs.

5.2.5 **System Funding**

The USEPA has created a financial test to enable local government owners and operators of municipal solid waste landfills (MSWLFs) to prove that they satisfy the EPA's 40 CFR Part 258, Subtitle D regulations relating to financial assurance provisions, which require owners and operators to have adequate funds available for the costs of closure and post-closure of their facilities. By meeting certain financial, public notice, and record-keeping and reporting requirements, a local government can use the financial test to demonstrate that it actually maintains the funds necessary to meet any financial obligations at its MSWLFs ("self-insured", as opposed to third party financial instruments). St. Mary's County meets the Local Government Financial Test for the St. Andrews Landfill located on St. Andrews Church Road in California, Maryland.

A Debt Policy Study was completed in April 2015. According to the Study, St. Mary's County is operating well within its self-imposed financial and debt policies, and compares favorably to both regional peer governments, and state and national medians. Both the County General Government and Metropolitan Commission are in strong financial condition as evidenced by comparatives, national medians, and industry best practices. Not only does the County have the capacity to carry out its planned 5-Year Capital Improvement Plan (CIP) debt issuances, but it ought to be able to do so with minimal, if any, impact on current tax rates. A five-year financial trend analysis shows the County's reserve levels in the "Best Practice" range. The County's debt amortization is rapid, providing opportunities for future deployment of cash into other projects (via "Pay-Go" or debt funding). The County's debt level is below several peers and national averages for similar-sized governments. The County's current Debt to Assessed Value ratio is well below its 2 percent policy, demonstrating ample debt capacity. The County's current Debt Service to Revenues ratio is well below its 10 percent policy, demonstrating strong debt affordability. Even after the addition of the County's full bond-funded 5-Year CIP, the County is projected to remain well within its Debt to Assessed Value and Debt Service to Revenues limits. Furthermore, a "base case" Debt Affordability Analysis shows that the County can issue its full planned CIP with a minimal Tax-Equivalent Impact, if any at all.

Historically, the County collected tipping fee revenues for waste delivered to the Landfill by institutional / commercial self-haulers and private waste hauling companies. Revenues were deposited in the County's General Fund, which were sufficient to cover the operational costs of solid waste handling and landfilling activities. Fees have never been charged for the use of the six (6) County-operated convenience centers. At present, revenues assessed to residential flat fee customers are $10.00 per pickup truck load, with oversized loads being charged at a rate of $65.00 per ton. However, effective July 1, 2012 a discounted "Green Waste" fee of $40 per ton was implemented for oversized loads of yard waste.

The County continues to issue general obligation bonds or other debt to fund its more capital-intensive solid waste management and recycling requirements. Debt service, as well as on-going operating and maintenance expenses of the County-owned facilities and its contracted recyclables collection and processing services, are paid through tipping fees and from the

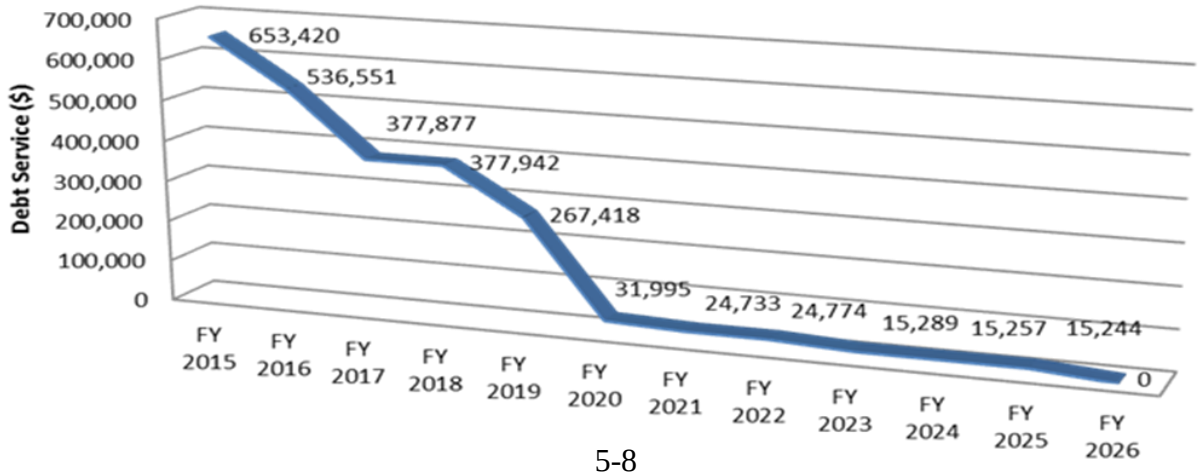
General Fund. The County will continue to evaluate the possible need to increase the established Environmental Fee, convenience center user/sticker fee, impact fee, or other revenue enhancement program to help support recycling and solid waste initiatives. In FY 2016, the Equity Fund balance in the Enterprise Fund was utilized to remove the $1M General Fund subsidy and to avoid increasing the Environmental Fee. The Environmental Fee is assessed to all improved residential properties in the County, as confirmed by the Office of the Treasurer. The number of improved residential properties for the last 3 years can be seen in **Table V-1** below.

Table V-1
St. Mary's County Residential Properties

Year	# Residential Properties
2012	39,905
2013	41,339
2014	42,016

5.2.6 Financial Self-Sufficiency

Achieving financial self-sufficiency is one of the Solid Waste Management Plan's more important objectives. It has been documented that the County should establish and maintain a predictable revenue and expenditure structure that provides funding to help support the solid waste and recycling systems. By utilizing full cost accounting principles and developing regional cooperative agreements, the County may help secure a cost-effective and efficient means of providing services to the community. Some longer-term arrangements and contingency planning may also provide the predictability needed in such a volatile marketplace. The County's debt service payment requirements, with respect to solid waste, are expected to be completed by 2025 in accordance with the following schedule:



5.2.7 **Historical Funding**

Historically, the primary sources of revenues to fund most municipal solid waste management systems and services, including: refuse collection and disposal; anticipated future facility closure and post-closure care costs; recyclables and yard waste collection and processing; anticipated acquisition of new disposal or processing capacity for the future, and indirect and overhead costs associated with solid waste management have been tipping fees collected at local processing/disposal facilities and/or real property taxes. The amount of revenues generated from tipping fees is essentially determined by the amount of material disposed of at the processing or disposal site(s). Thus, the more materials received for processing or disposal, the more tipping fee revenues.

On May 15, 2007 the Commissioners of St. Mary's County, Maryland approved Ordinance 2007-04 which enacted the Environmental and Solid Waste Service Fee ("Fee") for the purpose to fund environmental and solid waste and recycling programs. The new funding mechanism includes the establishment of an environmental and landfill service fee, procedures for setting and modifying the fee, payment and collection and establishment of an appeal process. The fee is used to fund staffing, administration, capital outlay, equipment replacement, debt service, operations, maintenance, capital projects and other direct and indirect costs associated with the solid waste and recycling programs. The fee is evaluated each fiscal year and adjusted accordingly based on the current and planned fiscal obligations. The fee currently remains at $60 per improved residential property.

Through the Capital Improvement Program, a sinking, enterprise or internal service fund, the County had previously earmarked funds to construct a transfer station and processing facility at the St. Andrews site in accordance with **Appendix D**. In the 2005 Solid Waste Plan Update the Transfer Station and Processing Facility was considered a short-term recommended action item (one-two years). However, for the 2010 Plan Update, the Commissioners of St. Mary's County decided to forego any further action with the Transfer Station and Processing Facility construction and operation due to significant budgetary pressures during the 2011 fiscal year and subsequent fiscal years. The construction and operation of this facility remains a viable

alternative for increasing the capture of recyclables from the residential sector and hauling local commercially generated waste as a medium term recommendation, but is not currently included in the County's six year capital improvement program.

5.2.8 **Recent Trends**

The plans for the possible future expansion of Area C are approved and permitted by the State and any "up-front" outlays that would normally occur during the pre-operational period (studies, design, property acquisition, permitting, construction, etc.) do not require additional funding. Any "operating period" outlays during the filling operations (which typically include salaries, equipment replacement, maintenance, closure cap design, litter control and construction costs) ***must*** be considered as a part of the overall financial planning process as do the respective "back-end" outlays associated with the post-operating period for closure and post closure care (i.e., environmental monitoring, cover maintenance).

In recent years, the trend seen by many communities has been one of declining levels of materials being disposed of in their solid waste systems, due to recycling and waste reduction programs and the development of lower cost, privately owned disposal alternatives, often in competition with the public sector facilities. In these situations, the communities are confronted with decreasing revenues to fund all solid waste facilities, programs, and services in their systems, including several they may be mandated to carry out.

In light of these factors, alternative methods of generating revenues sufficient to fund all, or a substantial share of, solid waste management system costs must be investigated for possible implementation. The last formal report to the County on the subject of fees, prepared by an independent consultant in December 1990, is entitled Recommendation for Assessment of Solid Waste Disposal Fees to Residential Users. A new or revised solid waste management funding approach should accomplish the following objectives:

1. Ensure that sufficient revenues are generated to cover the costs of desired solid waste management programs, with reliable sources of revenue that do not depend entirely on

the amount of material disposed of (tipping fees).

2. Provide for an equitable distribution of solid waste program costs among residents and businesses (e.g., customers).
3. Promote the environmentally responsible practices of waste reduction and recycling.

There are several alternative sources of revenue that can be considered to support the costs of the County's Solid Waste Management System. Some alternatives could represent the sole source; however, a strategy that includes more than one source of revenue is often adopted by local governments to cover the costs of solid waste management facilities, programs, and services.

Revenue sources are typically divided into two broad categories: (1) those that depend on waste capture, such as tipping fees at the point(s) of disposal or processing or surcharges on tipping fees and (2) those that do not depend on waste capture, such as taxation (property or sales tax), special disposal fees on products that contribute to waste generation (advanced disposal fees, litter fees, container deposits), and assessments on waste generators (generator fees, improved lot assessments, solid waste impact fees, and other forms of user charges). Before adopting any revenue raising strategy, there are legal, political, and marketplace factors that must be considered.

5.2.9 **Tipping Fees**

Tipping fees charged at the St. Andrews Landfill to commercial haulers and residential self-haulers exceeding a certain waste quantity have been one of the two primary sources of revenue supporting the County's solid waste system for many years. Theoretically, tipping fees are an appropriate mechanism to achieve equity based on the principle of financing that "services which provide direct benefits to a customer should be financed by usage charges (tipping fees) founded on the amount of service consumed." The main advantages to tipping fees are that the charges are easy to determine and fees can be set to cover costs; waste delivered by haulers can be accurately measured (weighed) at the point(s) of disposal; and haulers can be billed directly for waste delivered. These disposal fees are passed back to the haulers' customers as a component of their collection charge.

The disadvantages of tipping fees are that the predictability and stability of the revenues are in doubt, as they depend on waste capture, and if waste is drawn from the system to lower cost, competing outlets, revenues are insufficient. In this situation, increasing tipping fees to cover revenue shortfalls only drives more waste out of the system until at some fee level all "uncontrolled" waste is not able to be captured. In the utility industry, this is known as the "death spiral." With a diminishing group of users (controlled waste delivered to the system), fewer and fewer generators are burdened with an increasing share of total system costs. Alternatively, certain programs and services must be reduced or curtailed.

Because the County no longer receives any type of waste from commercial haulers at the St. Andrews Landfill and effectively receives tipping fees on a greatly reduced waste stream (rubble) delivered at the Landfill, tipping fee revenue as a leg of funding to support the County's solid waste system is substantially insufficient. Revenues generated at the St. Andrews Facility have significantly decreased since 1990.

5.2.10 **Taxation**

Revenue from the County's General Fund, which is derived largely from taxes on real property, is applied as the primary mechanism to fund the remaining debt service for the County's solid waste management system. Taxation is typically justified by the "public good" aspect of service provision. The advantages of property taxes are that they are now in place; they are relatively easy to compute and the collection mechanism is well established; there is a high level of predictability of the revenue stream and stability in the tax base; they are not dependent on waste capture; and taxpayers can deduct the tax from federal and state income tax liability; therefore, it is not a dollar-for-dollar increase to the taxpayer.

However, there are several disadvantages to the use of property taxes to fund solid waste systems, and more and more local governments have abandoned this source of revenue in favor of an alternative self-supporting fee structure. The disadvantages of property taxes include: the weak or non-existent link between the revenue source and the use for solid waste management;

the difficulty in satisfying any criteria for waste reduction/recycling incentives; the inconsistency with financing the solid waste system on an enterprise fund basis and a regressive step away from the user-fee concept; the need for solid waste management funding requirements to compete with other demands on the County's General Fund; and the lack of any clear nexus between the amount of tax paid by the taxpayer and the amount of solid waste generated (e.g., ownership of higher valued properties would pay a higher tax but may not produce more waste than owners of lower valued properties). Further, some property is tax-exempt (e.g., government or military property, churches, schools, certain non-profit organizations, etc.) and may actually contribute to high levels of waste generation but provide no tax revenue to support the solid waste services and infrastructure in the County.

5.2.11 **Per Bag Fees (Variable Rate Unit Charges)**

One alternative form of revenue that has received much attention and has been implemented by many communities across the nation is known as variable rate charging or "pay-as-you-throw." It is founded on the principle that those parties who generate more waste pay a higher charge and those who generate less pay a lower charge. Variable rate charging systems are typically applied to charge for waste collection/disposal service by some unit of measure, e.g., weight or volume. They are often implemented to encourage waste reduction and recycling and minimize the amount of waste a generator sets out for disposal (or perhaps in the case of St. Mary's County, the amount of waste a resident would bring to a Convenience Center for drop-off).

In this form of system, waste generators buy special tags or bags, which must be used in order for the waste to be collected (or, alternatively, delivered to a drop off facility such as one of the County's six Convenience Centers). Another variation on this approach is having a different charge for various sized containers, with incrementally higher charges for larger containers and lower charges for smaller containers.

Variable rate structures can be used in concert with other sources of revenue. They have the major advantage of bringing a high level of equity to the revenue system, the more one generates, the more one pays. They do add to the administrative complexity, which includes

selling tags or special bags, monitoring and enforcing the system to minimize abuses, providing for a new ongoing administrative function, and designing and carrying out a greatly expanded public education program prior to and sustained with the new program. Some people have argued that pay-as-you-throw programs can lead to increased roadside dumping, littering and illegal disposal by those persons seeking to avoid the charges. While this can occur and is an element that must be addressed through the community information program and enforcement system, this has not proved to be a significant problem in most communities that have implemented a pay-as-you-throw program.

5.2.12 **User or Environmental Fees**

There are various forms of user fees. In the simplest form, a user fee could be assessed on all improved lots, such as is done by neighboring Calvert County as part of its three-pronged revenue strategy. (In May 2007, St. Mary's County enacted an annual "Environmental Solid Waste Fee" of $60 per dwelling unit on all improved residentially zoned property containing one or more dwelling units, beginning July 1, 2007.) A more complex, but more equitable approach, and one that is being adopted by many communities, including Montgomery County, Maryland, and Prince William County, Virginia, is known commonly in the industry as a "generator fee." This is a fixed charge assessed to different classes of generators, usually both residential and commercial, based on some reasonable index of waste generation. For residential properties, the waste generation quantity is fairly well known based on historical measurement and a preponderance of data on typical generation levels in single and multi-family dwellings. For commercial properties, however, the generation levels may vary significantly (e.g., a fast food restaurant has a much different generation level than a dry cleaner or warehouse, for example), and it is necessary to conduct a study, perform measurements of a given sample of generators of different types and classes, and evaluate waste storage and collection practices before implementing a generator fee system.

The primary advantages to a user fee approach as a key source of revenues include: it is not dependent on waste capture and reduces or eliminates dependency on tipping fees or taxes; it has a higher likelihood of keeping waste within the system; the revenue stream is reasonably

predictable once the fee system is in place and it is stable under changing market conditions (such as a highly competitive market with several lower cost disposal alternatives as exists in the region); it can be adapted to existing billing and administrative systems, once the fee methodology is determined (e.g., it can be included on the tax bill as a special assessment); it positions the County to implement other system improvements/changes with a sustaining source of revenue to support them; and it may improve the rating on outstanding or new debt issued for solid waste system capital improvements. With a generator fee approach, there is the added advantage of achieving a high level of equity among the waste generators because the fees are based on their actual or imputed levels of generation.

Some communities have actually reduced tipping fees to zero or a very low level and derive their revenues substantially from such user fees. There are disadvantages to a user fee. Those most frequently cited include: the fee is likely to be viewed as a "tax" by residents and businesses; there will be increased cost for fee system development and ongoing administration; it may not reward waste reduction/recycling when implemented as a fixed charge; it may require additional legislation and may be subject to legal challenge; in the case of the generator fee, it requires a reasonably long lead time to develop and implement (often 18 months or longer), particularly to achieve a high level of equity among the commercial generators.

It should be noted that user fees are often founded on the principle that there are certain services and programs that benefit all residents and businesses and institutions, and all such generators should share in the cost of these programs and services. These charges are justified by the costs of waste management and recycling infrastructure, planning, mandated actions, and public health protection which are induced by residence or business activity in the County and which the County must address. Accordingly, user charges may appropriately, as a minimum, recover the non-variable costs which must be incurred by the County regardless of the level of usage by the generator. In this manner, user fees act in the same way as customer (or connection) charges as used by most utilities.

5.2.13 **Solid Waste Development Impact Fees**

Development impact fees have been used for years in various parts of the nation, including Maryland, as a means to help finance the infrastructure needed to support growth, such as schools, roads, police and fire protection, and other essential public services and facilities as water, wastewater, and solid waste processing and disposal systems. These fees are more commonly found in high growth communities and are typically applied to new residential and commercial construction at the time of building permit application. They are justified on the basis that they fund the capital improvements costs associated with adding the capacity or making the improvements to serve incremental growth.

While there are many examples of development impact fees being used to fund a portion of the solid waste infrastructure needs, including collection equipment and disposal/processing facilities, particularly in the high growth “sunbelt” locales of Florida, California, and Arizona, only one County in Maryland has implemented "solid waste development impact fees" -- neighboring Calvert County, which like St. Mary's County, is one of the fastest growing counties in Maryland.

Calvert County adopted solid waste development impact fees in the mid-90s as part of its overall revenue strategy, which includes tipping fees, improved lot assessments, and solid waste development impact fees, to help fund the capital cost components of the solid waste infrastructure put in place to serve the new growth. Similar to other areas where solid waste development impact fees have been implemented, Calvert County assesses the fees to new residential and commercial construction at the time of building permit application.

Solid waste development impact fees offer the advantages of adding an additional revenue source which has a reasonable level of predictability and helps to cover the costs of serving rapidly growing areas, when it might be difficult to otherwise raise sufficient revenues in a timely manner to add or expand facilities to serve the growth. Also, there is precedent for using them in the region.

The major disadvantages are that special legislation may be required to implement solid waste development impact fees in St. Mary's County, and they could be subject to legal challenges, particularly if they are used to help fund system costs other than the capital component to serve new growth; the building community is likely to oppose them as presenting a disincentive to new home construction/commercial development; and they will add an increased cost to the County for the fee collection and administration. Nonetheless, they could offer the County an additional revenue source to augment other revenues for system capital improvements and expansion needs, and the County could obtain insights from Calvert County to help plan and implement this source of revenue.

5.2.14 **Other Special Disposal Fees on Products or Classes of Products**

Special disposal fees are a family of fees levied on specific products or classes of products. The concept is to build the price of managing the waste from the product or its cost of disposal into the product price rather than attempting to recover these costs at the time or point of disposal. Such special fees usually take the form of advance disposal fees, deposits and litter fees. They are usually assessed at the manufacturing or retail sales level and are better applied at the national or state level. It would take considerable planning, analysis, and time to effectively and equitably implement such fees. Further, such fees would not offer a reasonable near term option for the County, and taken alone, they would be insufficient to guarantee revenue stability, as they are not designed for comprehensive system funding.

The advantages of such special fees include the encouragement of waste reduction and recycling through price-guided economic incentive; internalization of waste management cost of production and consumption; and diversification of the revenue base.

Major disadvantages include their untested implementation in the region and their potential to distort product markets; the complexity of administration; the administrative burden placed on retailers; and the need for special legislation and protracted timeframe of implementation.

5.2.15 **Changes Needed In County Plans, Policies, Programs, and Regulations**

The County and the Commission on the Environment (former SWAC) will regularly review the need to amend rules, regulations ordinances, policies, and plans to provide for the safe and efficient management of (1) solid waste generated and disposed in the County and at out-of-County facilities and (2) recyclables generated and managed in the County or transported out-of-County for processing and marketing or beneficial use.

Among the projected needs and key recommended actions for amending the existing legislative and regulatory infrastructure and otherwise implementing the Ten-Year Solid Waste Management Plan are the following:

5.2.16 **Short-Term Recommended Actions (One-Two years)**

1. Maintain disposal option at an approved Resource Recovery Facility (RRF) to obtain an additional 5 percent MRA recycling credit.

2. Expand the recycling education and contribution effors from the commercial/buisness sectors by going door-to-door and requesting information about their current recycling programs, acquire tonnages recycled the previous calendar year for the County's Maryland Recycling Act Report and provide guidance to expand their current recycling programs. Obtain voluntary support from higher education facility internships for the door-to-door activities and report preparation. Implement a "Business Recycler of the Year Awards" program to recognize the private sector's contributions to the overall County recycling efforts. The criteria could include: quality of non-mandatory recycling information being provided, effectiveness of the company's recycling plan, innovative re-use/reduction/recycling efforts, etc. The Environmental Recognition Awards: Recycler of the Year will include the following categories: ***Individual, Business, Non-Profit Organization and Institutional.***

3. Include sustainable infrastructure and green building technologies (ie. Green Globes, Greenroads, Envision rating system, Leadership in Energy and Environmental Design – LEED) specifications, and submission of waste management plans in all new building

construction projects to minimize waste generation, listing each material proposed to be salvaged, reused or recycled during the course of the project.

4. Maintain a regular cooperative information exchange with Calvert and Charles Counties, and possibly other Maryland counties, regarding waste, septage, sewage sludge, and recyclables flows; violations and enforcement actions; new ordinances and regulations under consideration and enacted; recyclables markets; waste reduction and material recycling initiatives; household hazardous waste management data and program results; and such other information as would be to the mutual benefit of the counties in effectively carrying out their solid waste management responsibilities and planning and managing for future needs and opportunities. This would be done in the spirit of regional cooperation and with the objectives to achieve economies, monitor activities, and gain strategic insights that may be realized through such cooperative data sharing on a consistent basis. The County should work with the other counties to establish the types and format of data to be shared and develop a program utilizing electronic media to promote the ease of transmission, data access and storage. This cooperative informational exchange includes attending quarterly solid waste and recycling managers' meetings.

5. Move toward programs that discourage residents from depositing containers of waste containing substantial quantities of recyclable materials that would have been separated and placed in the recyclables drop-off containers or otherwise collected at the curb at their residence, into the "waste transfer trailers" at the Convenience Centers. Implement certain modifications and management oversight at County Convenience Centers to increase the quantity of recyclables recovered and diverted from the solid waste stream, leading to an elevated recycling rate. The Department of Public Works and Transportation would like to improve on the County's current overall recycling rate (including 5 percent RRF credit. Some of the modifications needed to achieve this goal include, but are not limited to:

    - Increase customer service and programmatic training for Convenience Center attendants to encourage and enable them to provide better instruction, assistance and outreach to Convenience Center users. Improve their monitoring of what is being "recycled" by residents in order to reduce contamination in the recyclable containers

which will increase the amount of recyclables diverted from the waste stream and send a message the St. Mary's county is serious about maximizing recycling.

- Develop recognition and incentive programs as a further means to assist, motivate, and reward both Convenience Center attendants and users of the facility. Consider recognition o the 1,000,000th customer at a convenience center, prizes, publicity, newspaper, etc.
- Increase oversight of Convenience Center attendants and activities at Convenience Center. Install surveillance monitoring devices (with appropriate signage) at remote sites to – provide increased attendant safety, discourage illegal dumping, secure certain recyclable commodities, etc. Consider installing safety and security lighting (solar), especially if considering expanding hours of operation as described in Medium Term Recommended Action #17.
- Initiate Proof of Residency (PR) Push Events to help ensure that only County residents are utilizing the convenience centers; Charlotte Hall (May-June), Clements (Jul-Aug), Oakville (Sept-Oct), Ridge (Nov-Dec), St. Andrews (Jan-Feb), and Valley Lee (Mar-Apr).
- Evaluate contingency plans to address the periodic overflow of solid waste/recycling materials at the six (6) Convenience Center locations.
- Expanded community information and public education programs to address the above initiatives and changes in policy or regulation to demonstrate support of the various recycling programs to include both public and parochial schools.
- Evaluate the operational impacts and authority required to allow small county-based commercial businesses (to be defined) access to the residential Convenience Centers. Consider developing a system (e.g. sticker sales) whereby small commercial businesses that are not currently being provided recycling collection services from their private hauler are able to utilize the recycling services available at their local Convenience Center.
- Continue to promote customer service feedback, conduct periodic surveys, and maintain the current on-line customer service questionnaire to help identify system improvements suggested by users of the facilities.
- Consider hiring a solid waste foreman to manage day-to-day operational needs in the field.

- With the initiatives discussed above, it will be important to continue an expanded community information program. Pursue source reduction initiatives and continue updating the County Re-use Directory. Continue efforts such as the current "Bikes for Tykes" program at the St. Andrews Landfill as a grass roots initiative.

6. Elevate the focus on "buy recycled" and the purchase of supplies and materials with post-consumer recycled content by the County's procurement department during the next update of the County's Manual of Procurement Regulations and Procedures. Initiate a dialogue and work toward a cooperative arrangement with County, State and/or Federal purchasing departments, recognizing that cost must be competitive non-recycled products, for the purchasing of certain materials and supplies with recycled content, in bulk, where such cooperative purchasing can lead to more favorable pricing and result in savings to St. Mary's County.

7. Continue to monitor the processing and disposal initiatives of the public and private sector in the County and the region, to: (1) ensure such projects, if proposed to be located in the County, are consistent with the County's Solid Waste Management & Recycling Plan and can conform to the applicable rules, regulations, siting criteria, zoning, procedures and policies of the County; (2) determine if such project(s) present an opportunity and/or satisfies a need for the County and will not otherwise disrupt or jeopardize the County's Solid Waste Management System or any agreements into which the County has entered with other parties, public or private; and (3) if the project is to be located outside the County, to ascertain whether the project presents an opportunity for the County and will not adversely impact any other facility or service used by the County in meeting its solid waste management needs or any agreement(s) to which the County may be a party.

8. Continue to conduct closed landfill, post-closure care activities. Complete the landfill gas remediation measures at the St. Andrews and Clements Landfills. Consider funding a limited study of County-owned property to assess the preliminary feasibility for master planning and/or siting future solid waste acceptance / processing facilities, including the current convenience center properties. In addition, evaluate all County properties for the potential

master planning and/or siting of future public facilities to serve the needs of St. Mary's County citizens.

9. To increase opportunities for recycling, consider partnering with local businesses (ie. restaurants, bars, etc) to implement pilot collection programs for high volume recyclable commodities such as glass bottles and aluminum cans. This could be accomplished through an application process. Consider partnering with organizations such as Trex for the collection, pick-up and transfer of higher demand commodities such as plastic (ie. Film packing, boat shrink wrap, agricultural plastics, plastic bags, etc.) that can be utilized for the manufacture of plastic lumber. This initiative would assist local businesses, the agricultural communities, marinas, and residents at little to no cost (Harford County Model).

10. Develop a more comprehensive "Animal Carcass Disposal Program". The program should include the proper handling and disposal of animal carcasses, taking into consideration proximity to occupied structures, wells, wetlands, streams, and ground water. Consider expanding partnership with an existing facility, i.e. Valley Protein.

11. Establish a Recycling Program with an educational marketing component strategy to effectively focus more public attention on recycling programs in St. Mary's County. Update the Recycling display (originally purchased with MES grant)

12. Explore the feasibility of a mobile (convenient centers) or permanent HHW facility (St. Mary's Landfill) which could provide a sustained service in lieu of the periodic collection day program. Alternatively, consider implementing limited on-going collection of items such as car batteries, aerosol cans, paint, etc. which residents have expressed an interest.

13. Consider implementing "Community Paper Shredding ("You Get It – We Shred It") Events" in conjunction with other providers of these services.

14. Conduct a formal waste audit for both the residential and commercial sectors to determine if the composition of the St. Mary's County waste stream is similar to the average waste stream in the U.S. as assumed in the MD Zero Waste Plan in order to help the County identify/ target specific uncaptured recyclable materials.

15. Continue to monitor State Legislation and specifically the impacts of the recent Executive Order by the Governor on "Zero Waste".

16. Monitor the development of food waste composting initiatives in both the public/private sectors. MDE is currently (2015) finalizing the permit regulations for various types of composting operations within the State. Once the regulations are adopted by the Department, all composting facilities requiring a permit must be included in the County's Solid Waste Plan in accordance with the requirements of COMAR 26.03.03.03 D and F. Work with the Department of Land Use & Growth Management to add Major Composting Facilities to the Zoning Ordnance as prescribed by the MDE (Zoning Category #96)

17. Implement State mandated special event recycling per Bill SB-781 and incorporate into the Solid Waste Management& Recycling Plan.

18. Encourage the integration of recycling environmental education and general conservation activities into the curricular for the local public and private educations system(s). Update facility signage and community informational kiosks at convenience centers to provide improved program information.

19. Continue to expand the current scrap tire collection effort to include agricultural tires, subject to State funding.

20. Work closely with the County Sheriff's Office to monitor reported illegal dumping and roadside litter sites and implement reporting procedures to improve enforcement of this illegal activity.

21. Continue to update the Debris Management Operational Plan, which supplements the County wide Emergency Operations which is intended to assist with the returning impacted areas to a safe, secure and sanitary condition. FEMA re-approval is required in order to qualify for an additional one-time 2% eligibility under the Sandy Recovery Improvement Act (SRIA).

22. Develop a home composting bin distribution pilot program, for both food scraps and grass clippings/leaves, for interested County residents. As part of the program, the County would request participants to voluntarily track certain data. This would allow residents an

additional way to have a direct impact on improving the County's MRA recycling percentage.

23. Work with Agricultural services, the Department of Economic Development, and the Soil Conservation District to develop a permanent food composting demonstration site, possibly at convenience centers. Consider utilizing resources from higher education facilities (ie. through a capstone course) to research the feasibility of developing a local composting facility.

24. Explore programs such as the Maryland based Veteran Compost Program ("from combat to compost") for possible implementation.

25. Publish information regarding curbside trash and recycling collection available from private contractors operating within the County.

26. Initiate Expressions of Interest/ Requests for Qualifications to utilize the closed St. Andrews and Clements landfill sites for possible solar / photovoltaic applications as part of a final land use strategy.

27. Begin the review and update process for the St. Mary's County Solid Waste Rules and Regulations.

28. Rebid the solid waste disposal/ hauling and recycling contracts in an effort to reduce cost by obtaining more favorable rates.

29. Pave the Clements Convenience Center loop road to provide improved customer service circulation / access and reduce congestion in operational areas.

5.2.17 **Medium-Term Recommended Actions (Three-Five Years)**

1. Implement a mandatory reporting and compliance requirement for businesses in the County to document or estimate waste reduction/recycling rates, and develop the necessary administrative systems to support such a program. 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.

2. Research the feasibility of implementing a collector/hauler licensing program (similar to Harford County) for commercial collectors/haulers of any type of waste sould the county elect to construct a transfer station and processing facility. The licensing program could include:

   a) A reporting requirement to the County no less frequent than annually, including (1) an updated list of customers in St. Mary's County and (2) specific areas of the County served.

   b) Types and quantities of waste and recyclables collected in St. Mary's County during the preceding year (or portion of current year if reporting is more frequent than annually) or types and quantities of waste/recyclables hauled if only traveling through the County.

   c) Proof of minimum vehicle liability, commercial liability, and workers' compensation insurance and bonding, as stipulated by the County and/or by other government laws and regulations.

   d) Work with the local Health Department to develop an Inspection Checklist to help protect public health and safety.

   e) A license application procedure, application fee and renewal fee, penalties for violations, and hearing procedure, as set forth in new Rules and Regulations to implement the program.

   f) Other information and requirements as the County may deem reasonable and necessary to enable the County to effectively plan for and oversee the management of solid waste and its safe collection and transport in and through St. Mary's County.

3. Consider new technologies and continue to monitor advances in the industry. (ie. the new Baltimore Material Recycling Facility – MRF).

4. Encourage the development of curbside collection of solid waste and recyclables. Requests for municipal solid waste and recyclables collection services are expected to increase over the next five years. It is anticipated that expansion of curbside collection will be undertaken first in the highest density; highest growth areas of the County where curbside collection

would be most cost-effective and contribute to greatly reduced traffic flows and lessened adverse environmental impacts as a result of fewer private citizens hauling their household waste and/or recyclables to Convenience Centers. This may be initiated by a public and/or private sector partnership.

5. On May 15, 2007, the Commissioners of St. Mary's County approved Ordinance 2007-04 which enacted the Environmental and Solid Waste Service Fee for the purpose of funding environmental and solid waste and recycling programs. Continue to evaluate the fee annually and adjust accordingly based on the current and planned fiscal obligations. As of the July 1, 2015, the fee remains at $60.00 per improved residential property.

6. Develop Final Use Plans for closed landfill and convenience center properties. Consider identifying large portions of various Convenience Center properties as "park lands" for better utilization of open-space monies and satisfying park space needs (e.g. Oakville), wetland mitigation areas or utilizing as platted forest retention areas. 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.

7. Consider expanding the current antifreeze used oil and used oil filter collections at the Convenience Centers to include the collection of spent fuels, waste fuels, and mixed or used kerosene and fuels from farming community, marinas, and recreational vehicles.

8. Approach the Liquor Board and propose voluntary recycling (e.g. glass, plastic, aluminum, etc.) as part of the local permitting requirements (i.e. Special Event Recycling) to help lower business disposal costs and raise the County recycling rates. Target bars and other businesses for the collection of glass, cans and cardboard. 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.

9. Evaluate recycling and source reduction programs in the County for progress toward maintaining at least a 40 percent target goal (including 5 percent RRF credit) over the next

five (5) years. The current State mandated rate is 20 percent for jurisdictions with populations less than 150,000.

10. Evaluate the effectiveness of the sustaining public education program. Use the County Public Information Office and web-site as the County's waste reduction and recycling efforts expand.

11. Hire a Recycling Coordinator (FTE or contract position) as a dedicated staff person assigned to the Department of Public Works & Transportation to work on waste reduction, recycling and composting activities on behalf of the County.

12. Evaluate County policy as it may apply to creation of "service districts" or zones for certain solid waste services where, upon petition of a designated percentage of residents (or property owners) in such district(s), the County would provide curbside pickup of solid waste and/or recyclables (to include yard, food, and/or bulky wastes) either with County resources or contracted resources. The cost for such service would be added to the tax bill of the property served as a special user fee or assessment. Participating households would be charged a user fee on their real estate tax assessment. Include provisions in the re-bid of the Recycling Contract, if economically feasible due to changing market conditions or in high density, development districts, village and town centers.

13. Evaluate the need to assess alternative forms of solid waste user fees, and implement this "user fee" as a predictable/reliable source of revenue rather than real property taxes to support the County's cost to carry out effective solid waste management in the County as part of the annual operating budget. This may also include the collection of a solid waste impact fee for new development. Any fees could be designed in a manner that is fair and equitable and should cover the costs of:

    - Planning and administering the solid waste management program;
    - Owning and operating the County Convenience Centers, including disposal fees the County must pay for disposing of waste delivered to the Centers;
    - Conducting waste reduction, buy recycled, and recycling activities;

- Conducting a sustaining community information program; monitoring waste management in the County and enforcing County ordinances and regulations for the same;
- Possibly including all (including debt service) or a portion of the costs associated with solid waste/ recycling, landfill closure/post-closure care, a special reserve for contingencies, and/ or a
- Sinking fund or the development of future facilities for waste and/or recyclables management which may be needed or desired and cannot be forecast with certainty at this time;
- Funding staffing, administration, capital outlay, equipment replacement, debt service, operations, maintenance, capital projects and other direct and indirect cost associated with the solid waste and recycling programs;
- This fee must yield revenues that are reasonably predictable and sufficient;
- Consideration should be given to assessing a fee on all waste generators (includes residential, commercial, institutional, and industrial), according to reasonably established waste generation levels, with procedures for appeal and provisions for hardship and indigent claims.

14. To help address water quality as a part of the county's overall Watershed Implementation Plan (WIP) recommendations, work with the local farming/ horse and agriculture services community to research the feasibility of utilizing equine waste as a supplement in the County's mulch program for the production of compost.

15. Consider the implementation of a pilot residential program for the composting of food scraps and grass clippings – either thru curbside collection or a centralized residential drop-off location.

16. Re-evaluate operational layout of each Convenience Center to ensure its overall design is user-friendly, efficient and recycling oriented.

17. Consider revisiting expanded hours of operation at the six (6) convenience centers beyond the current schedule. The current hours of operation were selected to ensure daylight all year

round. Longer Operational hours would require installation of lighting (solar) and would incur additional maintenance and personnel costs. (ie. 7 am to 7 pm Monday – Saturday and/or pilot for highest volume weekend use centers such as Charlotte Hall and St. Andrews).

18. Maintain the permit for expansion of Area C at the St. Andrews Landfill active and updated, should the County, at some future time, find it desirable or necessary to construct this expansion or implement transfer operations in the area of the St. Andrews Landfill on the same property.

19. Conduct such assessments as necessary to determine if; redesign of Cell 1 in Area C can accommodate additional capacity, and proposed area D at the St. Andrews Landfill would be viable as a future expansion area for landfilling or composting operations.

20. Improve customer service and increase operational efficiency by providing a new two-way scale at the St. Andrews landfill for weighing both inbound and outbound traffic.

21. Maintain the ability to construct a County permitted transfer station & processing facility at the St. Andrews facility. This would also include upgrading the computer hardware and software and the installation of two (inbound & outbound) above ground scales at the St. Andrews Scale House Facility. A permit (#2006-WPT-0624) to construct and operate the Transfer Station was issued by the MDE on September 12, 2008 and renewed in September 2013 thru September 2019, and will be renewed accordingly until the Transfer Station is constructed and made operational. Commercial construction and demolition (C&D) waste was last accepted at the St. Andrews Landfill site on January 18, 2000 and is intended to be accepted at the St. Andrews facility once the transfer station & processing facility is open. A transfer station and processing facility would be able to serve the commercial sector and be utilized to sort-out recyclables from the residential waste collected at the convenience centers which would help increase the County's recycling rate and help achieve MD Zero Waste goals.

22. Promote citizen Re-Use of selected residentially discarded materials such as furniture, tools, lawnmowers, etc by expanding the Bikes for Tykes collection program into a larger Drop-N-Swap / Bargain Barn format.

23. Develop economic incentives in solid waste management programs for the commercial/industrial sector to improve the solid waste management practices and recycling activities of the largest solid waste generators in the County. Consider offering competitive grants / low interest loans to encourage the implementation of innovative waste reduction and recycling programs.

5.2.18 **Long-Term Recommended Actions (Six – Ten Years and Longer)**

1. Monitor the need for additional disposal capacity, solid waste facilities, and the changes and advancements in technology that could possibly make certain waste collection and processing techniques, systems, and/or services an environmentally sound, cost effective option for St. Mary's County, either alone or in concert with its neighbors in the region, Calvert and Charles Counties. This would include such technologies as mixed waste composting and food waste composting; waste-to-energy; materials recovery, including C&D waste and other special waste streams; sewage sludge processing and utilization, and other thermal, physical, and chemical processing technologies that may become commercially available and proven over the next decade and beyond.

2. Monitor advancements in waste and recyclables collection to serve such generators as multi-family dwellings and evaluate areas where automated collection may prove more cost effective as the County grows. In monitoring and evaluating these and other technologies, the County should maintain a dialogue with the private sector involved in collecting and processing solid waste in the County and with other communities in the region, to determine if there are opportunities for public/private partnerships or public/public partnerships that could be in the County's interest, particularly if an option under consideration is capital intensive and subject to economies-of-scale.

3. Conduct such assessments as necessary to determine if closed landfill areas throughout the County could be reworked to accommodate the proposed Final Use Plans or mined and reclaimed for long-term use as a lined, leachate controlled Subtitle D landfill.

4. Evaluate the need for and viability of a regional solid waste authority or other appropriate quasi-public organization that could be empowered to undertake the planning, financing, and procurement of facilities and services, and management of solid waste processing and disposal and recycling on a regional basis, utilizing the services and facilities of private service providers, to the extent use of their facilities and services would be in the interests of the authority members, for the Southern Maryland Region of St. Mary's, Calvert, and Charles Counties, similar to the Northeast Maryland Waste Disposal Authority and other such organizations which exist throughout the U.S. This evaluation would be done in concert with neighboring Calvert and Charles Counties as well as the Patuxent River Naval Air Station.

5. Consider program expansion of services provided at the Convenience Centers to include, white goods (ie. Refrigerators, stoves, washing machines, house appliances, air conditioners, etc.), scrap tires, furniture, mattresses; scrap metal, yard waste, etc.

6. Evaluate land acquisition options for a possible future solid waste/ recycling/ composting facilities (ie. transfer station, processing, and/or material recovery) of approximately 50-100 functional acres.

7. Consider expanding current mulch program into a pilot or fully-designed / constructed Composting Facility (i.e. Howard County) that could include the collection of food waste. This program's evaluation will include the impact of the anticipated regulations to be forthcoming from MDE for facilities of this nature. Additionally, this type of activity would most likely require the implementation of a curbside compost collection program.

8. Evaluate the effectiveness of utilizing "Bio-Diesel", ethanol fuel, and/or compressed natural gas (GNG) as alternatives to the regular petroleum based diesel fuel currently used. These fuels can significantly eliminate air emissions from equipment used for solid waste and recycling operations. In order to utilize the bio-diesel in the County's diesel fleet vehicles,

existing tanks need to be retrofitted to support the fuel. Items such as availability, implement ability, cost and overall performance will be evaluated prior to implementation of any usage beyond the prior bio-diesel pilot program.

APPENDIX A

ALTERNATIVE DISPOSAL ANALYSIS

Introduction

Barton & Loguidice, D.P.C. (B&L) was tasked with developing a cost estimate to compare the cost of disposal for St. Mary's County waste and determine the most economical disposal methods, based on today's market. The following is a summary of the evaluation.

Contracted Hauling versus Self-Haul:

As shown in Table 1, the least cost option for St. Mary's County waste is contracted hauling to King George Landfill in Virginia at **$62 per ton**. However, this will reduce the recycling rate by 5%. The recycling rate is increased by 5% by taking a credit for 5% of the waste delivered to a qualifying RRF facility. As part of the Maryland Recycling Act (MRA), Maryland counties are required to recycle 20% or 35% of their current waste generated by December 31, 2015, depending on population. Currently, the County recycles approximately 41.3% of the waste generated, as stated in the 2013 Maryland Waste Diversion Rates and Tonnages Report by Maryland Department of the Environment (MDE). Eliminating the waste to the RRF facility will reduce the recycling rate of St. Mary's County to 36.3%, still above the 35% recycling requirement.

If St. Mary's County continues to receive a recycling credit for delivering a portion of the waste stream to a RRF facility, there are two economical options for the County:

- Contracted delivery of 7,500 tons of waste to the RRF, 11,500 tons of waste to Covanta and 6,000 tons of waste to the King George Landfill or
- Contracted delivery of 7,500 tons of waste to the RRF and 17,500 tons of waste to the King George Landfill

Both of these options will cost the County approximately **$71 per ton**, versus $62 per ton.

Landfill Expansion Cost Analysis:

Barton & Loguidice, D.P.C. (B&L) developed a cost analysis for the development of 23.5 acres of landfill expansion at the St. Andrew's County Landfill, based on construction cost estimates and bid responses for landfill expansions in the Mid-Atlantic Region received over the past year. The St. Andrew's Landfill is part of a 250-acre site, 55 acres of which is permitted for expansion. The initial new landfill cell will be 23.5 acres in size and is referred as Area C. Area C will hold an estimated 750,000 tons of material and is expandable to a total area of 36 acres. Area D consists of 19 acres that can be permitted and then used for expansion at a future date. B&L assumed the following:

- Cell development - $500,000 per acre
- Equipment and Building Improvement (potential additional scale and/or bulldozer, water truck, off road dump truck, etc. and/or existing building improvements, maintenance/improvements to existing equipment) - $500,000
- Leachate management and pretreatment – $4 million
- Gas collection and controls (enclosed flare, blower, piping, header, and wells) - $600,000
- Equipment operators (2 operators, 1 laborer, 1 foreman and 1 scalehouse operator) - $300,000 annually

- Closure costs - $150,000 per acre
- Post-closure care costs - $125,000 per acre
- Engineering, Legal, Etc. – 10% of capital costs

Administrative costs were not included in this estimate. The total estimated cost to develop 23.5 acres at the St. Andrew's Landfill is approximately $23.3 million. It is estimated that engineering, legal and other misc. costs may add an additional $2.3 million to the cost of construction, thus bringing the total cost for construction of the 23.5 acres to approximately $26 million.

Assuming the landfill accepts the same residential tonnage that is currently processed through St. Mary's County (25,000 tons), the landfill construction will be amortized over 10 years at 3% interest, the annual cost for the development of the additional landfill cell is equivalent to $3.1 million. Adding to this cost the annual equipment operator wages of $300,000, the annual cost to manage the landfill is $3.4 million. Based on an estimated disposal rate of 25,000 tons per year for St. Mary's County, the estimated tip fee will need to be a minimum of $136 per ton, without administrative costs. With an estimated additional $250,000 in overhead costs annually for four (4) employees, the minimum tip fee will need to be **$146 per ton**. At this rate, the St. Andrew's Landfill is not competitive with other nearby disposal facility options that offer less administrative oversight requirements for St. Mary's County.

Option 2 Pump and Haul Leachate:

Leachate may be managed using pump and haul, versus pre-treatment on site. It is estimated that the pump and haul method of leachate management will cost approximately $1 million in capital costs for piping, pump stations, and a leachate truck. The annual costs are estimated at $300,000 for a driver, transportation costs, and annual disposal costs. This will decrease the estimated cost to develop the 23.5 acres at the St. Andrew's Landfill to $20.3 million. The engineering, legal and other miscellaneous costs may add an additional $2 million to the cost of construction, thus bringing the total cost for construction, using the pump and haul method to approximately $22.3 million. Amortized over 10 years at 3% interest, the annual cost for the development of the additional landfill cell using the pump and haul method is equivalent to $2.6 million. Adding to this cost the annual expenses for a driver, transportation and disposal ($300,000) assuming no greater than a 40 mile roundtrip to dispose of the leachate material, the annual cost to develop and manage the landfill cell using the pump and haul method is approximately $2.9 million. Based on an estimated disposal rate of 25,000 tons per year for St. Mary's County, the estimated tip fee will need to be a minimum of $116 per ton, without administrative costs. With an estimated additional $250,000 in overhead costs annually for four (4) employees, the minimum tip fee will need to be **$126 per ton**. At this rate, the St. Andrew's Landfill is not competitive with other nearby disposal facility options that offer less administrative oversight requirements for St. Mary's County.

Transfer Station Development Cost Analysis:

B&L developed a cost analysis for the development of a new transfer station, attached as Table 2. The cost estimate is based on 2015 dollars, although the tipping fee at the disposal facility, used to estimate

the annual cost to operate the transfer station, has been increased to estimate the ceiling tipping fee over the ten year planning period. Based on the 2006 Assessment of Solid Waste Management Alternatives for St. Mary's County, Maryland Report , it was assumed that the transfer station will be developed to process approximately 500 tons per day (TPD) of St. Mary's County waste from both the residential and commercial sector. It was estimated that the capital cost to develop a transfer station, sized to handle 500 TPD, is approximately $8.6 million.

This includes the purchase of two new transfer trailers, a reserve vehicle and a service vehicle, as it was assumed the existing transfer trailers will be used to continue to service the convenience centers and service the new transfer station. It also includes wages for the drivers of the transfer trailers. Lastly, the cost estimate includes the development of the transfer station facility, including a new scalehouse and pumping station. The annual cost to operate the transfer station is approximately $2.7 million, which includes operation and maintenance costs for the transfer facility. Operation and maintenance costs include administrative personnel (2 operators, 1 laborer, 1 foreman and 1 scalehouse operator) to manage the new transfer facility, as well as annual maintenance of the equipment, facility and site that the transfer station is located on. The annual cost includes the amortization for the $8.6 million capital costs, assuming a 20 year payback period at 3% interest. It was assumed that the transfer station will process between 25,000 tons and 95,000 tons per year of waste based on their current disposal rates. The tipping fee at the King George Landfill, the most economical disposal facility, was estimated to be $40 per ton in 2025, based on the current tipping fee of $36.00 per ton for self-haul in 2015.

It is estimated that the new Transfer Station will need to charge a minimum of **$86 per ton** to cover the annual operation and maintenance expenses associated with the new Transfer Station, based on 25,000 tons per year. An additional **$22 per ton** is required to cover the capital costs, amortized over 20 years, based on 25,000 tons per year. The new transfer station will need to charge a minimum of **$108 per ton** to cover the annual operation and maintenance costs and the amortization of the capital costs, based on 25,000 tons per year. At this rate, the new Transfer Station will not be competitive with other nearby disposal facilities. If St. Mary's County were to expand their collection system to include commercial sector waste, the disposal tonnage is estimated to increase up to 95,000 tons per year. At this rate, the new Transfer Station may negotiate fees lower than $108 per ton and may be competitive in today's market.

Cost Analysis Summary:

As discussed above, the most economical option for St. Mary's County is contracted hauling of waste to one of two options (King George Landfill and the Wheelabrator RRF facility or King George Landfill, Wheelabrator and Covanta) to continue to obtain a recycling credit. This option costs approximately $71 per ton. If the County no longer needs to obtain a recycling credit, contracted hauling to the King George Landfill is the most cost effective option at $62 per ton. There are virtually no administrative costs associated with these options.

Developing the landfill expansion at the St. Andrew's Landfill will cost approximately $126 - $146 per ton over the next ten (10) years until the capital costs of the facility are paid off, depending on the leachate

management process. This option is more costly than contracted hauling to the King George Landfill and Wheelabrator RRF and development of a new transfer station and the tipping fees are higher than surrounding disposal facilities, which may reduce the amount of waste received at the landfill, thus increasing the cost per ton.

Developing a new transfer station to handle 500 tons per day will cost approximately $108 per ton over the next twenty (20) years until the capital costs of the facility are paid off at the current disposal rate. This option is more costly than contracted hauling to the King George Landfill and Wheelabrator RRF and less expensive than the development of a new landfill cell; therefore it is not an economical option for disposal of waste in St. Mary's County, currently. If St. Mary's County were to implement commercial waste collection, and guarantee increased tonnage to a new transfer station, the tipping fees may be negotiated lower, which may make the tipping fee at the new transfer station competitive in today's market.

Table 1 Contracted Hauling vs. Self Hauling Cost Estimate

Table 1 - Estimated Transportation Costs from St. Mary's County, MD to Disposal Facilities							
Disposal Facility	Contracted Hauling from St. Mary's County, MD			Self Haul from St. Andrews Landfill[5]			
	Haul/Tip Fee[1]	Tonnage	Total Cost	Tip Fee[3]	Tonnage[3]	Hauling Cost[4]	Total Cost
Scenario 1: Impact of 3-1-2015 $14.06/ton Increase at RRF; Partial Haul to Covanta, King George and Credit at RRF[6]							
Covanta (Fairfax County, VA) WTE	$62.40	11,500	$717,600	$30.00	11,500	$323,544	$668,544
Wheelabrator (Bresco)[2] RRF	$91.00	7500	$682,500	$54.44	7,500	$340,704	$749,004
King George Landfill (Virginia)	$62.42	6000	$374,520	$36.72	6,000	$117,936	$338,256
		Total	**$1,774,620**				**$1,755,804**
	Total Cost Per Ton		**$71**				**$80**
Scenario 2: Partial Haul to RRF w/ 5% MRA Recycling Credit and No Haul to WTE[6]							
King George Landfill (Virginia)	$62.42	17,500	$1,092,350	$36.72	17,500	$286,416	$929,016
Wheelabrator (Bresco)[2] RRF	$91.00	7,500	$682,500	$54.44	7,500	$340,704	$749,004
Covanta (Fairfax County, VA) WTE	$62.40	0	$0	$30.00	0	$0	$0
		Total	**$1,774,850**				**$1,678,020**
	Total Cost Per Ton		**$71**				**$77**
Scenario 3: All Haul to King George Landfill w/o 5% MRA Recycling Credit[6]							
King George Landfill (Virginia)	$62.42	25,000	$1,560,500	$36.72	25,000	$623,376	$1,541,376
		Total	**$1,560,500**				**$1,541,376**
	Total Cost Per Ton		**$62**				**$72**

Table 1 - Estimated Transportation Costs from St. Mary's County, MD to Disposal Facilities							
Disposal Facility	**Contracted Hauling from St. Mary's County, MD**			**Self Haul from St. Andrews Landfill[5]**			
	Haul/Tip Fee[1]	**Tonnage**	**Total Cost**	**Tip Fee[3]**	**Tonnage[3]**	**Hauling Cost[4]**	**Total Cost**
Scenario 4: All Haul to Calvert Co. Appeal TS w/ 5% MRA Recycling Credit at RRF[6]							
Calvert Co. Appeal TS	N/A			$78.54	17,500	$47,736	$1,422,186
Wheelabrator (Bresco)[2] RRF				$54.44	7,500	$340,704	$749,004
						Total	**$2,171,190**
						Total Cost Per Ton	**$97**
Scenario 5: Self Haul to Calvert Co. Appeal TS w/ 5% MRA Recycling Credit at RRF[6] Through Contract Haul							
Calvert Co. Appeal TS	N/A			$78.54	17,500	$47,736.00	$1,597,186
Wheelabrator (Bresco)[2] RRF	$91.00	7,500	$682,500.00				
				Total Cost Per Ton			**$91**

[1]: All tip fees for contracted collection include hauling and disposal fees. Tip fees were obtained from a memo dated 2/26/2015 from the St. Mary's County Government Department of Public Works & Transportation.

[2]: Tip fee includes a $14.06 per ton increase, which is the current rate for disposal as noted by the St. Mary's County solid waste manager in May 2015.

[3]: Tip fees and tonnages were obtained from the FY 2016 Solid Waste Disposal Cost Scenario Document and/or from St. Mary's County staff in June 2015.

[4]: All hauling cost estimates from St. Andrews Landfill were based on an average truck hauling cost of $3 per mile. "Hauling Cost" reflects an estimate of hauling cost per transfer truck per round trip, including fuel and routine maintenance for the vehicles. Costs do not include disposal costs or fees, administrative costs, equipment operator costs, or equipment purchase costs. Round trips were obtained from a FY 2016 Solid Waste Disposal Cost Scenarios Document.

[5]: All costs per ton for self-haul have $10 per ton added to cover the annual cost of wages for administrative staff for management of the program, wages for equipment operators, and a budget for unplanned maintenance on the vehicles. Costs to purchase the transfer trailers have not been included, as it was assumed the existing fleet of vehicles will be utilized.

[6]: Cost figures exclude small quantities of material deliverd by St. Mary's County to the Calvert County Transfer Station (i.e. Christmas in April cleanup)

Table 2 Transfer Station Development Cost Estimate

	PROJECT:	Saint Mary's County, MD			
	SUBJECT:	Transfer Haul Model		**SHEET No.**	7 of 8
	METHOD:			**JOB NO.**	1774.001.001
	BY:	Duncan	5/28/2015	**Checked:**	SCS

BARTON AND LOGUIDICE FILE NAME: GEN-TRANS
********** JOB No. 1774.001.001
05-Jun-15

TABLE 2
PROJECT: GENERIC ANALYSIS
HAUL COST EVALUATION TRANSFER HAULING
ESTIMATED 2015 COSTS

VARIABLE INPUTS

AVERAGE TONS PER DAY	500	TPD
TRANSFER VEHICLE PAYLOAD	20	TONS
ALTERNATE PAYLOAD	0	CU.YD.
ESTIMATED DENSITY	0	# / CU.YD.
TURNAROUND TIME	30	MINS.
BUSINESS DAYS PER YEAR	312	DAYS
WORK YEAR	2,496	HOURS
PRODUCTIVE LENGTH OF WORK DAY	8	HOURS
WAGES: DRIVER	$14.00	per HOUR
LABORER	$10.00	per HOUR
MECHANIC	$18.00	per HOUR
FRINGES	30%	
OVERTIME (O.T.)	25%	
OVERHEAD & PROFIT FACTOR	0%	
INTEREST RATE	3.0%	
TRANSFER VEHICLE CAPITAL COST	$120,000	
CONTRACT HOURLY RATE	$0.00	per HOUR
AMORTIZATION LIFE	5	YEARS
CREW SIZE	1	PERSONS
MAINTENENCE & REPAIRS	$0.38	per MILE
FUEL EFFICIENCY	5	MPG
No. of TIRES	18	per VEH.
LIFE OF TIRE	30,000	MILES
TIRE COST	$400	each
FUEL COST	$4.50	per GAL.
TRANSFER VEHICLE EMPTY: At start of work day, enter "0" for empty or "1" for partial load.		

Average cost of fuel over 10 year projection period

ALTERNATIVES:

LOCATION		GENERIC DISP. FACILITY
DISPOSAL FEE (2025)	$/TON	$40.00
ONE WAY DISTANCE	MILES	41
AVERAGE SPEED	MPH	21
NUMBER OF TRIPS REQ'D	(per day)	25.0
NUMBER OF TRIPS MADE	(per day)	25
ROUND TRIP TRAVEL TIME	(hours)	4.4
POSSIBLE TRIPS PER VEHICLE	(per day)	2
No. of TRANSFER VEHICLES REQUIRED (13 vehicles required, assumed at least 11 vehicles exist in current fleet)		2
No. of RESERVE VEHICLES REQUIRED		1
No. of SERVICE VEHICLES REQUIRED		1
TIME-BASED ANNUAL COSTS		
TRANSFER FACILTY AMORTIZATION		$456,343
PROJECT FINANC./ENG./LEGAL/OTHER		$77,424
TRANSFER FACILITY O&M		$879,414
TRANSFER VEHICLE AMORTIZATION		$52,405
TRANSFER VEHICLE CONTRACT RATE		$0
WAGES (TRANSFER VEHICLE CREW)		$108,326
RESERVE VEHICLE(S)		$26,203
WAGES (RESERVE VEHICLES)		$54,163
SERVICE VEHICLE(S)		$10,918
WAGES (SERVICE VEHICLES)		$69,638
MISCELLANEOUS x No. of VEHICLES		$24,000
TOTAL ANNUAL TIME-BASED COST		$1,758,834

	PROJECT:	Saint Mary's County, MD			
	SUBJECT:	Transfer Haul Model		**SHEET No.**	8 of 8
	METHOD:			**JOB NO.**	1774.001.001
	BY:	Duncan	5/28/2015	**Checked:**	SCS

	0	part. load
RESERVE VEHICLE COST	$120,000	
No. of VEH./ RESERVE VEH.	8	
No. of DRIVERS PER VEH.	1	
No. of LABORERS PER VEH.	0	
INCLUDE RESERVE VEHICLES?		
("1"=yes, "0"=no):	1	
SERVICE VEHICLE COST	$50,000	
No. of VEH./ SERVICE VEH.	8	
No. of MECHANICS PER VEH.	1	
No. of LABORERS PER VEH.	0	
INCLUDE SERVICE VEHICLES?		
("1"=yes, "0"=no):	1	
MISC. (PERMITS, LICENSE, INSURANCE, TAXES)->		
PER VEHICLE (ALL TYPES):	$6,000	per YEAR
TRANSFER FACILITY:		
PEAK/AVG. FACTOR	25%	of TPD
AMORTIZATION LIFE	20	YEARS
ENGINEERING AND LEGAL	10%	of CAPITAL
FINANCING COSTS	6%	of CAPITAL
"OTHER" PROJECT ITEMS	$0	(item)
FACILITY DESIGN SIZE	625	TPD
CAPITAL COST	$6,789,234	(2015$)
ANNUAL O&M COST	$879,414	(2015$)
Enter "0" for exclusion or "1" for		
inclusion of these facilty costs.		
	1	COSTS

MILEAGE-BASED COSTS ($ per mile)		
FUEL		$0.90
TIRES		$0.24
MAINTENENCE & REPAIRS		$0.38
TOTAL MILEAGE-BASED COST	(per mile)	$1.52
TOTAL ANNUAL MILES		639,600
TOTAL ANNUAL MILEAGE-BASED COST		**$972,192**
GRAND TOTAL ANNUAL COST, WITHOUT PROFIT		**$2,731,026**
ECONOMIC SUMMARY		
FACILITY COST		$6,789,234
TRANSFER VEHICLE(S) COST		$240,000
RESERVE VEHICLE(S) COST		$120,000
SERVICE VEHICLE(S) COST		$50,000
TOTAL CAPITAL COST OF OPTION		$7,199,234
PROJECT FINANC./ENG./LEGAL/OTHER		$1,151,878
TOTAL AMOUNT TO BE FINANCED		**$8,351,112**
TOTAL TRAVEL COST/HAUL VEHICLE	(per mile)	$4.27
TOTAL TRAVEL COST PER TON-MILE		$0.21
TRAVEL COST PER TON-MILE, WITH PROFIT		$0.21
TRAVEL COST PER TON, WITH PROFIT		$17.51
TOTAL TRAVEL COST, WITH PROFIT	(per trip)	**$350**
COST FOR DISPOSAL-FULL LOAD	(per trip)	$800
FULL LOAD COST: HAUL & DISPOSAL	(per trip)	$1,150
AVG. DAILY HAUL & DISPOSAL COST	(w/profit)	**$28,753**
ANNUAL TOTAL: HAUL & DISPOSAL	(w/profit)	$8,971,026
COST PER TON: HAUL & DISPOSAL	(w/profit)	**$57.51**

Solid Waste Disposal Costs Letter to Commissioners February 2015

ST. MARY'S COUNTY GOVERNMENT
DEPARTMENT OF
PUBLIC WORKS & TRANSPORTATION
George A. Erichsen, P.E., Director

MEMORANDUM

DATE: February 26, 2015

TO: Commissioners of St. Mary's County
Dr. Rebecca Bridgett, County Administrator

FROM: George A. Erichsen, P.E.
Director

RE: Solid Waste Disposal Costs

Our current solid waste disposal contract includes three (3) disposal locations, Wheelabrator, Covanta, and the King George Landfill. The first two are Resource Recovery / Waste To Energy facilities which allow the flexibility for alternative disposal locations should either facility reach it's maximum daily permitted capacity or be shut down for maintenance / repairs. This arrangement has worked extremely well over the past several years. The Wheelabrator facility an ideal disposal location as it is one of only three facilities in the State that qualifies for a 5% recycling credit (***Annotated Code of Maryland attached***). As a result of utilizing this disposal location, our 2013 State approved MRA recycling rate dramatically improved (***2-3-2015 memo attached***). The King George Landfill facility is the least expensive disposal option, which we use for rubble (construction & demolition material) and as an additional back-up location.

It is also important to point out that the combined hauling and disposal costs for municipal solid waste (not rubble) at the above referenced facilities (Wheelabrator @ ***$75.5 / ton*** , Covanta @ ***$62.4 / ton***, and the King George Landfill @ ***$61.7 / ton***) are currently less than the tipping fee at the Calvert Appeal facility ***($77.5 / ton***). Nonetheless, we also requested our current contractor provide a reduction / relief in it's hauling costs to reflect the reduced fuel prices, but was not received favorably.

As a part of the FY 2016 operating budget submission, we included an additional funding request of $4 per ton for the disposal of 25,000 tons of municipal solid waste and rubble. This request was intended to provide contingency funding in anticipation of industry fee increases. Today, our current contractor advised us that their negotiated disposal fee at the Wheelabrator facility, would be increased by $13 per ton effective **March 1, 2015**. We understand that fees may also be increasing at the other facilities, but are hopeful that it will not be as drastic. Nonetheless, this reflects the general volatility of the solid waste disposal industry. In order to address this unforeseen increase, we plan to proceed as follows unless otherwise directed:

- **Balance of FY 2015**. As of 3-1-2015, dispose of material at any combination of the above facilities as long as the Division remains within the current budgeted amount, with the understand that the County may not be able to achieve the additional recycling credits that the Wheelabrator facility option provides.

- **FY 2016**. Continue to utilize the Wheelabrator Facility, but only to the minimum extent that is necessary to obtain the State 5% MRA recycling credit (7,000-8,000 tons). Utilize the Covanta WTE facility, and King George Landfill for all other material (17,000-18,000 tons), as no MRA credit can be achieved through the use of same. Address fiscal impact (s) as a part of the FY 2016 operating budget discussions.

- Alternatively, as the County is already achieving more than the new State mandated 20% MRA recycling rate, dispose of all material at the King George Landfill. Issues: impact of the County's position / ranking (in terms of overall recycling rate) as compared to other jurisdictions, positioning for possible future recycling rate increase mandates, and the ability to address the prior Governors Zero Waste Plan for Maryland Executive Order (***attached***) which the new Governor can enforce, modify, or discard.

- Regardless of the above, rebid the Solid Waste and Recycling Services contract in lieu of exercising the option year in order to secure more favorable terms. Current contract expires in November 2015.

We look forward to discussing this in more detail during the upcoming FY 2016 operating budget discussions. In the interim, should you have any questions, please do not hesitate to contact this Department.

Attachments
cc: Nicholas Zurkan, Solid Waste Manager
Elaine Kramer, CFO
S:\GERICHSE\County Administrator Memo\Solid Waste Disposal 2-26-2015.doc

FY 2016 Solid Waste Disposal Cost Scenarios

FY 2016: SOLID WASTE DISPOSAL COST SCENARIOS

SCENARIO 1: FY 2016 BUDGET AS SUBMITTED w/ USE OF RRF & WTE

Under this scenario, Wheelabrator (RRF) is utilized for the 5% recycling credit only, with Covanta as the primary disposal site, and King George as the secondary backup disposal facility

SOLID WASTE OTHER CONTRACT SERVICES (514-1406-432.11-53)

a. MSW - haul to RRF facility: $400 /load x 13* loads/wk x 52 weeks/yr = $270,400 ($270,500)

MSW - haul to WTE facility: $375 /load x 17* loads/wk x 52 weeks/yr = $331,500 ($332,000)

Estimated FY 2016 tons: 19,000 tons = $31.71 / ton

b. C&D - haul to King George: $290 /load x 7* loads/wk x 52 weeks/yr = $105,560 ($106,000)
Note: bridge toll increase was made effective on 7-1-2013

Estimated FY 2016 tons: 6,000 tons = $17.67 / ton

SOLID WASTE OTHER COSTS (514-1406-432.45-98)

a. MSW - disposal at RRF facility (Bresco/Wheelabrator): **$40 / ton** x 7,500* tons = ($300,000)

MSW - disposal at WTE facility (Covanta): $30 /ton x 11,500* tons = ($345,000)

Estimated FY 2016 tons: 19,000 tons = $33.95 / ton

b. C&D - disposal at King George Landfill in VA: $36 /ton x 6,000* tons = $216,000 ($220,000*)
Note: inspected loads found to be contaminated will cost $45 / per ton

Estimated FY 2016 tons: 6,000 tons = $36.67 / ton (*includes approx. 100 tons of contaminated)

h. **FY 2016 request includes a tipping Fee contingency estimated at $4 /ton x 25,000 tons = $100,000.**

TOTAL HAUL AND DISPOSE OF SOLID WASTE: $ 1,673,500

INITIAL FY 2016 BUDGET REQUEST: $ 1,673,500

√ RECOMMENDATIONS: Re-evaluate disposal program. See 2-26-2015 memo RE: $13/ ton increase at Wheelabrator effective 3-1-2015. Rebid hauling / disposal contract, which expires in November 2015.

NOTES: Average ton per load are: C&D to King George - 16.5 tons; MSW to Wheelabrator - 11 tons; and MSW to Covanta - 13 tons

FY 2016: SOLID WASTE DISPOSAL COST SCENARIOS

SCENARIO 2: IMPACT OF 3-1-2015 $13/ ton + 2% Contingency RATE INCREASE AT RRF

Under this scenario, Wheelabrator (RRF) is still utilized for the 5% recycling credit only, with Covanta as the primary disposal site and King George as the secondary backup disposal facility

SOLID WASTE OTHER CONTRACT SERVICES (514-1406-432.11-53)

a. MSW - haul to RRF facility: $400 /load x 13* loads/wk x 52 weeks/yr = $270,400 ($270,500)

MSW - haul to WTE facility: $375 /load x 17* loads/wk x 52 weeks/yr = $331,500 ($332,000)

Estimated FY 2016 tons: 19,000 tons = $31.71 / ton

b. C&D - haul to King George: $290 /load x 7* loads/wk x 52 weeks/yr = $105,560 ($106,000)
Note: bridge toll increase was made effective on 7-1-2013

Estimated FY 2016 tons: 6,000 tons = $17.67 / ton

SOLID WASTE OTHER COSTS (514-1406-432.45-98)

a. MSW - disposal at RRF facility (Bresco/Wheelabrator): **$54.44 / ton** x 7,500* tons = (**$408,300**)

MSW - disposal at WTE facility (Covanta): $30 /ton x 11,500* tons = ($345,000)

Estimated FY 2016 tons: 19,000 tons = $39.65 / ton

b. C&D - disposal at King George Landfill in VA: $36 /ton x 6,000* tons = $216,000 ($220,000*)
Note: inspected loads found to be contaminated will cost $45 / per ton

Estimated FY 2016 tons: 6,000 tons = $36.67 / ton (*includes approx. 100 tons of contaminated)

h. **Requires use of the budgeted $100,000 tipping fee contingency and DOES NOT allow for any other tipping fee or hauling fee increases at any other facilities during FY 2016.**

TOTAL HAUL AND DISPOSE OF SOLID WASTE:	**$ 1,681,800**
INITIAL FY 2016 BUDGET REQUEST:	**$ 1,673,500**
SHORTFALL:	**$ - 8,300**

√ RECOMMENDATION: Rebid hauling / disposal contract, which expires in November 2015. Request a tipping fee contingency of $ 4 / ton x 17,500 tons = $70,000. Most recent conversations indicate increases of only 3% may be realized ($ 1.50 / ton x 17,500 tons = $26,250).

FY 2016: SOLID WASTE DISPOSAL COST SCENARIOS

SCENARIO 3: PARTIAL HAUL TO RRF w/ 5% MRA RECYCLING CREDIT AND NO HAUL TO WTE

Under this scenario, Wheelabrator (RRF) is still utilized for the 5% recycling credit only, with King George as the primary disposal site and Covanta as the secondary backup disposal facility

(impacts per 2-26-2015 memo)

SOLID WASTE OTHER CONTRACT SERVICES (514-1406-432.11-53)

a. MSW - haul to RRF facility: $400 /load x 13* loads/wk x 52 weeks/yr = $270,400 ($270,500)

MSW - haul to **King George** facility: **$290** /load x 17* loads/wk x 52 weeks/yr = $256,360 **($256,500)**

Estimated FY 2016 tons: 19,000 tons = **$27.74 / ton**

b. C&D - haul to King George: $290 /load x 7* loads/wk x 52 weeks/yr = $105,560 ($106,000)
Note: bridge toll increase was made effective on 7-1-2013

Estimated FY 2016 tons: 6,000 tons = $17.67 / ton

SOLID WASTE OTHER COSTS (514-1406-432.45-98)

a. MSW - disposal at RRF facility (Bresco/Wheelabrator): **$54.44 / ton** x 7,500* tons = (**$408,300**)

MSW - disposal at King George (Landfill): **$36 /ton** x 11,500* tons = (**$414,000**)

Estimated FY 2016 tons: 19,000 tons = $43.28 / ton

b. C&D - disposal at King George Landfill in VA: $36 /ton x 6,000* tons = $216,000 ($220,000*)
Note: inspected loads found to be contaminated will cost $45 / per ton

Estimated FY 2016 tons: 6,000 tons = $36.67 / ton (*includes approx. 100 tons of contaminated)

h. **Requires use of the budgeted $100,000 tipping fee contingency and DOES NOT allow for any other tipping fee or hauling fee increases at any other facilities during FY 2016.**

TOTAL HAUL AND DISPOSE OF SOLID WASTE:	**$ 1,675,300**
INITIAL FY 2016 BUDGET REQUEST:	**$ 1,673,500**
SHORTFALL:	**$ -1,800**

√ RECOMMENDATION: Rebid hauling / disposal contract, which expires in November 2015. Request a tipping fee contingency of $ 4 / ton x 17,500 tons = $70,000. Most recent conversations indicate increases of only 3% may be realized ($ 1.50 / ton x 17,500 tons = $26,250).

FY 2016: SOLID WASTE DISPOSAL COST SCENARIOS

SCENARIO 4: All HAUL TO KING GEORGE LANDFILL w/o 5% MRA RECYCLING CREDIT

Under this scenario, King George is the primary disposal site, with Covanta serving as the backup disposal facility, and Wheelabrator (RRF) NOT utilized for the 5% recycling credit (just as a an additional backup disposal facility)

(impacts per 2-26-2015 memo)

SOLID WASTE OTHER CONTRACT SERVICES (514-1406-432.11-53)

a. MSW - haul to King George facility: **$290** /load x **30*** loads/wk x 52 weeks/yr = $452,400 (**$452,500**)

Estimated FY 2016 tons: 19,000 tons = $23.82 / ton

b. C&D - haul to King George: $290 /load x 7* loads/wk x 52 weeks/yr = $105,560 ($106,000)
Note: bridge toll increase was made effective on 7-1-2013

Estimated FY 2016 tons: 6,000 tons = $17.67 / ton

SOLID WASTE OTHER COSTS (514-1406-432.45-98)

a. MSW - disposal at King George (Landfill): **$36 /ton** x 19,000* tons **=** (**$684,000**)

Estimated FY 2016 tons: 19,000 tons = $36.00 / ton

b. C&D - disposal at King George Landfill in VA: $36 /ton x 6,000* tons = $216,000 ($220,000*)
Note: inspected loads found to be contaminated will cost $45 / per ton

Estimated FY 2016 tons: 6,000 tons = $36.67 / ton (*includes approx. 100 tons of contaminated)

h. **The FY 2016 budgeted $100,000 for tipping Fee contingency estimated at $4 /ton x 25,000 tons = $100,000 may not be fully needed.**

TOTAL HAUL AND DISPOSE OF SOLID WASTE:	**$ 1,562,500**
INITIAL FY 2016 BUDGET REQUEST:	**$ 1,673,500**
SURPLUS:	**$ +111,000** *($11,000 of request not needed)*

√ RECOMMENDATION: Rebid hauling / disposal contract, which expires in November 2015. Maintain a tipping fee contingency of $ 4 / ton x 25,000 tons = $100,000. Most recent conversations indicate increases of only 3% may be realized ($ 1.50 / ton x 25,000 tons = $37,500).

APPENDIX B

LOCAL ADOPTING RESOLUTION & MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVAL

RESOLUTION

TO ADOPT THE 2016-2025 ST. MARY'S COUNTY COMPREHENSIVE SOLID WASTE MANAGEMENT AND RECYCLING PLAN

WHEREAS, Title 9, Subtitle 5, of the *Environment Article* of the *Annotated Code of Maryland* and Title 26, Subtitle 03, Chapter 03, of the *Code of Maryland Regulations* require that each County in Maryland maintain a current comprehensive solid waste plan which covers at least the succeeding ten-year period; and

WHEREAS, a public informational meeting was held by the Commission on the Environment on July 1, 2015, after due notice was given; and

WHEREAS, a notice of the public hearing was advertised on Aug. 14, 2015, and Aug. 21, 2015, in *The Enterprise*, a newspaper of general circulation in St. Mary's County, and a public hearing was held on Sept. 1, 2015, to receive public comment and consider amendment of the Comprehensive Solid Waste Management and Recycling Plan; and

WHEREAS, the Commissioners of St. Mary's County find that it is in the best interest of the health, safety and welfare of the citizens of St. Mary's County to amend the 2016-2025 Comprehensive Solid Waste Management and Recycling Plan,

NOW, THEREFORE, BE IT RESOLVED by the Commissioners of St. Mary's County, pursuant to *Environment Article*, Title 9, Subtitle 5, of the *Annotated Code of Maryland* and Title 26, Subtitle 03, Chapter 03 of the *Code of Maryland Regulations,* that:

Section I. The 2016-2025 St. Mary's County Comprehensive Solid Waste and Recycling Management Plan be adopted.

Section II. This Resolution shall be effective upon the date written below.

Those voting Aye: 4

Those voting Nay: 0

Those Abstaining: 0

Date of Adoption: 9/29/15

Effective Date: 10/13/15

ATTEST:

Rebecca B. Bridgett
County Administrator

Approved as to form and legal sufficiency:

George R. Sparling
County Attorney

COMMISSIONERS OF ST. MARY'S COUNTY

James R. Guy, Commissioner President

Michael L. Hewitt, Commissioner

Tom Jarboe, Commissioner

Todd B. Morgan, Commissioner

Absent
John E. O'Connor, Commissioner

MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Suite 610 • Baltimore, MD 21230-1719
410-537-3314 • 800-633-6101 • www.mde.maryland.gov

Larry Hogan
Governor

Boyd Rutherford
Lieutenant Governor

Ben Grumbles
Secretary

December 23, 2015

Mr. George A. Erichsen, P.E., Director
St. Mary's County Department of Public Works and Transportation
P. O. Box 508, The Arnold Building
44825 St. Andrews Church Road
California, MD 20619

Dear Mr. Erichsen:

The Maryland Department of the Environment (the "Department") has completed its review of St. Mary's County's Resolution No. 2015-42 for adopting the County's 2016-2025 Solid Waste Management Plan (the "Plan"). The St. Mary's County Commissioners adopted the Plan on September 29, 2015 and forwarded the Plan to the Department for its review and approval in response to the requirements of Section 9-503(a) of the Environment Article, Annotated Code of Maryland. The Department received the adopted Plan on October 1, 2015.

Based on this review, the Department has determined that the adopted Plan satisfies the requirements of Section 9-503(a) of the Environment Article and Code of Maryland Regulations 26.03.03. In accordance with Section 9-507(a) of the Environment Article, Annotated Code of Maryland, the Plan is approved.

Be advised that Section 9-506(b)(2) of the Environment Article, Annotated Code of Maryland, requires the County to submit a progress report to the Department at least every two years including any revisions or amendments to the County Plan that have been adopted. Since the County's Plan was adopted on September 29, 2015, the County must submit to the Department its progress report on or before **September 29, 2017**.

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. A.Hussain Alhija, Program Manager, Resource Management Program, at 410-537-3314, or hussain.alhija@maryland.gov, or you may contact me at 410-537-3304.

Sincerely,

Hilary Miller

Hilary Miller, Acting Director
Land Management Administration

cc: St. Mary's County's Commissioners
Nicholas Zurkan, St. Mary's County's Solid Waste and Recycling Manager
A.Hussain Alhija

APPENDIX C

PROCEDURES FOR AMENDING THE SOLID WASTE MANAGEMENT AND RECYCLING PLAN FOR INCLUSION OR EXTENSION OF SOLID WASTE FACILITIES & SYSTEMS

APPENDIX C

PROCEDURES FOR AMENDING THE SOLID WASTE MANAGEMENT AND RECYCLING PLAN FOR INCLUSION OR EXTENSION OF SOLID WASTE FACILITIES & SYSTEMS

Except as provided in the exceptions listed below, the County Plan shall be revised to include the installation or extension of a solid waste acceptance facility or solid waste disposal system **prior to** the issuance of a permit by the Maryland Department of the Environment under, Title 9, Subtitle 2, of the *Environment Article* the *Annotated Code of Maryland*. This includes any additions, expansions or enlargements that will occupy a greater building footprint than that currently in use, and any additional structures or added uses that would change the facility from one category to another (i.e., incinerator, municipal solid waste landfill, processing facility, construction and demolition rubble fill, material recovery facility, land clearing debris fill, transfer station, recycling center, or recycling collection point).

Exceptions. A revision for the sole purpose of including a private facility is not necessary if: (1) the facility accepts only wastes generated by the owner's operations; (2) the facility is in general conformance with the management mechanism described in Chapters 3 and 5 of this Plan; and (3) information concerning each existing public or private solid waste acceptance facility (i.e., incinerators, transfer stations, major composting sites, sanitary and rubble landfills, dumps, major resource recovery facilities, CHS facilities, injection wells, and industrial waste liquid holding impoundments) as described in Chapter 3, including its location on a map, Maryland grid coordinates, size in acres, types and quantities of solid wastes accepted, ownership, permit status, and anticipated years of service life remaining, is provided for the facility when the county Plan is reviewed and revised. A list of representative exemptions is set forth in Chapter 1. For existing facilities (previously identified in this Plan) requesting permit renewal(s) from the State: the Department of Land Use and Growth Management (St. Mary's County Department of Land Use and Growth Management) shall make a written finding regarding the facility's conformance with the St. Mary's County Comprehensive Land Use Plan and the St. Mary's County Comprehensive Zoning Ordinance following a site inspection.

The Applicant's shall prove that a demonstrated need for the facility within St. Mary's County exists for siting any solid waste facility. Revisions to the County Plan shall be adopted and submitted in accordance with the following process:

1. Application for Amendment to the County Plan :

a. The Applicant shall complete the Solid Waste and Recycling Facility Application including all appropriate information and support documentation (the "Application") as shown in **Exhibit C-1** and submit to the St. Mary's County Department of Public Works & Transportation . Note: If an application is made to either: (1) the Maryland Department of the Environment for a Phase I approval; or (2) the St. Mary's County Department of Land Use and Growth Management for a zoning application that requires an amendment to the Plan, a copy of the application shall be forwarded to the St. Mary's County Department of Public Works & Transportation by the Applicant. The application shall include all information to review for consistency with the County Plan.

b. Upon receipt of an Application the Director of the St. Mary's County Department of Public Works & Transportation determine the Application is complete. If the Application is complete, the St. Mary's County Department of Public Works & Transportation shall forward the Application to St. Mary's County Department of Land Use and Growth Management and to the St. Mary's County Commission on the Environment.

c. If the Application is determined to be incomplete, the Application shall be rejected and returned to the Applicant by the Director of the St. Mary's County Department of Public Works & Transportation. An Applicant may resubmit an updated Application for consideration at any time.

d. In addition to the constraints listed in Chapter 4 of this Plan, an Applicant shall address the regulation of uses and general standards for siting solid waste acceptance, processing, transfer, resource recovery, or recycling facilities as described in Article 5 of the he St. Mary's County Comprehensive Zoning Ordinance. These provisions apply to both public and private solid waste facilities.

2. Technical Evaluation Committee (TEC) Review:

a. The St. Mary's County Department of Land Use and Growth Management shall distribute the concept site plan, completed Application for review during the Technical Evaluation Committee (TEC) Review process.

b. The TEC shall distribute the Proposed Amendment to appropriate agencies.

c. The St. Mary's County Department of Land Use and Growth Management shall consolidate TEC comments and prepare a staff report for consideration by the St. Mary's County Planning Commission.

3. <u>Commission on the Environment Review:</u>

The St. Mary's County Commission on the Environment shall prepare and submit comments for consideration by the St. Mary's County Planning Commission.

4. <u>Planning Commission Review:</u>

a. The St. Mary's County Planning Commission shall conduct a public hearing and make a recommendation to the Commissioners of St. Mary's County. This recommendation shall be accompanied by public comments, agency comments, TEC comments, and Commission on the Environment comments.

b. The St. Mary's County Planning Commission shall consider and make specific findings of fact with respect to the following objectives and policies of the County Plan regarding proposal of a new system or expansion of an existing solid waste facility or system:

1. Compatibility with the Comprehensive Land Use Plan;
2. Planning and zoning issues;
3. Population estimates;
4. Engineering;
5. Economics
6. State, regional, and municipal plans; and
7. Comments received from other agencies in the County.

5. Decision by the Commissioners of St. Mary's County:

a. Commissioners will conduct a Public Hearing on the proposed amendment to the Plan.

b. The Applicant shall be responsible for the cost of any public notice requirements.

c. An amendment to the Plan shall require findings that (1) a demonstrated need for the facility within St. Mary's County exists; (2) the proposed new system or expansion of an existing solid waste facility or system would be consistent with the principles, policies, goals and objectives of the County Plan; and that the proposed new system or expansion of an existing solid waste facility or system would be consistent with the St. Mary's County Comprehensive Land Use Plan.

6. Approval of Plan Amendment by the State:

In accordance with §9-507 of the *Environment Article* the *Annotated Code of Maryland*, the County shall submit amendment to the Maryland Department of the Environment. The Maryland Department of the Environment may approve, disapprove, approve in part, or modify the proposal. If the Maryland Department of the Environment approves the proposed amendment, the County may adopt the proposed amendment.

7. Zoning Authorization for Facility Operation:

Upon adoption of the proposed amendment, The Applicant shall submit a final site plan St. Mary's County Department of Land Use and Growth Management.

Exhibit C-1 Solid Waste and Recycling Facility Application
For A Proposed Plan Amendment

PROPERTY OWNER INFORMATION:

(a) Name: _____
(b) Address: _____
(c) Telephone: _____
(d) Facsimile: _____
(e) E-mail: _____

APPLICANT INFORMATION:

(a) Name: _____
(b) Address: _____
(c) Telephone: _____
(d) Facsimile: _____
(e) E-mail: _____

DESCRIPTION OF PROPOSED FACILITY OPERATION:

Applicant shall submit proposing specific language for the amendment ("Proposed Amendment"). The proposed amendment shall state with specificity all provisions of the CSWMP that are requested to be amended.

CONCEPT PLAN DESCRIPTION OF PROPOSED FACILITY OPERATION:

The Applicant(s) shall provide a concept site plan, location and description of the site (acreage, zoning, tax map, etc.), scope of the facility (includes a complete listing of planned activities), proposed service area(s) and layout of the improvements which will also include answers to the following questions:

I **<u>OPERATIONAL</u>**

1. Does the proposed facility meet the Siting Criteria in Chapter 4 of the Solid Waste Management and Recycling Plan?
2. Will a Conditional Use or Rezoning be required?
3. What is the plan for future operations/expansions and how will that be phased in?
4. Will the site be fenced, will it have lighting?
5. What is the proposed and maximum capacity of the facility?
6. What is the expected useful life of the facility?
7. What are the characteristics, dimensions, specifications of the building(s) and transfer trailers?
8. Will there be any citizen drop-off areas or outside receiving/storage of any waste?
9. Where will the waste be transported? How will it be received?
10. Do any FAA restrictions apply?
11. What are the proposed hours of construction activities and the construction schedules?
12. If proposed, how will daily cleaning of the tipping floor be performed?
13. What is the fire protection (i.e., fire hydrant) or water availability at the site, etc.?
14. Will the building doors be closed during truck loading?
15. What is the Operations Plan (including wash down procedures and waste screening protocol)?
16. What is the Safety Plan (for accidents, breakdowns, spills, etc.)?
17. What is the Contingency Plan should operations be temporarily "out of service"?
18. What is the proposed equipment inventory (including number of trucks, trailers, loaders, etc.)?
19. What is the number of staff and what are their positions?
20. What are the operating hours? Will all waste be processed and shipped out within these hours?
21. Will any waste be stored overnight in trailers, on the tipping floor, or in railcars? Is any night waste transport proposed? How will spill containment be achieved?
22. Will the site be staffed 24 hours per day? If not, how long? Who and how will security for the site be provided?

Exhibit C-1 Solid Waste and Recycling Facility Application
For A Proposed Plan Amendment

II ENVIRONMENTAL

23. How will litter and other vectors be controlled?
23. Will the operation be disturbing erodible soils or steep slopes?
24. What is/are the proposed wooded buffer distances? Is a reforestation required?
25. Are wetlands present on site?
26. Is the project/operation located in a critical area?
27. Has the 100 year flood plain or receiving watercourse been identified?
28. What are the waste types to be accepted? How is waste screening for hazardous waste performed?
29. What is the distance to the nearest residential property; nearest property with occupied, i.e., potable well use?
30. Are there any potable water supplies, individual wells or monitoring wells in the immediate or abutting area?
31. What are the proposed water consumption/discharge quantities? How will disposal of waste water be achieved?
32. What is the method to reduce or contain odors? What is the prevailing wind direction with respect to adjacent land uses?
33. What are the projected noise levels at the site boundary?
34. How will wind patterns impact the transfer station building?
35. How is storm water quality and quantity being provided?

III TRANSPORTATION

36. How many parking places for employees and what parking is available for onsite traffic?
37. Will any waste be removed or transported by rail? If so, how will it be loaded and what types of railcars/containers will be used?
38. What is the number of collection trucks per day (average and maximum)? What is the number of tractor trailers per day (average and maximum)? Will they be contractor's vehicles only, or other haulers?
39. How will the existing traffic be impacted? What is the existing and maximum projected traffic volume near and from the facility? Will a minimum disruption to travel times be realized?
40. How will traffic be controlled (both during construction and as a permanent, planned improvement)?
41. Assuming approximately 200 Tons Per Day is transported to the facility, what are the proposed routes for the waste collection vehicles?
42. What is the proposed route and distance from the transfer station to the primary disposal facility? Is the facility a subtitle D permitted facility?
43. How will transfer trailers be covered? Will trailers be cleaned on-site?

IV OTHER

44. What are the projected daily waste receipts (average and maximum)? Will the County receive same for use in its mandatory State reporting requirements?
45. Will there be any "processing of waste or recyclables" in the building, or at the site, other than depositing and reloading of waste into transfer trailers?
46. What is the Public Relations/Community Information Plan?
47. Are references available from other communities where the contractor operates or has operated a transfer station or solid waste/recycling facility?
48. Are adequate facilities, as described in the Zoning Ordinance addressed? Are additional amenities being provided?
49. Is out-of-County refuse planned for transfer, handling or disposal?
50. Will "clear title" be assumed for all County refuse brought to the facility?
51. Will access for County Inspectors be provided (specify unlimited, un-announced, etc.)?
52. What processes will be in place to recycle the required MRA percentage from the respective service area (based on population size)?
53. Describe which Maryland Department of the Environment Permits are required.
54. Provide full disclosure of prior usage of site and explain impacts to development.

Exhibit C-1 Solid Waste and Recycling Facility Application
For A Proposed Plan Amendment

V FISCAL

55. What are the proposed tipping fees?
56. What is the projected economic impact (tax revenue, employment, etc.?)
57. What Host Fee or other incentives to County residents will be provided?

I HEREBY AFFIRM UNDER THE PENALTIES OF PERJURY THAT I HAVE THE AUTHORITY TO MAKE THIS APPLICATION AND THAT THIS APPLICATION IS CORRECT.

Applicant Signature: _____ Date: _____

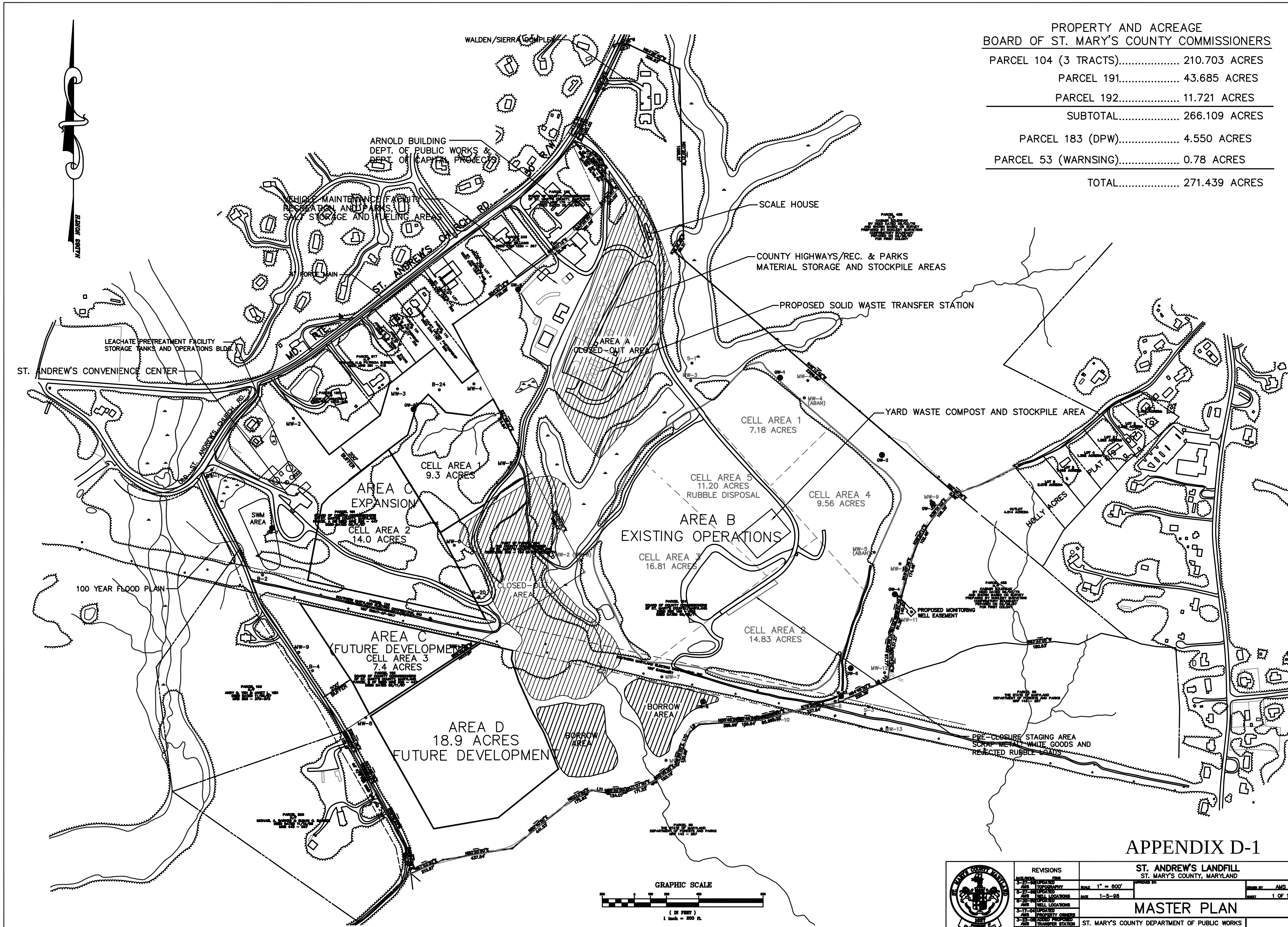
Accepted for Processing:

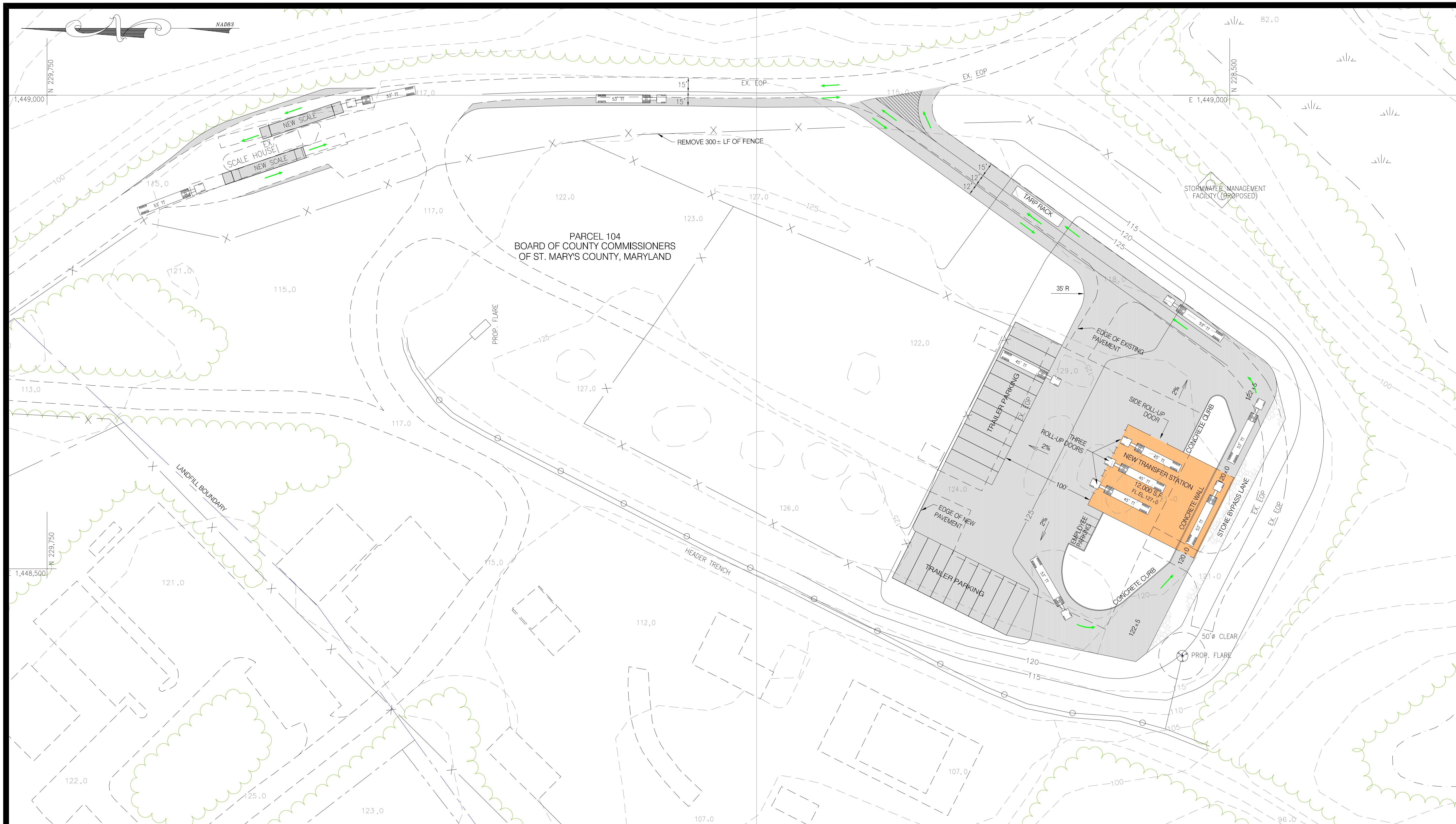
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

Director's Signature: _____ Date: _____

APPENDIX D

SITE PLAN MAPS


PROPERTY AND ACREAGE
BOARD OF ST. MARY'S COUNTY COMMISSIONERS
PARCEL 104 (3 TRACTS).................. 210.703 ACRES
PARCEL 191.................. 43.685 ACRES
PARCEL 192.................. 11.721 ACRES
SUBTOTAL.................. 266.109 ACRES
PARCEL 183 (DPW).................. 4.550 ACRES
PARCEL 53 (WARNSING).................. 0.78 ACRES
TOTAL.................. 271.439 ACRES
WALDEN/SIERRA COMPLEX
ARNOLD BUILDING
DEPT. OF PUBLIC WORKS &
DEPT. OF CAPITAL PROJECTS
VEHICLE MAINTENANCE FACILITY
RECREATION AND PARKS
SALT STORAGE AND FUELING AREAS
ST. ANDREW'S CHURCH RD.
MD. RTE.
FORCE MAIN
LEACHATE PRETREATMENT FACILITY
STORAGE TANKS AND OPERATIONS BLDG.
ST. ANDREW'S CONVENIENCE CENTER
OLD ST. ANDREW'S CHURCH RD.
SWM AREA
100 YEAR FLOOD PLAIN
SCALE HOUSE
COUNTY HIGHWAYS/REC. & PARKS
MATERIAL STORAGE AND STOCKPILE AREAS
PROPOSED SOLID WASTE TRANSFER STATION
AREA A
CLOSED-OUT AREA
YARD WASTE COMPOST AND STOCKPILE AREA
CELL AREA 1
7.18 ACRES
CELL AREA 5
11.20 ACRES
RUBBLE DISPOSAL
CELL AREA 4
9.56 ACRES
AREA B
EXISTING OPERATIONS
CELL AREA 3
16.81 ACRES
CELL AREA 2
14.83 ACRES
CELL AREA 1
9.3 ACRES
AREA C
EXPANSION
CELL AREA 2
14.0 ACRES
CLOSED-OUT AREA
AREA C
(FUTURE DEVELOPMENT)
CELL AREA 3
7.4 ACRES
AREA D
18.9 ACRES
FUTURE DEVELOPMENT
BORROW AREA
BORROW AREA
PROPOSED MONITORING WELL EASEMENT
HOLLY ACRES
PRE-CLOSURE STAGING AREA
SCRAP METAL, WHITE GOODS AND
REJECTED RUBBLE LOADS
GRAPHIC SCALE
(IN FEET)
1 inch = 800 ft.
APPENDIX D-1
REVISIONS
ST. ANDREW'S LANDFILL
ST. MARY'S COUNTY, MARYLAND
1" = 600'
1-5-98
AMS
1 OF 1
MASTER PLAN
ST. MARY'S COUNTY DEPARTMENT OF PUBLIC WORKS
P.O. BOX 508, CALIFORNIA, MARYLAND 20619



NAD83
PARCEL 104
BOARD OF COUNTY COMMISSIONERS
OF ST. MARY'S COUNTY, MARYLAND
REMOVE 300± LF OF FENCE
NEW SCALE
EX. SCALE HOUSE
LANDFILL BOUNDARY
HEADER TRENCH
PROP. FLARE
TARP RACK
STORMWATER MANAGEMENT FACILITY (PROPOSED)
EDGE OF EXISTING PAVEMENT
EDGE OF NEW PAVEMENT
TRAILER PARKING
NEW TRANSFER STATION
12,000 S.F.
SIDE ROLL-UP DOOR
THREE ROLL-UP DOORS
CONCRETE CURB
CONCRETE WALL
STONE BYPASS LANE
EMPLOYEE PARKING
50' Ø CLEAR
EX. EOP

LEGEND

—120—	EXISTING CONTOUR		TRAFFIC FLOW	120.0	EXISTING SPOT ELEVATION
—120—	PROPOSED CONTOUR		NEW ASPHALT PAVEMENT	120x0	PROPOSED SPOT ELEVATION
53' TT	53 FT TRACTOR TRAILER		EXISTING TREELINE		
45' TT	45 FT TRACTOR TRAILER		EXISTING WETLANDS		
	PROPERTY LINE				

KCE ENGINEERING, INC.
EXECUTIVE CENTER
3300 NORTH RIDGE ROAD, SUITE 315
ELLICOTT CITY, MARYLAND 21043
PHONE (410) 203-9800 FAX (410) 203-9228

MARYLAND ENVIRONMENTAL SERVICE

APPENDIX D-2

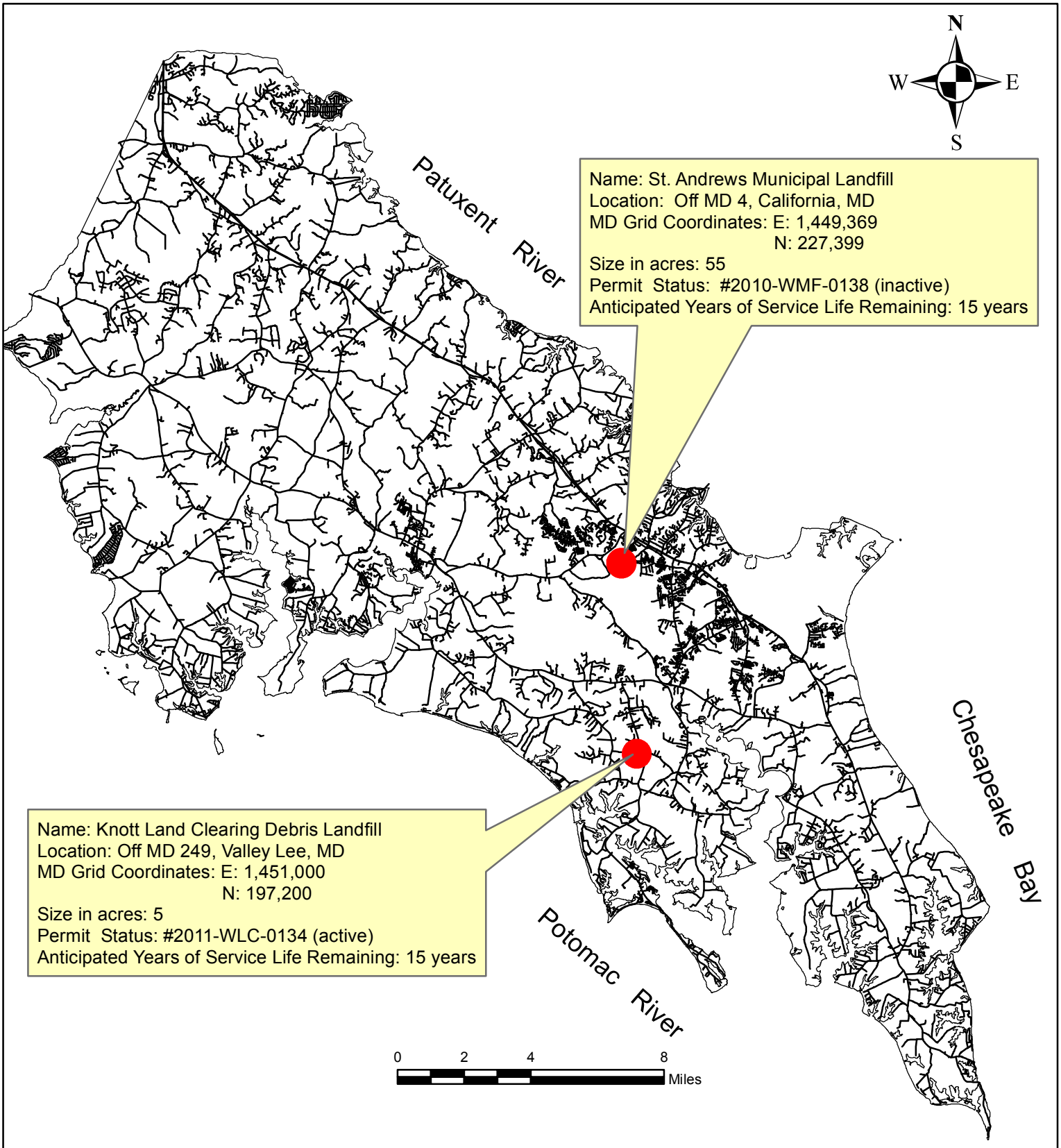
SCALE: 1"=100'

ST. MARY'S COUNTY TRANSFER STATION

CALIFORNIA, MARYLAND

APPENDIX E

FACILITY INFORMATION



Appendix E
Facility Information

APPENDIX F

DISCUSSION OF ZERO WASTE LEGISLATION IMPACTS

Executive Order 01.01.2015.01

The Executive Order, drafted by Martin O'Malley, former Governor of the State of Maryland, states that Maryland shall have a goal of 85% waste diversion and 80% recycling by 2040. A copy of the Executive Order is attached. In order to achieve the Executive Order, the Maryland Department of the Environment (MDE) drafted a Zero Waste Maryland Plan that presents goals for each County in the State of Maryland for calendar years between 2015 and 2040. These goals have been summarized in the following narrative.

Zero Waste Plan Background

The Zero Waste Maryland Plan (Zero Waste Plan), developed by the Maryland Department of the Environment (MDE), and Executive Order 01.01.2015.01 (Executive Order) both require County's within the State of Maryland to develop methods to increase the recycling of food waste, yard waste, other recyclables, waste diversion, and water reuse between 2015 and 2040. These goals are aggressive and, in order to achieve these goals, St. Mary's County will be required to modify their current recycling infrastructure and operations.

In the Zero Waste Plan, MDE breaks the waste stream down into MRA and non-MRA waste. MRA waste is Maryland Recycling Act waste and is considered materials in the "solid waste stream". Non-MRA waste includes construction and demolition debris (C&D), sewage sludge, land clearing debris, and industrial waste disposed in private industrial waste landfills.

The Zero Waste Plan assumed that the Counties in Maryland have the same waste composition as the total MSW generation by material in the U.S. for year 2011. This data assumes the following materials are contained in the MRA waste stream for St. Mary's County at the following percentages of the total MRA waste stream.

- Yard Trimmings 13.5%
- Food Waste 14.5%
- Other 3.3%
- Paper and Paperboard 28%
- Glass 4.6%
- Metals 8.8%
- Plastics 12.7%
- Rubber, leather and textiles 8.2%
- Wood 6.4%

The Zero Waste Plan requires the following recycling percentages in 2025:

- Overall waste diversion goal is 70%
- Overall Recycling Goal is 65%
- Recycling Goal for food scraps is 60%
- Recycling goal for yard trimmings is 80%

- The water reuse goal is 15%

Waste Audit

The categories of waste listed above are very broad categories for waste material. The Zero Waste Plan assumed that St. Mary's County waste is identical to the average waste stream in the United States. In order to determine if this is accurate, a waste audit will need to be conducted to determine the percentages of the varying waste categories present in St. Mary's County waste. It is possible that the waste streams with the most marketable recyclable materials, i.e. plastics, paper, etc. may not be present, at the same percentages as the U.S. average, in St. Mary's County. This will impact how much marketable recyclable material remains in the St. Mary's County waste stream for capture in order to meet the zero waste requirements.

If a waste audit of St. Mary's County material demonstrates that there are smaller percentages of recyclable material in the waste stream than the U.S. average, St. Mary's County will have to determine how much of the waste stream is recyclable and compare that value to the requirements of the Zero Waste Plan. To meet the Zero Waste Plan, St. Mary's County may have to find recyclables generators in the County that are not currently reporting their recycling collection to the County and obtain these tonnages, find additional markets for recyclable material beyond the common recyclables, i.e. e-waste, used paper, etc., expand their current recyclables program and infrastructure to commercial businesses and/or recycle more non-MRA material, if available.

Recycling Markets

Unfortunately, not all materials may be recycled in today's market, if ever. The typical residential waste stream contains materials that have been altered to make them unrecyclable. This may include used diapers, soiled paper towels, used clothing rags, etc. This material may be recyclable in its natural state, but once used, they are no longer recyclable in today's market.

It was assumed for this evaluation that the materials labeled rubber, leather, textiles, wood, and other materials are not considered recyclable material, as there are limited markets for this material and it was assumed wood was post-consumer products that cannot be recycled. That is a total of approximately 12,000 tons of material in the 2013 St. Mary's County MRA waste stream that is considered un-recyclable.

Current Recycling Efforts in St. Mary's County

In 2013, St. Mary's County recycled 24,452 tons of MRA waste generated in the County, based on the 2013 Maryland Waste Diversion Rates and Tonnages Report. Additionally, St. Mary's County recycled 35,782 tons of Non-MRA waste that was generated in the County. An additional 3,367 tons of material is recycled through a resource recovery facility (RRF) credit for taking 16,529 tons of St. Mary's County waste to a qualifying RRF that recovers metals. This diverted material will be discussed later in the Waste Diversion Section.

Recyclables in the Waste Stream

Based on the percentage of recyclables in the waste stream, as noted on page 6 of the Zero Waste Plan, the amount of recyclables in the St. Mary's County waste stream available for capture is 55,346 tons. This is based on the St. Mary's County MRA tonnage in the 2013 Maryland Waste Diversion Rates and Tonnages Report and assumes that 12,000 tons of material may be classified as recyclable material, but this material will not have marketable end users; therefore making it an un-recyclable material. St. Mary's County recycled 24,452 tons of MRA material in 2013. Therefore, there is 30,894 tons of recyclable material remaining in the MRA waste stream that is available for capture, as shown in Table 1.

Table 1: Recyclables in MRA Waste Stream (in tons)

Total St. Mary's County Waste Generated (2012)	MRA Waste	Non-Marketable Recyclables in MRA Waste Stream	Recycled Material from MRA Waste Stream by St. Mary's County (2012)	Estimated Recycling Remaining in MRA Waste Stream for Capture
125,609	67,346	12,000	24,452	30,894

Zero Waste Goal - Yard Waste and Food Waste Recycling/Composting

Yard and food waste make up a portion of the MRA waste stream in St. Mary's County, currently disposed of in a landfill, WTE, or RRF facility that can be composted. Based on St. Mary's County MRA waste generation, the estimated amount of food waste in the waste stream is approximately 9,800 tons. The estimated amount of yard waste in the waste stream is approximately 9,100 tons. As mentioned previously, a waste audit should be conducted to determine how much yard and food waste is actually in the current St. Mary's County waste stream, therefore determining how much is required to be recycled/composted to meet the zero waste goals and how much is remaining for capture.

The Zero Waste Plan requires 60% of the food waste and 80% of the yard waste currently in the MRA waste stream to be recycled in 2025. This is equivalent to approximately 5,900 tons of food waste and approximately 7,300 tons of yard waste. This is a total tonnage of 13,200 tons of food and yard waste material that shall be recycled in 2025. St. Mary's County recycled 27 tons of food waste and 6,178 tons of yard waste in 2013. To meet the zero waste goals from the Zero Waste Plan, St. Mary's County will have to recycle an additional 5,873 tons of food waste and 1,122 tons of yard waste in 2025, as shown in Table 2.

Table 2: Yard and Food Waste Recycling (in tons)

MRA Waste	Estimated Yard Waste in MRA Waste Stream (13.5%)	Estimated Food Waste in MRA Waste Stream (14.5%)	Recycling Tonnage Needed to Meet Zero Waste Goal for Yard Waste (80%)	Recycling Tonnage Needed to Meet Zero Waste Goal for Food Waste (60%)	Recycled Yard Waste by St. Mary's County (2012)	Recycled Food Waste by St. Mary's County (2012)	Additional Yard Waste Tonnage Needed to Meet Zero Waste Goals	Additional Food Waste Tonnage Needed to Meet Zero Waste Goals
67,346	9,100	9,800	7,300	5,900	6,178	27	1,122	5,873

It is believed the majority of collectable food waste is generated by the commercial sector, i.e. restaurants, institutions, businesses, etc. A County wide ordinance or collection program that requires the recycling of food and yard waste from all commercial businesses operating in St. Mary's County, and requiring the commercial businesses to report recycling tonnages to the County, will capture additional food waste material tonnage.

Additionally, the zero waste recycling goals for food and yard waste cannot be achieved through residential backyard composting alone. Many of the food waste items, currently disposed of in a landfill, WTE, or RRF facility, are not recommended in a backyard compost bin, due to vectors and other nuisances. In order to achieve the recycling rates specified in the Zero Waste Plan and the Executive Order, St. Mary's County will have to establish or make contractual arrangements for the collection, hauling, and processing of yard and food waste from both the residential and commercial sectors to an approved compost facility.

Regulations state that compost piles may not exceed 35 feet in height and 2:1 side slopes. Based on these dimensions and the amount of yard and food waste material that is expected to be removed from the waste stream annually (13,200 tons), this will result in approximately 14 windrows, assuming 100 foot windrow lengths. These windrows will require a space approximately 2,300 feet in length by 200 feet in width. This is equivalent to a site that is approximately 11 acres in size. It is assumed additional area will be necessary for staging of material, storage of finished compost, and additional building and equipment storage that may be necessary. To handle the anticipated compost material from the Zero Waste Plan, St. Mary's County will require a site that is a minimum of 20 acres. St. Mary's County currently has a 36 acre site (Area B) at the St. Andrew's Landfill that is being used for material storage and composting/mulching activities that may also be utilized for solar/photovoltaic application. The County also has an undeveloped 55 acre site for a future permitted landfill expansion. It is assumed that one of these areas could be converted into a compost facility to support the zero waste recycling activities. The Howard County model estimates that processing and collection of yard and food waste material is approximately $65/ton. To process and collect the 13,200 tons of yard and food waste annually will cost the County approximately $858,000. This does not include grinding of the yard waste

material. Contracting with Maryland Environmental Services (MES) for grinding of the yard waste material is approximately $20/ton, including mobilization, operators and equipment rental. Grinding the 7,300 tons of yard waste annually from St. Mary's County will add an additional cost of approximately $146,000. The estimated annual cost to operate a compost facility at the St. Andrew's Landfill, based on the Howard County model is approximately $1 million.

Non-MRA Material

There is an additional 58,263 tons of non-MRA material, which includes C&D material, sewage sludge material, land clearing debris and industrial wastes that is generated in St. Mary's County. St. Mary's County recycled 35,782 tons of non-MRA material in 2013. A portion of the remaining non-MRA material may be available for capture and recycling. The materials that may be recycled from this waste stream include antifreeze, asphalt and concrete, coal ash, construction and demolition debris, land clearing debris, scrap automobiles, sewage sludge, soils, and waste oils.

As shown in Table 3, there is approximately 22,481 tons of non-MRA material remaining in the waste stream that may be available for capture and recycling. As mentioned previously, a waste audit of non-MRA material is beneficial to determine what percentage of each category of waste is present in the non-MRA waste stream. The waste audit will determine how much of the 22,481 tons of material is able to be recycled through established markets and end users.

Table 3: Recyclables in Non-MRA Waste Stream (in tons)

Non-MRA Waste and Recyclables Generated in St. Mary's County	Recycled Material from Non-MRA Waste Stream by St. Mary's County (2013)	Estimated Waste and Recyclables Remaining in Non-MRA Waste Stream for Capture
58,263	35,782	22,481

Zero Waste Recycling Goal

The Zero Waste Plan specifies that 65% of the recyclable material in both the MRA and non-MRA waste stream shall be recycled in St. Mary's County in 2025. This includes the food and yard waste material that is required to be recycled as part of the Zero Waste Plan. This recycling goal is equivalent to 81,650 tons of recyclable material. Subtracting the amount of recycling St. Mary's County diverted in 2013 (60,234 tons), St. Mary's County will need to recycle an additional **21,416 tons** of material annually. Of the total tons of material already recycled (60,234) and the additional material to be recycled (21,416 tons), 5,873 tons of this total material shall be food waste and 1,122 tons of this total material shall be yard waste to meet the Zero Waste Plan goals.

It is estimated that 30,894 tons of material may be captured from the existing MRA waste stream.

Table 4: Zero Waste Recycling Goal Tonnage (in tons)

MRA and Non-MRA Waste Stream in St. Mary's County	Recycling Tonnage Required to Meet Zero Waste Goal (65%)	Recycled Material from MRA and Non-MRA Waste Stream by St. Mary's County (2013)	Additional Recycling Tonnage Needed to Meet Zero Waste Goal (65% of MRA and Non-MRA) [1]	Estimated Recyclables Remaining in MRA and Non-MRA Waste Stream for Capture
125,609	81,650	60,234	21,416	53,375

1: This tonnage total includes the 6,995 tons of yard and food waste that must be recycled in 2025 to meet the Zero Waste Plan Goals.

In order to increase the recycling efforts to meet the Executive Order and Zero Waste Plan, St. Mary's County will need to add commercial recycling to their current system. In order to add commercial recycling to their current system, St. Mary's County will either need to provide and collect roll-offs and carts to commercial businesses within the County or require commercial businesses to recycle through local haulers. The recyclable materials that are anticipated to be generated through the commercial sector are plastics, aluminum and bi-metal cans, office paper, and corrugated cardboard.

Zero Waste - Overall Waste Diversion Goal

According to the Zero Waste Plan, Counties will be required to divert 70% of their MRA and non-MRA waste generated in 2025. This diversion includes the 65% recycling goal and an additional 5% diversion goal. Based on St. Mary's County MRA and Non-MRA generation tonnages, as stated in the 2013 Maryland Waste Diversion Rates and Tonnages Report, this is equivalent to 87,926 tons of material. The recycling goal requires 81,650 tons of this material to be captured and recycled by 2025, leaving an additional 6,276 tons of material that must be captured, recycled or diverted from the St. Mary's County waste stream in 2025. St. Mary's County received a 4% source reduction credit in 2013, which is equivalent to 2,806 tons of material.

Table 5: Zero Waste Diversion Goal (in tons)

MRA and Non-MRA Waste Stream in St. Mary's County	Tonnage Required to Meet Zero Waste Diversion Goal (70%)	Tonnage Required to Meet Zero Waste Recycling Goal (65%)	Additional Tonnage Required to Meet Diversion Goal	Recycling Credit from RRF Facility	Source Reduction Credit	Remaining Tonnage Needed to Meet Zero Waste Goals
125,609	87,926	81,650	6,276	3,367	2,806	103

Counties will be able to take a 5% credit for their recycling rates, if they achieve at least a 5% reduction in the volume of the waste stream through a resource recovery facility in operation before 1988. In 2013 St. Mary's County delivered 16,529 tons of waste material to the Wheelabrator (Bresco) RRF. The

five percent (5%) recycling credit was equivalent to 3,367 tons of material according to the 2013 Maryland Waste Diversion Rates and Tonnages Report.

Additionally, St. Mary's County received a source reduction credit of 4% in 2013, which is equivalent to 2,806 tons.

Thru the recent State mandated ABCR Program, St. Mary's County should experience an increase in their current recycling rate through the portion of the residential sector that live in multi-family housing such as apartments and condominiums. This portion of the residential sector includes approximately 13 percent of the County's population, or approximately 13,700 people. Using the estimated recycling rate for Maryland of 0.5 tons per person per year, this is an estimated 6,850 tons of recyclables generated by the residents living in multi-family housing units. The recyclable material collected from the multi-family housing units will be reported to St. Mary's County annually.

Additionally, it is recommended in the Zero Waste Plan that Counties encourage source reduction and reuse. This may be implemented through education and outreach to local commercial businesses. St. Mary's County may encourage local businesses to reduce packaging of shipped products both to and from their facility and reuse material generated at their place of business. Encouraging source reduction and reuse at local businesses within the County will require staff time and effort to meet with local businesses and develop models with local businesses in order to achieve waste diversion. Source reduction and reuse will decrease the amount of waste sent to the landfill annually, thus reducing the tonnage of recyclable material that is required to be captured as part of the Zero Waste Plan.

Zero Waste - Water Reuse Goal

Water reuse is considered the reuse of municipal or industrial wastewater that is treated to remove impurities and is suitable for beneficial reuse. Beneficial reuse may include cooling, such as at power plants or data centers, and irrigation at farms, athletic fields, parks, playgrounds, golf courses, highway landscaping areas, cemeteries, and similar locations. Approximately 17,000 residents are currently served by public sewer. As part of the Zero Waste Plan, fifteen percent (15%) of the wastewater generated from the public sewer system shall be recycled or reused in 2025. It is estimated that the 17,000 residents generate approximately 1.6 billion gallons of wastewater annually. Fifteen percent of the generated wastewater is equivalent to 240 million gallons. To achieve 15% reuse/recycling of the wastewater generated in St. Mary's County, it is recommended that the wastewater treatment plants contract with local industrial clients, businesses, etc. to provide treated wastewater for beneficial reuse.

Table 6: Water Reuse Goal (in gallons)

Residents Serviced by Public Sewer	Wastewater Generated	Gallons Required to Meet Zero Waste Water Reuse Goal (15%)
17,000	1,600,000,000	240,000,000

Achieving Zero Waste Recycling Goals

To achieve the zero waste recycling goals, St. Mary's County would have to establish a County wide ordinance that mandates the recycling of certain materials by residents and commercial entities within the County. The ordinance would have to require all haulers and commercial entities to report recycling tonnages to St. Mary's County on a quarterly, semi-annul or annual basis. The ordinance would ensure that the County captures the recycling and waste diversion efforts that would help the County achieve the zero waste goals.

Challenges

A challenge that St. Mary's County will face, is achieving the Zero Waste Plan goals as a percentage of the weight of the waste stream. Recyclables are getting lighter with the use of post-consumer recycled plastics and lighter packaging. It will continue to take more recyclables to achieve the zero waste goals as recyclable material becomes lighter.

Additionally, a majority of the recyclable material in the waste stream may not be marketable as recyclables to end users. For example, plastic lawn chairs, post-consumer paper towels, and some children's toys that are made out of plastics and fibers, i.e. outdoor toys, sandbox toys, etc. are recyclable by their composition, but there are limited to no end users for this material. It may be difficult to find markets for these types of recyclables, which will make recycling of this material time consuming, if not impossible for St. Mary's County.

In order to increase the amount of material recycled, St. Mary's County will have to target material that is not commonly recycled by residents in the County. This may include plastics outside of the #1 through #7 bottles, textiles (such as clothing, rags, etc.), and paper products (such as post-consumer Kleenex and paper towel). The reality is that many of these products are recyclable based on their composition, but there are no end users that are accepting these products for reuse.

Additionally, many end users require materials to be separated into their similar forms, i.e. #1 plastics, or #4 and #5 plastics. This level of separation requires certain technology that can separate these materials efficiently, as well as a degree of quality oversight from personnel during the separation process. In order for St. Mary's County to target additional recyclable material, beyond the typical curbside recyclables, the County will have to ensure that a MRF is available that can process and separate this material for end users. Additionally, St. Mary's County or its private sector partners will have to ensure that there are markets for the recyclable material, prior to collecting this material from the residential sector. Targeting additional recyclable material from the residential sector will require additional staff time for education and outreach, as well as staff time to ensure processors are available for this material.

Recyclables processing facilities often have a degree of contamination due to the nature of material being received at the processing facility. Contaminated material is recyclable material that is contaminated by other recyclable material or other non-recyclable material. Recyclables may be contaminated when certain plastics (i.e. #6) end up getting into a bale of #4 and #5 plastics. This

material is not considered usable by the end user and therefore, may be sent back to the processing facility for further separation or the end user may pay significantly less for this material. Additionally, recyclable material may be contaminated by non-recyclable material, such as food debris on containers or soiled paper towels. Contaminated loads are virtually unavoidable in a single stream process. Unfortunately, the easiest option to increase recyclable material collected from the residential sector is to offer single stream, curbside recycling.

It is noted that, in today's current market, it is more costly to recycle a plastic container that has food waste (i.e. a peanut butter jar) than it is to dispose of this container. Education to residents on properly preparing recyclables will be a critical requirement when moving toward zero waste. Additionally, overcoming the public's perception of "inconvenience" to wash out recyclable containers will be a challenge that St. Mary's County will have to overcome in order to meet the recycling rate percentages in the Zero Waste Plan.

Recyclables generated through the commercial sector are often contaminated due to employees attempting to recycle too many materials and/or from contamination due to non-recyclable materials being disposed in the recyclables container. Education for employees will be a critical task in ensuring the success of a commercial recycling program. St. Mary's County will have to work with individual businesses to educate supervisors on the recycling program. Businesses will need to commit to train each new hire on how to recycle and to provide refresher trainings for existing employees on the recycling program. St. Mary's County will be responsible for obtaining recycling tonnages annually from each commercial business within the County in order to determine the County recycling and diversion rate. It is important that St. Mary's County obtain commitments from the commercial businesses that they will report recycling efforts to the County on an annual basis. This may be accomplished through a Contract Agreement with each commercial business, a County wide recycling ordinance, franchised curbside collection service contracted by the County, or performed in-house by County resources.

Executive Order

The State of Maryland
Executive Department

EXECUTIVE ORDER
01.01.2015.01

Zero Waste Plan for Maryland

WHEREAS, Marylanders generate significantly more municipal solid waste per person than the United States as a whole and continue to dispose of more than half of that waste each year, the majority of which goes into landfills;

WHEREAS, Statewide, there is an estimated 36 years of remaining municipal landfill capacity at current disposal rates;

WHEREAS, Eliminating inefficient and harmful disposal of waste into landfills is possible through progressive source reduction (avoiding waste before it occurs), recycling, and reuse;

WHEREAS, Maryland's Zero Waste Plan, issued in 2014 after extensive consultation with businesses, local governments, non-profits, and individual citizens, outlined cost-effective strategies to nearly eliminate disposal of waste in Maryland by 2040;

WHEREAS, Implementation of Maryland's Zero Waste Plan is already underway in key areas, including the establishment of clearer permitting pathways for composting facilities; adoption of higher county and State government recycling rates; provision of recycling opportunities at apartments, condominiums, and special events; and the procurement of compost and other recycled products;

WHEREAS, According to a recent study by the Tellus Institute and Sound Resource Management Group, diverting material from disposal to reuse, recycling, and composting results in more jobs, with a direct impact of 1.1 million added jobs nationwide if the United States meets a recycling rate of 75% by 2030;

WHEREAS, The United Nations Intergovernmental Panel on Climate Change (IPCC) has determined that methane emissions are a significant contributing factor to climate change, and landfills are the third largest source of methane emissions in the United States;

WHEREAS, Maryland's people, property, natural environment, and public investments are extremely vulnerable to the impacts of climate change and are already experiencing its effects including sea level rise of more than one foot over the last century, increased storm intensity, wind, and rainfall events, water shortages, droughts, heat waves, and increased water temperatures;

WHEREAS, Improper handling of solid waste can pose direct threats to both the public health and the quality of Maryland's environment, including odor problems, soil erosion, surface and ground-water pollution, and the propagation of disease-bearing vectors;

WHEREAS, Composting organic materials, including land clearing debris, improves soil quality, increases water retention, and reduces erosion; and

WHEREAS, Operation of new or expanded municipal and land clearing debris landfills would harm public health and the environment.

NOW, THEREFORE, I, MARTIN O'MALLEY, GOVERNOR OF THE STATE OF MARYLAND, BY VIRTUE OF THE AUTHORITY VESTED IN ME BY THE CONSTITUTION AND LAWS OF MARYLAND, HEREBY PROCLAIM THE FOLLOWING EXECUTIVE ORDER, EFFECTIVE IMMEDIATELY:

A. Maryland shall endeavor to ensure that all waste generated in the State is increasingly reduced and reused rather than discarded in a manner that adversely impacts our health and environment.

B. Maryland shall have a goal of 85% waste diversion and 80% recycling by 2040.

(1) State Government Recycling. To ensure progress toward the overall statewide goal, State government shall achieve a waste recycling rate of at least 65% by 2020.

(2) State Government Organics Recycling. To ensure progress toward the overall statewide recycling goal, State government shall divert at least 60% of its organic waste through recycling, composting, or anaerobic digestion by 2020.

C. State Government Source Reduction. By December 1, 2015, the Maryland Department of the Environment in consultation with the Maryland Green Purchasing Committee shall create a source reduction checklist for use by State agencies to track and encourage source reduction.

(1) In accordance with relevant laws and Maryland's Green Purchasing Guidelines, State government shall consider source reduction in procurement, including the avoidance of unnecessary packaging and the return of reusable packaging to vendors.

D. Landfill Permitting. Except for permit applications submitted to the Maryland Department of the Environment before January 19, 2015, the Department will not issue a permit for any new municipal or land clearing debris landfill capacity in the State.

(1) Municipal Landfill. Defined in COMAR as a solid waste acceptance facility that is designed, installed, and operated so that it can accept most types of waste generated by a community, with exceptions as noted in the regulations.

(2) Land Clearing Debris Landfill. Defined in COMAR as a solid waste acceptance facility that is restricted to accepting earthen material such as clays, sands, gravels, and silts; topsoil; tree stumps; root mats; brush and limbs; logs; vegetation; and rock.

E. The Maryland Department of the Environment will provide local governments with information on alternatives to land-filling.

GIVEN Under My Hand and the Great Seal of the State of Maryland, in the City of Annapolis, this 13th Day of January, 2015.

Martin O'Malley
Governor

ATTEST:

John P. McDonough
Secretary of State

Excerpt from Zero Waste Maryland Plan

Zero Waste Maryland

Maryland's Plan to Reduce, Reuse and Recycle Nearly All Waste Generated in Maryland by 2040

December 2014

Martin O'Malley, Governor **Anthony Brown, Lt. Governor**

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard | Baltimore, MD 21230 | www.mde.state.md.us/recycling
410-537-3314 | 800-633-6101 x3314 | TTY Users: 800-735-2258
Robert M. Summers, Ph.D., Secretary

figure must also be used. MRA waste generation is composed of municipal solid waste (MSW) plus industrial waste not disposed of in private industrial landfills. In 2012, 6,559,725 tons of MRA waste was generated. Because the Department has detailed recycling data for MRA waste, this subset is typically used when tracking the status of waste diversion in Maryland. Unless stated otherwise, references to recycling, disposal, or waste generation in this Plan refer to MRA materials.

Within MRA waste, MSW is refuse from residential and commercial sources, as well as some institutional sources (e.g. waste from schools, but not medical waste). Figure 1 shows the makeup of MSW by material in the U.S.[2] Paper, food scraps, yard trimmings, and plastic are the most significant components of MSW, together composing almost 70% of the MSW stream.

Figure 1: Total MSW Generation by Material in the U.S., 2011

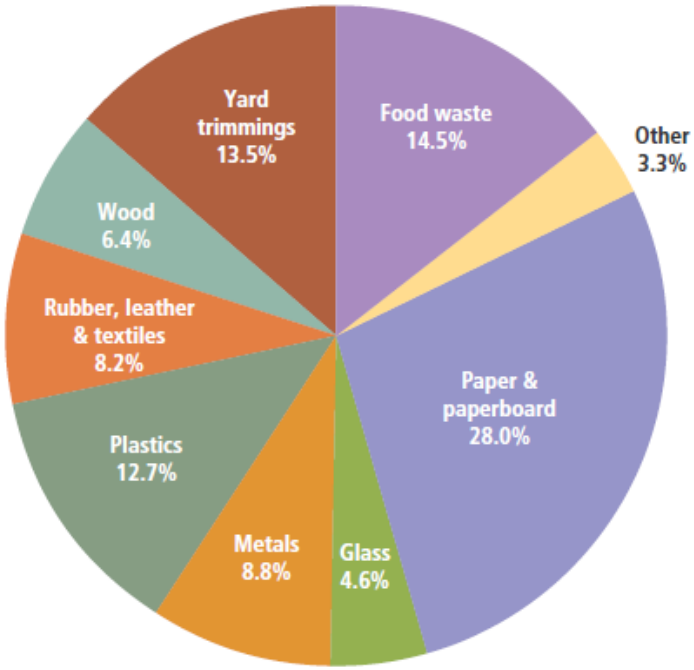


Figure 2 shows MRA waste generation from 1999 to 2012. Generation of waste has generally increased over that period, at an average of almost 4% per year, until a significant dip in 2008-2009 at the start of the recession. Since then, waste generation has not returned to pre-recession levels and actually dipped slightly in 2012.

There is some uncertainty about how to characterize the recent decreases in waste generation. Economic growth has long been considered a major driver of waste generation. However,

[2] The Department does not receive Maryland MSW generation information broken down by material (only recycling), so it currently relies on EPA's annual characterization of the U.S. MSW stream as a whole. EPA's 2011 report was the latest year available at the time MDE's 2012 annual recycling rate calculations were completed and is used throughout this Plan. EPA, Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2011, http://www.epa.gov/osw/nonhaz/municipal/pubs/MSWcharacterization_508_053113_fs.pdf.

St. Mary's County 2013 Recycling Data

County: St. Mary's County **Reporting Period:** Jan. thru Dec. 2013

FORM B – County Recycling Accounting Form

TABLE B1 – MRA Materials Recycled*

Category	MRA Recyclables	Residential (Tons)	(Tons)	Total (Tons)	
Commingled Containers	Commingled Containers		324.48	**324.48**	
Compost/Mulch (Yard)	Brush and Branches			**0.00**	
Landscaping material only. Landclearing materials included in Table B2 (1)	Grass			**0.00**	
	Leaves			**0.00**	
	Mixed Yard Waste	5,905.63	272.00	**6,177.63**	
	Other (9):			**0.00**	
Compost/Mulch (Other)	Food Waste		27.25	**27.25**	
	MSW Compost (2)			**0.00**	B
	Wood Materials (3)			**0.00**	
	Other (9): corn silage	3,031.00		**3,031.00**	
Glass	Brown Glass			**0.00**	
	Clear Glass			**0.00**	
	Green Glass			**0.00**	
	Mixed Glass	828.00	80.04	**908.04**	
	Other (9):			**0.00**	
Metals	Aluminum Cans		89.68	**89.68**	
	Back-End Scrap			**0.00**	C
	Lead Acid Batteries	0.37	136.02	**136.39**	
	Mixed Cans (Al, Sn, Steel)	315.66	516.03	**831.69**	
	Tin (Sn)/Steel Cans			**0.00**	
	White Goods		2,200.00	**2,200.00**	
	Other (9): front end	559.91	346.27	**906.18**	
Paper	Magazines			**0.00**	
	Mixed Paper	2,869.05	604.69	**3,473.74**	
	Newspaper			**0.00**	
	Office/Computer Paper:			**0.00**	
	Old Corrugated Cardboard		3,559.02	**3,559.02**	
	Other (9):			**0.00**	
Plastic	Mixed Plastic	579.49	95.11	**674.60**	
	Plastic #:			**0.00**	
	Plastic #:			**0.00**	
	Other (9): plastic hangers		5.76	**5.76**	
Other Materials	Animal Protein/Solid Fat (4)		178.31	**178.31**	
	Electronics	330.61	4.24	**334.85**	
	MSW-to-Energy Ash			**0.00**	D
	Pallets (5)			**0.00**	
	Textiles	154.40	413.51	**567.91**	
	Tires (6) (Recycled)	273.61	400.48	**674.09**	
	Tires (7) (Retread)			**0.00**	
	Tires (8) (Cement Kiln 12%)			**0.00**	
	Other (9):			**0.00**	
Table B1b Total (Tons)		14.47	96.53	**111.00**	
TOTAL MRA (TONS)		**14,862.20**	**9,349.42**	**24,211.62**	E

* For more detailed guidelines, refer to the *Maryland Recycling Act Tonnage Reporting System Guidelines* (Guidelines), available under "County Coordinator Resources" on MDE's recycling web page.

(1) information.

(2) Report only that portion that is marketed. See Guidelines for further information.
(3) Includes recycling of wood products (*e.g.*, pallets, crates, barrels, wood furniture, canes, crutches, etc.). Materials must be mulched or composted ONLY. Otherwise, include in "Other Materials" category.
(4) In order for a material to be classified as an animal protein/solid fat, the material must pass the Paint Filter Liquids Test. See Guidelines for further information.
(5) Refurbished pallets ONLY. List mulched or composted pallets in "Wood Materials" – "Compost/Mulch (Other)" category.
(6) Tires that are recycled into new products containing rubber (*e.g.*, trashcans, storage containers, rubberized asphalt, etc.), and use of whole tires for playground and reef construction.
(7) Retread or recapped tires.
(8) Tires-to-cement kilns. Enter 12% of the total weight of tires used at cement kilns.
(9) List the MRA recyclable material. Use Table B1b – Other MRA Recyclables for additional space if listing more than 1 "Other" recyclable.
B, C, D, E For use in Table C1.

TABLE B1b – Other MRA Recyclables*

Category	MRA Recycables	Residential (Tons)	(Tons)	Total (Tons)
oil based paint		2.15		2.15
flammable liquids		8.80		8.80
fluorescent		3.52	0.12	3.64
oil filters			76.03	76.03
toner cartridge			20.38	20.38
				0.00
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County: St. Mary's County **Reporting Period:** Jan. thru Dec. 2013

				0.00
				0.00

* For more detailed guidelines, refer to the *Maryland Recycling Act Tonnage Reporting System Guidelines*, available under "County Coordinator Resources" on MDE's recycling web page.

TABLE B2 – Non-MRA Materials Recycled*

Non-MRA Recyclables	Residential (Tons)	(Tons)	Total (Tons)
Antifreeze	12.10	3.00	**15.10**
Asphalt		7,709.15	**7,709.15**
C&D Debris			**0.00**
Coal Ash (Fly Ash, Pozzolan)			**0.00**
Concrete		22,042.31	**22,042.31**
Landclearing Debris **(1)**		20.00	**20.00**
Scrap Automobiles		435.02	**435.02**
Scrap Metal		3,759.15	**3,759.15**
Sewage Sludge		735.27	**735.27**
Soil			**0.00**
Waste Oil	164.13	397.43	**561.56**
Other **(2)**: **cooking oil**	70.32	305.32	**375.64**
Other **(2)**: **stone**		108.80	**108.80**
Other **(2)**: **land clearing**		20.00	**20.00**
Other **(2)**:			**0.00**
Other **(2)**:			**0.00**
Other **(2)**:			**0.00**
Other **(2)**:			**0.00**
Other **(2)**:			**0.00**
Other **(2)**:			**0.00**
Other **(2)**:			**0.00**
Other **(2)**:			**0.00**
Other **(2)**:			**0.00**
Other **(2)**:			**0.00**
TOTAL NON-MRA (TONS)	**246.55**	**35,535.45**	**35,782.00**

* For more detailed guidelines, refer to the *Maryland Recycling Act Tonnage Reporting System Guidelines*, available under "County Coordinator Resources" on MDE's recycling web page.

(1) Earthen materials (*i.e.*, clays, sands, gravels, and silts), topsoil, tree stumps, root mats, brush and branches, logs, vegetation, and rock from land clearing operations that if not recycled are discarded in landclearing debris, Rubble, or C&D landfills. See Table B1 for landscaping

(2) List the Non-MRA recyclable material.

2013 MDE Maryland Waste Diversion Rates and Tonnages

Calendar 2013 Maryland Waste Diversion Rates & Tonnages

County	Total MRA (tons)*	MRA Recyclables (tons)	No-Ash MRA Recycling Rate**	Material sent to RRF	RRF Credit Eligible (>5%)	Harford RRF Reduction of 50%	Wheelabrator RRF Reduction of 50%	Smith Island RRF Reduction of 50%	5% Recycling Credit (tons)	Recycling Rate with 5% RRF Credit	Source Reduction Credit^	Source Reduction (tons)***	Total Tonnage Diverted****	MRA Waste Diversion Rate*****	Non-MRA Recyclables (tons)	Non-MRA Waste (tons)	Total Waste (tons)^^	Overall Waste Diversion Rate^^^
Allegany	103,255.94	35,450.94	34.33%	0.00	No	YES	YES	YES	0	34.33%	2%	2,107.26	37,558.20	36.33%	571,010.73	11,428.42	685,695.09	90.44%
Anne Arundel	669,088.90	275,499.41	41.18%	19,813.71	No	YES	YES	YES	0	41.18%	4%	27,878.70	303,378.11	45.18%	225,836.46	172,114.17	1,067,039.53	50.98%
Baltimore City	687,485.50	99,042.52	14.41%	405,584.40	**Yes**	YES	YES	YES	34,374.28	19.41%	0%	0.00	133,416.80	19.41%	323,052.70	122,085.30	1,132,623.50	40.30%
Baltimore County	927,966.68	292,574.35	31.53%	314,900.48	**Yes**	YES	YES	YES	46,398.33	36.53%	5%	48,840.35	387,813.04	41.53%	282,277.37	303,969.71	1,514,213.76	46.03%
Calvert	53,354.18	17,652.68	33.09%	0.00	No	YES	YES	YES	0	33.09%	0%	0.00	17,652.68	33.09%	56,342.51	27,448.84	137,145.53	53.95%
Carroll	171,736.15	66,908.92	38.96%	437.16	No	YES	YES	YES	0	38.96%	5%	9,038.74	75,947.66	43.96%	786,241.78	19,708.67	977,686.60	92.26%
Cecil	94,627.78	32,029.10	33.85%	337.89	No	YES	YES	YES	0	33.85%	4%	3,942.82	35,971.92	37.85%	14,447.19	41,213.77	150,288.74	34.92%
Charles	159,512.84	81,132.50	50.86%	0.00	No	YES	YES	YES	0	50.86%	4%	6,646.37	87,778.87	54.86%	411,256.77	38,295.47	609,065.08	84.84%
Dorchester	45,270.78	16,276.78	35.95%	0.00	No	YES	YES	YES	0	35.95%	0%	0.00	16,276.78	35.95%	1,700.83	16,461.11	63,432.72	28.34%
Frederick	270,949.22	134,128.47	49.50%	11.03	No	YES	YES	YES	0	49.50%	5%	14,260.49	148,388.96	54.50%	36,160.88	119,657.35	426,767.45	44.90%
Garrett	45,275.35	25,532.35	56.39%	0.00	No	YES	YES	YES	0	56.39%	1%	457.33	25,989.68	57.39%	3,740.92	6,339.00	55,355.27	53.88%
Harford	254,013.31	122,417.87	48.19%	62,829.13	**Yes**	YES	YES	YES	12,700.67	53.19%	5%	13,369.12	148,487.66	58.19%	5,713.14	28,011.48	287,737.93	53.94%
Howard	497,544.57	225,238.82	45.27%	13,925.38	No	YES	YES	YES	0	45.27%	4%	20,731.02	245,969.84	49.27%	26,394.96	102,294.00	626,233.53	44.18%
Mid-Shore	215,092.39	122,479.39	56.94%	0.00	No	YES	YES	YES	0	56.94%	0%	0.00	122,479.39	56.94%	100,619.27	29,244.24	344,955.90	64.67%
Montgomery	1,103,958.40	609,151.36	55.18%	21.43	No	YES	YES	YES	0	55.18%	5%	58,103.07	667,254.43	60.18%	88,212.86	279,449.03	1,471,620.29	52.39%
Prince George's	739,948.57	440,516.90	59.53%	2,535.20	No	YES	YES	YES	0	59.53%	5%	38,944.66	479,461.56	64.53%	424,113.27	278,089.18	1,442,151.02	64.95%
Somerset	19,168.20	2,409.70	12.57%	92.24	No	YES	YES	YES	0	12.57%	0%	0.00	2,409.70	12.57%	7,306.50	7,265.16	33,739.86	28.80%
St. Mary's	67,345.94	24,452.24	36.31%	16,528.74	**Yes**	YES	YES	YES	3,367.30	41.31%	4%	2,806.08	30,625.62	45.31%	35,782.00	22,480.56	125,608.50	54.63%
Washington	133,187.08	82,432.08	61.89%	0.00	No	YES	YES	YES	0	61.89%	0%	0.00	82,432.08	61.89%	19,957.55	25,986.98	179,131.61	57.16%
Wicomico	155,785.33	65,290.33	41.91%	0.00	No	YES	YES	YES	0	41.91%	0%	0.00	65,290.33	41.91%	19,726.19	9,545.17	185,056.69	45.94%
Worcester	93,507.86	27,287.86	29.18%	0.00	No	YES	YES	YES	0	29.18%	0%	0.00	27,287.86	29.18%	33,227.00	28,068.35	154,803.21	39.09%
Roads Data			N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10,000.00	N/A	10,000.00	N/A
MARYLAND TOTALS	**6,508,074.97**	**2,797,904.57**	**42.99%**	**837,016.79**					**96,840.57**	**44.48%**	**3.66%**	**247,126.03**	**3,141,871.17**	**48.14%**	**3,483,120.88**	**1,689,155.96**	**11,680,351.81**	**58.26%**
EPA	6,039,155.26	2,411,510.86	39.93%								NA	NA	2,411,510.86	39.93%	3,869,514.59	1,771,681.96	11,680,351.81	53.77%

Decrease | Increase | from previous year

MRA + Non MRA Recycling Rate (No 5% Credit)
53.77428311

MRA Recycling + RRF Credit Tons
2,894,745.14

6,281,025.45

6,281,025.45

* Total MRA = MRA Recyclables + MRA Waste - MSW Ash Recycled - Backend Scrap Metal Recycled

** MRA Recycling Rate = MRA Recyclables (tons) ÷ Total MRA (tons)

*** Source Reduction (tons) = (Total MRA (tons) ÷ (1 - Source Reduction Credit)) - Total MRA (tons)

**** Total Tonnage Diverted = MRA Recyclables (tons) + RRF Credit (tons) + Source Reduction (tons)

***** MRA Waste Diversion Rate = MRA Recycling Rate + Source Reduction Credit

^ Source Reduction Credit for Maryland = Source Reduction (tons) ÷ (Total MRA (tons) + Source Reduction (tons))

^^ Total Waste (tons) = Total MRA (tons) + Non-MRA Recyclables (tons) + Non-MRA Waste (tons)

^^^ Overall Waste Diversion Rate = ((MRA Recyclables (tons) + Non-MRA Recyclables (tons) + 5% Recycling Credit (tons)) ÷ Total Waste (tons)) + Source Reduction Credit

APPENDIX G

MEMORANDUM OF UNDERSTANDING

ST. MARY'S COUNTY DEPARTMENT OF PUBLIC WORKS

Construction & Inspections
County Highways
Solid Waste

Development & Plan Review
Engineering Services
Recycling

P.O. Box 508 44825 St. Andrews Church Road California, Maryland 20619 Office: (301) 863-8400 Fax: (301) 863-8810

February 14, 2002

Mr. Dan M. Williams, R.S., Bureau Chief
Calvert County Government
Bureau of Utilities
175 Main Street
Prince Frederick, MD 20678

RE: Calvert County Memorandum of Understanding

Dear Mr. Williams:

Please find enclosed a copy of the signed and fully executed Memorandum of Understanding (MOU) between the Calvert County Government and St. Mary's County Government for the transportation and disposal of municipal solid waste.

St. Mary's County Government will provide updated delivery schedules for your review and approval, request Project Period extensions and discuss operational issues at the Appeal Facility as the need arises. In addition, St. Mary's County Government will notify Calvert County Government, in a timely manner, if any or all of the municipal solid waste being transported by the St. Mary's County Government will be diverted, transported and disposed of at another location. Lastly, it is understood that you will extend as much advanced notification as possible if any or all waste being transported by St. Mary' County Government must be diverted, transported and disposed of elsewhere due to operational issues at the Appeal Facility.

We appreciate the regional cooperation and professional courtesy that the Calvert County Government continues to provide to the citizens of St. Mary's County. If you have any questions, please do not hesitate to contact this Department.

Very truly yours,

George A. Erichsen, P.E.
Director

GAE:cp
enclosure

cc: Robert S. Taylor, Jr., Director, Calvert County Public Works
Board of County Commissioners
Alfred A. Lacer, County Administrator
John Norris, Acting County Attorney
Mary O'Brien, Risk Manager
Richard P. Tarr, Solid Waste Manager
Solid Waste Advisory Committee

MEMORANDUM OF UNDERSTANDING
BETWEEN CALVERT COUNTY AND ST. MARY'S COUNTY

This Memorandum of Understanding ("MOU") dated this 12 day of January, 2002, by and between the Board of County Commissioners of Calvert County and the Board of County Commissioners for St. Mary's County (collectively the "Parties") establishes a cooperative working arrangement necessary for the transportation and disposal of residential and municipal solid waste to serve the solid waste disposal needs of St. Mary's County through 2010 (the "Project Period") until [illegible] (the "Term").

In addition to the interim working arrangements delineated below, the execution of this MOU reflects the commitment of the Parties to ensure successful implementation of the Project in good faith. The specific provisions in the numbered paragraphs represent an expression of the cooperative arrangements discussed during the regular meeting of the Calvert County Board of County Commissioners on December 21, 1999 between the parties and/or their representatives.

WHEREAS, St. Mary's County has been diligently planning the development of its long term municipal solid waste disposal needs of the County and in consideration of the long term municipal solid waste disposal needs of neighboring St. Mary's County, and

WHEREAS, the Parties have determined that it is in their best interests to enter into a cooperative working arrangement as a part of a regional planning assistance effort.

NOW, THEREFORE, in consideration of the foregoing, the parties agree to the following:

Working Arrangements

1. Calvert County will provide access to St. Mary's County to its solid waste disposal facility in Lusby, Maryland, for disposal of acceptable solid waste in its solid waste facilities for at least one (1) Project Period as defined above, for the Term of this MOU, which period will be at the discretion of the Board of County Commissioners for St. Mary's County ("St. Mary's County"). St. Mary's County will pay the Board of County Commissioners of Calvert County ("Calvert County") the prevailing rate, or such other tipping fee as may be established in the Calvert County annual budget, for all such waste accepted by Calvert County, unless otherwise agreed to in accordance with Paragraph 3.

2. St. Mary's County shall not be responsible for the removal, and costs of removal and disposal, of any waste that Calvert County will be delivered in a manner described in Paragraph 4.

3. The current tipping fee as of the date of this MOU, which will be charged to St. Mary's County, shall be $44 per ton or applicable prevailing rates.

4. Waste from St. Mary's County will be delivered in suitably covered, leak proof transfer trailers in approximately 14-20 tons [illegible] at a maximum rate of approximately 40 pulls a week. This includes an estimated 450 tons of residential rubble per month delivered to the Appeal Facility in roll-off style trucks in accordance with correspondence from the Calvert County Bureau Chief dated March 15, 2001. All deliveries will be made Monday through Saturday between the hours of 7:00 a.m. and 4:00 p.m. Truck deliveries will be staged in accordance with schedules submitted to and approved by Calvert County, and anticipated or actual deviations from the schedule will be brought to the attention of Calvert County immediately.

5. The Appeal Facility is currently open for private and public vendors for disposal of waste generated by St. Mary's County.

6. Upon request of St. Mary's County, each Project Period may be extended by Calvert County in its sole discretion. Throughout the term of this MOU, Calvert County will be responsible for operating and maintaining the scales, weighing waste delivery and vehicles, recording transactions, billing and collecting.

7. Unless otherwise approved by Calvert County, St. Mary's County will direct only residential municipal solid waste from its County-operated convenience centers to the Calvert County Facility, which will be delivered by, or on behalf of St. Mary's County.

8. The Parties will work cooperatively and exchange necessary information to obtain any required permits, licenses, modifications and approvals for each Project Period so as to implement the Project in a timely manner. Per the Calvert County letter dated January 4, 2000, the Appeal Facility's operating plan can be changed if necessary to accommodate more waste by extending the operating hours, adding more trucks, or by increasing the size of the facility.

9. Either party may terminate this agreement for any reason at any time without advance notice to the other.

10. It is understood that this agreement has been discussed with Calvert County's vendor, who has no objection to this continued arrangement.

11. The recitals above are incorporated herein as if restated.

WITNESS the hands and seals of the parties hereto as of the date first written above.

ATTEST:

Mary S. Watson, Clerk

BOARD OF COUNTY COMMISSIONERS
OF CALVERT COUNTY, MARYLAND

David F. Hale, President

STATE OF MARYLAND, Calvert County to wit:

I HEREBY CERTIFY that on this 12th day February, 2002, before the undersigned, a Notary Public of the State and County aforesaid, personally appeared David F. Hale, President of the Board of County Commissioners of Calvert County, Maryland, and he acknowledged the aforegoing Memorandum of Understanding to be the duly authorized act and deed of the Board of County Commissioners of Calvert County, Maryland.

WITNESS my hand and notarial seal.

Notary Public

My Commission Expires 11-01-04

ATTEST:

Alfred A. Lacer
County Administrator

BOARD OF COUNTY COMMISSIONERS
FOR ST. MARY'S COUNTY, MARYLAND

Julie B. Randall, President

STATE OF MARYLAND, St. Mary's County to wit:

I HEREBY CERTIFY that on this 12th day February, 2002, before the undersigned, a Notary Public of the State and County aforesaid, personally appeared Julie B. Randall, President of the Board of County Commissioners for St. Mary's County, Maryland, and she acknowledged the aforegoing Memorandum of Understanding to be the duly authorized act and [illegible] County Commissioners for St. Mary's County, Maryland.

WITNESS my hand and notarial seal.

Judith A. Spalding
Notary Public

My Commission Expires: 03/01/03

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY:

County Attorney

Approved as to Form and Legal Sufficiency:

John B. Norris, III
Acting County Attorney

ST. MARY'S COUNTY GOVERNMENT

Plan Review-Inspections-County Highways-Solid Waste-Engineering-Vehicle Maintenance-Recycling-Transportation-Transit

Department Of Public Works & Transportation

44825 St. Andrews Church Road P.O. Box 508, California, MD 20619 Phone: (301) 863-8400 Fax: (301) 863-8810

February 28, 2001

Mr. Eugene T. Lauer
County Administrator
County Commissioners of Charles County
P. O. Box 2150
La Plata, MD 20646

RE: Memorandum of Understanding
Solid Waste Disposal

Dear Mr. Lauer:

Enclosed is an executed copy of the Memorandum of Understanding between Charles County and St. Mary's County establishing an arrangement necessary for the possible transportation and disposal of solid waste. It is understood that this represents an interim contingency plan and trust that it will not become necessary to utilize same.

On behalf of the Board of County Commissioners, we thank you for your cooperation and willingness to assist St. Mary's County in this endeavor. If you have any questions, please do not hesitate to contact this Department.

Very truly yours,

George A. Erichsen, P.E.
Director

cp
enclosure

cc: Board of County Commissioners
Alfred A. Lacer, County Administrator
Richard P. Tarr, Solid Waste Manager

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MEMORANDUM OF UNDERSTANDING
BETWEEN CHARLES COUNTY AND ST. MARY'S COUNTY

This Memorandum of Understanding ("MOU") dated this 20 day of February, 2000, by and between the Board of County Commissioners for Charles County and the Board of County Commissioners for St. Mary's County (collectively the "Parties") establishes an interim working arrangement necessary for the transportation and disposal of residential and municipal solid waste to serve the emergency solid waste disposal needs of St. Mary's County for at least one (1) period of 180 consecutive calendar days (the "Project Period") until January 1, 2005 (the "Term").

In addition to the interim working arrangements delineated below, the execution of this MOU reflects the commitment of the Parties to ensure successful implementation of the Project in good faith. The specific provisions in the numbered paragraphs below are binding obligations, and represent an expression of the cooperative arrangements discussed during the November 8, 1999 meeting, and subsequent conversations between the Parties and/or their representatives.

WHEREAS, St. Mary's County has been diligently planning the development of its long term municipal solid waste disposal needs of the county and in consideration of the long term municipal solid waste disposal needs of neighboring Charles County and;

WHEREAS, the Parties have determined that it is in their best interests to enter into an interim working arrangement as a part of a regional contingency planning assistance effort.

NOW, THEREFORE, in consideration of the foregoing, the Parties agree to the following:

Interim Working Arrangements

1. Charles County will reserve for, and make available to, St. Mary's County, capacity for disposal of acceptable solid waste in its landfill for at least one (1) Project Period as defined above, for the Term of this MOU, which period will be at the discretion of St. Mary's County. St. Mary's County will pay Charles County $57 per ton, or such other tipping fee as may be established in the Charles County annual budget, for all such waste accepted by Charles County, unless otherwise agreed to in accordance with Paragraph 3.

2. St. Mary's County will be solely responsible for the removal and costs of removal and disposal of any waste that Charles County rejects as unacceptable waste. Waste from St. Mary's County will be delivered in a manner described in Paragraph 4.

3. The current tipping fee as of the date of this MOU, which will be charged to St. Mary's County, shall be $57 per ton, subject to adjustment as provided in Paragraph 5.

4. Waste from St. Mary's County will be delivered in suitably covered, leakproof transfer trailers in approximately 14-20 tons loads at a maximum rate of approximately 30 pulls a week. All deliveries will be made Monday through Saturday between the hours of 7:00am and 4:00pm. Truck deliveries will be staged in accordance with schedules submitted to and approved by Charles County, and anticipated or actual deviations from the schedule will be brought to the attention of Charles County immediately.

5. St. Mary's County agrees to pay the tipping fee in effect at the commencement of each Project Period for the entire Project Period. Tipping fees shall be those established in the annual budget of Charles County.

6. Upon request of St. Mary's County, each Project Period may be extended by Charles County, in its sole discretion. Throughout the term of this MOU, Charles County will be responsible for operating and maintaining the scales, weighing waste delivery and vehicles, recording transactions, billing and collections.

7. Unless otherwise approve by Charles County, St. Mary's County will direct only residential municipal solid waste from its county-operated convenience centers to the Charles County landfill, which will be delivered by or on behalf of St. Mary's County.

8. The Parties will work cooperatively and exchange necessary information to obtain any required permits, licenses, modifications and approvals for each Project period so as to implement the Project in a timely manner, but the cost and expense of obtaining all such permits, licenses, modifications and approvals shall be the ultimate obligation of St. Mary's County.

9. Either party may terminate this agreement for a material breach by providing at least thirty (30) days advance written notice of its decision to terminate. If the termination is for a material breach, the party requesting termination shall first afford the other party at least fifteen (15) days to cure any deficiency that would justify termination.

10. Either party may terminate this agreement for convenience by providing at least three hundred and sixty-five (365) days advance written notice.

WITNESS the hands and seals of the parties hereto as of the date first written above.

ATTEST:

BOARD OF COUNTY COMMISSIONERS
FOR CHARLES COUNTY

Murray D. Levy, President

STATE OF MARYLAND, St. Mary's County, to wit:

I HEREBY CERTIFY that on this 29 day of Jan., 2000, before the undersigned, a Notary Public of the state and county aforesaid, personally appeared MURRAY D. LEVY, President of the Board of County Commissioners for Charles County, Maryland, and he acknowledged the aforegoing Memorandum of Understanding to be the duly authorized act and deed of the Board of County Commissioners for Charles County, Maryland.

WITNESS my hand and notarial seal.

Carolyn M. Schoonover, Notary Public
Charles County
State of Maryland
My Commission Expires Sept. 1, 2002

NOTARY PUBLIC
My Commission Expires: 9-1-02

ATTEST:

Alfred A. Lacer
County Administrator

BOARD OF COUNTY COMMISSIONERS
FOR ST. MARY'S COUNTY

Julie B. Randall, President

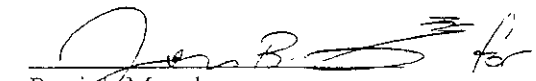
STATE OF MARYLAND, St. Mary's County, to wit:

I HEREBY CERTIFY that on this 24th day of February, 2000, before the undersigned, a Notary Public of the state and county aforesaid, personally appeared JULIE B. RANDALL, President of the Board of County Commissioners for ~~Charles~~ St. MARY'S County, Maryland, and she acknowledged the aforegoing Memorandum of Understanding to be the duly authorized act and deed of the Board of County Commissioners for St. Mary's County, Maryland.

WITNESS my hand and notarial seal.

NOTARY PUBLIC
My Commission Expires: 3/1/03

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY:



Patrick Murphy
County Attorney

ST. MARY'S COUNTY GOVERNMENT
DEPARTMENT OF THE
COUNTY ADMINISTRATOR
George Forrest, County Administrator

November 22, 2005

Mr. Roy E. Hancock, Acting County Administrator
County Commissioners of Charles County
PO Box 2150
La Plata, MD 20646

Memorandum of Understanding
Solid Waste Disposal

Dear Mr. Hancock:

Enclosed is an executed copy of the Memorandum of Understanding between Charles County and St. Mary's County establishing an arrangement necessary for the possible transportation and disposal of solid waste. It is understood that this represents an interim contingency plan that can be utilized until December 31, 2015 and trust that it will not become necessary to utilize same.

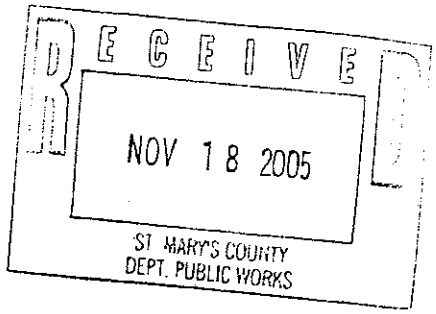
On behalf of the Board of County Commissioners, we thank you for your continued cooperation and willingness to assist St. Mary's County in its solid waster planning efforts. If you have any questions, please do not hesitate to contact me.

Regards,

George G. Forrest
County Administrator

GGF:ryc

Cc: Board of County Commissioners
George A. Erichsen, Director DPW&T w/ attachment



MEMORANDUM OF UNDERSTANDING
BETWEEN CHARLES COUNTY AND ST. MARY'S COUNTY

This Memorandum of Understanding (MOU) dated this 15th day of November, 2005, by and between the Board of County Commissioners for Charles County and the Board of County Commissioners for St. Mary's County (collectively the "Parties") establishes an interim working arrangement necessary for the transportation and disposal of residential and municipal solid waste to serve the emergency solid waste disposal needs of St. Mary's County for at least one (1) period of 365 consecutive calendar days (the "Project Period") until December 31, 2015 (the "Term").

In addition to the interim working arrangements delineated below, the execution of this MOU reflects the commitment of the Parties to ensure successful implementation of the Project in good faith. The specific provisions in the numbered paragraphs below are binding obligations, and represent an expression of the cooperative arrangements discussed during the November 8, 1999 meeting, original MOU executed February 20, 2001, and subsequent conversations between the Parties and/or their representatives.

WHEREAS, St. Mary's County has been diligently planning the development of its long term municipal solid waste disposal needs of the County and in consideration of the long term municipal solid waste disposal needs of neighboring Charles County and;

WHEREAS, the Parties have determined that it is in their best interest to enter into an interim working arrangement as a part of a regional contingency planning assistance effort.

NOW, THEREFORE, IN CONSIDERATION OF THE FOREGOING, the Parties agree to the following:

Interim Working Arrangements

1. Charles County will reserve for, and make available to St. Mary's County, capacity for disposal of acceptable solid waste in its landfill for at least one (1) Project Period as defined above for the Term of the MOU, which period will be at the discretion of St. Mary's County. St. Mary's County will pay Charles County $65 per ton, or such other tipping fee as may be established in the Charles County annual budget, for all such waste accepted by Charles County, unless otherwise agreed to in accordance with Paragraph 3.

2. St. Mary's County will be solely responsible for the removal and costs of removal and disposal of any waste that Charles County rejects as unacceptable waste. Waste from St. Mary's County will be delivered in a manner described in paragraph 4.

3. The current tipping fee as of the date of this MOU, which will be charged to St. Mary's County, shall be $65 per ton, subject to adjustment as provided in Paragraph 5.

4. Waste from St. Mary's County will be delivered in suitably covered, leak proof transfer trailers in approximately 14-20 ton loads at a maximum rate of approximately 40 pulls a week. All deliveries will be made Monday through Saturday between the hours of 7:00 a.m. and 4:00 p.m. Truck deliveries will be staged in accordance with schedules submitted to and approved by Charles County, and anticipated or actual deviations from the schedule will be brought to the attention of Charles County immediately.

5. St. Mary's County agrees to pay the tipping fee in effect at the commencement of each Project Period for the entire Project Period. Tipping fees shall be those established in the annual budget of Charles County.

6. Upon request of St. Mary's County, each Project Period may be extended by Charles County in its sole discretion. Throughout the term of the MOU, Charles County will be responsible for operating and maintaining the scales, weighing waste delivery and vehicles, recording transactions, billing and collections.

7. Unless otherwise approved by Charles County, St. Mary's County will direct only residential municipal solid waste from its County-operated solid waste acceptance facilities to the Charles County landfill, which will be delivered by or on behalf of St. Mary's County.

8. The parties will work cooperatively and exchange necessary information to obtain any required permits, licenses, modifications and approvals for each Project Period so as to implement the Project in a timely manner, but the cost and expense of obtaining all such permits, licenses modifications and approvals shall be the ultimate obligation of St. Mary's County.

9. Either party may terminate this agreement for a material breach by providing at least thirty (30) days advance written notice of its decision to terminate. If the termination is for a material breach, the party requesting termination shall first afford the other party at least fifteen (15) days to cure any deficiency that would justify termination.

10. Either party may terminate this agreement for convenience by providing at least three hundred and sixty-five (365) days advance written notice.

WITNESS the hands and seals of the parties hereto as of the date first written above.

ATTEST:

Carolyn M. Schoonover

BOARD OF COUNTY COMMISSIONERS
FOR CHARLES COUNTY

By: _____
Wayne Cooper, President

STATE OF MARYLAND, Charles County, to wit:

I, HEREBY, CERTIFY that on this 27 day of September, 2005, before the undersigned, a Notary Public of the state and county aforesaid, personally appeared WAYNE COOPER, President of the Board of County Commissioners for Charles County, Maryland, and he acknowledged the foregoing Memorandum of Understanding to be the duly authorized act and deed of the Board of County Commissioners for Charles County, Maryland.

Carolyn M. Schoonover

Carolyn M. Schoonover, Notary Public
Charles County
State of Maryland
My Commission Expires Sept. 1, 2006

9.1.06

MEMORANDUM OF UNDERSTANDING
BETWEEN CHARLES COUNTY AND ST. MARY'S COUNTY

ATTEST:

George Forrest
County Administrator

BOARD OF COUNTY COMMISSIONERS
FOR ST. MARY'S COUNTY

By _____
Thomas F. McKay, President

STATE OF MARYLAND, St. Mary's County, to wit:

I, HEREBY, CERTIFY that on this 15th day of November, 2005, before the undersigned, a Notary Public of the state and county aforesaid, personally appeared THOMAS F. McKAY, President of the Board of County Commissioners for St. Mary's County, Maryland, and he acknowledged the foregoing Memorandum of Understanding to be the duly authorized act and deed of the Board of County Commissioners for St. Mary's County, Maryland.

Donna M. Aldridge
Expires: 5/26/08

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY

11/2/05
John B. Norris, III
County Attorney