

**COUNTY COUNCIL
OF
TALBOT COUNTY**

2021 Legislative Session, Legislative Day No.: May 25, 2021

Resolution No.: 303

Introduced by: Mr. Callahan, Mr. Divilio, Mr. Leshner, Ms. Price, Mr. Pack

**A RESOLUTION TO ADOPT THE 2020 – 2030 COMPREHENSIVE SOLID WASTE
MANAGEMENT PLAN FOR TALBOT COUNTY, MARYLAND**

By the Council: May 25, 2021

Introduced, read the first time, and ordered posted, with Public Hearing scheduled on Tuesday, June 22, 2021 at 6:30 p.m. in the Bradley Meeting Room, South Wing, Talbot County Courthouse, 11 North Washington Street, Easton, Maryland 21601.

By order: *Susan W. Moran*
Susan W. Moran, Secretary

A RESOLUTION TO ADOPT THE 2020 – 2030 COMPREHENSIVE SOLID WASTE MANAGEMENT PLAN FOR TALBOT COUNTY, MARYLAND

WHEREAS, pursuant to Md. Code Ann., Envir. § 9-503, Talbot County, Maryland (the “County”) is required to have a Solid Waste Plan; and

WHEREAS, pursuant to the Code of Maryland Regulations (“COMAR”) Title 26, Subtitle 03, Chapter 03, entitled “Development of County Comprehensive Solid Waste Management Plans,” the County is required to develop and implement a decennial Solid Waste Plan; and

WHEREAS, the County desires to promote sound and ecologically-friendly solid waste management practices that give due consideration to the future solid waste requirements of the County; and

WHEREAS, the County has conducted a community needs assessment, solicited and reviewed Public Works needs of the County, and reviewed current and future solid waste management and recycling operations with the Maryland Environmental Service; and

WHEREAS, a public hearing was held with respect to the proposed 2020-2030 Solid Waste Management Plan on Tuesday, June 22, 2021.

WHEREAS, on June 2, 2021, the Talbot County Planning Commission certified that the proposed 2020-2030 Solid Waste Management Plan attached hereto and incorporated herein by reference as Exhibit A is consistent with the Talbot County Comprehensive Plan.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNTY COUNCIL OF TALBOT COUNTY, MARYLAND, that the 2020-2030 Talbot County Comprehensive Solid Waste Management Plan attached hereto and incorporated herein by reference as Exhibit A be adopted in accordance with the provisions of COMAR Title 26, Subtitle 03, Chapter 03, and shall submit the same to the Maryland Department of the Environment for its consideration and approval.

BE IT FURTHER RESOLVED, that this Resolution shall take effect immediately upon the date of its adoption.

PUBLIC HEARING

Having been posted and Notice, Time and Place of Hearing, and Title of Resolution No. 303 having been published, a public hearing was held on Tuesday, June 22, 2021 at 6:30 p.m. in the Bradley Meeting Room, South Wing, Talbot County Courthouse, 11 North Washington Street, Easton, Maryland.

BY THE COUNCIL

Read the second time:

Enacted: June 22, 2021

By Order: *Susan W. Moran*
Susan W. Moran, Secretary

Callahan	-	Aye
Divilio	-	Aye
Leshner	-	Aye
Price	-	Aye
Pack	-	Aye

Effective Date: June 22, 2021



SOLID WASTE MANAGEMENT PLAN 2020-2030

TALBOT COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

215 Bay Street, Suite #6 | EASTON, MD 21601 | (P) 410-770-8170 (F) 410-770-8176

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INTRODUCTION

Background, Legal Requirements, and Authority

In 1970 the Maryland General Assembly, in response to federal requirements, amended Article 43, Section 387C, of the Annotated Code of Maryland, to require all county governments to prepare and adopt plans for the local management of solid waste. Solid waste collection and disposal is a critical and costly public service. Protection of the environment and community values require that solid waste be properly handled, transported, and disposed. Recycling and utilizing other management techniques can accomplish conservation of resources, energy, and disposal capacity. There have been major changes in State and Federal laws governing solid waste disposal and environmental protection in general. New cooperative regional programs have been created such as the Midshore Regional Solid Waste Management Facility (MRSWMF) and the Midshore Regional Recycling Program (MRRP).

The intent of requiring the development of Solid Waste Management Plans was to analyze the solid waste situation in each county and to develop and implement a comprehensive solid waste management system which would provide an optimum method of collection, transport and disposal of solid waste within the county on a long range basis. Such a plan was adopted in Talbot County in 1973. The 1973 plan prepared by Nassaux Hemsley, Inc. was updated in 1975 and 1978 by the Talbot County Planning Department, consistent with the requirements of Article 43, Section 387C. In 1984, the Talbot County Department of Public Works updated the plan. Article 43 was repealed by Acts 1982, c. 770, §7, and Acts 1996, c. 10, §15. For the planning period from 2009-2019, the document was compliant with COMAR 26.03.03. This update is intended to provide current information concerning solid waste management issues and identifies current needs, objectives and strategies relative to the solid waste management program in Talbot County, and is compliant with COMAR 26.03.03. Per COMAR 26.03.03.03A(1), Talbot County developed a Ten Year Solid Waste Management Plan (Plan) in accordance with the requirements of Section 9-503 of the Environment Article, Md. Code Ann. Regulations. The Plan was adopted by the County on June 22, 2021 via Resolution No. 303 and approved by the Maryland Department of the Environment (MDE) on August 13, 2021, which covers the period of 2020-2030. The MDE approval letter is provided on page 2 of the Introduction.



Maryland
Department of
the Environment

Larry Hogan, Governor
Boya K. Raichand, Lt. Governor
Ben Crumby, Secretary
Horacio Tablada, Deputy Secretary

August 13, 2021

Mr. Raymond P. Clarke, P.E., County Engineer
Talbot County Department of Public Works
215 Bay Street, Suite 6
Easton, MD 21601

Dear Mr. Clarke:

The Maryland Department of the Environment ("MDE") has completed its review of Talbot County's (the "County") adopted Resolution No. 303 for the County's 2020-2030 Solid Waste Management Plan (the "Plan"). The County Council adopted the Plan on June 22, 2021 and the County forwarded the Plan to MDE for its review and approval. MDE received the adopted Plan on June 25, 2021.

Based on this review, MDE determined that the adopted resolution satisfies the requirements of Sections 9-503, 9-505, and 9-1703 of the Environment Article, Annotated Code of Maryland, 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, provided the following change is made to Table 8 on Page 41:

1. Replace the permit numbers of Mid-Shore Regional Landfill and Mid-Shore Regional Landfill Transfer Station with 2020-WMF-0144 and 2020-WIS-0549 respectively. Update anticipated years of service life remaining for the Mid-Shore Regional Landfill Transfer Station.

Section 9-506(b)(2) of the Environment Article, Annotated Code of Maryland, requires the County to submit a progress report to MDE 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 June 22, 2021, the County must submit to MDE its progress report on or before June 22, 2023.

Thank you for your continuing interest and cooperation in providing sound and long-term solid waste management planning for the County. If you have questions or need additional clarification on these matters, please contact me at 410-537-3304 or by email at kaley.lalaker@maryland.gov or Mr. John Sullivan, Manager of Resource Management Program at 410-537-3314 or john.sullivan1@maryland.gov.

Sincerely,

Handwritten signature of Kaley Lalaker in black ink.

Kaley Lalaker, Director
Land and Materials Administration

cc: Clay Stamp, Talbot County Manager
John Sullivan

Definition: The Comprehensive Solid Waste Management Plan

“Solid waste management” as used in this Plan means those activities that provide for the collection, separation, storage, transportation, processing, treatment, re-use, or disposal of solid waste. Solid waste has a broad meaning, and encompasses many of the unwanted by-products of society. In addition to the trash and garbage produced in our homes, solid waste includes any recyclables, refuse, bio-soils, etc. from industrial, commercial, agricultural, or community activities. Solid waste is material that has served its useful purpose and now has been, or soon will be, discarded. At this point, it enters into the “waste stream.” It may be temporarily stored, but will ultimately flow to a final destination such as burial in a landfill, incineration, or reused/recycled into a new product.

The purpose of this Comprehensive Solid Waste Management Plan is to provide a comprehensive strategy for managing the solid waste stream in Talbot County during the next 10 years. The Plan includes the following major items:

- Talbot County goals regarding solid waste management
- Objectives and policies required to meet goals
- Waste characterization
- Current and projected population data
- Midshore Regional Recycling Program data
- Existing and projected solid waste generation
- Existing county solid waste collection practices
- Existing solid waste acceptance facilities
- Assessment of county solid waste disposal systems
- Environmental considerations regarding the Midshore Regional Solid Waste Facility
- Recycling plan for Talbot County
- Emergency response for hazardous waste audits
- Talbot County plan of action regarding solid waste management
- Solid waste disposal systems and acceptance facilities
- Management of commercial/industrial waste streams

Open meetings utilizing a work session format were held in the months that preceded the adoption of this Plan. A work session was held with the County Council on DATE. On DATE, the Solid Waste Management Plan was presented to the Talbot County Planning Commission to determine if the Plan was consistent with the Talbot County Comprehensive Land Use Plan. These meetings were scheduled and published on the County website and in the local newspaper, *The Star Democrat*. Copies of the draft Plan

were sent to all of the incorporated towns for their review and comment. The draft Plan was also made available for access and review by the general public on the County Website prior to its adoption. A formal public hearing on the Comprehensive Solid Waste Management Plan was held by the County Council on DATE. Notice of the public hearing was given by publication in local newspapers preceding the hearing. Written notice of the hearing was also provided to the MDE and the incorporated towns in Talbot County.

CHAPTER ONE – GOALS, OBJECTIVES AND REGULATORY STRUCTURE

1.1 SOLID WASTE MANAGEMENT GOALS AND OBJECTIVES

The Talbot County Solid Waste Management Plan (SWMP) is prepared as a part of the County's continuing responsibility in protecting the public's health and welfare through assurance of proper and legal handling and disposal of the solid waste generated within Talbot County. An effective and efficient system for management of solid waste requires considerations in the provisions of storage, handling, collection, transport, disposal and recycling of solid waste materials. Talbot County's goal is to provide for all these elements in its SWMP in a manner, which is orderly, efficient, environmentally sound, cost effective, and responsive to community needs.

The following objectives are designed to focus efforts toward the development of policies consistent with the aforementioned goal.

- Monitor municipal solid waste disposal, as well as facility and/or land requirements to assure long range (50 years and beyond) community disposal needs can be met
- Manage solid waste collection techniques in response to present and future needs of the County's jurisdictions
- Evaluate approaches to reduce, reuse, and recycle solid wastes and, when demonstrated to be cost effective, implement resource recovery opportunities
- Work with the incorporated municipalities to evaluate the economic benefits of initiating curbside recycling to reduce the amount of wastes disposed of at the landfill
- Develop innovative approaches to consolidate wastes at one central location for more efficient and effective management
- In centralizing waste streams, explore waste-to-energy strategies and grant funding resources to achieve a sustainable environment through the realization of energy values within waste products
- Develop grant applications to secure financial assistance in developing waste-to-energy programs, utilization of landfill gas for beneficial heat or energy opportunities, and enhanced recycling programs in an effort to preserve landfill capacity
- Encourage and increase residential and commercial recycling efforts
- Support private sector efforts to recycle asphalt, concrete and other construction debris and incorporate rubberized asphalt in County roads, and County parking lots as well as private roads and parking lots

- Encourage private sector involvement in provision of collection services to rural residents of the county
- Maintain cooperative efforts with the County’s municipalities and provide technical assistance in meeting their waste collection and disposal needs
- Enforce solid waste storage regulations to minimize impacts on the environment
- Explore the development of a recycling facility on County owned property to accept woody debris, road construction debris, concrete debris and yard waste to produce recycled construction materials and mulch
- To generally maintain a County Solid Waste Management Program consistent with the Talbot County Comprehensive Plan, Talbot County Comprehensive Water and Sewerage Plan and as MDE Solid Waste Management mandates.

In July 1990, the counties of Caroline, Kent, Queen Anne’s and Talbot submitted to their respective recycling plans to MDE. Through these plans, each county outlined its recycling goals and objectives consistent with the directives of the 1988 Maryland Recycling Act and identified the programs, which the counties would adopt in order to achieve these goals. Realizing the advantages of joint cooperative efforts, the four Mid-Shore counties began to develop the Midshore Regional Recycling Program (MRRP) using the counties’ final recycling plan as the foundation. The MRRP is an essential part of the fully integrated regional solid waste management program. As such, it will be incorporated into this update of Talbot County’s 10-year Solid Waste Management Plan.

The MRRP region is mandated by the Maryland Recycling Act of 1988 to maintain a recycling program, which establishes goals and objectives for recycling 15% of the total solid waste generated within the region. In 2012, the 1988 Act was amended by House Bill 929, increasing the recycling goal to 20% for jurisdictions with fewer than 150,000 people, such as Talbot County. At the adoption of the 2009-2019 SWMP, the County Council adopted a recycling goal of 25%. Tables 6 and 7 of this Plan provide a quantitative breakdown of recycling magnitudes compared to the total waste generated in the quad-County region as well as Talbot County exclusively.

The recycling goals and objectives shall be achieved through the implementation of a cooperative processing, marketing and collection plan and will potentially include:

- Ongoing end-use market evaluation for the most cost effective recycling program

- A regional recyclables collection system
- A central materials recovery facility
- An expanded yard waste processing program
- A public education/information campaign
- Municipality assistance in recycling
- Outreach and education to residential, commercial, etc.

These activities will be considered with existing recycling mechanisms in place. The capital and annual costs of the MRRP shall be funded by a financial structure consisting of federal, state and private grants, recycling surcharge on municipal solid waste disposal fees, recycling revenues, tipping fees, loans and County General Funds.

The major goal of the SWMP is to develop a systematic program in the county to:

- Develop and implement specific plans for management of scrap tires, yard waste, septage, rubble, and hazardous waste materials
- Evaluate and promote programs, practices and techniques for solid waste minimization, including source reduction programs
- Evaluate and apply innovative techniques in solid waste management to the extent that effectiveness and cost efficiency permit
- Assure solid waste management activities are implemented in the most environmentally sound methods possible which maintain, and, whenever possible, improve the quality of water and air, conserve natural resources, and apply optimum use of land resources.
- Participate in regionalization of solid waste planning and management activities with neighboring jurisdictions to the greatest extent possible to achieve an advantage through economies of scale
- Promote consolidation of resources and facilities developed to meet the needs of solid waste management activities.

The long-range plan is to create a balance between the generation and disposal of solid wastes through the implementation of innovative, management techniques and provision of adequate solid waste disposal and handling facilities needed to effectively control the solid waste stream and protect the public interest, safety, health, and welfare.

The goals of this program will be accomplished through the continuing improvement, refinement and replacement of existing facilities and the development of new facilities, methods, or resources, to meet the changing conditions of Talbot County, Maryland.

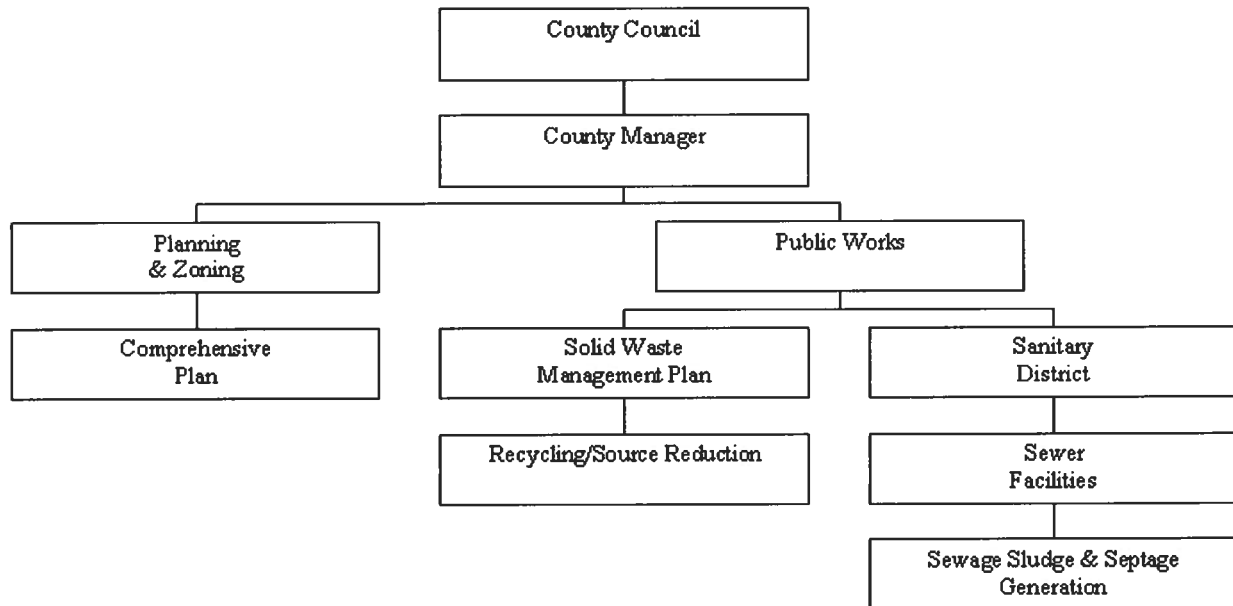
1.2 ORGANIZATION FOR SOLID WASTE MANAGEMENT

The Talbot County Department of Public Works (TCDPW) is responsible for the management of the Solid Waste Program (SWP). The TCDPW is directed by the County Engineer, whose responsibilities are delineated in the Talbot County Charter.

Efforts of the TCDPW are coordinated with those of the Talbot County Planning Office, the incorporated municipalities in Talbot County, and the Talbot County Health Department as the principal local agencies involved in the Solid Waste Management Program.

The organization of the TCDPW is represented on the flow chart provided in Figure 1. The office of the TCDPW is located at the Talbot County Government Center, 215 Bay Street, Suite 6, Easton, Maryland 21601.

FIGURE 1 - TALBOT COUNTY SOLID WASTE MANAGEMENT STRUCTURE



1.3 REGULATIONS AFFECTING THE SOLID WASTE PLAN

Authority

The Maryland General Assembly has enacted laws that govern all aspects of solid waste management including planning, disposal, and recycling. The laws are found in the Annotated Code of Maryland. After the enactment of these laws, the administrative agencies (currently the MDE), adopt regulations that spell out the specific requirements and procedures for each program. These regulations are found in the Code of Maryland Regulations, or COMAR.

Talbot County is required by Environment Article, Title 9, Subtitle 5 of the Md. Code Ann. to prepare a Solid Waste Management Plan (SWMP), included herein. The specific requirements of the Plan are detailed in COMAR 26.03.03, “Development of County Comprehensive Solid Waste Management Plans.”

The Talbot County SWMP has been prepared, as required, and in accordance with, the provisions of Environment Article, Title 9, Subtitle 5 of the Md. Code Ann. (COMAR). The MDE’s COMAR Title 26, Subtitle 3 (Water Supply, Sewerage, Solid Waste and Pollution Control Planning & Funding), Chapter 3 (Development of County Comprehensive Solid Waste Management Plans) was used as a guideline.

Relationship to Other Plans and Laws

Title 9 of the Md. Code Ann. also establishes other laws governing solid waste management including land fill permits (9-204.2), scrap tire recycling (9-288), sewage sludge (9-230), and recycling (9-1701).

Section 9-228 of the Md. Code Ann. prohibits the disposal of scrap tires in a landfill after January 1, 1994. A fee assessed per scrap tire is paid into a fund for establishing scrap tire cleanup and recycling programs. This fee is collected at the retail level and transferred to the Maryland Comptroller of the Treasury. The MDE was charged with identifying scrap tire stockpiles and requiring them to be recycled. The fees collected were used for grants to counties for cleanup of existing scrap tire stockpiles.

The Maryland Recycling Act mandates recycling targets for all counties. Counties with populations less than 150,000, such as Talbot County, were required to recycle at least 15 percent of their solid waste stream by weight by January 1, 1994. Section 9-512 states that a local authority may not issue building permits (except for essential public services) after January 1, 1992 unless the county has an approved recycling plan.

COMAR 26.04.07, “Solid Waste Management” contains the detailed regulations on the construction and operation of all solid waste acceptance facilities. This includes municipal landfills, land clearing debris landfills, rubble landfills, industrial waste landfills, processing facilities, transfer stations, and incinerators.

Public School Recycling Act – Requires a county recycling plan to address the collection, processing, marketing and disposition of recyclables materials from the county public schools.

Fluorescent and Compact Fluorescent Light Recycling Act – requires a county recycling plan to address a strategy for the collection and recycling of fluorescent and compact fluorescent lights that contain mercury.

Apartment Buildings and Condominium Recycling Act – requires a county recycling plan to address the collection and recycling of certain materials by certain property owners, managers, and councils of apartment buildings and condominiums in their recycling plan, as well as method of implementing reporting requirements. The Act also requires owners, manager and councils with ten or more dwelling units to provide for recycling for residents.

Recycling Rates and Waste Diversion – Statewide Goal Act – an Act revising 1988 Maryland Recycling Act and requiring a county recycling plan to address a reduction through recycling of at least 35% for a county with a population of greater than 150,000 and 20% for a county with a population of less than 150,000 of the county’s solid waste stream.

Recycling – Special Events Act – requires a county recycling plan to address the collection and recycling of certain materials by organizers of certain special events.

Composting Facilities Act – provides that a person may operate a composting facility, uses more than 5,000 square feet of area, in accordance with a permit issued from MDE under COMAR 26.04.11.

Office Building Recycling Act – requires a county recycling plan to address, by October 1, 2020, the collection and recycling of certain recyclable materials from buildings that have 150,000 square feet or greater of office space.

The SWMP will be amended as necessary to remain consistent with subsequent regulations and legislative enactments. Environmental Protection Agency (EPA) and Resources Conservation & Recovery Act (RCRA) guidelines regarding pollution prevention, resource protection, and air and water quality are included by inference throughout.

This SWMP is also consistent with the overall regional plan for solid waste management. The Midshore Regional Solid Waste Management agreements for Talbot, Queen Anne's, Caroline, and Kent counties are contained in the Appendices of this Plan for reference.

CHAPTER TWO - COUNTY BACKGROUND INFORMATION

2.1 HISTORY, LOCATION AND RESOURCES

Talbot County lies in the heart of the Eastern Shore of Maryland. The county is on the west-central edge of the Delmarva Peninsula that extends between the Atlantic Ocean and the Chesapeake Bay. Comprised of an area approximately 269 square miles, Talbot County is surrounded by Queen Anne’s County on the north, Caroline County on the east, Dorchester County on the south, and the Chesapeake Bay on the west. U.S. Route 50 crosses Talbot County in a general north-south direction.

Climate

Talbot County has a humid, continental type of climate. The general flow of atmospheric air is from west to east, but alternating high or low-pressure systems dominate the climate during the colder half of the year.

The average annual temperature is about 56°F. The warmest months, June-August, have average temperatures of about 75°F, while the cooler months, December-February, average 37°F.

Annual precipitation is approximately 43 inches (see information provided below):

Yearly Precipitation (inches)	43.4
Yearly Snowfall (inches)	15.4
Summer Temperature (°F)	75.5
Winter Temperature (°F)	36.9
Duration of Freeze-Free Period (days)	203

SOURCE: Maryland State Office of Climatology based on 30-year averages.

The climate of Talbot County appears to be very suitable to year-round landfill and solid waste management operations.

Farming

The main type of farming operation is cash-grain, although poultry farms and dairy farms are numerous. There has been a shift from vegetables and wheat to corn for grain and soybeans. Livestock farms have become fewer and a greater emphasis placed on crops. Most farms are highly mechanized, mainly because the soils are level. Fields are large, and labor is expensive. The possibility of the farming industry creating a solid waste problem within the county is negligible. Manure from the dairy and beef cattle operations is usually spread over adjacent fields as part of the fertilization process.

Minerals

Mining & mineral processing within Talbot County is not extensive and does not involve any procedure that would tend to create a significant solid waste problem. Presently, the mineral deposits within the county are of little economic importance and have not been largely worked. In many cases, the mineral in question is so abundant that the location of a solid waste disposal facility in an area containing the mineral would not noticeably decrease the availability of the mineral.

Gravel is mined from the Sassafras-Woodstown Association. The soils of this association are generally suitable for community development (i.e. fill for road sub-grade and foundation for buildings).

Public Utilities

The Talbot County Sanitary District operates wastewater treatment facilities in the communities of St. Michaels, Tilghman, Royal Oak, Newcomb, Bellevue, Rio Vista, Tunis Mills, Unionville and Copperville. The Towns of Easton, Oxford and Trappe operate their own water supply and wastewater systems. The Town of St. Michaels operates its own water supply. Talbot County community utilities are summarized as listed below:

<u>Incorporated Municipalities</u>	<u>Public/Community Water</u>	<u>Public/Community Sewer</u>
Easton	Yes	Yes
Oxford	Yes	Yes
Trappe	Yes	Yes
St. Michaels*	Yes	Yes
<u>Unincorporated Communities</u>		
Rio Vista*	Yes	Yes
Royal Oak*	No	Yes
Newcomb*	No	Yes
Bellevue*	No	Yes
Tilghman*	No	Yes
Tunis Mills*	No	Yes
Unionville*	No	Yes
Copperville*	No	Yes
Jensen's Hyde Park***	Yes	Yes
Martingham*	Yes	Yes
Claiborne**	Yes	No
Back Creek*	No	Yes
Preserve at Wye Mills**	No	Yes

*Operated by Talbot County Sanitary District

** Privately owned Community System

*** Part of Easton Wastewater System

2.2 POPULATION

Population change is governed principally by three variables: birth, death and net migration, all of which are influenced by a number of factors. In Talbot County, population trends are affected by household size, retired and semi-retired people attracted to the area, employment opportunities, interest rates (the economy in general), and zoning restrictions.

Population forecasting requires an intensive study of past and present trends and assumptions as to how trends will continue. The primary sources of these data are the U. S. Bureau of Census reports and the vital statistics published by the Maryland Department of Planning. Other sources of data include building permits, school enrollment records, electric and water meter installation records and land zoning regulations.

Table 1 shows the population of the incorporated municipalities of Talbot County using the Census data for 2000 and 2010, and projections for 2020, 2030, and 2040. The population in Talbot County is estimated to increase 16.46% by 2040. The population in the unincorporated areas was slightly greater than the population within the municipalities based on the 2010 Census. Over the next twenty (20) years, the population trend shows an increase in the number of residents in the incorporated areas compared to the unincorporated areas.

TABLE 1 - TALBOT COUNTY POPULATION

Area	Years of Census		Projections		
	2000	2010	2020	2030	2040
County Total	33,812	37,782	37,550	39,650	41,000
Unincorporated	18,910	19,001	19,100	19,250	19,500
Easton	11,708	15,945	16,000	17,879	18,799
St. Michaels	1,193	1,029	815	817	819
Oxford	771	651	525	535	540
Trappe	1,146	1,077	1,040	1,100	1,274
Queen Anne (part)	84	79	70	69	68
Total Incorporated	14,902	18,781	18,470	20,400	21,500

SOURCE: Maryland Department of Planning

The population of Talbot County, according to the 2000 Census was 33,812 persons. As can be seen from Table 1, the average percentage of increase in the county’s population for the past 10 years was 11.74%. Table 2 shows the 2010 population distribution relative to the number of housing units in the county’s incorporated municipalities.

TABLE 2 -TALBOT COUNTY 2010 POPULATION & HOUSING UNITS

MUNICIPALITY	POPULATION		HOUSING	
	PERSONS	%TOTAL	UNITS	%TOTAL
Easton	15,945	42.20%	7,351	45.50%
St. Michaels	1,029	2.72%	691	4.28%
Trappe	1,077	2.85%	460	2.85%
Oxford	651	1.72%	523	3.24%
Queen Anne (part)	79	0.21%	34	0.21%
Talbot County	37,782	49.71%	16,157	56.07%

SOURCE: U. S. CENSUS BUREAU – 2010 CENSUS

It should be pointed out that the population for the town of Queen Anne represents only that portion of the town which is actually in Talbot County; the remainder of the town is in Queen Anne’s County. From the tables it can be seen that almost one-third of the county’s population lives in the Easton Election District. When the populations for all five municipalities are combined, it represents approximately 49.7% of the county’s population in 2010.

Population Density

Generally a rural area, the Eastern Shore is much less dense than the state average for either Maryland (615.7 persons per square mile [2014 data from States101.com]) or Delaware (480.1 persons per square mile [2014 data from States101.com])). Talbot County ranks at 140.35 persons per square mile, which is moderately higher than other rural Eastern Shore counties.

In Talbot County, the historic growth curve was relatively flat until the 1940’s when the rate increased slightly. From 1950 to 1980, the county’s growth rate stabilized at a moderate rate of about a 10% increase per decade. Talbot County’s growth accelerated during the decade of 1980-1990 when its population increased by 19.3%. The 19.3% increase in population represented an actual numerical increase of 4,945 persons during the decade 1980-1990. According to 2000 Census figures, Talbot

County’s growth during the decade of 1990-2000 was 10.7%. The 10.7% increase in Talbot County’s population represented an actual numerical increase of 3,263 persons. From 2000-2010, the population of Talbot County increased by 3,970 persons, or 11.74 % over the decade.

Current Population

See Tables 2 & 3 for population data. Data in the Tables is provided primarily by the U.S. Census Bureau and the Maryland Department of Planning.

Population Projection

There are a number of factors which will affect the population growth patterns of the Eastern Shore during the next several decades. National events and trends such as wars, economic cycles, and urbanization have influenced growth in the past. While these continue to be important factors, they are difficult to predict. National decreases in household size will also affect the Eastern Shore as well as the attractiveness of waterfront properties to retired and semi-retired persons.

Table 3 below lists the previous and projected population as well as previous and projected housing units in Talbot County. The table indicates the population of Talbot County is projected to increase but with an overall decrease in percentage of growth as compared to the significant growth experience in the 1980’s and 1990’s.

TABLE 3 -TALBOT COUNTY POPULATION AND HOUSEHOLD PROJECTIONS

YEAR	POPULATION		HOUSING	
	PERSONS	% GROWTH	UNITS	% GROWTH
2000	33,812		14,307	
2010	37,382	10.56%	16,150	12.88%
2020	37,550	0.45%	17,875	10.68%
2030	39,650	5.59%	19,050	6.17%
2040	41,000	3.40%	19,625	2.93%

Source: US Bureau of Census and the Maryland Department of Planning

The rural demographic nature of the county places a unique strain on central collection and therefore the management of solid waste. However, the projected growth and employment trends in the county are not expected to create any adverse demands on existing and proposed County facilities during the term of the SWMP and the Plan will be flexible in order to accommodate the possibility of accelerated growth that could result as industry and housing move out of urban areas.

Regardless of the pace of growth within Talbot County, the SWMP will attempt to assure that expansion is orderly and does not harm the ecological character of the region, which provides a good balance between business, family-owned business, light industry, commercial watermen, recreational boating, hunting and agriculture.

2.3 MUNICIPAL, FEDERAL AND SOLID WASTE FACILITIES

Figure 2 illustrates all Federal Facilities and Municipalities and major roads, while Figure 3 illustrates all Solid Waste Handling Facilities and major roads. Figure 4 is a depiction of the existing Midshore Regional Solid Waste Management Facility (MRSWMF) and Transfer Station and the adjacent Town of Easton Wastewater lagoon to which the landfill leachate is discharged.

2.4 TALBOT COUNTY, MARYLAND ZONING ORDINANCE

The Talbot County Code applies to the unincorporated areas of Talbot County. The Zoning Chapter of the Talbot County Code was adopted by the County Council on March 26, 1991 by Bill 450. A comprehensive rezoning within the unincorporated areas of Talbot County occurred in 2007, followed by a rewrite of the zoning chapters of the Code. Chapter 190, Zoning, Subdivision and Land Development, as amended, was adopted by the County Council on April 14, 2009 by Bill 1162. After seeking input from residents and the Planning Commission, the County Council adopted the 2016 Comprehensive Plan, on June 7, 2016, as amended. With the enactment of the 2016 Comprehensive Plan, a comprehensive rezoning within the unincorporated areas of Talbot County was completed in 2018. The comprehensive rezoning was adopted by the County Council on September 11, 2018 via Bill 1401, as amended; the County Council adopted the zoning maps on September 11, 2018 via Bill 1402.

Zoning requirements and districts are established in accordance with the Talbot County Comprehensive Plan and are designed to promote the health, safety and general welfare of the citizens of Talbot County, Maryland. They are made with thoughtful consideration for existing property use, trends in growth, character of the district, including its unique suitability for particular uses, and with a view toward conservation of property values and the most appropriate use of land. The “Zoning District Map of Talbot County, Maryland” is filed as part of this ordinance in the Planning Office. The map, with subsequent amendments, is conclusive as to the current zoning status of land in Talbot County.

Review of the Talbot County Zoning Ordinance indicates that solid waste disposal sites (i.e. transfer stations) are permitted by special exceptions in most zoning districts within Talbot County. A Recycling

Processing Center is allowed in the Limited Industrial Zoning District. Landfills and rubble fills are permitted in all zoning districts pending County Council approval. All public and commercial solid waste disposal sites must conform to the provisions of Section 190.25 of Talbot County Zoning Ordinance (i.e. setbacks from property lines, screening from view on all sides by planting, etc.).

This Plan shall not be used to create or enforce local land use and zoning requirements, and shall not be used to replace local approval processes related to land use and zoning decisions. The Planning Commission and the County Council review the zoning regulations and Zoning District Maps for consistency with the Comprehensive Plan and revise accordingly if there are amendments.

Floating and Overlay Zoning Districts

Floating and Overlay Zoning Districts are provided in this Ordinance to allow for needed flexibility in allowing certain types of uses to occur and/or the application of special regulations. Floating zoning districts are used where a particular type of activity is desired for a general area but the specific area has not been located in the county. In this Ordinance, floating zoning districts apply to manufactured home developments and affordable housing developments. Overlay zoning districts are used to apply additional regulations based upon the use of the property. In this Ordinance overlay zones apply to the Easton Airport and Historic Districts.

2.5 TALBOT COUNTY COMPREHENSIVE PLAN

About every ten (10) years the Comprehensive Plan is updated. The 2016 Talbot County Comprehensive Plan is a long-range guide for growth, land use and development, which applies to a broad range of residential, commercial, industrial and institutional development and facilities. The intent of the Plan is to provide adequacy for community needs and is not limited to solid waste management facilities. This section is a summarization of topics contained in the Comprehensive Plan, which relate to the goals and objectives of this SWMP.

Ensuring that the provision of community services and facilities are phased in as demand or need necessitates is a major component of County growth management. The adequacy and quality of community services and facilities strongly contributes to the overall quality of life in Talbot County.

The need for various community services and facilities is determined by the size and composition of the county's population. Community services and facilities should be provided in response to changes in the population, which have already occurred, or are anticipated.

Figure 2 shows the location of government facilities in Talbot County; Figure 3 shows the location of solid waste facilities and recycling drop-off stations in the county. Figure 4 shows an aerial photograph depicting the location of the old Easton Landfill, the Midshore I Regional Solid Waste Facility, along with the solid waste and recycling facilities located on Barkers Landing Road.

Talbot County Solid Waste Management Plan Government Facilities

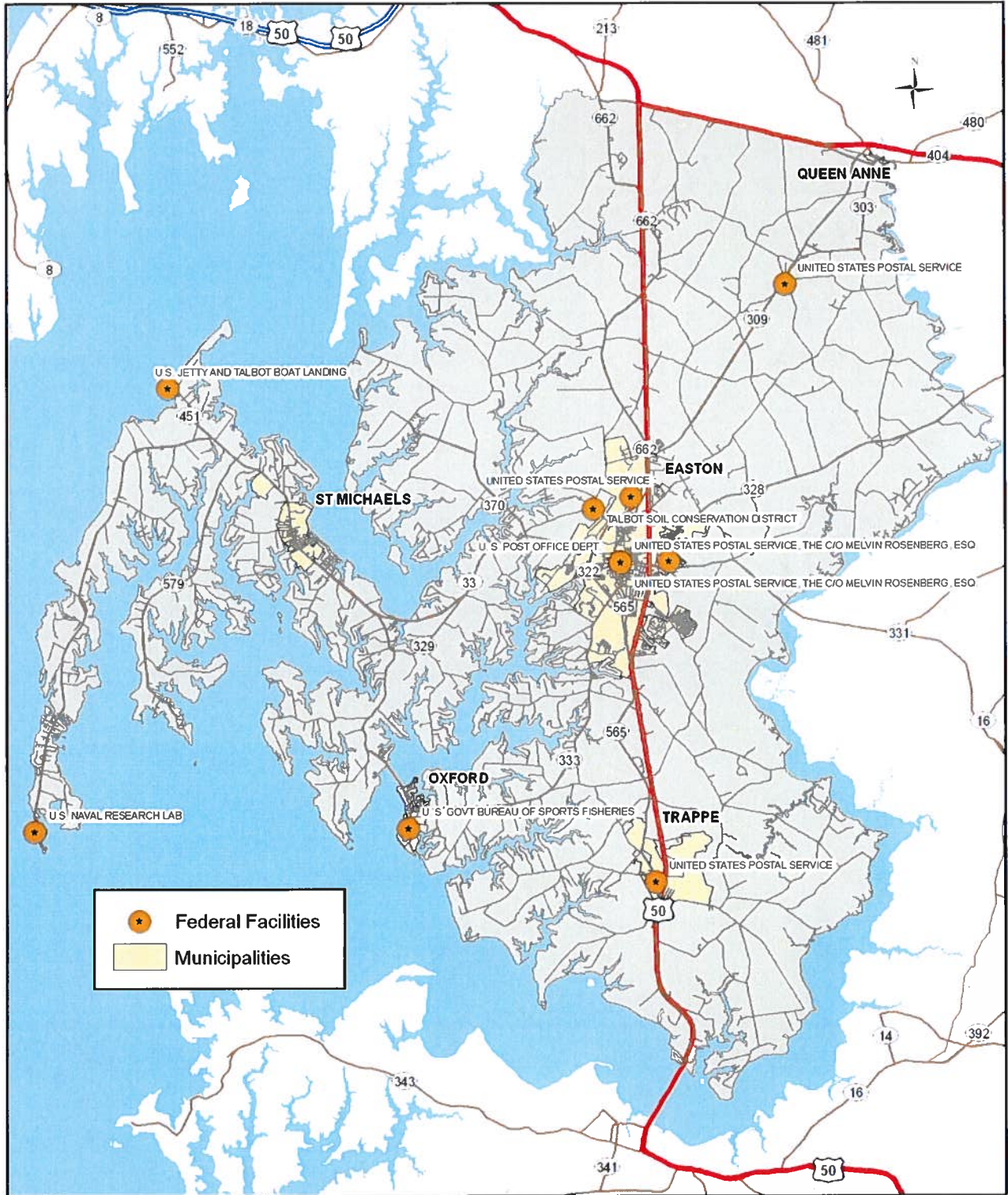


Figure 2

**Talbot County Solid Waste Management Plan
Solid Waste Handling Facilities**

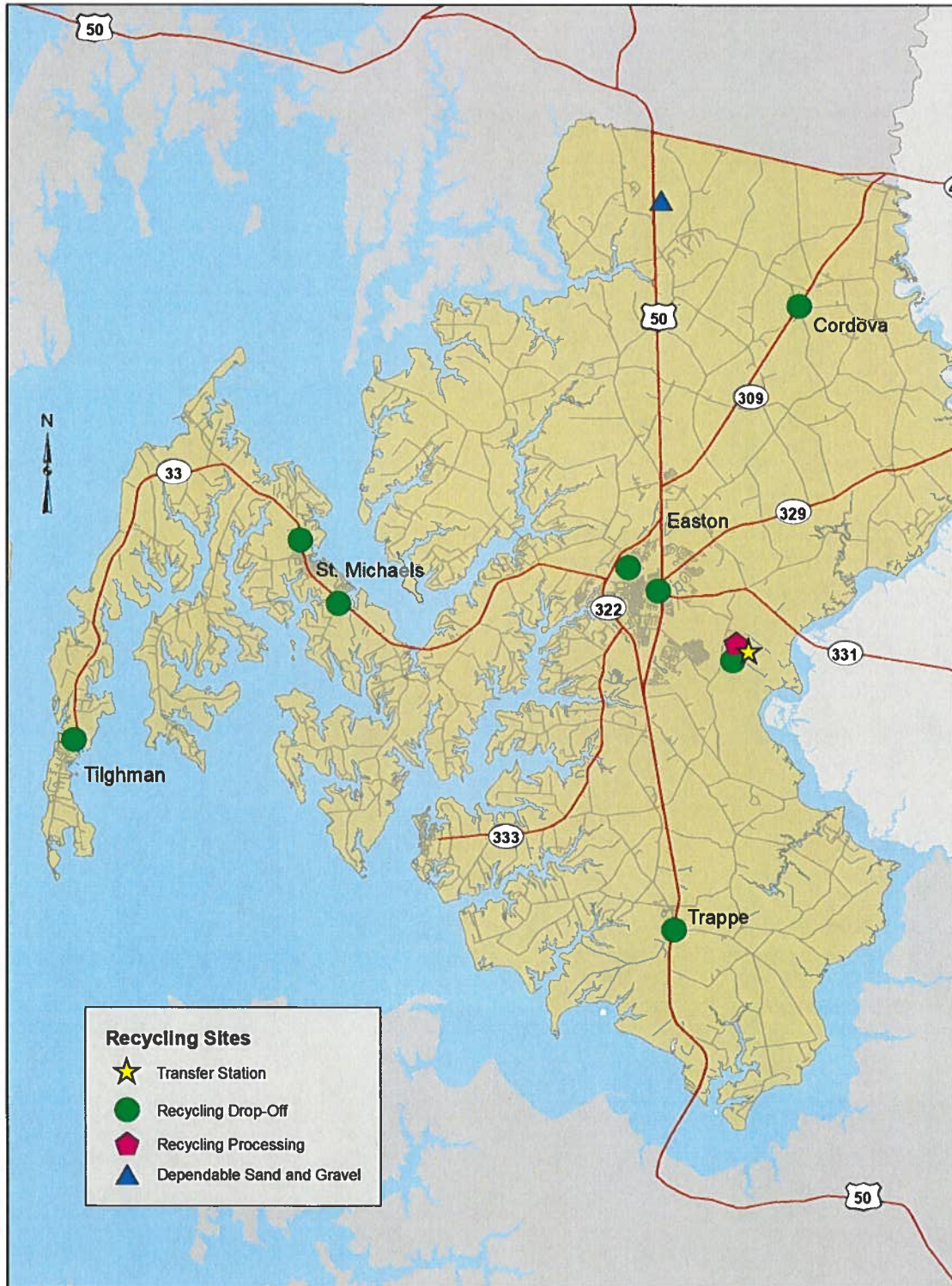


Figure 3

TALBOT COUNTY SOLID WASTE MANAGEMENT PLAN
MIDSHORE I REGIONAL SOLID WASTE FACILITY



Figure 4

Goal

Provide an equitable system and/or public facilities and services that are adequate for community needs and consistent with planned land use patterns.

Policies

- Public facilities and service improvements designed to correct existing system inadequacies should be completed prior to beginning County-funded improvements designed to accommodate new growth.
- Public facility and service improvements should be efficiently coordinated with the County's Land Use Plan, Comprehensive Water and Sewer Plan, Master Plan for Education and other County plans related to capital improvements programming.
- All planned major County public facilities should be prioritized and scheduled as part of a Comprehensive Six-Year Capital Improvements Program.
- Public facilities and service improvements should be scaled to the needs of the area which is served. Rural areas of the county should be provided facilities and services which match rural needs. Planned growth areas around towns should be provided a level of facilities and services designed to match more intensive needs.
- The costs of new or expanded community facilities and services should be equitably and proportionally shared by all those who will benefit from the improvements.
- New development projects should not be approved or built in areas of the county where infrastructure and services such as roads, schools, sewer service, water supply, fire and police protection are not adequate to accommodate the needs of the development.
- Public facilities and services which are intended to meet countywide needs should be centrally located. Likewise, those facilities and services intended to serve local community needs should be located within the community.
- Wherever possible, the existing public facilities and services of the county and its towns should be efficiently expanded rather than creating new services and facilities.
- The County should explore the feasibility of improving the existing solid waste collection system
- The County should encourage the recycling of solid waste resources in order to prolong landfill life and conserve natural resources. To support this policy, the County should encourage the municipalities to complete an economic analysis on the benefits of providing curbside recycling. During the 2009-2019 planning period, the Towns of Easton and St. Michaels initiated curbside recycling within their corporate limits.

CHAPTER THREE- EXISTING SOLID WASTE MANAGEMENT

3.1 EXISTING AND PROJECTED SOLID WASTE MANAGEMENT

The Midshore Regional Solid Waste Management (MRSWM) Landfill has been inactive since 2011. Beginning January 3, 2011, these wastes have been accepted at the waste transfer station located at the MRSWMF in Talbot County and transported to the new MRSWMF in Caroline County for disposal. Based on the 2017 status of the solid waste collection activities at the MRSWM Transfer Station Tables 5, 6 and 7 are provided below.

Waste Generated in Talbot County

In Talbot County, solid waste is generated through the activities of residents, businesses, industries, and institutions. COMAR 26.03.03.03D(1) requires that the Plan identify and quantify existing and projected solid waste generated within the county. Actual waste generation for 2017 and the projected waste generation during the period 2020 through 2029 are presented in Table 4 and discussed below.

The solid waste projections from 2020 through 2029 were estimated using a 1% growth factor of the weight of solid waste for each calendar year. The tonnages will be reviewed over time to determine if the growth factor of tonnages of solid waste generated in Talbot County needs to be adjusted.

Table 4 illustrates the average waste produced in Talbot County for 2017 with projections for 2020, 2023, 2026 and 2029. The pounds per person per day for all waste production (residential and commercial) was 5.79 pounds of municipal solid waste per person per day.

In Table 5, the municipal solid waste composition for different types of glasses, metals, white goods, cardboard, paper, mixed paper, mattresses, vehicle tires, municipal solid waste, commercial solid waste and construction debris is provided for 2013 through 2017. Depending upon the year, the weights increase or decrease due to varying factors such as weather, tourism activity and economic development.

**Solid Waste Management Plan 2020-2030
Talbot County Annual Waste Generation and Projections**

Table 4

Waste Category	Actual Tons Estimated Tons	Projections			
	2017	2020	2023	2026	2030
MSW Residential	21,641	21,641	21,641	21,641	21,641
MSW Commercial	18,823	18,823	18,823	18,823	18,823
MSW Mixed	0	0	0	0	0
Industrial (solids, liquid, etc.)	0	0	0	0	0
Institutional (schools, hospitals etc.)	0	0	0	0	0
Demolition Debris (C&D)	6,316	6,316	6,316	6,316	6,316
Land Clearing	0	0	0	0	0
Controlled Hazardous Substance (CHS)	0	0	0	0	0
Dead Animals	16	16	16	16	16
Bulky or Special Waste	0	0	0	0	0
Vehicle Tires	0	0	0	0	0
Wastewater Treatment Plant Sludge	2,857	2,857	2,857	2,857	2,857
Special Medical Waste	152	152	152	152	152
Asbestos	39	39	39	39	39
Soil	83	83	83	83	83
County Reported waste on Table A1 of MRA Report	4,489	4,489	4,489	4,489	4,489
Total MRA & NON MRA Waste	54,416	54,416	54,416	54,416	54,416
Total MRA and NON MRA Recyclables (27% by population of the Total Midshore Recyclables)	72,168	72,168	72,168	72,168	72,168
Total Waste Generated	126,584	126,584	126,584	126,584	126,584

TABLE 5 - TALBOT COUNTY MUNICIPAL SOLID WASTE COMPOSITION

Material Type	Talbot County Yearly Generation Totals (in Tons)				
	2016	2017	2020	2025	2030
Brown Glass	63.3	60.6	65.0	65.0	65.0
Clear Glass	81.2	81.4	85.0	85.0	85.0
Green Glass	76.7	62.5	80.0	80.0	80.0
Mixed Glass	8.7	9.6	10.0	10.0	10.0
Tin	-	-	-	-	-
White Goods	46.8	70.9	80.0	80.0	80.0
Mixed Metal	37.0	35.8	40.0	40.0	40.0
Mixed Plastic	89.5	111.9	115.0	115.0	115.0
Cardboard	2,642.1	2,526.8	3,000.0	3,000.0	3,000.0
Newspaper	830.1	952.1	700.0	700.0	700.0
Mattresses	7.0	0.7	5.0	5.0	5.0
Brush	2,610.8	3,159.7	3,500.00	3,500.00	3,500.00
Tires by Weight	175.8	20.8	40.0	40.0	40.0
Residential MSW	33,900.3	38,460.7	39,000.0	39,000.0	39,000.0
Commercial MSW	5,303.7	5,246.7	5,350.0	5,350.0	5,350.0
Mixed MSW	-	-	-	-	-
Construction Debris	4,367.8	4,727.1	4,000.0	4,000.0	4,000.0
Land Clearing Debris	-	-	-	-	-
Asbestos	49.4	38.6	40.0	40.0	40.0
Textile	0.0	0.0	0.0	0.0	0.0
Clean Soil	0.9	14.7	10.0	10.0	10.0
Road Kill	30.7	15.8	15.0	15.0	15.0
Clean Rubble	613.5	179.0	150.0	150.0	150.0
Contaminated Soil	71.3	38.8	45.0	45.0	45.0
Sewage Sludge	765.4	2,857.4	3,000.0	3,000.0	3,000.0

Notes:

1. MSW - Municipal Solid Waste, MRA - Maryland Recycling Act, RSWF - Regional Solid Waste Facility, MRRP - Midshore Regional Recycling Program
2. Data Sources: MES Scale Records for Midshore I Transfer and Midshore II RSWF, Midshore I Transfer and Midshore II RSWF Annual Tonnage Reports, Maryland Recycling Act Annual Report Data for the Midshore Regional Recycling Program
3. Data for recyclable materials obtained from MRRP Annual MRA Report data.
4. * MRA data not yet available

Based on the data in Table 5, the projection of waste between 2020 and 2030 could increase between 2% and 5% during the planning period. Due to the highly variable data that was reported between 2013 and 2017, the annual trends for each specified waste is difficult to assess. In 2017, sewage sludge increased

due to the new Bio-Solids Facility starting operations in 2017. The amount of sewage sludge is expected to increase in the future, with a high projection ranging from 3,000 to 4,000 tons. For 2017, all wastes totaled 58,671.6 tons. Assuming a 1% growth factor for each calendar year, the total waste for Table 5 would increase to 66,112/63 tons in 2030 or increase 7,441.03 tons from 2017 totals.

Waste Managed in Talbot County

Starting in 2011 the MRSWMF was closed in Talbot County. The County transports all solid waste to the Landfill in Caroline County (Midshore II). As previously stated, there may also be a significant reduction in waste originating from Talbot County as reported by the Midshore II facility if the same practice of assigning waste to the county hosting the landfill continues.

Midshore Regional Recycling Program (MRRP)

As previously stated, Talbot, Kent, Queen Anne's and Caroline counties established the Midshore Regional Recycling Program (MRRP) as a cooperative agreement in 1991. Table 6 details the recycling effort solely within Talbot County, and represents the recycling data as provided by the MRRP coordinator for the year 2017. It should be understood that the MRRP is not required to track all waste streams (e.g., soil) and as a result the MRRP values for Total Waste Disposed are lower than the actual Totals in Table 5. The reporting methods and basis for calculations by the MRRP are consistent with requirements by the Maryland Recycling Act of 1988.

In Table 6, the total residential recycling tonnages totaled 2,934, with the commercial recycling tonnages totaling 20,607 for 2017. The total residential and commercial recycling tonnages for 2017 were reported as 23,542. The recycling efforts within Talbot County consist of a multi-stream system provided by the MRRP, with curbside recycling offered to residential and commercial properties in most of the incorporated towns.

Table 7 details the waste diversion rate for Talbot County for 2017. Food By-Product (FBP) is a significant contributor in the region as well as Talbot County. Therefore, the MRRP coordinator typically provides figures, which show the recycling rate with and without the FBP waste included; however, the FRP was not provided for 2017. For calendar year 2017, the recycling percentage was reported as 43.61%. Without the FBP, the recycling rates exceed the 25% recycling goal mentioned earlier and demonstrate a progressive increase in the waste diversion rate. It is hoped that with continued education, outreach and possible future expansion of curbside recycling programs, the waste diversion rate can increase even further.

TABLE 6 – 2017 MARYLAND RECYCLING ACT (MRA) REPORT – FORM B – County Recycling Accounting Form

Table 6 - B1 - MRA Materials Recycled *				
Calendar Year 2017		Talbot County		
Category	MRA Recyclables	Subtotal		Talbot Total
		Talbot Residential (tons)	Talbot Commercial (tons)	MRA Tons Recycled (tons)
Commingled Containers	Commingled Containers	-	1,865.73	1,865.73
Compost/Mulch (Yard)	Brush and Branches	-	2,630.40	2,630.40
Landscaping Only Land clearing in Table B2	Grass	-	-	-
	Leaves	-	-	-
	Mixed Yard Waste	2,107.77	1,055.88	3,163.65
Compost/Mulch (Other)	Food Waste	-	127.38	127.38
	MSW Compost	-	-	-
	Wood Materials	-	26.26	26.26
	Other Wood Shavings	-	7,660.80	7,660.80
Glass	Brown Glass	60.59	-	60.59
	Clear Glass	81.40	-	81.40
	Green Glass	62.52	-	62.52
	Mixed Glass	-	9.64	9.64
	Other:	-	-	-
Metals	Aluminum Cans	-	6.17	6.17
	Front End Scrap	-	-	-
	Lead Acid Batteries	0.96	30.84	31.80
	Mixed Cans (Al, Sn, Steel)	32.49	3.27	35.76

	Tin (Sn)/Steel Cans	-	-	-
	White Goods	70.80	0.08	70.88
	Other: Oil Filters	-	1.67	1.67
Paper	Magazines	-	0.40	0.40
	Mixed Paper	257.86	201.61	459.47
	Newspaper	-	952.05	952.05
	Office/Computer Paper	-	232.78	232.78
	Old Corrugated Cardboard	153.48	2,373.30	2,526.78
	Other Comingled Paper , Shredded Paper	-	-	-
Plastic	Mixed Plastic	87.83	24.11	111.94
	Plastic Code # Film	-	55.85	55.85
	Plastic Code # 1,2,3,4,5,6,7	-	10.90	10.90
	Other #4 Grocery Bags, Shrink Wrap, Pesticide Containers, Hangers	-	2.15	2.15
Other	Animal Protein/Solid Fat	-	194.09	194.09
	Electronics	8.07	19.53	27.60
	Poultry Litter Compost	-	-	-
	Pallets	-	9.98	9.98
	Textiles	-	81.34	81.34
	Tires (Recycled)	10.02	48.52	58.54
	Tires (Retread)	-	1.20	1.20
	Tires (Cement Kiln)	-	-	-
	Other: See Table B1b	0.29	2,982.01	2,982.30
Total MRA (Tons)		2,934.08	20,607.94	23,542.02
FYI: Avoided Landfill Tipping Costs @ \$62 / ton		\$181,913	\$1,277,692	\$1,459,605

TABLE 6 - B1b - Other MRA Materials *				
Category	Other MRA	Subtotal		Talbot Total MRA Tons Recycled (tons)
		Talbot Residential (tons)	Talbot Commercial (tons)	
MATERIAL				
Mattresses		-	-	-
Flourescent Bulbs		-	2.10	2.10
Litho Plates			46.82	46.82
Toner Cartridges		-	2.19	2.19
Household Batteries		-	-	-
Rechargeable Batteries		-	-	-
Food Processing By-Products: animal feed, etc.		-	2,930.07	2,930.07
Oyster Sheels		0.29	-	0.29
EAS Tags		-	0.82	0.82
Plastic Hangers		-	-	-
Total Other MRA (Tons)		0.29	2,982.01	2,982.30

FORM B - TABLE B2 Non-MRA Materials Recycled*			
Material	Talbot Residential (tons)	Talbot Commercial (tons)	Talbot Non-MRA Tons (tons)
	Antifreeze (9.8 lbs/Gal)	0.74	22.93
Asphalt	-	5.00	5.00
C & D Debris	-	280.24	280.24
Coal Ash (Fly Ash, Pozzolan)	-	-	-

Chapter Three – Existing Solid Waste Management

Concrete/Bricks	178.99	4,661.00	4,839.99
Landclearing Debris (stumps)	-	20.00	20.00
Scrap Automobiles	-	-	-
Scrap Metal	-	80.34	80.34
Sewage Sludge	-	-	-
Soils	-	43.88	43.88
Waste Oil (7 lbs./Gal)	25.02	218.46	243.48
Other: Food Waste - (non compost)	-	29.79	29.79
Other: Off Spec Gasoline	-	-	-
Other: Oily Water	-	-	-
Other: Mineral Oil	-	-	-
Firewood	-	-	-
Other: Grease	-	0.10	0.10
Other: Solvent	-	0.52	0.52
Other: Telephone Poles	-	-	-
Other: Freon	-	-	-
Ballasts	-	-	-
Other Off Spec Gasoline	-	-	-
Other: Cooking Oil	-	10.63	10.63
Total Non-MRA Recycling	204.74	5,362.26	5,567.00
<i>FYI: Avoided Landfill Tipping Costs @ \$58/ton</i>	\$12,694	\$332,460	\$345,154
<i>FYI: Total Avoided Landfill Tip Costs @ \$58/ton</i>	\$194,607	\$1,610,152	\$1,804,759

Table 7 – Maryland Recycling Act Recycling Rate with Form B Attachment

Maryland Recycling Act Recycling Rate		
	Talbot County	
MRA Waste (tons) [A]	30,436.00	A
Recycled Tons [B]	23,542.02	B
A + B	53,978.02	
Recycling Rate [B/(A+B) x 100]	43.61	%

Form B attachment - for informational purposes

Recycling Rate - Without Corn and Poultry Processing By-products		
MRA Waste (tons) [A]	30,436.00	A
Recycled Tons	23,542.02	
Deduct Corn Processing By-Product		
Deduct Poultry Processing By-Product	-	
Recycled Tons w/o above items [B]	23,542.02	B
A + B	53,978.02	
Recycling Rate [B/(A+B) x 100]	43.61	%

As reported in 2017, the MRA Waste in tons was 30,436.00 with recycled tonnage reported as 23,542.02. The total of the MRA waste and the recycled tonnage was reported as 53,978.02. Assuming a 1% increase in the reported weights from 2018 to 2030, the sum of MRA waste and recycled tonnage would be 60,823.78, assuming that the recycling rate remains constant.

3.2 EXISTING SOLID WASTE TYPES

COMAR 26.03.03.03D(1)(a-1) requires the County to account for, monitor and report the quantities of specific waste materials. Accurate and available information on some waste streams, including Industrial, Institutional, Controlled Hazardous Substances (CHS), Dead Animals, and Septage is difficult to obtain due to the extensive use of private haulers, limited or denied access to their records, and inconsistencies between the COMAR regulation and tracking methods used at MRSWMF.

Commercial (Industrial and Institutional)

The MSWMF classifies all commercial, industrial and institutional waste as “Commercial”. Due to the tracking method, it is not possible to list existing or projected waste quantities from Commercial, Industrial and Institutional sources exclusively. A request will be made to MES as operator of the MRSWMF to track the three waste streams independently. A discussion of some of the existing commercial, industrial and institutional sources of waste is presented below.

The main area of commercial concentration is in Easton. Talbot’s 1,513 businesses employ 12,273 County residents of the total 19,562 workers residing in the county; 25 of the businesses in Talbot County have 100 or more workers. Manufacturing in the County has dropped from 19% of total employment back in 2008/2009, with the loss of SFA Defense (100) and Allen Family Foods (512), to an unknown percentage. The major employer in the County is University of Maryland Shore Regional Health (2,000).

Commercial requirements for solid waste disposal have not placed a burden on the County for disposal and will not upset present or planned County disposal practices. The manufacturing industries within the county are such that their total demand for solid waste disposal facilities is within the County’s capability and no unique solid waste problems are foreseeable.

Commercially generated wastes in Talbot County are basically comprised of cardboard, packing, and similar dry wastes. Most collections include residential and commercial wastes at the same time, with much of the commercial wastes being stored in bulk containers.

The Institutional category refers to schools, churches, medical facilities, etc. As with the commercially generated wastes in the county, these materials are picked up by private carrier and deposited at the Midshore Regional Landfill (Midshore I) as Commercial Waste.

Maritime Industry

There are 22 marinas located within Talbot County. Boats registered by residence of owner total 4,326 in Talbot County. These numbers do not include boats that are trailered. Trailered boats are not registered to a specific county. The number of boats trailered in Talbot County is unknown.

At marinas where maintenance is performed, the owners must obtain an NPDES permit to discharge stormwater from a site where the boat maintenance takes place. This requirement was put into effect in November 1990.

Solid waste generated at marinas is collected by commercial haulers and disposed of at the Midshore facility as Commercial waste.

Waste from painting and fiberglass operations is either stored on site or disposed of by marina operators. As of this date, these wastes are not regulated except by the National Pollutant Discharge Elimination System (NPDES) permit required for discharge from maintenance areas. The EPA, however, is working toward regulating the marina waste stream more closely and it is expected that regulatory guidelines will soon be available.

Recreational

The County contracts with a local hauler to have fifteen (15) of the Public Landings serviced. During the months from April to July, there two (2) hauls per weekly are necessary with three (3) of the landings requiring three (3) hauls per week; the remainder of the year requires only one (1) haul per week.

Talbot County maintains ten (10) active ballparks and each site is equipped with a green box for waste collection. The County contracts with local haulers on a yearly basis for collection, and refuse deposited at the Midshore Regional Landfill from the following sites: four landings, five parks, one Golf Course, the Courthouse, two Libraries, Public Safety Center, Operations Center, and Community Center. There are no figures available for recreational facilities exclusively.

Public Utilities

Waste from water and wastewater treatment processes are disposed of at the MRSWMF and classified as sludge or commercial waste at the MRSWMF. Details for the County's specific Public Utilities are contained in Chapter Two.

Sewage Sludge

In 2017, the County generated 2,857 tons of sewage sludge. All five (5) public wastewater treatment plants in Talbot County (Easton, Oxford, St. Michaels, Tilghman & Trappe) produce sewage sludge as well as Calhoun MEBA. The Jenson's Hyde Park lagoon was connected to the Easton Wastewater System, and the Martingham lagoon was connected to the Region II Wastewater system in 2017. In 2019, the Region II Sanitary District has been working to dispose of the sludge within the Martingham Lagoon at the Midshore Regional Landfill. Of these systems, all but Region II - Enhanced Nutrient Removal (ENR) Wastewater Treatment Plant (WWTP) in St. Michaels and the Town of Easton's WWTP are lagoon types which do not regularly produce a stream of sewage sludge. Instead, the sewage sludge settles to the bottom of the lagoon where slow rate anaerobic decomposition called "sewage sludge digestion" reduces the organic content and volume of the residual sewage sludge over a long period of time. At Oxford and Trappe, where lagoons are aerated, the sewage sludge are digested aerobically, resulting in a higher rate of digestion.

The only lagoons which have potentially experienced enough of a build-up to require sewage sludge removal are Oxford and Trappe. Approximately 1-1/2 to 2 feet of sewage sludge accumulation was removed from Oxford's primary lagoon in 1983. The Town of Oxford worked to remove sludge as part of the upgrade of its wastewater treatment plant that began in 2018. The sewage sludge was not creating a problem, but was removed during installation of the aeration equipment. The sewage sludge was tested and found to be well-digested and stabilized with high grit content due to infiltration and inflow in the Town's collection system. Sewage sludge was removed from the primary lagoon in Trappe in 1990.

The Region II St. Michaels WWTP utilizes a belt filter press to dewater waste sewage sludge from the WWTP's ENR process. After sewage sludge is thickened to approximately 2% solids (20,000 mg/l) the sewage sludge is transferred to the belt filter press where most of the free liquids are removed and recycled back through the treatment plant. The dewatered sewage sludge (at approximately 20% solids or 200,000 mg/l) is conveyed to a roll-off container for transportation to the Midshore Regional Solid Waste Management Facility. This occurs approximately 3 to 4 times per week.

The Town of Easton's WWTP uses a sludge holding tank to settle the waste sewage sludge and then transfers the solids to a centrifuge where they are thickened to approximately 18-20%. A gas dryer is then utilized to further dry the sewage sludge to over 90% solids. Currently, the dried sewage sludge is stored in a silo and utilized as a soil enhancer for grass growth at the WWTP site. The Easton WWTP has

acquired a Class A sewage sludge treatment status and is planning to sell the sewage sludge to local farms, landscapers, etc.

Septage/Grease

Based on recent Census data, there are approximately 9,000 dwelling units in the unincorporated areas of Talbot County. Approximately 1,000 of these dwelling units are served by wastewater collection systems. Assuming that each of the remaining 8,000 dwelling units has a septic tank, the tanks are pumped every 2-3 years, and the tank pump-out volume is 2,000 gallons of septage per pump out, Talbot County could generate approximately 20,000 gallons per day (GPD) of septage. This correlates well with the local Waste Haulers Association report that they pump an average of approximately 21,000 GPD. All septage is currently being lime stabilized and land applied at an MDE approved site or transported to a WWTP.

It is estimated that approximately 5,000 gallons per day of grease is generated, mainly from commercial and institutional entities. Grease is currently processed at the Bio-Solids Utilization Facility which was upgraded in 2017 to treat and dispose of brown grease.

In the past, Talbot County designated a private sector facility, Waste Water Recycling (WWR), as the receiving, treatment and disposal location for septage/grease generated within its borders. Caroline County also utilized WWR as their designated septage/grease receiver. This option ended when the company that owned and operated the site closed its business in November 2005.

As a result of the closure of WWR, both Talbot and Caroline counties entered into a partnership to study alternatives. Beginning in 2006, seven (7) alternatives were identified and reviewed to determine the optimum septage/grease management solution. The alternatives included:

- Lease the WWR site and continue operation jointly for Caroline and Talbot counties
- Purchase the WWR site and continue operation jointly for Caroline and Talbot counties
- Arrange a long-term use agreement of an existing receiving and treatment facility within or outside of the counties
- Purchase the WWR site and modify it to treat leachate from the Midshore Regional Solid Waste Management Facility(s) as well as continue the septage/grease disposal operation jointly for Caroline and Talbot counties

- Construct a facility to treat septage/grease/leachate at or contiguous to the Midshore Regional Solid Waste Facility (Midshore I) at its present location in Easton
- Construct a facility to treat septage/grease/leachate at the planned Midshore II Regional Solid Waste Facility at its planned location in Caroline County
- Construct a facility to treat septage/grease/leachate at some location in the Midshore region to service Caroline/Talbot/Queen Anne's/Kent counties

In 2008, Talbot County purchased the Waste Water Recycling facility and renamed the facility as the Talbot County Bio-Solids Facility. In 2017, the County began operating the Talbot County Bio-Solids Utilization Facility (TCBUF), and assessed a rate per gallon of treatment that covers the operation and maintenance of the facility, debt, and the repair and replacement of equipment. Septage received at the TCBUF is lime stabilized and spray irrigated onto a nutrient uptake crop. In 2017, the Bio-Solids Utilization Facility was upgraded with new tankage and equipment. The upgraded facility incorporated a lined lagoon with two (2) cells having 2.0 million gallons of capacity in order to be able to restrict spray irrigation during the winter months. The Facility is regulated under MDE's Sewage Sludge Utilization (SSU) permit and nutrient management plan. This alternative provides an environmentally sound disposal option.

Motor Oil

Motor oil from vehicles can be recycled in Talbot County by utilizing any of the three (3) drop-off sites owned and operated by MES.

Controlled Hazardous Substances (CHS)

Hazardous wastes generated in Talbot County are presently disposed of at permitted sites outside the county. There are a number of private commercial firms on the Eastern Shore that are licensed to collect and transport hazardous wastes from Talbot County.

Much of the remaining hazardous waste treated or disposed of within Maryland is handled at facilities dedicated to a specific industry, and not open to general public use. The only open hazardous waste treatment facility in Maryland is Clean Harbor of Baltimore, Inc., which specializes in wastewater treatment and solvent processing. All other Maryland hazardous waste facilities are storage or transfer facilities.

Out-of-state facilities, which are common disposal points for Maryland hazardous wastes, include:

Midland Disposal, Michigan	Large quantities of hazardous waste
Chemical Conservation, Georgia	Gasoline, paint, contaminated oil
Republic Environmental, Hatsfield, Pennsylvania	Restricted industrial wastes
Laidlaw, North Carolina	Restricted industrial wastes
Culver City, Kentucky	Hazardous waste incinerator

Dead Animals

No tracking or recording of dead animals occurs and therefore no quantitative information is available for use in this report. Some of this material is now recycled through commercial rendering facilities outside of Talbot County. Valley Proteins in Baltimore is the only rendering plant known to be currently accepting animal wastes from Talbot County. Some animal waste material is incinerated at the Maryland Department of Agriculture's Animal Health Lab near Centreville as well as private pet cremations at Talbot County Humane Society. All dogs and cats found dead along the County's roads are supposed to be brought to Talbot County Humane Society where they are then disposed of by a private waste management company, currently Stericycle of Pennsylvania, and taken outside of the county.

Litter Waste

State Highway and municipal public works crews pick up litter which accumulates in their right-of-ways and disposes of the same at the Midshore Regional Solid Waste Management Facility. No tracking or recording of litter wastes occurs and therefore no information is available for use in this report.

Appliances

Federal Environmental Protection Agency regulations under the Clean Air Act, Section 608, establish a mandatory recycling program for ozone depleting refrigerants such as chlorofluorocarbon (CFC) during disposal of all air conditioning and refrigeration equipment. The following appliances must be segregated for appropriate disposal by a certified recycling contractor:

- Refrigerators
- Freezers
- Air conditioners
- Water coolers
- Dehumidifiers
- Any other appliances that contain Freon, etc.

These materials are currently recycled through a MRRP contract with MES to evacuate all CFC or PCB toxins. These current practices are adequate.

Autos

There are two auto junkyards and recyclers in Talbot County: Ewing Auto Recyclers in Easton and Ewing Motor Parts in Cordova. These are the prime entities, within the county, which with junk automobiles, although numerous automobile yards are in adjacent counties and Delaware.

Junk cars are recycled through private commercial salvage yards registered with the Maryland Motor Vehicle Administration. Talbot County does not license junkyards or auto salvage yards. There are no anticipated shortages in capacity for junk cars or appliances.

3.3 SOLID WASTE MANAGEMENT AND COLLECTION PRACTICES

The solid waste processing and disposal system in Talbot County consists of: 1) Curb-side pick-up in the Towns of Easton, St. Michaels, Oxford and Trappe; 2) private collection in the unincorporated areas; and 3) a homeowner drop-off Station at the MRSWMF. The Town of Easton has its own collection crews whereas the Towns of St. Michaels, Oxford, and Trappe have contracts with private haulers.

Residential waste pick-up in the unincorporated areas of the county is provided by private haulers contracted for directly by the residents. There is no solid-waste transfer station serving the residents of Talbot County. The only solid-waste transfer station in Talbot County is located at the Midshore Regional Solid Waste Management Facility and is presently privately owned and operated. In an effort to assist the residents of Talbot County, a homeowner drop off has been provided at the Midshore Regional Solid Waste Management Facility to allow residents to dispose of seven (7) bags of trash on any given day.

In Easton, the Town picks up waste from small commercial establishments. Otherwise, throughout the county, commercial pick-up is done by private haulers. A list of private residential and commercial waste haulers servicing the Talbot County area can be found in local telephone directories, on the County website, and on the internet.

3.4 EXISTING SOLID WASTE ACCEPTANCE FACILITIES

Talbot County solid waste is managed at several in-county and out-of-county facilities. Table 8 lists the in-county facilities. However, there is currently only one (1) trash transfer station and one landfill for

waste disposal in operation in the county, the Midshore Regional Solid Waste Management Facility (MRSWMF). There are no operational resource recovery facilities in Talbot County at this time. MRSWM Landfill has been inactive since 2011.

Most waste has been accepted at the MRSWM Transfer Station, owned and operated by the Maryland Environmental Service (MES), where all the waste is transferred to other solid waste acceptance facilities out of the county. The MRSWMF accepts waste from Talbot, Queen Anne’s, Kent and Caroline counties as part of the four-county regional agreements (see Appendices). In 2017, MRSWM Transfer Station accepted 40,983 tons of waste and all the waste was transferred to Midshore II Regional Solid Waste Management (MIIRSWM) Landfill.

Recyclables are stored in designated areas (see Table 8), bunkers and roll off containers and then transported to markets for each commodity. Yard Waste is ground and used on-site for daily cover or roads at the MRSWMF.

TABLE 8 – TALBOT COUNTY EXISTING SOLID WASTE ACCEPTANCE & RECYCLING FACILITIES

RECYCLING DROP-OFF SITES	TOWN	PROPERTY OWNER	GRID COORDINATES (MD NAD 27 Feet)		SIZE (Acres)	2020-WMF-0144/Inactive	2020-WTS-0549/ Indefinite
			X	Y			
1. Bozman Store	Bozman	Bozman Store, LLC, 618 s. Alfred St., Alexandria, VA 22314	1007252	341946	0.01	None	Indefinite
2. Route 309 near Fire Hall	Cordova	Maryland State Railroad Administration	1086010	381037	0.01	None	Indefinite
3. Next to Auto Zone	Easton	Cheapeake Rehabilitation Center, Inc., c/o Auto Zone, PO Box 1906, Easton, MD.	1067378	343801	0.01	None	Indefinite
4. Midshore Regional Landfill	Easton	Maryland Environmental Service, 259 Najoles Rd., Millersville, MD 21108-2515.	1078305	335767	0.01	None	Indefinite
5. Easton Plaza	Easton	Easton Shopping Center LLC, 13404 Day Valley Ct., Centreville, VA. 20120-6422	1063203	346780	0.01	None	Indefinite
7. Graul's Store	St. Michael's	JEJ LLC, 1212 S. Talbot St., St. Michaels, MD 21663-1139	1025370	342100	0.01	None	Indefinite
8. Park (Perry Cabin Field)	St. Michael's	Talbot County Maryland, 11 N. Washington St., Easton, MD. 21601-3195	1020312	349535	0.01	None	Indefinite
9. High School	St. Michael's	Talbot County Board of Education, 12 Magnolia St., Easton, MD 21601.	1023465	345956	0.01	None	Indefinite
10. Shore Stop	Trappe	G Granville Blades, 2812 Ocean Gtwy., Trappe, MD 21673-1764.	1069493	298975	0.01	None	Indefinite
11. Next to Fire House	Trappe	Trappe Volunteer Fire Co. Inc., PO Box 86, Trappe, MD 21673-0086.	1068945	301702	0.01	None	Indefinite
12. Dependable Sand, Stone and Recycling	Queen Anne	Dependable Sand & Gravel Co., Inc., P.O. Box 130, 13159 Ocean Gateway, Queen Anne, MD 21657	1068281	394889	343	Active, 2005-NWW-GP01	Indefinite
			GRID COORDINATES (MD NAD 27 Feet)		(Acres)		
SOLID WASTE FACILITIES	TOWN	PROPERTY OWNER	X	Y			
13. Midshore Regional Landfill	Easton	Maryland Environmental Service, 259 Najoles Rd., Millersville, MD 21108-2515.	1078672	336779	67	Active, 2005-WMF-0144	2, (12/31/2010)
14. Midshore Regional Transfer Station	Easton	Maryland Environmental Service, 259 Najoles Rd., Millersville, MD 21108-2515.	1078075	335816	0.03*	Active, 2004-WTS-0549	2, (12/31/2010)

*Site area is within 67 acres of Midshore Regional Landfill

Midshore Regional Solid Waste Management Facility (MRSWMF)

Talbot County, along with Caroline, Kent and Queen Anne’s counties, disposed of solid waste at Midshore Regional Solid Waste Management Facility in Talbot County. The facility held approximately 2.0 million tons of waste until December 31, 2010. When the facility was preparing to close, another regional landfill began construction in May 2009 in Caroline County and was made ready to accept solid waste for approximately 20 years beginning January 1, 2011. Future landfills after that time are anticipated to be constructed in Queen Anne’s County and then Kent County.

The operational part of the landfill facility in Talbot County covers 67 acres and is surrounded by a visual buffer, which includes both existing woodlands and a six-foot earthen berm planted in grass, trees and shrubs. The landfill was divided into five (5) cells, which were developed in sequence. Each cell has its own earthen berm walls and is double-lined with high density polyethylene. Ultimately, the wastewater (leachate) is discharged into the Easton Wastewater Treatment Facility adjacent to the landfill (see Figure 4). The landfill is able to accommodate sewage sludge generated by local wastewater treatment plants, and there is a separate area at the landfill for rubble disposal.

The landfill is owned and operated by MES, a non-profit, quasi-state agency. MES operates the landfill under the general direction of representatives of the four (4) participating counties. Officials from Talbot, Caroline, Kent and Queen Anne’s counties meet regularly to approve budgetary matters and to review operations.

The Talbot County Council directed the Department of Public Works (DPW) to conduct a Solid Waste and Recycling Study which examined curbside trash and/or recycling pick-up and evaluated the need for one or more transfer stations following the closing of the Midshore Regional Solid Waste Management Facility in Talbot County on December 21, 2010 and the opening of the new Midshore II Regional Solid Waste Facility in Caroline County on January 1, 2011. This SWMP is consistent with the objective of the past solid waste management plan which anticipated the potential that when the regional landfill is moved to another county, it may become necessary for Talbot County to develop and implement a countywide solid waste collection system. The Talbot County DPW created a Talbot County Solid Waste and Recycling Study Team to evaluate the options for solid waste management in Talbot County beyond the closure of the MRSWMF in 2010. The study began in September of 2007 and concluded to contract with MES to transport solid waste to the new solid waste facility in Caroline County.

Midshore II Regional Solid Waste Management Facility (MIIRSWMF)

In 2017, weigh records from the MIIRSWMF showed that the facility accepted approximately 20,050 tons of waste from the region. Of this total, 4,955 tons was generated in Talbot County. A continual effort is made to reuse or recycle the rubble waste including using the clean rubble for interior landfill roads and recycling the white goods and scrap tires. Any material not reused or recycled is buried at the MIIRSWMF.

Table 9 depicts the composition of the rubble waste that has been delivered to the MRSWMF. Under the present agreement, all material received at the facility is either recycled or land-filled as follows:

1. Scrap tires are collected and stockpiled at the facility for subsequent recycling. Scrap tires are transported from the site for recycling into various products including tire mulch, and ground rubber for use as raw material for various applications, including sports surfaces. Land-filling of scrap tires is not permitted.
2. Household appliances, white goods, and scrap metal are stockpiled and sold to a scrap metal dealer for recycling.
3. Broken concrete, clean fill and similar materials are separated and used on site as cover soil or for haul road maintenance.

TABLE 9 – MRSWMF RUBBLE WASTE COMPOSITION

<u>TYPE OF WASTE</u>	<u>AMOUNT (%)</u>
Construction Debris	83.0
Appliances	15.0
Scrap Tires	1.0
Clean Rubble	0.5
Land Clearing Debris	0.5

SOURCE: Weigh Records from Midshore II Regional Solid Waste Management Facility

Midshore Solid Waste Transfer Station

As previously stated, the only solid-waste transfer station within Talbot County is located at the MRSWMF and is presently owned and operated by MES. In an effort to assist the residents of Talbot County, a homeowner drop off has been provided at the MRSWMF to allow residents to dispose of seven (7) bags of trash on any given day. Through its annual operations budget, Talbot County funds a portion of the operation of the MRSWM Transfer Station. In 2017, the MRSWM Transfer Station conveyed 40,983 tons to the landfill in Caroline County.

Other Waste Management Facilities

Some of Talbot County’s rubble and land clearing debris are processed and/or disposed at the R.B. Baker & Sons waste rubble facility in Queen Anne’s County; rubble and wood waste is also processed at the Dependable Sand, Stone and Recycling Company in Talbot County. Dependable Sand, Stone and Recycling Company has no disposal facilities.

R.B. Baker & Sons Waste Rubble Facility

Table 10 below shows the composition of the municipal solid waste stream generated in Talbot County and processed at the R.B. Baker & Sons waste rubble facility in Queen Anne’s County according to their Annual Tonnage Reports submitted to MDE.

TABLE 10 – TALBOT COUNTY WASTE MANAGED AT R.B. BAKER AND SONS

Waste Description	YEAR					
	2014	2015	2016	2017	2018	2019
C&D (Tons)	971.18	1,394.23	2,278.30	1649.71	1347.41	956.00
LCD (Tons)	251.51	132.28	209.08	229.73	114.67	33.00

Source: R. B. Baker & Sons, Inc.

Dependable Sand, Stone & Recycling Co., Inc.

Table 11 show the yard and land clearing debris managed at the Dependable Sand, Stone & Recycling Co., Inc. in Talbot County. It should be noted that the Annual Tonnage Reports from which the information was extracted did not delineate the origin of the waste, so the origin of the waste managed was unknown during the previous Plan update. Dependable Sand, Stone & Recycling Co., Inc. in Talbot County has been unwilling to share current data for the 2017 reporting period.

TABLE 11 – WASTE MANAGED AT DEPENDABLE SAND, STONE AND RECYCLING CO.

WASTE DESCRIPTION	YEAR		
	2005	2006	2007
NWWP* Processing (Tons)	8,000.00	2,258.70	1,797.00
NWWP Removed (Tons)	7,143.93	6,236.00	2,965.00
Residual Waste Removed** (Tons)	96.00	96.00	96.00

*NWWP = Natural Wood Waste Product

**Monthly Dumpster Pickup

Source: MDE Annual Tonnage Reports

3.5 COLLECTION, PROCESSING, MARKETING AND DISPOSITION OF RECYCLABLE MATERIALS FROM PUBLIC SCHOOLS

Resolution 178, adopted by the Talbot County Council on March 8, 2011, amended the County's Solid Waste Management Plan to include a public school recycling program for the collection of paper, cardboard, books, plastic bottles, metal cans, electronics, toner cartridges, oil, antifreeze, lead acid batteries, rechargeable batteries, glass, food waste and construction and demolition debris as materials to be recycled. The Recycling Committee that is part of the Midshore Regional Recycling Program, reviews the method of collecting and reusing the recyclables. The Recycling Committee also reviews the roles and responsibilities for developing and implementing school recycling program with the schools included in the recycling plan. Due to funding constraints, the school recycling program is integrated into the curb recycling program in the Towns of Easton and St. Michaels and the recycling collection system managed by the Midshore Regional Recycling Program. The overall program is reviewed, evaluated and modified as time and funding allows.

3.6 APARTMENT BUILDING AND CONDOMINIUM RECYCLING (ABCR) PROGRAM

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, amending Environment Article § 9-1703 and establishing § 9-1711.

A. Program Requirements

As required by State law, the ABCR Program applies to all (i) property owners or managers of apartment buildings that contain 10 or more dwelling units, and (ii) councils of unit owners of condominiums that contain 10 or more dwelling units.

Pursuant to State law, on or before October 1, 2014, each property owner or manager of an apartment building or council of unit owners participating in the ABCR Program shall provide for recycling for the residents of the dwelling units as described in Environment Article § 9-1711 (b) (1). This includes recycling of plastic, metal, glass containers, and paper products.

Property owners, managers, and councils of unit owners participating in the ABCR Program must ensure collection, storage, and transportation of recyclable materials from apartment and condominium locations to recycling markets. Suitable recycling containers 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 containers prior to the scheduled pick-up day.

Apartment buildings or condominiums located within a municipal corporation that has adopted a curbside recycling program are required to comply with such programs, and compliance shall be sufficient to meet the requirements of the ABCR Program. The Town of Easton, the Town of St. Michaels, and the Town of Oxford have adopted and administer curbside recycling programs. The Town of Trappe may also adopt curbside recycling in the future, and to the extent any affected apartment buildings or council of unit owners exist in Trappe, compliance with such program shall be sufficient for compliance with the ACBR program.

Property owners or managers of apartment buildings and councils of unit owners of condominiums participating in the ABCR Program are not required to report to the County on their recycling activities. The County has contacted the property owners and managers of participating buildings and has communicated the requirements of Section 9-1703 (b) (12) and (13) of the Environment Article, Md. Code Ann.

B. Participating Apartment Buildings and Condominiums

A list of the participating apartment buildings and condominiums is set forth below in Tables 12 and 13, as amended from time to time.

New apartment buildings or condominiums that fall under the requirements of Environment Article § 9-1711 will begin participating in the County's ABCR Program or, if applicable, an acceptable program adopted by a municipal corporation within 3 months of qualifying under the statute. The County will update the program list of participating buildings at the time of the County's 3-year Solid Waste Management Plan update.

Table 12 – Participating Apartment Buildings in the ABCR Program

Name of Facility	Address	Owner/Operator	Owner Address	Units
Centreville II Limited Partnership	107 Meadow Dr. Easton, MD 21601		1375 Piccard Dr., #150 Rockville, MD 20850	20
Chatham Village LLC	7166 Lauren Lane Easton, MD 21601		7166 Lauren Lane Easton, MD 21601	93
Easton Associates LLC Pag Properties LLC	117 Parris Lane Easton, MD 21601		117 Paris Lane Unit A2 Easton, MD 21601	64
Easton Limited Partnership	640 Mecklenburg Ave. Easton, MD 21601		875 Hollins St., Ste. 202 Baltimore, MD 21201	80
Easton MD Propco LLC	610 Dutchmans Lane Easton, MD 21601	c/o Portopiccolo Group	440 Sylvan Ave., Ste 240 – S Hyman Englewood Cliffs, NJ 07632	213
Easton Parkway Limited Partnership	51 Jowite Street Easton, MD 21601		726 Yorklyn Rd., Ste. 200 Hockessin, DE 19707	44
Sun Hyde Park LLC	9632 Hyde Park Ct. Easton, MD 21601		27777 Franklin Rd., Ste. 200 Southfield, MI 48034	212
Magnolia Meadows Group Investors LLC	7080 Lauren Lane Easton, MD 21601	c/o Wright Multifamily LLC	905 W. Sproul Rd. Springfield, PA 19064	100
Marvel Properties LLC	106 Port Street Easton, MD 21601		P.O. Box 968 Easton, MD 21601	13
North, David J., North, Daniel C.	8591 Commerce Drive Easton, MD 21601	North, David J. North, Daniel C.	P.O. Box 479 Easton, MD 21601	161
North, David J., North, Daniel C.	8591 Commerce Drive Easton, MD 21601	North, David J. North, Daniel C.	P.O. Box 479 Easton, MD 21601	138
786 Idlewild Avenue LLC	7786 Ocean Gateway Easton, MD 21601		1114 Park Lane Denton, MD 21629	18
786 Idlewild Avenue LLC	7772 Ocean Gateway Easton, MD 21601		1114 Park Lane Denton, MD 21629	42
Name of Facility	Address	Owner/Operator	Owner Address	Units
Port of Oxford LLC	202 Banks Street, Easton, MD 21601	c/o Phillip Conner	7 Seal Harbor Way, Harpswell, ME 04079	69
Made in the Shade LLC	29587 Matthewstown Road Easton MD 21601		30411 Matthewtown Road, Easton, MD 21601	24
	106 Meadow Drive,		1375 Piccard Dr., #150	32

Trappe Limited Partnership	Easton, MD 21601		Rockville, MD 20850	
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Table 13 – Participating Condominiums in the ABCR Program

Name of Facility	Address	Owner/Operator	Owner Address	Units
None	N/A	N/A	N/A	N/A

C. Monitoring and Enforcement

The Talbot County Department of Public Works shall oversee and monitor the ABCR Program. This includes maintaining current lists of participating apartment buildings and condominiums, working with other stakeholders and municipal governments to ensure compliance with the State law and the ABCR Program, and updating the ABCR Program as necessary.

Enforcement shall be the responsibility of the Talbot County Chief Code Compliance Officer. If the County receives a complaint or learns of a potential violation, the matter shall be referred to the Chief Code Compliance Officer who shall be authorized to investigate and issue a written notice to the responsible party detailing the deficiency with corrective action to be completed within a reasonable time not to exceed ninety (90) days. As provided by State law, the Chief Code Compliance Officer may conduct inspections of an apartment building or condominium to enforce the requirements of Section 9-1711 (b) of the Environment Article, Md. Code Ann., and shall be authorized to assess civil penalties not exceeding \$50 for each day on which the violation exists against a person that violates Section 9-1711 (b) of the Environment Article law, or that violates the requirements of the ABCR Program.

For participating buildings located within municipalities offering curbside recycling, those municipal governments shall be responsible for monitoring and enforcement of their own recycling laws and programs.

D. Stakeholders

The stakeholders involved in the development and implementation of the ABCR Program include:

- 1) Talbot County Council – Responsible for:

- Adopting, by amendment, the ABCR Program to the County’s Solid Waste Management Plan;
- 2) Talbot County Department of Public Works – Responsible for:
- Providing information about the ABCR Program and the requirements of State law to the apartment and condominium officials whose buildings fall within the scope of the Program;
 - Monitoring the progress and performance of the ABCR Program;
 - Updating the County’s Solid Waste Management Plan, including new ABCR Program requirements and the list of participating buildings, at least every three years; and,
- 3) Owners and managers of apartment buildings or councils of the unit owners of condominiums – Responsible for:
- Providing recycling services to the residents of each apartment building and/or condominium in accordance with the County’s ABCR Program and State law by on or before October 1, 2014;
 - If necessary, securing and managing recycling contracts with contractors to provide recycling collection and marketing services;
 - If necessary, providing suitable recycling collection/storage containers that residents can use for their recyclable materials.

3.7 SPECIAL EVENT RECYCLING PLAN (SERP)

A. Special Events Subject to SERP

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

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

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

In consultation with municipalities, the County has identified the following public sites within the county that host or may host special events meeting the above criteria. In addition to the sites listed individually, special events taking place on any local, State, or federally owned streets are also included in the SERP.

1. Municipally owned sites:

- a. Easton
 - i. Idlewild Park – 115 Idlewild Ave., Easton, MD 21601
- b. St. Michaels
 - i. Muskrat Park – 207 Willow Green Street, St. Michaels, MD 21663
- c. Oxford
 - i. North/South Morris Street (Oxford Day Event)
 - ii. Oxford Town Park (Oxford Day Event)
 - iii. Little League/Ballpark
 - iv. Oxford Beach
 - v. Causeway Park

2. County owned sites:

- a. Talbot County Community Center – 10028 Ocean Gateway, Easton, MD 21601
- b. Hog Neck Golf Course – 10142 Old Cordova Road, Easton, MD 21601
- c. George Murphy Community Pool – 501 Port Street, Easton, MD 21601
- d. Bay Hundred Community Pool – 911 S. Talbot St., St. Michaels, MD 21663
- e. Dogwood Harbor Landing – 21481 Dogwood Road, Tilghman, MD 21671
- f. Easton Point Landing – 100 Port Street, Easton, MD 21601
- g. Cordova Park – 31028 Skipton Cordova Road, Cordova, MD 21625
- h. Easton Middle School Sports Complex – 201 Peachblossom Rd., Easton, MD 21601
- i. Homerun Baker Park – 4200 Main Street, Trappe, MD 21673
- j. Old Trappe Park – 3924 Main Street, Trappe, MD 21673
- k. Perry Cabin Park – 710 N. Talbot Street, St. Michaels, MD 21663
- l. Oxford Conservation Park, Oxford Road, Oxford, MD 21654
- m. Frederick Douglas Park on the Tuckahoe, Cordova, MD 21625

3. State-owned sites:

- a. Wye Oak State Park – 14214 Old Wye Mills Road, Wye Mills, MD 21679
- b. Bill Burton Fishing Pier – 29761 Bolingbroke Point Dr., Trappe, MD 21673

B. Materials and Obligations

Special events organizers are responsible for:

- 1. Providing and placing recycling receptacles adjacent to each trash receptacle at the event (except where already existing on site);

2. Ensuring that recycling receptacles are clearly distinguished from trash receptacles by color or signage;
3. Providing any other labor and equipment necessary to carry out recycling at the event;
4. Ensuring that materials placed in recycling receptacles are collected and delivered for recycling; and
5. Paying any costs associated with recycling at the special event;

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

1. Self-hauling the materials to County recycling drop-off sites, provided there is adequate room at the drop-off site when the materials arrive and provided the materials are properly separated and placed into the appropriate receptacles at the drop-off site.
2. Contracting with a recycling hauler to collect the materials and deliver them for recycling; or,
3. Receiving prior agreement from the site owner to use an existing recycling collection system available at the site, such as the curbside recycling available in certain municipalities.

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

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

C. Stakeholders

The following stakeholders will be involved in the SERP:

1. County Department of Public Works (DPW): Responsible for assuring that all properties that potentially host events falling under the recycling mandate in § 9-1712 are included in the SERP.
2. DPW, in cooperation with the Talbot County Department of Planning and Zoning: Responsible for communicating the requirements of the law to prospective special events organizers and owners/operators of publicly owned sites in the county.
3. Special Events Organizer: Responsible for providing recycling bins and ensuring collection for recycling in accordance with the requirement in §B.

D. Program Monitoring

DPW and special events organizers will monitor progress and performance of the SERP.

The special event organizer must oversee placement and labeling of recycling receptacles and collection and recycling of recyclables. Performance of any recycling contractor engaged for compliance with the SERP must be monitored by the special event organizer. The special event organizer must promptly take action to correct any deficiencies in the contractor's performance.

E. Program Enforcement

DPW, the Talbot County Department of Planning and Zoning Code Enforcement Office, or the equivalent office of the municipality in which the event is located, may conduct inspections of the event to insure compliance with the SERP. If a violation of the SEPR is detected, the County or municipality may pursue an enforcement action against the special event organizer. A person that violates the SERP is subject to a civil penalty not exceeding \$50.00 for each day the violation exists. Any penalties collected for violation of the SERP must be paid to the County, municipality or other local government that brought the enforcement action.

CHAPTER FOUR - ASSESSMENT OF SOLID WASTE MANAGEMENT

4.1 SOLID WASTE DISPOSAL

Generally, solid waste is disposed at the Midshore Regional Solid Waste Management Facility (MIIRSWMF) located in Ridgely, Maryland (Caroline County). Residential waste and commercial waste, along with roadside litter and furniture, are disposed of at the MIIRSWMF after recyclables are extracted. Scrap tires, white goods, forestry/yard waste and broken concrete are recycled at various locations.

Talbot, Queen Anne’s, Caroline, and Kent counties form the four-county Midshore Region and all four counties disposed of solid waste at the Midshore I Regional Solid Waste Management Facility (MIRSWMF) located in Easton, Maryland, and owned and operated by MES, until December 31, 2010. With the closing of MIRSWMF, all residential and commercial solid waste generated in Talbot County that was not recycled was hauled to the MIIRSWMF for disposal. Please refer to Chapter Three of this Plan for a quantitative breakdown of disposed versus recycled materials that make up the waste generated in Talbot County.

Based upon the 2007 MRSWMF Annual Tonnage Report to MDE, the remaining permitted disposal capacity of the closed MRSWMF is 240,299 cubic yards (cy) and 126,266 tons. When the MRSWMF closed in December 2010 with remaining disposal capacity, MIIRSWMF opened in Caroline County and is intended to serve the solid waste management needs of the four counties (Queen Anne’s, Talbot, Kent and Caroline) through December 31, 2030. The transition to the MIISWMF occurred in October 2010 to provide a layer of “soft trash” to help protect the liner before the Caroline County facility was fully opened to receive all permitted wastes on January 1, 2011. Through the 2017 reporting period, the remaining permitted tonnage at MIIRSWMF is 3,855,408 tons, which equates to an airspace utilization rate of approximately 1,200 pounds per cy.

As long as each participating county and MES uphold their obligations under the Midshore Agreement(s), the project will meet all of the long-term municipal waste disposal needs of Talbot County through 2070, well past the 10-year period covered by this Plan. If MES is not able to perform satisfactorily, the four participating counties have an option to assume operation of the facility. Only if the counties also fail in operation of the facility would Talbot County be forced to locate, design, permit, finance, construct, and operate its own solid waste management facility before the currently scheduled timeline.

Rubble Disposal

Talbot County currently disposes of approximately 4,955 tons per year of rubble waste material at the MIIRSWMF in Ridgely, Maryland.

Efforts to recycle and reuse rubble waste shall be increased, and the residual material placed in the existing municipal waste cell at the MIIRSWMF, which currently possesses a liner and leachate collection system. Clean separated rubble is currently recycled and is primarily used for interior landfill road construction.

Asbestos Disposal

There are two primary types of asbestos waste. Friable asbestos is any product containing more than 1% asbestos and can be crumbled, pulverized, or reduced to powder with ordinary human hand pressure. Non-friable asbestos is any product containing more than 1% of asbestos and cannot be crumbled, pulverized, or reduced to powder with ordinary hand pressure.

The MIIRSWMF accepts non-friable asbestos and disposes of the asbestos in the landfill along with the other waste. Most non-friable asbestos waste is in the form of roofing shingles or floor tiles. Historical data for asbestos disposal at MIIRSWMF is contained in Chapter Three. There are no anticipated capacity issues for disposal of non-friable asbestos. Friable asbestos is not accepted at the facility and must be disposed of through a private hazardous waste handler.

4.2 TALBOT COUNTY FUTURE SOLID WASTE ACCEPTANCE FACILITIES

No future solid waste acceptance facilities are planned in Talbot County in the next 10-year period. Due to the four county regional agreements, future waste acceptance facilities for Talbot County will be located in Caroline County for the years 2011 through 2030 followed by Queen Anne's County and Kent County until 2070.

In July 2009, Talbot County initiated a review of various options for processing and transporting municipal wastes including rubble, construction and demolition debris, recyclables, etc. to the Midshore Landfill in Caroline County. In October 2010, the County Council of Talbot County approved an intergovernmental agreement with MES to have MES operate and maintain a waste transfer station at the existing MRSWMF in Talbot County. The current, permitted transfer station at the MRSWMF in Talbot County has been used. The recycling center and homeowner drop-off is offered at the facility, with the continuation of these services evaluated as part of the budget process at the beginning of each year.

As the Midshore Regional planning period progresses, it will become necessary to evaluate and identify available land for a solid waste acceptance facility based upon limiting factors including topography, geology, aquifers, flood plain, surface waters, soil types, etc. consistent with COMAR 26.03.03.03 E(3). If future waste acceptance is required in Talbot County more immediately, the existing permitted capacity at the MRSWMF could be utilized. In lieu of this, the most desirable area to locate the facility is immediately adjacent to the existing MRSWMF. The current transfer station, recycling center, etc. could continue to be used for this purpose. Zoning issues are not anticipated. As stated in Chapter Two, solid waste disposal sites are permitted by special exception in most zoning districts within Talbot County. While the County has no intention of building any solid waste facilities during the next 10 year planning period, a discussion of some of the limiting factors at the MRSWMF site follows for future reference.

Topography, Physiography

The existing MRSWMF area has two distinct physiographic features related to topography. These features are the Talbot Plain and the Wicomico Plain. The Wicomico Plain lies at higher elevations than the Talbot Plain, and is made up of older marine sediments. The escarpment is positioned roughly north and south across the site with the lowland area (Talbot Plain) to the east of the escarpment and the rolling hill area (Wicomico Plain) to the west.

After examining the topography surrounding the MRSWMF, it is evident that the ground surface slopes away from the existing landfill to the north, south and east. The topographic high for the area is located to the east of the landfill. The entire MRSWMF lies within the Choptank River Drainage Basin; however, secondary surface drainage is north to tributaries of Williams Creek and south to a tributary of Barker Creek. The MRSWMF lies above the 100-year floodplain of the Choptank River.

Soil Conditions

Soils across the MRSWMF can be grouped and defined as a Cantena. A Cantena represents soils which form a sequence due to variations in relief and drainage; they are about the same age, are derived from similar parent materials, and occur under similar conditions. The sequence described at the MRSWMF is primarily a result of drainage features. Soil map units identified at the MRSWMF included: Sassafras, Woodstown, Keyport, Elkton, Fallsington, and Pocomoke.

In general, Sassafras and Woodstown soils across the MRSWMF were found to contain more fines than is typical for these types of soils. This may be explained by losses due to erosion and/or mixing by farming

implements. Low chromo mottles suggest these soils have a shallower than normal seasonal high water table. However, most morphological characteristics suggest these soils are part of the Sassafras and Woodstown series.

The Sassafras and Woodstown soils are deep, have a sandy loam/loam topsoil, and have a sandy loam/sandy clay loam subsoil. Some Sassafras soils on site have silt loam/loam surface texture. The Sassafras soils are well drained.

They have a fluctuating seasonal high water table during late winter when groundwater may come within 1.5 feet of ground surface. Keyport soils are also deep; they have a silt loam/loam topsoil with a silty clay loam subsoil and are moderately well drained. The Elkton and Fallsington soils occupy low-lying areas where the water table reaches the surface during winter months and are poorly drained. Pocomoke soils occupy depressions and have a high water table most of the year and are very poorly drained.

In general, soil map units identified in the field correlated well with map units delineated in the Talbot County Soil Survey. Sassafras soils make up about 70% of the area; the Woodstown and Keyport soils, about 20%; and minor soils, the remainder. Among the minor soils are the poorly drained Elton and Fallsington soils, and the very poorly drained Pocomoke soils.

Geology

The MRSWMF lies within the Delmarva Peninsula which is part of the Coastal Plain physiographic province. The Coastal Plain deposits begin as a feather edge along the Fall Line and dip gently southeastward in a thickening wedge that rests directly on the underlying crystalline rocks that make up the basement complex. These deposits in the area of Easton are approximately 2,800 feet thick and consist of unconsolidated beds of gravel, sand, silt and clay. Previous water-resources investigations on the Delmarva Peninsula have been conducted by the USGS in cooperation with State, County and Municipal agencies. As a result, generalized stratigraphic relationships have been identified, although differences exist in the nomenclature used to describe these formations. Reports indicate ten major sand bodies that function as aquifers over wide areas of the Delmarva Peninsula. The formation names used in this section reflect information presented in publications.

The Coastal Plain deposits in the area of the MRSWMF lie in stratified layers classified as formations, which are generally referred to as aquifers or aquicludes. They are distinguished on the basis of groundwater yield. Aquicludes are predominantly composed of low permeability sediments that provide partial

hydraulic separation between more transmissive, sandy aquifer zones. Formations are referred herein as aquifers or aquiloids.

Using published geologic information and boring logs collected at the MRSWMF, cross sections were developed which help illustrate the hydrogeology encountered. The uppermost group of geologic formations at the MRSWMF site consist of the soil zone and underlying Pleistocene-Pliocene sediments. The Pleistocene sediments occur as stratified, lenticular deposits of buff, tan, brown sands and silt, with small amounts of clay and gravel. Boulders are encountered erratically within the top ten feet, usually at lower depths. These deposits lie on top of red, orange and brown gravelly sand, identified as the Pliocene sediments. At the MRSWMF, hard ledges (“ironstone”) were identified several centimeters thick, usually at the base of the Pliocene sediments. The soil zone/Pleistocene-Pliocene sediments were found to range in thickness from approximately 4 to 28 feet.

In descending order, the second major group of geologic formations at the MRSWMF consists of the Miocene sediments. The Miocene sediments consist of gray quartz sand zones and gray/blue silt and clay. Shells and shell fragments are found throughout the deposits. The abundance of shell material and absence of significant amount of glauconite are characteristic of the Miocene sediments. Five regional water-bearing units (aquifers) found within the Miocene sediments are used as sources of water supply on the Delmarva Peninsula. In descending order, they are: Pocomoke, Manokin, Frederica, Federalsburg, and Cheswold. Earlier publications refer to these five aquifers and their associated aquitards, collectively, as the Yorktown, St. Mary’s, Choptank, and Calvert formations. The Miocene aquifers all slant upward to the northwest, are separated by silt and clay intervals, and eventually crop out. Where the Miocene aquifers approach the surface, the separation between them is limited. In the MRSWMF area, information gathered from water supply well logs have identified the uppermost Miocene aquifer as the Frederica. The overlying Pocomoke and Manokin aquifers are found at more southern locations.

The uppermost Miocene sediments underlying the Pleistocene/Pliocene Sediments at the MRSWMF consist of blue/gray stiff-to-soft silty clays and clayey soils. These deposits were found to range in thickness from approximately 8 to 38 feet. The elevation of the top of this formation is approximately 45 feet above mean sea level (MSL). Directly beneath this formation lies the Frederica Aquifer which is composed of fine to medium sands with some silt and common shell fragments. The elevation of the top of this formation is estimated at 10-20 feet MSL. Published geologic literature indicated this unit to be locally at least 65 feet thick.

Underlying the Frederica aquifers, and generally separated by the silt and clay interval, is a sandy unit referred to as the Federalsburg aquifer. The Federalsburg aquifer is underlain by a silt and clay interval which separates it from the Cheswold aquifer. Previously, the Federalsburg and Cheswold aquifers have been collectively referred to as the Calvert Formation.

TABLE 14 - SOILS IN TALBOT COUNTY

<u>SOIL</u>	<u>ACREAGE</u>	<u>PERCENTAGE (%) OF COUNTY</u>
Barclay	9,872	5.5%
Borrow Pits	388	0.2%
Coastal Beaches	116	0.1%
Downer	2,690	1.5%
Elkton	25,209	14.1%
Fallsington	9,448	5.3%
Galestown	703	0.4%
Keyport	13,478	7.6%
Klej	321	0.2%
Madeland	696	0.4%
Matapeake	12,793	7.2%
Mattapex	18,033	10.1%
Mixed Alluvial Land	4,893	2.7%
Othello	17,777	10.0%
Plummer	99	0.1%
Pocomoke	419	0.2%
Portsmouth	358	0.2%
Sassafras	39,136	21.9%
Steep Land	2,235	1.2%
Tidal Marsh	6,122	3.4%
Woodstown	13,774	7.7%
TOTAL	178,560	100%

The next major aquifer formation, the Piney Point Formation is composed of an olive-green to black quartz sand, slightly-to-moderately glauconitic, predominantly medium-to-coarse grained. The Piney Point Aquifer is not known to crop out. The remaining aquifers in descending order consist of the Aquia and Rancocas, Magothy, and Nonmarine Cretaceous aquifers.

Hydrology

The major aquifer zones in Talbot County are sands of the Patapsco, Raritan, Magothy, Matawan, Aquia, Piney Point, Miocene and Pleistocene/Pliocene sediments. Some of the water-bearing sands pinch out locally, whereas others are widely distributed and their occurrence is generally predictable. Although each of the major aquifers has its own distinctive water-bearing characteristics, the sands themselves often vary considerably from one place to another in thickness, grain size, mineral content, and permeability.

The uppermost geologic formation, the Pleistocene-Pliocene sediments, are sometimes referred to as the Columbia aquifer. From a monitoring perspective, this unit constitutes the uppermost aquifer. On a countywide basis, the water quality is good, thus the Columbia is an important aquifer. The interim Talbot County Groundwater Protection Plan categorizes the Columbia aquifer as a high potential use source of good quality water. In the past, this zone has been used to a limited extent, on a regional basis, to supply small quantities of water for farm-related and domestic uses. However, there is a limited amount of data on the Columbia aquifer in Talbot County. Many wells may be hand-dug or driven and thus, no records are available on their existence. The Columbia aquifer is considered unconfined and receives most of its recharge through direct precipitation infiltration. As a result, it is vulnerable to surface point and non-point sources of contamination.

The second geologic formation (blue/gray silty clay, Miocene sediments) serves as a confining unit (aquitar) to the underlying Frederica aquifer. The Frederica represents a potential water supply aquifer in the MRSWMF area. This zone receives its recharge from points west and northwest of the MRSWMF (i.e. outcrop locations) and by vertical leakage from overlying formations.

The next major unit, the Calvert Formation, is largely considered an aquitar; however, in the vicinity of Easton, several wells produce substantial quantities of water from sand stringers (i.e., Federalsburg and Cheswold Aquifers). The combination of moderately low transmissivity (3,500 gpd/foot), and small available drawdown limits the water yielding capacity of the Calvert. The formation crops out in Calvert County on the western side of the Chesapeake Bay which represents a recharge area. In addition, some water recharged to the Calvert Formation in the Easton area is derived from downward leakage from the overlying Frederica Aquifer.

The underlying Piney Point Formation is an important aquifer to Talbot County. Sands in the Piney Point at a depth of 300 to 375 feet below sea level produce much of the water used for domestic and agricultural purposes in the rural areas surrounding Easton. However, no wells in Easton are currently producing water from this formation. The Piney Point Formation has no known surface outcrop, and recharge to this aquifer is derived from leakage through adjacent formations.

The Aquia Greensand Formation, which lies beneath the Piney Point Aquifer and separated by the Nanjemoy Aquitar, is considered a potable water source. The recharge area for this aquifer is located just west of Annapolis, Maryland. The next underlying potable water source in the Easton area is the

deeper Magothy Formation. The remaining underlying formations rest on the basement rock complex and, at this time, are not used as sources of water since sufficient shallower sources are available.

Typically, maximum levels of rainfall are recorded in the late winter/early spring and the lowest levels are recorded during the summer and early fall. The elevation of the Seasonal High Water Table (SHWT) will also vary between years. This variability is controlled by rainfall, temperature patterns, wet or dry years, and long or short winters.

Groundwater elevation contours representing the lowest observed groundwater conditions were determined and suggest groundwater outside the perimeter of the existing landfill flows in a radial pattern away from the landfill. Since the observed SHWT can vary greatly between years, it is important to predict what fluctuation may occur.

The predicted maximum groundwater elevation conditions, based on soil morphological characteristics, are between 1 and 7 feet above the observed highest elevations.

The hydraulic conductivity of the Pleistocene/Pliocene deposits, silty clay Miocene sediments and Frederica aquifer was estimated to be 0.3 to 0.7 ft./day, 0.1 ft./day, and 0.6 to 5.5 ft /day, respectively.

Water level elevations in shallow and deep monitoring wells indicate that a downward component of ground-water flow exists between the Pleistocene/Pliocene deposits, the silty clay Miocene sediments and the Frederica aquifer.

A review of groundwater quality and stream water quality data collected shows that values recorded for specific conductance, alkalinity, chloride, and hardness are elevated in the monitoring wells located near the closed Easton landfill perimeter. Volatile organic compounds were found to be below detectable limits for all samples, metals were judged to be within natural limits and below detection limits in most cases, and elevated nitrate-nitrogen levels found in the portion of the site where farming activities have occurred is probably a result of farm site fertilization and mineralization of organic matter. The water quality results indicate that groundwater quality, in places, has been affected by different surface activities. This includes the influence of landfill leachate at monitoring well locations near the closed Easton landfill perimeter.

Water quality analysis from the deep monitoring wells, screened in the upper portion of the Frederica aquifer, have shown no indications of groundwater quality changes due to sanitary landfill leachate.

After reviewing site geologic information and considering hydraulic conductivities presented in earlier discussions, groundwater flow at the MRSWMF, in the upper Pleistocene/Pliocene deposit, is in the horizontal direction. Both the heterogeneity of the Pleistocene/Pliocene deposits and the fine-grained nature of the underlying Miocene sediments will promote lateral movement. Groundwater flow is likely more vertical in the fine-grained silty clay Miocene sediments and more horizontal again in the Frederica aquifer.

Source Reduction/Separation and Resource Recovery

Another consideration in future waste acceptance facilities is the quantity of waste for disposal. In this analysis, source reduction, source separation and resource recovery must also be evaluated to reduce the requirements for future solid waste disposal facilities. Additionally, future initiatives for source reduction/separation and resource recovery may require designated facilities to store, handle, and transport the waste to be recovered or separated. There are no current plans for facilities associated with source reduction/separation and/or resource recovery. More details on source reduction initiatives are contained later in this Chapter.

4.3 RECYCLING PLAN FOR TALBOT COUNTY, MARYLAND

The Recycling Plan for Talbot County, Maryland, as mandated by Section 9-505 of the Maryland Recycling Act of 1988, was completed and submitted to MDE in July 1990. The Plan was amended in 1991 and finally approved by MDE's Office of Waste Minimization and Recycling in 1992. In 1991, Talbot County, together with three (3) other Eastern Shore Counties (Kent, Queen Anne's and Caroline), established the Midshore Regional Recycling Program (MRRP).

As mandated by State law, Talbot County must divert 20% of its solid waste stream through recycling. In accordance with Resolution 213, adopted by the Talbot County Council on September 9, 2014, the recycling goal was increased from 15% to 20%. Key components to Talbot's Recycling Plan and its subsequent implementation are summarized hereafter.

Collection

As can be seen in Table 6, 2,934 tons of residential recyclable materials were diverted from Talbot’s waste stream in 2017 through regional collection programs, County collection programs and private recycling businesses. The following materials are currently collected for recycling in Talbot County:

Glass (green, brown and clear bottles);	Newspaper	Scrap tires
White paper	Auto batteries	Yard waste
Metal cans (aluminum & steel)	Corrugated cardboard	Clothing & textiles
White goods	scrap metal	auto batteries
Scrap tires	used motor oil	used antifreeze
Plastic (#1 & #2 Containers & bottles only)		

As previously mentioned y, Talbot County is exceeding the 20% goal required by State law under Environmental Article § 9-505 (a) (19). The MRRP has reported waste diversion rates near 40% in recent years for Talbot County.

Processing & Marketing

Processing and marketing of Talbot’s recyclables is handled by the Midshore Regional Recycling Program, Talbot County, and private recycling businesses.

The Midshore Regional Recycling Program collects recyclable materials throughout the county via ten (10) drop-off stations (see Table 8 and Figure 3). The material collected at these stations is then transported by MRRP to the Midshore Consolidation Facility located at the Midshore Regional Solid Waste Management Facility owned and operated by MES. The Midshore Consolidation Facility (MCF) is a staging area which accepts recyclables from county residents, businesses and private haulers. Quality control of materials coming through the program for marketing is maintained at the point of (a) collection or (b) supervised delivery at the staging area. Materials staged at MCF are subsequently transported by MRRP to markets established by the Regional Program.

In addition to hosting drop-off sites, Talbot County sponsors two (2) Izaak Walton newspaper drop-off trailers. These trailers are hauled to market by Talbot County Roads Department personnel.

Talbot County also sponsors drop-off sites collected by Infinity Recycling, Inc. a non-profit recycling business located in Millington, Maryland. Processing and marketing of the materials collected at these sites is handled by Infinity Recycling.

Many private businesses throughout the county have established in-house recycling programs which utilize private haulers to process and market their recyclables. The municipalities of Easton, St. Michaels and Oxford, contract with private solid waste and recycling businesses to provide curbside, single-stream recycling to their residential and commercial properties.

Education

Education and outreach strategies include the following:

- Civic outreach
- School-based recycling and workshops
- Public relations brochures
- Mobile displays
- Commercial sector waste audits and surveys

Waste audits and consulting services are continually offered by TCRP at no cost to the community.

Verification

Using tonnage reports and procedures developed by the State, Talbot County must track and record all recycled material. These reports are submitted to the State biannually by the MRRP administrator. Existing data verifying the meeting of recycling goals can be found in Tables 6 and 7 above.

Source Reduction

Talbot County will continue to assess current and future efforts for source reduction within the Environmental and Recycling Sub-Study group of the on-going Solid Waste and Recycling Study (See Chapter 5 for further details on the study), but funding and other resource issues have limited the group's ability to finalize various recommendations. Talbot County presently relies on the MRRP to promote source reduction and resource reuse. The MRRP promotes reduction and reuse through its presentation available online at <http://www.menv.com>. It is recognized that backyard composting of yard waste and organic matter would likely provide the most source reduction by weight. Talbot County and MRRP intend on further evaluating the path toward implementing a backyard composting program. Additionally, Talbot County is actively investigating internal practices and opportunities for source reduction and reuse (e.g., stationery reuse, pallet reuse, employee training and workshops, etc.).

4.4 EMERGENCY RESPONSE FOR HAZARDOUS WASTE AUDITS

In the unlikely event of spillage or leakage of a hazardous material within the county, the following chart outlines procedures to be followed:

Routine: No public action is necessary; incident can be handled by primary responders.

Category I: Public Action is considered unlikely; incident can be handled by a minimum number of responding agencies.

Category II: Hazardous materials are involved which pose a threat to life and property; planning for public action is considered.

Category III: Safety of citizens is first consideration because of the nature and/or quantity of the hazardous materials involved; public action is required.

4.5 FEASIBILITY OF SOLID WASTE COMPOSTING

As required by Section 9-1703(b)(7) of the Environment Article, Md. Code Ann., MES completed a pilot study for food waste composting at the Midshore II Regional Solid Waste Management Facility (MRIISWMF). After completing the food waste compost pilot study, it was not feasible to pursue solid waste composting. Talbot County has no in-county or regional solid waste facilities that manage solid waste composting operations. Talbot County has no plans to initiate this type of operation during this planning period.

CHAPTER FIVE- ACTION PLAN

5.1 INTRODUCTION

The Talbot County plan of action will outline the most practical and flexible procedures for meeting the objectives of the Talbot County Solid Waste Management Plan. Included will be a discussion of:

- A solid waste disposal system and solid waste acceptance facilities, both public and private, which will be in use for the years 2020 through 2030; and
- The capacity of all systems and facilities, and a demonstration of their ability to handle the anticipated County waste stream for the years 2020 through 2030.

To facilitate the decision making process, Talbot County DPW created the Talbot County Solid Waste and Recycling Study Team to evaluate the options for solid waste management in Talbot County beyond the closure of the MRSWMF in 2010. The team is comprised of internal staff, as well as outside consultants, when funding allows. The Study began in September of 2007 and is ongoing. The Study is divided into four sub-studies that organize the work according to local government concerns and focus areas established by the MDE. Briefly, these four sub-studies are identified below.

1) Facilities Location(s) - This study component focused on methods for assessing the ability of the Caroline County Midshore II Regional Solid Waste Facility to meet the needs of Talbot County, and evaluate the best plan for locating any potential future waste transfer stations for moving solid waste out of Talbot County to Caroline County beginning in the year 2011. This study group involved Talbot County and MES. It was concluded that the most feasible option was to use the permitted waste transfer station owned and operated by MES on Barkers Landing Road. For the planning review period from 2020-2030, Talbot County will continue to contract with MES to convey all solid waste from the County to the Caroline County landfill using the waste transfer station on Barkers Landing Road.

2) Homeowner Drop-off - This study component will focus on methods for assessing the current and future rate of use in homeowner drop-off services, defined as acceptance of waste from citizens who transport their own solid waste to a receiving facility without using a paid pick-up service. This study component was associated with the fact that in 2011 the Talbot County drop-off facility would close due to the regional facility opening in Caroline County. Due to budgetary constraints, Talbot County initiated the sale of punch cards sold at the waste transfer station,

allowing residents to drop-off up to seven (7) bags of trash. This service will continue if funding allows.

3) Environment and Recycling - This study component will focus on an analysis of Talbot County's current recycling practices. Focus will be on the apparent demand for curbside collection of recyclables versus the current recycling drop-off locations throughout the county (see Table 7). The County is also focusing study efforts toward source reduction to reduce the amount of solid waste, including recyclables, and to increase recycled products. Talbot County is evaluating a repurposing facility to be operated by the Roads Department that would produce recycled concrete aggregate and recycled asphalt.

4) Town Collaboration and Citizen Input - This study component will focus on methods for collecting and summarizing information on the needs and opinions of town governments and county citizens as a whole. Interest in plans, such as municipal collaborations and citizen involvement in recycling, will be surveyed by various methods to include, for example, focus groups, and random surveys. In completing these surveys, Talbot County will work with the Towns in evaluating the economic benefits of a curbside recycling program within the incorporated limits of the towns.

5.2 SOLID WASTE DISPOSAL SYSTEMS AND ACCEPTANCE FACILITIES

The following is a discussion of the major solid waste disposal systems/acceptance facilities that are anticipated to be in operation for the years 2020 through 2030.

Residential Solid Waste Transfer Station

With the planned closure of the Midshore Regional Solid Waste Management Facility, Talbot County explored the option of maintaining a portion of the existing MRSWMF to serve as a solid waste transfer station and recycling center. By maintaining this site as a solid waste transfer station, Talbot County can continue to provide a homeowner drop-off in the county. In addition, this site could serve as a central location for expanding recycling activities in Talbot County.

Since the MRSWMF is owned and operated by MES, the County explored a contractual agreement with MES to continue operating the solid waste transfer station, homeowner drop-off, and recycling center, or to procure the facility from MES with Talbot County acquiring the necessary equipment and providing

personnel. Talbot County determined to contract with MES and will continue to contract with MES for the years 2020 through 2030.

Midshore I Regional Solid Waste Management Facility (MIRSWMF)

The MRSWMF is currently located just east of the town of Easton in Talbot County and was closed on December 31, 2010. A new solid waste facility opened on January 1, 2011 in Caroline County at the River Road site, consistent with the Midshore County Regional Agreement. This facility (Midshore II Regional Solid Waste Management Facility) will have a capacity to serve the four Midshore counties of Talbot, Kent, Caroline, and Queen Anne’s for approximately 20 years, or until 2030.

MES currently provides post closure monitoring of the MIRSWM Landfill in Talbot County. There are no plans to landfill solid waste at this facility for the years 2020 through 2030.

Midshore I Regional Solid Waste Management Facility Transfer Station (Transfer Station)

The Transfer Station is part of the MIRSWMF and is owned and operated by MES. When the new solid waste facility opened on January 1, 2011 in Caroline County at the River Road site, Talbot County transported all the solid waste generated in the county to the Midshore II Regional Solid Waste Management Facility (MIIRSWMF). Talbot County will continue to use the Transfer Station that is owned by MES to transport solid waste to the MIIRSWMF for disposal until 2030.

Midshore II Regional Solid Waste Management Facility (MIIRSWMF)

Based upon the 2017 MIIRSWMF Annual Tonnage Report to MDE, the remaining disposal capacity of the MIIRSWMF is 6,318,347 cubic yards (cy). Through the 2017 reporting period, the remaining permitted tonnage is 3,855,408 tons, which equates to an airspace utilization rate of approximately 1,220 pounds per cy. Through 2017, and, accounting for the tonnage buried as “soft trash” in 2010, the average annual amount of landfilled waste was 114,209 tons. Table 15 estimates future solid waste landfilled for the years 2018–2030 using preliminary tonnage report values of 114,209 tons per year. Utilizing this methodology, the estimated remaining capacity at the closing of the MIIRSWMF on December 31, 2030 is more than 2,000,000 tons. The tonnage reports indicate there is adequate capacity at the MIISWMF for disposal of the Midshore Region’s solid waste through the planned closure illustrated in Table 16 that follows.

TABLE 15 – REMAINING CAPACITY AT THE MRSWMF

	ACTUAL TONS/YEAR		PRELIMINARY TONS/YEAR			PROJECTED TONS/YEAR				
	2016	2017	2018	2019	2020	2022	2024	2026	2028	2030
Total Waste Landfilled at MIIRSWMF	119,780	134,061	134,856	134,860	159,089	114,209	114,209	114,209	114,209	114,209
Cumulative Waste Landfilled	690,531	824,592	968,447	1,103,308	1,262,396	1,490,814	1,719,232	1,947,650	2,176,068	2,404,486
Remaining Capacity at Landfill	3,989,469	3,855,408	3,711,553	3,576,692	3,417,604	3,189,186	2,960,768	2,732,350	2,503,932	2,275,514
Source: MDE Annual Tonnage Reports										

Although it is not anticipated, but if the MRIISWMF reaches capacity prior to December 31, 2030, it will be transferred to another MDE approved facility, possibly the Midshore III facility if it has been complete or a permit revision may be sought to allow a vertical expansion of MRIISWMF. At the time of this report, construction of the Midshore III facility is on schedule to be completed and ready to accept waste on or prior to December 31, 2030, its goal date.

Recycling Drop-Off Centers

In 2017, there were eleven (11) existing drop-off recycling stations that will continue in operation (subject to agreement by the property owners). Figure 3 and Table 7 delineate the locations of the drop-off sites. Additional stations may be added as needed to improve convenience and program success, or if current property owners choose to have the stations relocated. To date, owners have been very receptive to the recycling stations, since there are increased opportunities for residents to patronize the retail establishments and all local municipally owned properties are not limited by the space allocated to the drop-off receptacles.

Electronics Recycling

Talbot County, in partnership with Kent, Caroline and Queen Anne's counties, through the Midshore Regional Recycling Program (MRRP), began an electronics recycling program in 2002. The program currently accepts for recycling the following: computers and computer peripherals including CPUs, keyboards, monitors, mouse, printers, cables, modems, computed speakers, scanners and external disk drives. Other electronics currently accepted include: televisions, remotes, VCR's, CD and DVD players, calculators, cell phones, radios, stereos, CB radios, fax machines, answering machines and copiers. The materials are collected from residents, small businesses and schools at special collection events held twice each year throughout the four county region. These materials are transported to, or collected by, electronic recycling companies. This program is currently provided free to residents, small businesses

and schools. The program was initially funded by an EPA Region 3 grant administered by MDE. Since then it has been funded by the MRRP and grants from MDE. The future viability, format and nature of the program will be contingent upon several factors including availability, costs, practices and requirements of electronics recycling organizations as well as funding sources available to meet any and all costs. In order to continue and possibly expand electronics recycling, Talbot County and/or the MRRP intend(s) to seek available funding such as grants that may be available as a result of Maryland legislation through 2030. In 2017, Talbot County and MRRP continued to partner on a new project with the Chesapeake Center in Easton to serve as a weekday drop-off location for computers. The Chesapeake Center also provides disassembly work for a Maryland electronics recycler.

Household Hazardous Waste (HHW)

Talbot County, in partnership with Kent, Caroline and Queen Anne’s counties, through the Midshore Regional Recycling Program (MRRP), began a Household Hazardous Waste (HHW) collection program in 1998. This program is currently provided free to residents; there is a collection day event scheduled every spring and fall in the Midshore Region providing Talbot County residents an opportunity to participate every six months. The event is held in Talbot County once every other year, typically on the first Saturday in November.

Composting of Yard Waste

Talbot County will evaluate, in partnership with Caroline, Kent and Queen Anne’s counties, the potential of establishing a composting area at the current and future regional landfills for acceptance of leaves, brush and some nitrogenous materials (yard waste). The current practice of tub grinding yard waste material will continue at MRSWMF and would be an important element to support with whatever level of composting is determined to be feasible.

5.3 MANAGEMENT OF INDIVIDUAL WASTE STREAMS

The following mechanisms will be used for managing various waste streams. The permittee of all solid waste acceptance facilities within Talbot County is also subject to the requirements of COMAR 26.04.07 “Solid Waste Management” as well as applicable local ordinances and regulations.

Commercial, Residential, Industrial and Institutional Waste

All waste in these categories is currently disposed of at the Midshore II Regional Solid Waste Management Facility in Caroline County. This facility will continue to be the sole waste disposal facility for Talbot County for solid wastes through 2030.

Through 2030, Talbot County will review available options for addressing solid waste generated in the County, including diversion of municipal solid waste, if economical, to out-of-state landfills. This has some potential due to the recent development of several large commercial municipal landfills in Virginia. These facilities now contract to receive the municipal solid waste from several Maryland counties. They have a lower tipping fee than the MRSWMF, presumably due to the very large economy of scale. This option would require agreement by all four Midshore counties. The transfer station located at a facility (MRSWMF or Midshore II) could serve the purpose of exporting solid waste to landfills outside the region. A comprehensive financial analysis to evaluate hauling costs, tipping fees and the on-going costs for servicing bonds and maintenance of a “mothballed” MRSWMF would be needed as part of the decision process.

Other options include: 1) Expansion of the Midshore group to include other Eastern Shore counties. Currently Dorchester County owns and operates a municipal solid waste landfill with room for expansion; and, 2) Cooperation with the Delaware Solid Waste Authority to potentially develop a solid waste management system for the entire Delmarva Peninsula.

In 2012, the Maryland General Assembly passed House Bill 929 which increased the existing 15% State mandated recycling goal to 20%. House Bill 929 also required that the new 20% goal be incorporated into county recycling plans by July 1, 2014, and be fully implemented by December 31, 2015. Talbot County is currently exceeding the 20% State-mandated goal of diverting its solid waste stream through recycling, and expects no changes on the recycling system. Between 2020 –2030, Talbot County’s recycling goal shall be 35%.

Controlled Hazardous Substances (CHS)

Hazardous wastes generated in Talbot County are presently disposed of at permitted sites outside the county. This practice will continue, as there is insufficient demand or need for such a facility in the county. The facilities accepting the CHS have no anticipated acceptance limits known by Talbot County.

There are a number of private commercial firms on the Eastern Shore that are licensed to collect and transport hazardous wastes from Talbot County. There are limited hazardous waste disposal or storage facilities located in Maryland. According to MDE, about 75 percent of all hazardous wastes generated in Maryland are shipped out of the state. Much of the remaining hazardous waste treated or disposed of within Maryland is handled at facilities dedicated to a specific industry, and are not open to general public use. The only open hazardous waste treatment facility in Maryland is Clean Harbor of Baltimore, Inc.,

which specializes in wastewater treatment and solvent processing. All other Maryland hazardous waste facilities are storage or transfer facilities.

Other out-of-state facilities, which are common disposal points for Maryland hazardous wastes, include:

Midland Disposal, Michigan	Large quantities of hazardous waste
Chemical Conservation, Georgia	Gasoline, paint, contaminated oil
Republic Environmental, Hatsfield, PA	Restricted industrial wastes
Laidlaw, North Carolina	Restricted industrial wastes
Culver City, Kentucky	Hazardous waste incinerator

Dead Animals

Much of this material is now recycled through commercial rendering facilities outside of Talbot County. Valley Proteins in Baltimore is the only rendering plant known to be currently accepting animal wastes from Talbot County. Other animal waste material is incinerated at the Maryland Department of Agriculture’s Animal Health Lab near Centreville. These current management practices are adequate.

Appliances and Autos

Federal Environmental Protection Agency regulations under the Clean Air Act, Section 608, established a mandatory recycling program for ozone depleting refrigerants such as chlorofluorocarbon (CFC) during disposal of all air conditioning and refrigeration equipment. The following appliances must be segregated for appropriate disposal by a certified recycling contractor:

- Refrigerators
- Freezers
- Air conditioners
- Watercoolers
- Dehumidifiers
- Any other appliances that contain Freon, etc.

These materials are currently recycled through a MRRP contract with MES to evacuate all CFC or PCB toxins. These current practices are adequate.

Automobiles are recycled through private commercial salvage yards registered with the Maryland Motor Vehicle Administration. Talbot County does not license junkyards or auto salvage yards. There are no anticipated shortages in capacity for junk cars or appliances.

Scrap Tires

Section 9-228 of the Md. Code Ann. prohibits disposal of scrap tires in a landfill after January 1, 1994. Talbot County currently does not operate any tire landfills. Upon the closure of the MRSWMF, future tire waste will most likely be transported to the Midshore II facility.

Passenger and light truck scrap tires less than 17 inches in diameter are accepted at the County transfer stations and loaded into 40-yard roll-off containers. Scrap tires from County vehicles are collected at the Roads Yard. The collected scrap tires are then transported to Emanuel Tire in Baltimore, Maryland or to Magnus Environmental in Wilmington, Delaware for recycling. Commercially generated scrap tires, scrap truck tires, and scrap farm equipment tires are no longer accepted by Talbot County.

Antifreeze and Waste Oil

MES operates the waste antifreeze and oil-recycling program. MES currently contracts with U.S. Filter to pick up oil and antifreeze from collection tanks at recycling stations throughout the region. Most of this waste oil is refined for use as heating oil. Most of the used antifreeze is reused and returned to market as recycled antifreeze. Upon the closure of the MRSWMF, future antifreeze and waste oil continue to be recycled through the MES program. Waste oil and antifreeze are managed by MES by directly transporting these liquids to the Midshore II facility or the transfer station in Talbot County.

Sewage Sludge

Sewage sludge generated in Talbot County is currently disposed of by a variety of practices, including land application, composting, and transport to the Midshore Regional Solid Waste Management Facility. These current management practices are adequate and are expected to continue.

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See Chapters Three and Four.

5.4 SCHEDULE FOR NEW SOLID WASTE MANAGEMENT FACILITIES

No new municipal solid waste disposal facilities deploying landfill techniques are planned in Talbot County during the 10-year planning period. The Midshore Regional Solid Waste Management Facility in Talbot County was closed as of January 1, 2011. Talbot County now transports solid waste to the MIIRSWMF in Caroline County. Talbot County will continue to transport all solid waste generated in the County to the MIIRSWMF until 2030.

The Administrators of Talbot, Queen Anne’s, Caroline and Kent counties meet quarterly with MES to discuss the status of both the Midshore II facility in Caroline County and the construction of the Midshore III facility being planned for Queen Anne’s County to receive solid waste from 2031 through 2050.

5.5 FINANCING PROPOSED SOLID WASTE FACILITIES

The Transfer Station located at MIRSWMF is owned by MES. Any financing of improvements at this facility would utilize the revenue bonding authority of MES. Since Talbot County served by the transfer station, it is anticipated that any facility improvements would result in an increased annual budget. For the period through 2020 – 2030, there is no anticipated financing of improvements to the transfer station.

As discussed above, no new publicly owned municipal solid waste disposal facilities are planned in Talbot County through 2030. The Midshore II Regional Solid Waste Management Facility (MIIRSWMF), located in Caroline County and its future development, are financed by MES utilizing its revenue bonding authority and by collecting tipping fees at the site.

The Midshore III Regional Solid Waste Management Facility (MIIIRSWMF) is currently being reviewed in Queen Anne’s County through the 2020-2030 planning period. The future development of MIIIRSWMF will be financed by MES, utilizing its revenue bonding authority and by collecting tipping fees at the site.

Continued expansion and improvement of the recycling program is expected under guidance of the MRRP. Financing for both capital and operating costs of the recycling program is obtained from the tipping fee surcharge at the Midshore II Regional Solid Waste Management Facility.

5.6 CLOSURE PLANS

The Midshore I Regional Solid Waste Management Facility in Talbot County is closed. MES provides the post closure monitoring for this facility. There are no anticipated changes through 2030.

5.7 OFFICE BUILDING RECYCLING

As part of the 2019 legislative session, the Maryland General Assembly passed Senate Bill 370, *Environment – Recycling – Office Buildings*. As of October 1, 2020, recycling plans for office buildings having 150,000 square feet or greater of office space must have recycling receptacles for the collection of recyclable materials that will include paper, cardboard, metal and plastic materials in place by October 1, 2021. Within the unincorporated areas of Talbot County, there are no office buildings having 150,000

square feet of or greater. Within the incorporated areas of the towns of Easton and St. Michaels, local governments provide curbside recycling to commercial businesses that consists of single stream recycling through companies contracted by these towns. Within the incorporated areas of the towns of Trappe and Oxford, which are municipalities of less than 2,500 people there are no office buildings of 150,000 square feet or greater. As the date of implementation of this law approaches, Talbot County will work with the Midshore Regional Recycling Program to forward public notices to businesses of 150,000 square feet or greater that the businesses will need to provide receptacles for the collection of recyclable materials within their establishments. If an establishment needs to provide this service, it is anticipated that Waste Management, Republic, or Infinity Recycling would pick up the recyclables and process them at their recycling facilities.

5.8 AMENDING AND UPDATING THE PLAN

The adopted Plan for Talbot County and its incorporated towns shall be reviewed at least triennially, or as determined by MDE. The County will also adopt and submit to MDE a revision or amendment to the Plan if the County or MDE deems a revision or amendment is necessary. Every two years a progress report must be submitted to MDE.

For this purpose, municipal and county agencies, as well as owners of private facilities and other federal or State agencies having programmed solid waste management facilities, will be furnished copies of the draft changes for comment. A public hearing before the County Council will then be held. Notice of the public hearing shall be advertised in *The Star Democrat* newspaper or other local paper once each week for two consecutive weeks with the first notice appearing at least fourteen days prior to the public hearing. Following the public hearing, the County Council shall take appropriate action.

Following the decision of the County Council, the adopted Plan shall be sent to MDE for its review and final approval. The updated Plan will not become effective until notification of final approval is received from the State.

In addition, COMAR 26.03.03.05 requires that the Comprehensive Solid Waste Management Plan be amended on an interim basis to include the installation or extension of either a solid waste acceptance facility or solid waste disposal system before the issuance of a permit by MDE. The same public hearing process outlined above for the triennial update shall be used for interim updates.