

RESOLUTION OF THE COUNTY COUNCIL OF FREDERICK COUNTY, MARYLAND

RESOLUTION NO. 18-26

**RE: PROPOSED AMENDMENTS TO THE 2018-2037 FREDERICK COUNTY
SOLID WASTE MANAGEMENT PLAN**

RECITALS

Pursuant to the authority contained in §9-503 of the Environment Article of the Maryland Code, the governing body of Frederick County, Maryland, has the authority to approve or deny amendments to the 2018 – 2037 Frederick County Solid Waste Management Plan (“SWMP”) after a duly advertised public hearing.

Proposed amendments to the SWMP that are required in order to include Fort Detrick as a source of municipal solid waste disposed at the Frederick County Landfill are shown on Exhibit A.

Frederick County’s Solid Waste Advisory Committee (“SWAC”), which makes recommendations concerning proposed amendments to the County’s SWMP, and as to whether the amendments are consistent with the SWMP, approved the proposed amendments on August 1, 2018.

The Frederick County Planning Commission held a public hearing on the proposed amendments on September 19, 2018, and found them to be consistent with the Countywide Comprehensive Plan.

The County Council of Frederick County, Maryland held a duly advertised public hearing on October 16, 2018, to consider the proposed SWMP amendments.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNTY COUNCIL OF FREDERICK COUNTY, MARYLAND that the County Council hereby adopts the amendments to the 2018-2037 Solid Waste Management Plan shown on Exhibit A.

The undersigned hereby certifies that the amendments described in this Resolution were approved and adopted (by a vote of 7-0) on the 16th day of October, 2018.

ATTEST:

COUNTY COUNCIL OF
FREDERICK COUNTY, MARYLAND


Ragen L. Cherney
Council Chief of Staff

By: 
Bud Otis, President

Kean
10/18/18

RESOLUTION NO. 18-26 (continued)

Received by the County Executive on 10/19/2018.

COUNTY EXECUTIVE ACTION: ☒ Approved ☐ Vetoed

Jan H. Gardner
Jan H. Gardner, County Executive
Frederick County, Maryland

10/22/2018
Date

Chapter 3 – Existing Solid Waste Management Program

In this chapter, baseline data is presented on existing solid waste management facilities and programs. Waste generation rates for the planning period are defined based on recent per capita waste generation and population projections. The baseline descriptions of the existing collection system, solid waste management facilities and recycling program provide the basis for the evaluation and needs assessment of subsequent chapters.

WASTE GENERATION

In Frederick County, solid waste is generated through the activities of residents, businesses, industries and institutions. Section 26.03.03D of COMAR requires that the plan identify and quantify existing and projected solid waste generated within the County for the following waste categories:

- Residential (household, domestic)
- Commercial
- Industrial (non-hazardous) solids, liquids and sludge
- Institutional (schools, hospitals, government buildings)
- Land clearing and demolition debris (rubble)
- Controlled hazardous substances (CHS)
- Dead animals
- Bulky or special (automobiles, large appliances, etc.)
- Vehicle tires
- Wastewater treatment plant sludges
- Septage, and
- Other

Projected generation in these waste categories in Frederick County during the period 2016 through 2030 is presented in Table 3-1 and discussed below. Figure 3-1 graphically illustrates the percentages of each waste category generated within the County. Descriptions of each waste category and the methodology used to estimate projected quantities is presented below.

Table 3-1
Annual Waste Generation in Frederick County
(Tons)
2018-2037

Waste Category	2015 Actual	2020	2025	2030	2035	2040
MSW Residential	66,006	71,821	77,426	81,422	85,660	89,093
MSW Commercial	69,647	75,783	81,697	85,914	90,385	94,007
MSW Mixed	19	21	22	23	25	26
Industrial (solids, liquid, etc.)	19,244	20,939	22,574	23,739	24,974	25,975
Institutional (schools, hospitals, etc.)	0	0	0	0	0	0
Demolition Debris (rubble)	68,966	75,042	80,898	85,074	89,501	93,088
Land Clearing	0	0	0	0	0	0
Controlled Hazardous Substance (CHS)	0	0	0	0	0	0
Dead Animals	0	0	0	0	0	0
Bulky or Special Waste	0	0	0	0	0	0
Vehicle Tires	1	1	1	1	1	1
Wastewater Treatment Plant Sludges	564	614	662	696	732	761
Septage	0	0	0	0	0	0
Asbestos	1	1	1	1	1	1
Yardwaste	0	0	0	0	0	0
Soil	13,985	15,217	16,405	17,251	18,149	18,876
Special Medical Waste	792	862	929	977	1,028	1,069
Witness Burns	21	23	25	26	27	28
Total MRA & NON MRA Waste Disposed	239,246	260,324	280,640	295,124	310,483	322,925
Total MRA & NON MRA Recyclables	183,225	199,367	214,926	226,019	237,781	247,331
Total Waste	422,471	459,691	495,566	521,143	548,264	570,256
Total Waste Generated	422,467	459,687	495,562	521,138	548,259	570,251

Figure 3-1: Projection of Solid Waste Generation by Waste Category Percentages 2011-2017

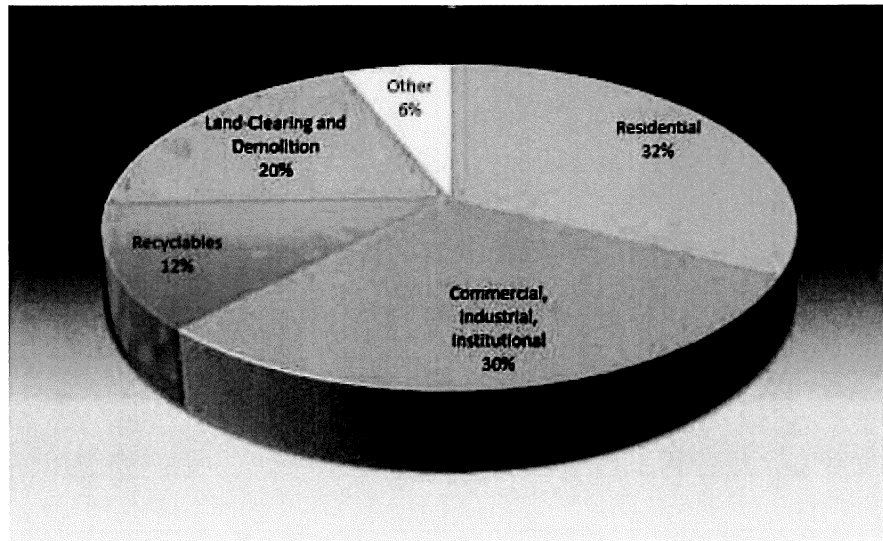


Figure 3-1. Other includes Dead Animals, Bulk Trash, Tires, Yard Waste, Asbestos, Leachate and Water Treatment Plant Residuals.

RESIDENTIAL

Residential waste includes wastes generated by households in Frederick County, except for dead animals, bulky wastes and tires which are described in subsequent sections.

Residential waste for disposal in most communities is collected and hauled to the Reichs Ford Road solid waste management facility. Solid waste management facility records indicate that 65,720 tons of residential waste was delivered there in 2015.

Recyclables recovered by residents are collected by the County's Curbside Recycling Collection Program, the Municipality Recycling Drop-off Centers and the County Recycling Drop-off Center located at the Reichs Ford Road solid waste management facility. The County Satellite Drop-off Program was terminated effective July 1, 2011 in response to the full expansion of the Residential Curbside Recycling Program. The Municipality Recycling Drop-off Centers were established in 2012 in order to expand the availability for recycling in Brunswick, Emmitsburg, Middletown, Thurmont and Walkersville. These combined programs recovered 25,013 (pre-residual) tons of recyclables in 2015.

Adding these recovered recyclables to the waste disposed provides a total residential municipal solid waste generation of 90,733 tons for 2015.

COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL

Waste from businesses, industry and institutions within the County are collected and delivered to a number of waste processing or disposal sites. The Reichs Ford Road solid waste management

facility records waste accepted for disposal from commercial, industrial and institutional sources under the category of non-rubble commercial and institutional waste.

Commercial

The Reichs Ford Road solid waste management facility records indicate that 60,230 tons of commercial municipal solid waste were received in 2015. Commercial, industrial and institutional sources reported recovering 73,678 tons of recyclables in 2015.

Adding the recovered commercial recyclables reported to the County to the commercial municipal solid waste delivered to the County solid waste management facility provides a total municipal solid waste generation of 133,908 tons in 2015. It is important to note that this commercial waste generation rate does not reflect the generation of construction and demolition debris, sewage sludge or other wastes not defined as municipal solid waste.

Commercial waste generation within the County is collected and hauled to the County solid waste management facility or recycled directly through various outlets.

Industrial

In general, industrial waste generated within the County is hauled to the County solid waste management facility. Although, Eastalco Aluminum Company still maintains an apparent active disposal permit for their onsite landfill, plant production has been ceased for a number of years and the County is unaware of any future plans to resume production.

Percentages of combined commercial/institution wastes vary due to economic conditions, they continue to represent between 20-30% of the total waste stream, based upon Frederick County solid waste management facility scale records.

Clean Fills

Construction projects, both governmental and private, generate "clean fill" material (as defined in COMAR 26.04.07.04.C.5). This material is used in earth moving construction to establish topography and/or improve drainage, and is subject to receiving a grading permit from Frederick County. Clean fill is exempt from the Solid Waste Management Plan. Questions related to clean fill or grading operations should be directed to the Frederick County Division of Public Works, Office of Project Management.

Institutional

In general, institutional waste generated within the County is collected and recycled or hauled to the County solid waste management facility. Waste generated at the Fort Detrick Army Headquarters is disposed of on the post as subsequently described.

The U.S. Army operates an incinerators complex and landfill at Fort Detrick for processing some portions of their institutional waste. Fort Detrick also operates a Subtitle D landfill for certain wastes from the post. Fort Detrick manages its entire waste stream independent of Frederick County's solid waste management purview and, therefore, is not a component of the County's Solid Waste Management Plan. may also bring certain types of acceptable Municipal Solid Waste (MSW) to Frederick County's waste management facilities for either landfill disposal or transfer and disposal

Special medical waste generated within Frederick County is either incinerated at the Frederick Memorial Healthcare System Incinerator, steam sterilized at the Frederick Memorial Healthcare System Rotoclave, hauled to Baltimore for incineration or collected and hauled to a facility of

their choosing for safe, ultimate disposal. This special medical waste is described in a subsequent section.

RUBBLE

Rubble includes land clearing, construction and demolition (C&D) debris as defined in COMAR 26.04.07.11 and .13. Rubble generated within the County is accepted at the Reichs Ford Road solid waste management facility.

With the closure of the dedicated rubble landfill at the Reichs Ford Road solid waste management facility, all rubble is now handled as municipal solid waste although it continues to be accounted for as a separate waste type. The Reichs Ford Road solid waste management facility accepted 39,462 tons of rubble in 2015 (residential and commercial C&D, shingles, concrete, and structural and land-clearing debris).

CONTROLLED HAZARDOUS SUBSTANCES

Controlled hazardous substances (CHS) are materials that are designated by MDE as “controlled” and meet the criteria of a hazardous substance. The County is not permitted to handle CHS and therefore does not specifically track generation rates of CHS as part of the County’s solid waste management system since it is strictly controlled by MDE regulations and therefore is beyond the scope of Frederick County’s Solid Waste Plan.

CHS wastes are collected by a private hauler and taken out of the County to treatment facilities or hazardous waste disposal sites. Manifests required to accompany waste shipments must be signed and verified by the generator, transporter and disposal or treatment facility.

DEAD ANIMALS

The Department of Agriculture, Frederick Laboratory reports that 58 tons of dead animals were incinerated in 2015. Dead animals from the Frederick County Division of Animal Control, animal clinics, veterinarians, County Highway Department and residents are accepted.

No estimates for pets buried in cemeteries or agricultural animals buried on farms are readily available.

BULKY WASTES

Bulky wastes include furniture and white goods such as refrigerators, washers, dryers and other large appliances. Traditionally, the scrap metal industry has provided adequate recycling opportunities and economic incentives to recycle the majority of scrap metal and scrap automobiles.

The County operates a recycling program for white goods and other scrap metal at the Reichs Ford Road solid waste management facility and are accepted at no charge. When feasible, large white good items and large scrap metal items contained in loads delivered to the County solid waste management facility are separated for recycling. Solid waste management facility records indicate that 794 tons of bulky items (white goods and scrap metal) were accepted at the Reichs Ford Road solid waste management facility in 2012, 682 tons in 2013, 668 tons in 2014 and 646 tons in 2015.

In its contracts with scrap metal dealers, the County requires the recycling facility to be licensed to evacuate Freon as required by the Clean Air Act from all appliances containing refrigerant.

Based on the bulky waste received at the County solid waste management facility, the per capita generation rate for bulky waste is estimated at .017 pounds per person per day.

TIRES

In 2015, approximately 86 tons of scrap tires were delivered to the Frederick County solid waste management facility.

The State of Maryland General Assembly banned disposal of scrap tires in landfills in 1993 (Title 26, Subtitle 04, Section 08) and in the same year began a system for assigning licenses to facilities and haulers to better track the transport and disposal of scrap tires in the State. The Frederick County solid waste management facility holds a Secondary Scrap Tire Collection Facility License (No. 2013-RSC-09071) as authorization to operate a disposal site for scrap tires, with the stipulation that no more than 1,500 scrap tires may be stored on site at any one time. Entities are limited to handling no more than five tires annually without a Maryland secondary scrap tire haulers license.

The majority of used scrap tires generated in the County are taken to a recycling or storage facility directly from the retailers who change tires. The projected generation data for tires is based on 0.70 lbs. per person per year using the 2015 actual solid waste management facility data and population figure.

SEWAGE SLUDGE

The majority of sewage sludge generated within Frederick County is disposed of using land application on State-permitted sites (primarily farms) in the region. The Reichs Ford Road solid waste management facility receives only small quantities of sludge under emergency situations.

The Reichs Ford Road solid waste management facility did not receive any sludge during 2015.

The projected generation data for sludge is based on the average annual gallons per person in 2015.

It should be noted that the vast majority of sewage sludge generated within the County is being land-applied, which has subsequently greatly reduced the volume of sludge received at the County's solid waste management facility.

SEPTAGE

Septage is the material removed from chemical toilets, septic tanks, seepage pits, privies or cesspools. Since 1992, MDE regulations require that septage be treated as raw sewage at a permitted wastewater treatment plant. In Frederick County septage is accepted for treatment at the Ballenger-McKinney Waste Water Treatment Plant (WWTP). Additional information on the management of septage can be found in COMAR 26.04.06.

There are numerous private and public haulers operating within Frederick County which collect and transport septage to the WWTP. Sludge from septage wastes is processed along with sludge produced by the Ballenger-McKinney WWTP.

Ballenger-McKinney Wastewater Treatment Plant treated an average of 6,983 gallons of septage per day 2015.

ASBESTOS

The Reichs Ford Road solid waste management facility accepted less than one ton of asbestos in 2015. One ton, is considered to be more representative of future conditions and will be used for generation projections.

OTHER

Special Medical Waste

Special medical wastes are wastes considered to be infectious or biohazardous, according to COMAR 26.13.11. Operators of special medical waste facilities must meet regulations governing the management and handling of such wastes including packaging, identification and transport. Generators of less than 50 pounds of special medical waste per month are not required to file travel manifests with MDE, while generators of greater than 50 pounds per month are required to do so.

Special medical waste generators in Frederick County include the Frederick Memorial Healthcare System, Fort Detrick and numerous small clinics, nursing facilities and laboratories. Special medical waste generators at Fort Detrick include the Frederick Cancer Research and Development Center and the U.S. Army Medical Research Institute of Infectious Diseases.

Special medical waste generated in the Frederick Memorial Healthcare System is steam sterilized on site. Approximately 220 pounds of special medical waste are processed daily, using an approved proprietary system that sterilizes and grinds the waste into a material safe for ultimate disposal at a solid waste management facility of their choice.

Fort Detrick is the home of the National Cancer Institute – Frederick Cancer Research and Development Center as well as medical research facilities for Department of Defense organizations. The special medical waste generated at this facility is incinerated ~~on-site at the Fort Detrick Medical Waste Incinerator Plant~~ independent from the County's waste management system.

Clinics, nursing facilities and laboratories which generate special medical waste contract with haulers to transport the waste to an out-of-county incinerator. Frederick County believes that these generators are under the generation limit for filing an MDE transport manifest. The quantities of special medical waste from these facilities are not documented.

It is consistent with this Plan for generators of special medical waste to either transport the waste in compliance with MDE regulations to an approved facility or to use an MDE-approved process for handling waste that they alone generate on-site. Consideration must be given to the potential for special medical waste to entrain radioactive materials. A generator is defined as an entity whose act or process produces special medical waste. A generator is not an entity who collects medical waste or who receives shipments of special medical waste that they have not produced themselves.

For the purpose of this plan, commercial medical waste processors are not consistent with the plan and are not recommended for further consideration.

County Maintenance Debris

County operations generate small quantities of debris from cleaning streets, litter and catch basins. The quantities of debris generated from County maintenance operations are accounted for in the commercial/institutional portion of the waste stream projections.

Agricultural Waste

Generally, agricultural wastes are reused on the farm. For example, manure is used as fertilizer and organic debris is plowed back into the land. Although not identified as such, small quantities of agricultural waste entering the County solid waste management facility are classified as commercial or rubble waste.

Recreation Waste

Recreational waste from parks and other recreational facilities including solid waste and septage is accounted for as municipal solid waste or septage waste.

Mining Waste

Numerous quarries throughout the County mine stone, which is used for various types of aggregate. Primary stone materials mined for include limestone, shale and slate. Other mineral resources which are quarried include limestone for building and agriculture, shale for the building industry and sand and gravel.

The primary solid waste potentially associated with quarrying operations is overburden (soil), which is usually stockpiled on-site for eventual use in mine reclamation or sold as clean fill to the construction industry. Although quantities of this material are significant, it does not currently pose a solid waste management problem in the County because it generally is not delivered to the County's solid waste management facility.

Used Oil and Antifreeze

Many industries and businesses collect their used oil and antifreeze for recycling or reuse.

Waste oil and antifreeze are collected for recycling by contracted service providers, and at the Frederick County Recycling Center and commercial establishments such as garages and service stations.

Maryland Environmental Services (MES) provides waste oil collection at four sites in Frederick County. Five sites in Frederick County collect antifreeze. Additionally, there are numerous garages, service stations and retailers who collect waste oil and antifreeze for recycling. Total quantities of waste oil and antifreeze recovered from County sites in 2015 were 1,467 tons of waste oil and 62 tons of antifreeze. Of that amount, 146 tons of waste oil were collected at the four designated collection sites and 7 tons of antifreeze were collected at the five designated sites located throughout Frederick County. These numbers are likely to be low, however, since reporting is not mandatory and reports from all private facilities are not received by the County.

WASTE COMPOSITION

The Frederick County municipal waste stream is comprised of residential and commercial municipal solid waste and residential and commercial construction and demolition debris (rubble) which is delivered to the County solid waste management facility for disposal or recycling. For calendar year 2015, the percent composition of the County's municipal solid waste stream was approximately 75% municipal solid waste (57% residential and 43% commercial)

and 19% construction and demolition waste (12% residential and 88% commercial).¹ This composition excludes liquid waste such as oil and antifreeze as well as institutional wastes handled independent of Frederick County Government's solid waste management systems.

RECYCLING

A combination of public and private programs serve to address the recycling needs of the commercial and residential sectors.

Institutions include Frederick Memorial Healthcare Systems, Mount Saint Mary's University, Hood College (all of whom contract for recycling services); Frederick County Government offices, Board of Education and Frederick Community College.

Most businesses contract for collection and/or marketing of their recyclables, although some such as grocery chains generate quantities that make it practical to provide their own marketing and collection.

Residential programs are provided by Frederick County in the form of curbside recycling or the Reichs Ford Road Recycling Center. Several Frederick County municipalities operate recycling drop-off centers as well. In addition, there are private recycling centers in Frederick County which accept recyclable materials and, in some cases, pay for these materials. These materials are then transported for further processing or to end-use markets.

RESIDENTIAL PROGRAMS

Reichs Ford Road Solid Waste Management Facility

The County has provided a drop-off center for recyclables at the Reichs Ford Road facility since 1989. The drop-off center is open during normal operating hours for the facility. The following recyclables are collected:

Mixed Paper	Cardboard
Paper/Boxboard	Shredded Paper
Narrow-Neck Plastics	Wide-Mouth Plastics
Bulky/Oversized Plastics	Glass Bottles & Jars
Bi-Metal Cans	Aluminum Cans & Foil
Aseptic/Gable-Top Containers	Empty Aerosol Cans
Plastic Grocery Bags	Motor Oil
Antifreeze	Lead-Acid Batteries
Scrap Tires	Flexible Foam
Electronics	Large Appliances
Scrap Metal	Yard Waste

¹ In 1995-96, Frederick County conducted an analysis of the waste delivered to the County solid waste management facility. This analysis showed paper products at 39%, making up the largest part of Frederick County's waste stream, with corrugated cardboard at 8% the largest single paper type. Food waste (12%) and plastics (10%) were also large items.

With the exception of scrap tires and electronics, the above listed materials are accepted at no charge.

Residential Recycling Program

A recycling program, including a curbside collection program and satellite drop-off locations, was initiated by the County in 1991. The program was expanded on multiple occasions between 1991- 2008 to collect materials from all municipalities and densely populated areas. The program changed from dual stream collection to single-stream collection in January 2009 and was fully expanded in May 2009 to include all single-family households in the County and now provides every other week curbside collection. With the closure of the residential satellite recycling drop-off centers in 2011, participants are encouraged to utilize the fully-expanded Curbside Recycling Program, the Reichs Ford Road Recycling Center, or one of the Municipality Recycling Drop-off locations.

Curbside recycling is a single-stream program that accepts magazines and catalogs, newspapers (including all inserts); junk mail and envelopes; clean paper products – colored and white (such as typing, fax, copy, letterhead, file folders, cardstock, etc.), shredded paper; brown paper bags; non-metallic wrapping paper; paperboard boxes (such as cracker and cereal boxes without liners); corrugated cardboard; books (including paperbacks, hardbacks and telephone books); aseptic/gable top milk and juice cartons; plastic bags; narrow-neck plastic containers such as peanut butter, margarine tubs, yogurt, mayonnaise, prescription bottles, etc.; glass food and beverage containers such as jars and bottles; tin and steel food and beverage containers; aluminum food and beverage containers; aluminum foil and aluminum pie pans; and empty aerosol cans.

The County recycled 20,603 tons of residential single-stream recyclables in 2015 from the curbside and drop-off center programs.

Seasonal Programs

Frederick County offers other recycling opportunities to County residents on a seasonal basis subject to funding.

Every Christmas season the County promotes the recycling of Christmas trees. This annual program grinds/chips collected trees into mulch, which is then sold to help offset program costs. During the 2015 holiday season, over 37.36 tons of Christmas trees were recycled.

Yard Waste

Frederick County uses a yard waste grinder for mulching of woody yard waste material such as brush and branches at the primary recycling center located on Reichs Ford Road. In addition, the County operates a windrow composting operation at this same location which processes grass, leaves and certain unadulterated lumber (pallets) into a finished grade compost. Additionally, one decentralized yard waste collection center exists which accepts mixed yard waste, brush, branches, grass and leaves located at Walkersville's Heritage Farm Park, which is on property owned by the Town of Walkersville.

Frederick County adopted ordinance number 06-03-399 on January 17, 2006 which prohibits the disposal of yard waste in the landfill. Yard waste is currently accepted at no charge at the Reichs Ford Road recycling center and Walkersville Heritage Farm Park.

In 2015, 16,219 tons of yard waste was received at the County's yard waste processing facilities.

Bulky Wastes

Bulky wastes, in the form of furniture, appliance, and other large items, are accepted year-round at the Reichs Ford Road solid waste management facility. Most waste haulers will not collect bulky wastes as part of routine trash collection, so they are usually brought to the Reichs Ford Road site by the homeowner.

Some municipalities provide special bulk trash collection.

A non-profit group, formerly called the Frederick Non-Profit Building Supply and now known as the Frederick Habitat ReStore, was formed in 1990 and works to obtain useable discarded building materials to supply non-profit building projects and low-income families. The operation is currently housed in a warehouse like facility and no scales are available for weighing materials collected.

Electronics

Electronics are accepted at the Reichs Ford Road solid waste management facility for a fee. Items accepted include desktop and laptop computers, keyboards, scanners, printers, fax machines, GPS units, PDAs, cell phones, digital cameras, DVD players, VCRs, stereos, televisions, etc. There are also private electronic recycling companies where residents and businesses can take electronics to be recycled for a fee.

Organics

A total of 35,217 tons of organics were recycled in 2015. This included grease and proteins from various private generators within Frederick County.

COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL PROGRAMS

Numerous commercial and industrial establishments are collecting recyclables such as office paper, corrugated cardboard, aluminum cans, glass, plastics, newspaper, and used oil and antifreeze for recycling.

Recycling programs are in place at many local institutions, including Frederick Memorial Healthcare Systems, Frederick Community College, Hood College and Mount Saint Mary's University. The Frederick Memorial Healthcare System recycles corrugated cardboard, cans, plastic bottles and pallets. Hood College operates a dual-stream recycling program, collecting corrugated cardboard and mixed paper and commingled bottles and cans. They also collect scrap metal and white goods, electronics and pallets. Mount Saint Mary's University recycles corrugated cardboard, mixed paper, aluminum products and numbers one and two plastics. Items are collected separately with the exception of the plastics which are collected together.

The County Board of Education installed recycling containers at each school in the fall of 1992 for collection of mixed paper, plastics, polystyrene, cardboard, and bi-metal and aluminum cans. However, the schools ceased collection of plastics and bi-metals due to low volumes, as well as polystyrene due to a lack of markets. In the fall of 2009, the Board of Education converted its recycling program to a single-stream program through inclusion in the Frederick County's Recyclable Materials Collection Service. The schools collect all of the same materials for recycling that are accepted in the curbside program. Several schools have also opted to explore their own institutional composting programs.

The recyclables recovered by commercial, industrial and institutional sources may be transported to the County's Transfer and Processing Station or to out-of-county destinations for processing. Commercial recyclables delivered to the County's facilities are recorded via scale records. Recyclables processed elsewhere may be voluntarily reported to the County on an annual basis for possible inclusion in the official MRA recycling rate. In calendar year 2015 approximately 64% of the MRA recycling taking place in the County is estimated to come from commercial and institutional sources. In 2015, commercial recyclers in Frederick County recycled approximately 73,678 tons of material.

APARTMENT BUILDING AND CONDOMINIUM RECYCLING PLAN

1. Apartment Building and Condominium Recycling (ABCR) Program

Through the cooperation of the Frederick County Office of Recycling and owners or managers of apartment buildings or councils of unit owners of condominiums ("apartment and condominium officials"), and other stakeholders involved in the implementation of this law, the County has identified one hundred twenty-one (121) apartment buildings and condominiums that fall under the scope of the law. The Frederick County Office of Recycling has notified the apartment and condominium officials and discussed the requirements of the law including the materials that must be recycled (i.e., plastic, metal, glass containers, and paper) at the identified locations.

It is the responsibility of apartment and condominium officials to determine how the materials will be stored, collected, and transported to the recycling markets for the collected materials. Apartment and condominium officials must report to the County on an annual basis details on the required recycling activities. Other program requirements include:

a. Materials Included in Program

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

b. Collection of Materials

Apartment and condominium officials are responsible for providing all containers, labor, and equipment necessary to fulfill recycling requirements throughout their buildings. Distinctive colors and/or markings of recycling containers should be provided to avoid cross contamination. The apartment and condominium officials must ensure collection and transportation of recyclable materials from apartment and condominium locations to markets or tipped as commercial recycling at the Frederick County processing and transfer station at the prevailing tipping fee rate. Residents will be responsible for placing recyclables in building recycling bins prior to their removal on the scheduled pick up day.

c. Marketing of Materials

Apartment and condominium officials are responsible for the marketing of their recyclables. If they choose to have recyclable materials transported to the Frederick County transfer station, they must pay the current prevailing tipping fee rate for commercial single stream recycling.

2. Stakeholders

Stakeholders that will be involved in implementing the law are:

a. Owner or Manager of the Apartment Building or Councils of the Unit Owners of Condominium – Responsible for providing recycling to the residents of each apartment building or condominium by October 1, 2014. Secure and manage recycling contracts with the contractor for providing material collection and recycling services from the building locations. Provide material collection bins and containers for transporting the materials from the buildings to the markets. Perform record keeping and may report to the County on annual basis.

b. The Maryland General Assembly-Responsible for legislation mandating the collection and recycling of recyclable materials from residents of all apartment buildings and condominiums with more than 10 dwelling units by property owners or managers of apartment buildings and councils of unit owners of condominiums.

c. Maryland Department of the Environment-Responsible for enforcement of environmental laws and regulations, such as the Environment-Recycling-Apartment Buildings and Condominiums.

d. Act requiring the collection and recycling of recyclable materials from residents of all apartment buildings and condominiums with more than 10 dwelling units by property owners or managers of apartment buildings and councils of unit owners of condominiums.

e. Board of Frederick County Commissioners – Responsible for adopting the MDE approved language of ABCR Program for the Solid Waste Management Plan amendment.

f. Frederick County Planning Commission - Responsible for reviewing and finding consistencies with the Comprehensive Plan regarding the Solid Waste Management Plan amendments, to include ABCR Program.

g. Frederick County Department of Solid Waste Management – Communicate the requirements of the law to the apartment and condominium officials. Provide educational and outreach materials in electronic format to assist apartment and condominium officials in developing a recycling program. Monitor the progress and performance of the ABCR Program. Update County's recycling plan to include the ABCR Program and amend the County Solid Waste Management Plan. Update a list of participating apartment buildings and condominiums at the time of Frederick County's 3-year Plan review.

3. Participating Apartment Buildings or Condominiums (132) in ABCR Program are listed in Appendix E.

Note: By State law, any new apartment buildings or condominiums that will fall under the requirements of the law are required to implement an ABCR program within three (3) months of commencement of the business.

4. Schedule for the Implementation of the ABCR Program:

a. By October 1, 2014, the County will distribute summary literature detailing the requirements of the ABCR Program to apartment and condominium officials. Apartment and condominium officials will begin to educate the residents about the ABCR Program and discuss the requirements of the law after being notified.

b. By October 1, 2014, apartment and condominium officials will subsequently provide educational assistance to the residents and advise them of the date when the residents can start collecting the materials.

c. By October 1, 2014, apartment and condominium officials finalize and secure recycling services contracts with the private contractors.

d. On or before October 1, 2014, apartment and condominium officials must have recycling services in place and operational in order to meet requirements of the ABCR Program so that residents may start collecting and recycling the materials at the participating apartment buildings or condominiums.

5. Program Monitoring

The apartment and condominium officials will conduct inspections, review service levels, investigate reported or unreported pick-up and disposal complaints, meet with residents or recycling contractor staff to educate or review practices, and review contractor compliance with the recycling contract as they deem necessary in order to conduct a successful recycling program.

The apartment and condominium officials will also be available to conduct educational seminars and/or tours regarding new materials, practices and procedures for residents. Also, the owner, manager or council shall be responsible to keep the residents current on new regulations, laws, and mandates affecting recycling in the apartment buildings or condominiums. Any ABCR Program performance deficiencies that arise will be documented and addressed. The apartment and condominium officials shall initiate actions to correct all deficiencies within 60 days of being notified by the County.

6. Program Enforcement

The County Office of Recycling will notify the apartment and condominium officials of the implementation requirements in accordance with the Sections 9-1703 and 9-1711 of the Environment Article, Annotated Code of Maryland. The County Attorney's Office will determine if a County should enforce the law and what level of enforcement actions should be used. The law allows for fines to a person that violates the recycling or reporting requirements of the law or a civil penalty not exceeding \$50 for each day on which the violation occurs. Further, any penalties collected under the law shall be paid to the county, municipality or other local government that brought the enforcement action.

FREDERICK COUNTY PUBLIC SCHOOL RECYCLING PLAN

1. Program Description

This plan was to be implemented pursuant to Maryland State Law as of October 1, 2010. Many aspects of this plan were already adopted by the Board of Education (BOE) voluntarily. This plan incorporates all of Frederick County Public Schools (FCPS), including Frederick County Charter Schools, and Frederick Community College (FCC). The main point of contact for recycling in FCPS will be the Energy and Recycling Coordinator, and the Executive Director of Facilities Planning for FCC.

The Frederick County Board of Education will be included in the Recycling Service Agreement with the Northeast Maryland Waste Disposal Authority for transporting and processing of recyclables. The materials that must be recycled through this contract include: newspapers (including all inserts); magazines and catalogs; junk mail; cardboard and paperboard; corrugated boxes; computer printouts; books (including paperback, textbooks and hardbacks); aerosol cans; office paper (including typing, fax, copy, letterhead, NCR) and envelopes; brown paper bags (Kraft); telephone books; glass containers such as bottles and jars; ferrous and bimetal food and beverage containers; non-metallic wrapping paper; aluminum food and beverage containers; aluminum foil and aluminum pie pans; narrow-neck plastic containers (other than for motor oil) that carry plastic resin codes 1 through 7; wide-mouth containers such as peanut butter, margarine/butter tubs, yogurt, cottage cheese, sour cream, mayonnaise, whipped topping, prescription bottles (lids and caps do not need to be removed); bagged plastic film; aseptic/gable top milk and juice cartons.

Collection and Marketing

Each school will be responsible for the internal collection of recyclable materials, as well as determining the collection schedule directly with the collection contractor. Each school will establish who is responsible for the program (typically someone on the custodial team), as well as how often recyclables are collected. The materials can then be brought to the Frederick County transfer station and transported to the County's contracted Material Recovery Facility for both processing and marketing. The Service Agreement for processing and marketing of the materials will be managed by the County's Department of Solid Waste Management (DSWM).

2. Stakeholders

Stakeholders include the Board of Education and Frederick Community College, each individual publicly-funded school, Frederick County and the recycling collection contractor.

Development, Implementation and Monitoring

Recycling for all schools and FCC will be implemented through FCPS and FCC administration. Each school will determine what size collection containers are needed and the frequency of collection. Each individual school, typically custodial staff, will be primarily responsible for the monitoring of the recyclables, with assistance from the County's Department of Solid Waste Management (DSWM) when requested. Each school will be responsible for educating all staff and students. The County's DSWM will assist the public schools and FCC with outreach and education in the following ways:

- Providing education on the Department website
- Educating principals and administrative staff when requested by FCPS
- Attending outreach events when requested by FCPS
- Assisting with promotional and educational materials when requested by FCPS

Recycling Contract

FCPS has its own Recyclable Collection Service Agreement for recycling collection. Recyclables may be brought to the Frederick County solid waste management facility at Reichs Ford Road for recycling transporting and processing.

Recycling Contractor

The recycling contractor for the collection of recyclables will supply the schools with a limited number of internal collection containers to assist with the implementation of the program. Any additional bins that are needed will need to be purchased by each individual school.

3. List of County Schools

Elementary Schools

- Ballenger Creek Elementary School
- Brunswick Elementary School
- Carroll Manor Elementary School
- Centerville Elementary School
- Deer Crossing Elementary School
- Emmitsburg Elementary School
- Glade Elementary School
- Green Valley Elementary School
- Hillcrest Elementary School
- Kemptown Elementary School
- Lewiston Elementary School
- Liberty Elementary School
- Lincoln Elementary School
- Middletown Elementary School
- Middletown Primary School
- Monocacy Elementary School
- Myersville Elementary School
- New Market Elementary School
- New Midway Elementary School
- North Frederick Elementary School
- Oakdale Elementary School
- Orchard Grove Elementary School
- Parkway Elementary School
- Sabillasville Elementary School
- Spring Ridge Elementary School
- Thurmont Elementary School
- Thurmont Primary School

- Tuscarora Elementary School
- Twin Ridge Elementary School
- Urbana Elementary School
- Valley Elementary School
- Walkersville Elementary School
- Waverley Elementary School
- Whittier Elementary School
- Wolfsville Elementary School
- Woodsboro Elementary School
- Yellow Springs Elementary School

Middle Schools

- Ballenger Creek Middle School
- Brunswick Middle School
- Crestwood Middle School
- Governor Thomas Johnson Middle School
- Middletown Middle School
- Monocacy Middle School
- New Market Middle School
- Oakdale Middle School
- Thurmont Middle School
- Urbana Middle School
- Walkersville Middle School
- West Frederick Middle School
- Windsor Knolls Middle School

High Schools

- Brunswick High School
- Catoclin High School
- Frederick High School
- Governor Thomas Johnson High School
- Linganore High School
- Middletown High School
- Oakdale High School
- Tuscarora High School
- Urbana High School
- Walkersville High School

FCPS Charter School/Specialty Schools

- Carroll Creek Montessori School
- Frederick Classical Charter School
- Heather Ridge School
- Monocacy Valley Montessori School
- Rock Creek School

College Facilities

- Frederick Community College

All County schools, including charter and county-funded colleges (as listed in number three) will be incorporated into the Frederick County recycling program for collection, processing and marketing of recyclables. Newly opened schools will begin participating in the program within three months of the new school year session.

4. Program Implementation Schedule

Circa April 2009 – Completion of evaluation of public school recycling programs.

Circa April 2009 – Begin implementation of improvements to public school recycling programs resulting from the evaluation of the programs.

10/1/2010 – Deadline for which all Frederick County public schools must be participating in the Frederick County Public School Recycling Program plan.

5. Program Monitoring

The majority of monitoring of the program will be done by each individual school, namely whoever is responsible for collection and outreach within that school. The Frederick County Department of Solid Waste Management will monitor the external containers on occasions for contamination and report these findings to the FCPS Energy-Utilities Services Coordinator for contamination outreach at that school. The collection contractor will invoice FCPS and FCC directly for payment of services.

QUANTITIES

Quantities of materials recovered from the residential recycling program are provided in the Residential Recycling Program section. A recycling program summary of all recycling activity within Frederick County is presented in Table 3-2.

The Maryland Recycling Act of 1988 requires diversion of 20% by weight of the tonnage at the Frederick County solid waste management facility beginning in 1994. In 2012, the minimum required recycling rate was raised to 35%. Frederick County has exceeded this minimum by achieving a 46.71% recycling rate (51.71% waste diversion rate) in 2012, a 49.50% recycling rate (54.50% waste diversion rate) in 2013 and a 50.40% recycling rate (55.40% waste diversion rate) in 2014.

SPECIAL EVENTS RECYCLING PLAN

1. Special Events Subject to the Recycling Program

The Frederick County Department of Solid Waste Management has identified sixty-four (64) public sites within the County that fall under the scope of the law. The Frederick County Department of Solid Waste Management will notify the organizers of special events via direct mail to explain the requirements of the law including the materials that must be recycled (i.e., plastic, metal, glass containers, and paper) at the identified locations.

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

- a. Includes temporary or periodic use of a public street, publicly owned site or facility, or public park;
- b. Serves food or drink; and
- c. 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.

The County has identified public sites within the County that host or may host special events meeting the above criteria. These sites can be found in Appendix F. In addition to the sites listed individually, special events taking place on any local, State, or Federally-owned streets are also included in the Special Events Recycling Program (SERP).

2. Materials and Obligations

The SERP 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 deemed reasonably available, the special events organizer must provide for food scraps recycling, including provision of separate containers for organic and non-organic recyclables.

- a. Collection - 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;
- b. 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. Transporting recyclable materials to the Frederick County transfer station and paying the current prevailing tipping fee rate for commercial single stream recycling.
 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.

Recycling at a State-owned site must follow the State agency's recycling plan, or the SERP, whichever constitutes the greatest level of recycling. Recycling at a federally-owned site must follow any applicable federal recycling plan, or the SERP, whichever constitutes the greatest level of recycling. Recycling at municipally-owned sites must follow any additional regulations established by the municipality.

3. Stakeholders

Stakeholders that will be involved in implementing the law are:

- a. Special Events Organizer – Responsible for providing recycling bins and ensuring collection for recycling in accordance with the requirements in §9-1712, beginning October 1, 2015.
- b. The Maryland General Assembly- Responsible for legislation mandating the collection and recycling of recyclable materials from special events meeting the required criteria.
- c. Maryland Department of the Environment- Responsible for enforcement of environmental laws and regulations, such as the SERP.
- d. Frederick County Governing Body Responsible for adopting the MDE approved language of SERP for the Solid Waste Management Plan amendment.
- e. Frederick County Planning Commission - Responsible for reviewing and finding consistencies with the Comprehensive Plan regarding the Solid Waste Management Plan amendments, to include SERP.
- f. Frederick County Solid Waste Advisory Committee – Responsible for recommending to the Frederick County Council the soundest methods of waste disposal, recycling, and waste reduction; and advising the Frederick County Governing Body on specifically requested policy alternatives, such as SERP.
- g. Frederick County Department of Solid Waste Management – Communicate the requirements of the law to prospective special events organizers and owners/operators of publicly-owned sites in the County. Provide educational and outreach materials in electronic format to assist special events organizers in developing a recycling program. Update County's recycling plan to include the SERP and amend the County Solid Waste Management Plan.

4. Participating public sites in SERP are listed in Appendix F.

5. Program Monitoring

Department of Solid Waste Management and special events organizers will monitor progress and performance of the SERP. Recycling at events subject to the SERP will be ensured as follows:

- a. Notification will be sent via direct mail to all owners of public sites located within the County that host or may host special events meeting the specified criteria.

b. Access to an electronic fact sheet or other informational document outlining the requirements of the SERP will be distributed to each municipality and publicly owned site or facility within the County. Links to the information will be available on the on other agency's websites, for example the County Health Department's website, Frederick County Parks and Recreation's website and Community Development's website.

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

6. Program Enforcement

The Department of Solid Waste Management will notify via direct mail all municipalities and the owners of all public sites within the County, of the implementation requirements in accordance with Sections 9-1703 and 9-1712 of the Environment Article, Annotated Code of Maryland. Links to the information will be available on the County's website. The County Attorney's Office will determine if a County should enforce the law and what level of enforcement actions should be used. The law allows for fines to a person that violates the recycling or reporting requirements of the law or a civil penalty not exceeding \$50 for each day on which the violation occurs. Further, any penalties collected under the law shall be paid to the county, municipality or other local government that brought the enforcement action.

EXPORTED WASTES

Frederick County has been affected by the trend in the solid waste industry of construction and operation of private "mega" landfills. These very large landfills are built in rural areas and their main objective is to receive large volumes of waste for disposal. These landfills are very competitive and normally offer low tipping fees. The majority of the Frederick County exported waste is currently being trucked out of State, primarily to Pennsylvania and Virginia, to mega-landfills which are privately owned and operated.

Solid waste management facilities operated by neighboring counties generally do not accept imported waste; however, privately-owned and or operated solid waste facilities in other counties generally accept out-of-county waste. This percentage of the total solid waste stream is estimated at between 1-5%, although this percentage is variable based on economic conditions due to the generally protracted distances these facilities are located from Frederick County. This out-of-county tonnage is tracked by MDE and assigned to the applicable county of origin for annual reporting purposes if being received at State of Maryland permitted facilities. As previously discussed, recyclables and controlled hazardous substances are exported out-of-county for processing.

IMPORTED WASTES

MUNICIPAL WASTE INSPECTION PROGRAM

Private landfills and incinerators in the County only accept wastes generated within the particular facility. The only public land solid waste management facility, the Reichs Ford Road solid waste management facility, does not accept wastes generated outside the County. Landfill personnel perform frequent inspections of incoming loads to ensure out-of-county waste is not accepted. In the event a load of waste is deemed to be from outside the County, sanctions may be imposed on the hauler. The sanctions include a fine of up to \$1,000 and the possible suspension or permanent revoking of the company permits.

Frederick County strongly believes that no significant amounts of solid waste generated out-of-county are being disposed at the County solid waste management facility.

SLUDGE

Waste Water Sludges

Municipal waste water sludge may be imported from other regional waste water treatment plants into the County for land application at MDE-permitted agricultural sites through private contract arrangements. This may include, but not be limited to, wastewater sludge from the following treatment plants:

- City of Annapolis Water Treatment Plant
- Back River Water Treatment Plant
- Blue Plains Advanced Waste Water Treatment Plant (Washington, DC)
- Broadneck Water Reclamation Facility
- Broadwater Waste Water Treatment Plant
- Cox Creek Waste Water Treatment Plant
- Damascus Waste Water Treatment Plant
- Dorsey Run Advanced Waste Water Treatment Plant
- Freedom District Waste Water Treatment Plant
- Hanover Wastewater Plant (Hanover, PA)
- City of Havre de Grace Waste Water Treatment Plant
- Kent Narrows, Stevensville & Grasonville (KNSG) Wastewater Treatment Plant
- Leonardtown Wastewater Treatment Plant
- Little Patuxent Wastewater Treatment Plant
- Marlay Taylor Waste Water Treatment Plant
- Maryland City Waste Water Treatment Plant
- Mattawoman Wastewater Treatment Plant
- Ocean City Wastewater Treatment Plant
- Parkway Wastewater Treatment Plant
- Patuxent Water Treatment Plant
- Penn Township Waste Water Treatment Plant (Hanover, PA)
- Piscataway Wastewater Treatment Plant
- Rock Hall Wastewater Treatment Plant

- Seneca Wastewater Treatment Plant
- Sod Run Wastewater Treatment Plant
- Valley Forge Wastewater Treatment Plant (Valley Forge, PA)
- Wicomico Shores Wastewater Treatment Plant

RECYCLABLES

Table 3-2 provides a summary of documented quantities of recyclables collected within the County during 2015. A total of 114,545.62 tons of recyclables were reported to the County for 2015. Frederick County realizes that the quantities of recyclables reported to the County only reflect a portion of the recycling efforts by the commercial, industrial and institutional sectors of the community since reporting this information is voluntary.

CONTROLLED HAZARDOUS SUBSTANCES

Controlled hazardous substances generated within the County were exported out-of-county for processing or disposal.

SPECIAL MEDICAL WASTE

Fort Detrick Medical Incinerator Plant may burn off-site waste in the future. The ash would then go to the Fort Detrick Municipal Landfill.

COLLECTION SYSTEMS

Existing collections systems for municipal waste and recyclables are discussed below.

Municipal Waste

Most municipal solid waste collected within the County for disposal, ~~with the exception of Fort Detrick~~, is hauled to the Reichs Ford Road solid waste management facility, either directly by individuals or by municipal or commercial haulers. The City of Frederick provides collection of solid waste using municipal employees and equipment. The remainder of the incorporated municipalities contract directly with private haulers.

Citizens not living within an incorporated area of the County are free to contract with any private hauler or take their waste directly to the Reichs Ford Road solid waste management facility. Commercial and institutional establishments in the unincorporated area also contract directly with private haulers.

COMMERCIAL WASTE HAULERS

Based on a hauler survey conducted in February of 1990, approximately 90 percent of the non-rubble waste stream was delivered to the landfill via municipal or private haulers.

Waste generated at Fort Detrick is collected by Army personnel and hauled to the incinerator or landfill located on the facility. MSW collected by Fort Detrick may also be hauled to the County's solid waste management facilities. Fort Detrick's landfill may also accept non-burnable refuse and ash from the incinerator.

RECYCLABLES

Recyclables within Frederick County are collected either by private haulers, by residents taking the materials to the Reichs Ford Road solid waste management facility or by residents taking the materials to buy-back centers.

The County's Recycling Program currently includes municipal drop-off locations, the Reichs Ford Road Recycling Center and curbside collection for over 76,000 households in Frederick County as of December 2015. The County procures the contract for curbside collection service from a private sector hauler.

Recyclables collected from larger commercial, industrial and institutional sources are generally collected by private haulers contracted by the generating establishment.

Table 3-2 shows that 114,545.62 tons of Maryland Recycling Act materials were recycled in 2015.

Table 3-2: Maryland Recycling Act (MRA) Tonnage Report System – County Recycling Accounting Form – 2015

CATEGORY	Maryland Recycling Act Recyclables	Residential Recycling (TONS)	Commercial Recycling (TONS)	MRA Tons Recycled (TONS)
Metals	Aluminum Cans	181.69	222.07	403.76
	Mixed Cans (AL & Tin/Stl)	260.44	318.31	578.75
	Tin/Steel Cans	0.00	0.70	0.70
	White Goods	2,085.87	368.09	2,453.96
	Lead Acid Batteries	390.82	167.49	558.31
Paper	Newspaper	12,240.94	2,871.33	15,112.27
	Old Corrugated Cardboard	4,468.67	19,050.65	23,519.32
	Office/Computer Paper	0.00	1,815.89	1,815.89
	Mixed Paper	0.00	2,897.05	2,897.05
Compost/Mulch (Yard)	Grass	0.00	2.50	2.50
	Leaves	571.20	142.80	714.00
	Brush and Branches	2,652.00	1,768.00	4,420.00
	Mixed Yard Waste	11,030.52	7,353.68	18,384.20
	Food Waste	0.00	225.86	225.86
Plastic	Mixed Plastic	1,698.80	398.48	2,097.28
	Plastic – Shrink Wrap	0.00	83.06	83.06
	Plastic - Film	67.79	51.14	118.93
Glass	Mixed Glass	2,641.00	394.63	3,035.63
Other Materials	Pallets	0.00	653.19	653.19
	Textiles	0.00	15.46	15.46
	Scrap Tires	2,059.06	514.77	2,573.83
	Animal Protein/Solid Fat	0.00	954.40	954.40
	Electronics	518.93	233.14	752.07
	Other	0.00	32,736.40	32,736.40
Commingled Containers	Commingled Containers	0.00	438.80	438.80
TOTAL	Total MRA Recycling Materials	40,867.73	73,677.89	114,545.62

Marketing of Recyclables

Marketing of the majority of recyclables collected in Frederick County is accomplished by the private sector.

In the ***Residential Curbside/Dropoff Program, County Office Recycling Program and Frederick County Public Schools Recycling Program***, the marketing of recyclables is included in the County's "Recycling Agreement" with the Northeast Maryland Waste Disposal Authority.

In the County ***Yard Waste Recycling Program***, mulch and finished compost are "marketed" for purchase by residential and commercial customers.

In the ***Business Recycling Program***, businesses typically have their recycling collectors market their materials, or in some cases, such as large grocery or retail chains, market directly through their corporate headquarters.

Miscellaneous Items such as scrap tires, white goods, lead-acid batteries, motor oil and antifreeze, flexible foam, electronics and bulky/oversized rigid plastics are marketed directly by the County to area processors and end-users. If businesses directly haul or their recycling collector hauls the recyclables to the Frederick County solid waste management facility, then the marketing of recyclables is included in the County's "Recycling Agreement" with the Northeast Maryland Waste Disposal Authority.

Fluorescent and Compact Fluorescent Light Recycling

In accordance with Section 9-1703 (b) (11) and Section 9-1703 (g) (2) of the Environment Article of the Annotated Code of Maryland, counties are required to revise, by October 1, 2011, their recycling plan by addressing a strategy for the collection and recycling of fluorescent and compact fluorescent lights that contain mercury. Frederick County's current systems meet the requirements and shall remain in operation to encourage recycling and proper disposal of fluorescent lighting.

Frederick County currently accepts and will continue to accept fluorescents and compact fluorescent lights (CFLs) from residents at their bi-annual Residential Household Hazardous Waste (HHW) Day conducted at the Public Safety Training Facility, 5370 Public Safety Place in Frederick. This location is not expected to change since this facility is permitted by the State for collection of HHW. The County contracts its HHW collection through the Maryland Environmental Service (MES). The contractor may change from year to year, depending on which company best meets the financial and service needs of the County. This is a free program for Frederick County residents.

Currently, all fluorescents and compact fluorescent lights containing mercury are transported to NLR, Inc. in East Windsor, CT and treated as universal waste.

In addition, the County maintains an information and referral program in which generators of CFLs are directed to local businesses in the community that accept CFLs from both residential and commercial sources, such as The Common Market and Lowe's, as well as other private fluorescent lighting retail centers. This list is subject to change.

The County is currently and will continue to educate the public on proper disposal of these items, information on HHW days, and the most recent list of local businesses that accept these items on its recycling website and in the residential guidebook.

SOLID WASTE ACCEPTANCE FACILITIES

Data on existing solid waste acceptance facilities in Frederick County are presented in Table 3-3.

LANDFILLS

REICHS FORD ROAD SANITARY LANDFILL – SITE B

The replacement for the Reichs Ford Road Landfill (Site A) is the Site B Landfill located on adjacent property to the east. The facility is 530 acres. The disposal area will be comprised of 58 acres and will be divided into three cells. Construction of Cell 1 began in February 1996. Site B has a composite liner system comprised of a primary liner system, and a secondary liner system and a composite drainage net as a witness zone per RCRA requirements.

Cell 1, Site B operational since January 1997.

Cell 2, Site B operational since September 2001.

Cell 3, Site B operational in 2007.

Life expectancy is until year 2045 (assuming transfer operations).

Primary Liner System

- One to two feet of protective drainage layer containing eight-inch diameter, perforated HDPE lateral pipe serving as a Leachate Collection System (LCS)
- 16-ounce non-woven geotextile to cushion underlying geomembrane against puncture and abrasion
- 60-mil textured primary High Density Polyethylene (HDPE) as a barrier against leachate migration
- 0.25-inch geosynthetic clay liner to restrict migration of any leachate that might seep through the overlying HDPE

Secondary Liner System

Below the primary liner system is the secondary liner system which consists of (from top to bottom):

- One-foot protective drainage layer drainage layer containing six-inch diameter, perforated HDPE lateral pipe serving as a Secondary Leachate Collection System (SCS)
- 16-ounce, non-woven geotextile to cushion underlying geomembrane against puncture and abrasion
- Two foot of clay to restrict migration of any leachate that might seep through the overlying HDPEs.

Below the secondary liner system is a composite drainage net to detect leachate from the overlying clay.

The leachate collection system is installed with a minimum 2% slope to facilitate gravity flow of leachate to the sumps. The secondary leachate collection pipes will convey any potential leachate leaks to the secondary leachate sumps at the lowest elevation of the phase. Leachate is conveyed

to the Ballenger-McKinney WWTP via the Bush Creek interceptor sanitary sewer line for full treatment.

FORT DETRICK LANDFILL

Fort Detrick in the City of Frederick constructed a lined sanitary landfill that began operation in October, 1990. Leachate is collected and discharged to the facility's sanitary sewer system. The Fort Detrick Landfill is projected to reach capacity in 2093.

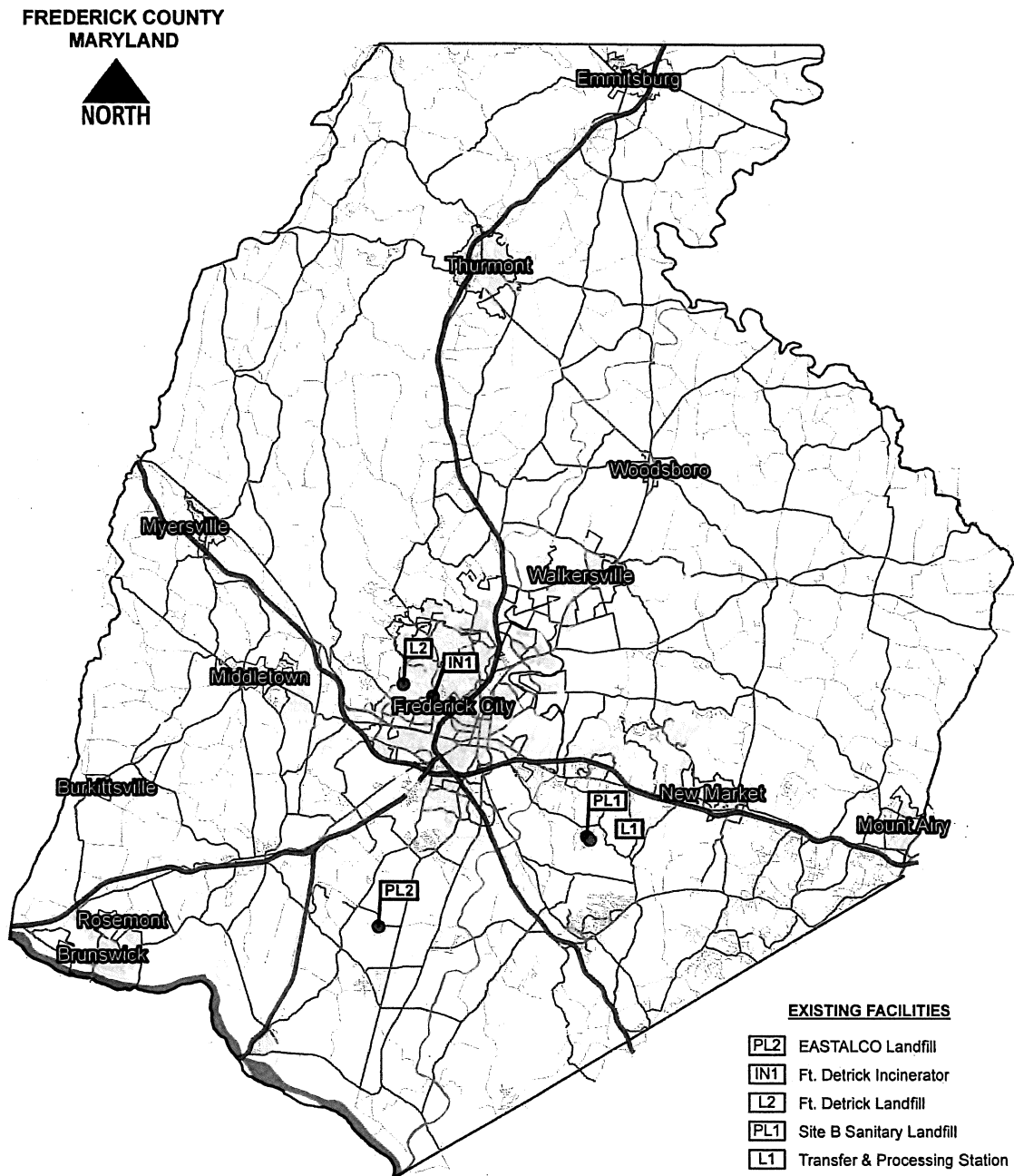
SITE B SOLID WASTE PROCESSING FACILITY & TRANSFER STATION

To preserve disposal capacity at the Reichs Ford Road Landfill, the County permitted and constructed a permanent solid waste transfer facility. The transfer station became operational on January 17, 2009. The landfill would continue in operation at a reduced tonnage acceptance rate to serve as a buffer to transfer operations and as an alternative waste management option in the event that conditions develop that preclude solid waste transfer to another disposal site.

Table 3-3: Solid Waste Acceptance Facilities

EXISTING							
Facility	Figure 3-2 ID	MD Coordinates	Size (Capacity)	Waste Accepted	Owner	Status - Refuse Disposal Permit	Life (Years)
Site B Solid Waste Processing Facility & Transfer Station	L1	560,000N 700,000E	720,000 Tons Annually	Residential Commercial Institutional Sludge Asbestos Rubble	Frederick County	Yes	N/A
Fort Detrick Landfill	L2	585,000N 671,750E	61 Acres	Other Bypass Waste Incinerator	U.S. Army	Yes	815
Fort Detrick Incinerator	IN1	583,000N 676,500E	(2 @ 1,000 pds/hr) (2 @ 2,000 pds/hr)	Special Medical Waste MSW	U.S. Army	Yes	
Site B Landfill Status: Cell 1 - Site Operational 1/1997 Cell 2 - Site Operational 9/2001 Cell 3 - Site Operational 2007	PL1	560,000N 700,000E	183 acres	Residential Commercial Institutional Sludge Asbestos Other	Frederick County	Yes	30 years (assuming transfer operation)
EASTALCO New Landfill	PL2	545,000N 668,000E	10 acres	Potliner Brick	EASTALCO, Inc.	Yes	>25

**FIGURE 3-2
SOLID WASTE ACCEPTANCE FACILITIES**



(SEE TABLE 3-4 FOR FACILITY IDENTIFICATION)
APPROXIMATION LOCATION ONLY

The Fort Detrick landfill accepts incinerator ash, non-burnable waste, animal bedding and water treatment plant sludge. The landfill receives approximately 13 tons of waste weekly. Conversations with personnel at the Army Headquarters of Fort Detrick have provided general information concerning policies for solid waste management within the facility. The waste generated within the facility is disposed of on-site, with the exception of recyclables and controlled hazardous substances. The waste generated at the facility is either incinerated or landfilled on-site.

EASTALCO LANDFILL

The EASTALCO plant operated a permitted 10-acre industrial waste. The plant is currently closed with no production. During active operations the plant disposed of approximately 17 tons of potliner brick and pollution control device debris each day.

INCINERATORS

FORT DETRICK INCINERATOR

Fort Detrick has four incinerators in the same building. Processible solid waste burned at the complex includes medical, residential, commercial and institutional waste. The incinerator complex processes approximately 11 tons of waste per day.

FREDERICK MEMORIAL HEALTHCARE SYSTEM INCINERATOR

The incinerator at the Frederick Memorial Healthcare System processes medical wastes obtained from the hospital and other sources within the County. The facility processes approximately 220 pounds of special medical waste each day.

OTHER MANAGEMENT FACILITIES

RECYCLABLE DROPOFFS

Frederick County operated 11 satellite drop-offs through July 1, 2011. The satellite drop-offs provided collection for single-stream recyclables, the same that are accepted in the curbside program. With the full expansion of the Curbside Recycling Program in 2009 to all residential single-family homes, the Board of County Commissioners ceased the County-sponsored residential satellite recycling drop-off center program effective July 1, 2011.

The Reichs Ford Road Solid Waste Management Facility provides for collection for recycling of the items that were collected at the satellite drop-offs as well as motor oil, antifreeze, lead-acid batteries, scrap metal, large appliances, electronics, scrap tires, bulky/oversized rigid plastics, and flexible foam.

ESSROC TIRE RECYCLING

ESSROC Cement Corporation near Buckeystown decommissioned its cement kiln and therefore no longer uses waste tires as supplementary fuel for the cement kilns.

BALLENGER-MCKINNEY WASTEWATER TREATMENT PLANT (WWTP)

The Ballenger-McKinney WWTP is owned and operated by Frederick County and is located south of the City of Frederick. In addition to wastewater, the WWTP accepts sewage sludge and septage generated with the County. In 2015, the plant accepted over 212,000 gallons per month, which is approximately 7,000 gallons per day of septage.

FREDERICK MEMORIAL HEALTHCARE SYSTEM ROTOClave MEDICAL WASTE PROCESSING SYSTEM

The Rotoclave at Frederick Memorial Healthcare System processes medical wastes obtained from the Main Campus hospital and satellite facilities owned and operated by Frederick Memorial Healthcare. The facility processes 220 pounds of medical waste each day.