

3.0 THE EXISTING SOLID WASTE MANAGEMENT SYSTEM IN CARROLL COUNTY

3.1 EXISTING AND PROJECTED WASTE GENERATION, BY CATEGORY

Carroll County was not developing accurate data on Municipal Solid Waste (MSW) until 1990 when landfill scales were put into operation. Since that time, the management-information needs have added new categories of waste. This actual data and projections are shown in various tables at the end of this chapter.

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

The Code of Maryland Regulations (COMAR) Section 26.03.03.03D requires this Plan to identify and quantify 12 specific categories of waste:

- 1) Residential (household, domestic) wastes;
- 2) Commercial wastes;
- 3) Industrial (non-hazardous) solids, liquids and sewage sludge wastes;
- 4) Institutional (schools, hospitals, government buildings);
- 5) Land clearing and demolition debris (rubble);
- 6) Controlled hazardous substances;
- 7) Dead animals;
- 8) Bulky or special wastes (automobiles, large appliances, etc.);
- 9) Scrap Tires;
- 10) Wastewater treatment plant sludge;
- 11) Septage; and
- 12) Other wastes, i.e., grease, that may be potentially generated in significant volumes, would necessitate specialized handling as a result of their character.

3.1.1 WASTE GENERATED IN CARROLL COUNTY

3.1.1.1 RESIDENTIAL WASTE GENERATION

Due to a variety of waste counts and characterizations, only approximations of Carroll County's residential waste generation can be made. Table 3-1 indicates about 101,501 tons (excluding rubble and sewage sludge) of MSW either comes to the landfill for transfer or is taken directly out of County. We believe that roughly 50% of this waste is residential. As the Countywide demographic data indicates 64,142 households, the true

residential generation rate is under one ton (1,582 lbs. per year) per household. For purposes of overall projection (Table 3-1), all categories of waste have been combined as they are recorded as mixed MSW and commercial MSW.

3.1.1.2 COMMERCIAL WASTE GENERATION

Commercial wastes in Carroll County are those generated by business, industry, apartment and condominium complexes and delivered by front loader trucks or in rolloff containers. Due to the lack of regulatory authority to require waste discrimination, industrial and institutional wastes, with the exception of biohazardous medical wastes, are also included in the commercial figures.

Based on data compiled from landfill weigh records, the County's waste stream, residential vs. commercial, is approximately 50%-50% split. Some of the County's larger private sector employers include Penguin/Random House, General Dynamic Robotic Systems, Northrop Grumman, Jos. A. Bank Clothiers, EVAPCO, English American Tailoring, Knorr Brake, Marada Industries and Flowserve Corporation.

3.1.1.2.1 APARTMENT BUILDING AND CONDOMINIUM RECYCLING (ABCR) PROGRAM

In 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 becomes effective on October 1, 2012 (amending Section 9-1703 of the Environment Article, Annotated Code of Maryland). Section 9-1703 (b) (12) and (13) of the Environment Article, Annotated Code of Maryland requires Carroll County to revise its recycling plan within the Solid Waste Management Plan and implement the ABCR Program by October 1, 2014.

A. Apartment Building and Condominium Recycling Program

Through the cooperation of the Carroll 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 115 apartment buildings and condominiums that fall under the scope of the law. The County Office of Recycling has notified the apartment and condominium officials 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 the 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, or request their hauler to report, to the County on an annual basis details on the required recycling activities. Other program requirements include:

1. **Materials Included in Program**
Recyclables must include at a minimum: plastic, metal, glass containers, and paper.
2. **Collection of Materials**

Apartment and condominium officials are responsible for providing 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. Appropriate containers clearly marked for recycling are to be used for the collection of a building's recyclable materials. Residents will be responsible for placing recyclables in building recycling bins prior to their removal on the scheduled pick up day.

3. Marketing of Materials

Apartment and condominium officials are responsible for the marketing of their recyclables. The apartment and condominium officials shall submit, or require their contracted hauler to submit, annual reports detailing the recycling tonnage removed from the apartment and condominium and the markets for the materials.

B. Stakeholders

Stakeholders that will be involved in implementing the law are:

1. 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 services from 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 recycling centers or markets. Perform record keeping and may report to the County on an annual basis.
2. Department of Public Works, Bureau of Solid Waste, Carroll County Office of Recycling-Communicate the requirements of the law, provide education, outreach and assist the apartment and condominium officials in developing a recycling program. Monitor progress and performance of the ABCR program. Update Carroll County's recycling plan to include the ABCR program and amend the County Solid Waste Management Plan. Develop a recycling reporting survey to be used by apartment and condominium officials in reporting recycling activities.
3. Carroll County Planning Commission-Responsible for reviewing and finding consistencies with the Comprehensive Plan regarding the Solid Waste Management Plan amendments, to include the ABCR Program.
4. Carroll County Board of Commissioners-Responsible for adopting the Maryland Department of the Environment approved language of

the Apartment Building and Condominium Recycling Program for the Plan amendment.

5. Maryland Department of the Environment-Responsible for the enforcement of environmental laws and regulations, such as the Annotated Code of Maryland, Environment Article §9-1703 (b) (12) and (13) requiring the collection and recycling of recyclable materials from residents of all apartment buildings and condominiums with 10 or more dwelling units by property owners or managers of apartment buildings and councils of unit owners of condominiums.

C. Participating Apartment Buildings or Condominiums in ABCR Program

See list (Table 3-2) of Participating Apartment Buildings and Condominiums.

D. Schedule for the Development and Implementation of the Program

The ABCR Program will be implemented according to the following schedule:

1. County will distribute the Maryland Department of the Environment approved language of the ABCR Program to the apartment and condominium officials for ABCR Program implementation.
2. On or before March 1, 2014, apartment and condominium officials will educate the residents about the ABCR Program and discuss the requirements of the law.
3. On or before May 1, 2014, apartment and condominium officials will provide training or assistance to the residents and advise them of the date when the residents can start collecting the materials.
4. 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 materials at the participating apartment and condominium.

E. Program Monitoring

The County Office of Recycling shall oversee the progress and performance of the ABCR program. However, the apartment and condominium officials will conduct inspections, review service levels, investigate reported or unreported pick-up and disposal complaints, meet with residents or recycling 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 have available educational materials regarding current and new recycling 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.

F. Program Enforcement

The County Office of Recycling will notify the apartment and condominium officials of the implementation requirements in accordance with Sections 9-1703 and 9-1711 of the Environmental Article, Annotated Code of Maryland. The County Attorney's Office will determine if the law should be enforced 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 civil penalty not exceeding \$50 for each day on which the violations occurs. Further, any penalties collected under the law shall be paid to the county, municipality, or other local government that brought the enforcement action.

3.1.1.3 INDUSTRIAL (NON-HAZARDOUS) SOLID, LIQUID AND SEWAGE SLUDGE WASTE GENERATION

Carroll County has limited industrial facilities within its boundaries. Only a few of those could be classified as light to medium industry, the most prevalent type being service and construction related (see Table 3-3).

Business and industry in Carroll County rely on either private waste management companies that offer full service hauling and disposal or commercial haulers and government disposal facilities. All industrial solid wastes brought to County facilities by commercial haulers are included in the commercial tonnages. Limited figures exist for contract hauling out of Carroll County to independent processing, treatment or disposal facilities.

Industrial waste is both homogeneous and heterogeneous, depending on the generators. Of the major categories of waste listed in Table 3-1, construction industry wastes, i.e., demolition debris and construction wastes (rubble) are reflected in the commercial tonnages and are also discussed in Section 3.1.1.5. Most of the County's industrial plants are in the business of manufacturing by assembling and warehousing.

As most of the County's industrial facilities are located near or within the boundary of one of the incorporated towns, most are serviced by municipal sewer. Therefore, nonhazardous liquid wastes are discharged into those sewer systems and directed to associated treatment plants. These plants (see Section 3.1.1.10) are located in the towns of Westminster, Manchester, Hampstead, Union Bridge, New Windsor, Taneytown and Mount Airy as well as near the Town of Sykesville in the Freedom district. No data is available for liquid waste that is discharged by industrial plants directly into sewer systems. Industrial facilities that are not serviced by public sewer have their own septic systems. These facilities are prohibited from discharging controlled hazardous substances, including hazardous wastes, into those systems. Processed wastewater is generally recycled, if possible, and discharged through an NPDES permitted discharge (see Figure 3-1). As with solid wastes, industry is generally attempting to limit waste as every gallon that is discharged carries with it a cost.

Carroll County has no unique industrial wastes. Most industrial waste is indiscriminate as to its composition from most commercial waste; no attempt has been made to segregate industrial (non-hazardous) from commercial when recording tonnages. All non-hazardous industrial solid wastes brought to County facilities are recorded as commercial and are projected with the total commercial waste stream.

3.1.1.4 INSTITUTIONAL WASTES

Institutional wastes are inclusive of those generated in government offices, schools, hospitals, clinics and other similar facilities. Just as with industrial waste, all nonhazardous, non-medical institutional waste is included in the total tonnages listed as commercial, (see Section 3.1.1.2). Removal, treatment and disposal of medical (biohazard) wastes generated in hospitals and clinics are contracted with independent licensed collectors and removed for treatment to the Baltimore Regional Medical Waste Incinerator special medical waste-incinerator in Baltimore. Specific quantities are not available.

3.1.1.4.1 PUBLIC SCHOOL RECYCLING

In July, 2009, the Maryland General Assembly passed House Bill 1290, Environment- Recycling-Public School Plans requiring recycling in all publicly-funded schools. This bill requires each county's recycling plan to implement a strategy for collecting, processing, marketing, and disposing of recyclable materials from its public schools. It is mandated to have a plan in place by October 1, 2010.

3.1.1.4.2 CURRENT PROGRAM

Carroll County Public Schools and Carroll Community College operate under the same recycling program and have been provided a recycling container for the collection and pick up of cardboard and paper. As part of the Plan, county owned front end collection containers (e.g. 8 cubic yard dumpster) are in place. The Carroll County Recycling Operation implemented single stream recycling in the public schools to increase waste reduction and recycling in September 2008. Carroll County Public Schools has spent approximately \$17,000 purchasing blue recycling collection containers for each classroom, office, cafeteria, and stadium/sports field area in order to provide containers for recyclable material. The Community College has provided single stream collection containers throughout the campus and cafeteria. Meetings will be scheduled to update school operations staff of the plan by the Carroll County Recycling Operations if any are needed. Carroll County Public Schools and Carroll Community College will include the following items in their single stream recycling program to be collected and marketed by Waste Management Recycle America:

- Narrow-neck empty plastic containers #1-7
- Wide-mouth plastic containers
- Any empty metal food and beverage containers, including aluminum or other metals
- Glass containers such as empty jars and bottles
- Juice boxes, aseptic packaging
- Milk and juice gable end containers
- Cardboard and paperboard boxes, brown paper bags
- Office papers, envelopes, fax, copy letterhead, and computer print out
- Magazines, catalogs and junk mail
- Books, paperbacks, hardbacks, textbooks, telephone

Other Materials collected:

Evaluations will be made by the Carroll County School Board each year to assess the collection and marketing of additional materials to be included in the Carroll County Public School Program. Recycling contractors are responsible for marketing and recycling the following additional materials.

Antifreeze/Waste Oil/Oil Filters

The Career and Technology Center collects antifreeze, waste oil, and oil filters from the Auto Services Program.

Batteries

Carroll Community College has a battery drop-off on campus for rechargeable and other types of small batteries. Carroll County Career and Technology Center recycles automobile batteries.

Composting

Education about composting is available to schools by the Office of Recycling in conjunction with the Carroll County Master Gardeners. Carroll Community College is currently evaluating partnering with the campus “Green Team” to include composting in the cafeteria. Carroll County Career and Technology has a Culinary Arts and Horticulture Program where they have composted for use with the Horticulture Program. It is re-evaluated each school year.

Construction/Building Material

Masonry material used in the Masonry and Construction program at the Career and Technology Center is ground up and used in road bed.

Electronics

A revenue generating program is in place by the public school operations to collect and consolidate computers, monitors, laptops, keyboards and mice. Carroll County Career and Technology has a program to collect cell phones and toner cartridges. The proceeds are put toward the student SkillsUSA Program. Carroll Community College has an agreement to recycle their electronic equipment. There is no charge and no revenue due to an abundance of cabling. They will also pick up quantities of less than a tractor trailer load saving the college storage space. It is estimated that 4.2 tons of electronics were picked up in 2009.

Kitchen Grease/Oil

Kitchen Grease and Oil from the Career and Technology Culinary Program is collected. The program is currently being re-evaluated to find a vendor to recycle this product into high energy fat used in animal feeds or into bio-fuel for traditional fossil fuels.

Metals

Scrap metals, from the Carroll County Career and Technology Center Machine Shop, Auto Services and Collision Shop, such as aluminum, brass, copper, lead wheel weights and steel is marketed to two local recyclers within the county. Private donations of automobiles are recycled as scrap. Any donations from dealerships for educational purposes are returned to the manufacturer for recycling.

Aluminum beverage cans are collected within the Carroll County Career and Technology Center. The revenue is used to help defray costs for student participation in SkillsUSA programs. This includes local, state and national competitions in which students demonstrate occupational and leadership skills.

Textiles

Scrap fabric from the Textiles and Fashion Program are made into “Hug Bunnies” and donated to Johns Hopkins pediatrics. Other scrap fabric is made into blankets and donated to Sheppard’s Staff Shelter in Westminster.

Yard Waste

Carroll County Public Schools has a program in place to collect tree trimmings and yard waste and deliver to Westminster Lawn Service Inc. or to the Northern Landfill to be mulched or composted.

Recycling contractors are responsible for reporting all recyclable materials weights and markets sold to, by February 1, annually to the Carroll County Bureau of Solid Waste, Recycling Operation.

3.1.1.4.3 ADMINISTRATION AND MANAGEMENT

The Carroll County Bureau of Solid Waste, Recycling Operation has designated that the Carroll County School Board be responsible for the administration of the Public School Recycling Program in all publicly-funded schools, including kindergarten through high school grades, trade schools, and colleges. Carroll County Office of Recycling mandated that all Carroll County Public Schools be participating by October 1, 2010. This responsibility includes the management of recyclable materials to include the current and any future additions to the Carroll County acceptable single stream items list. Any changes and updates to the Public School Plan are the responsibility of the Carroll County Director of School Facilities (410-751-3113) and are to be submitted every two (2) years to the Carroll County Bureau of Solid Waste (410-386-2035) 225 N. Center Street, Westminster, MD 21157. Changes to the collection, marketing and processing of recyclable materials in the Carroll County Public Schools are to be submitted by the Supervisor of Plant Operations (410-751-3470) within 30 days of the change. The Director of Facilities Management (410-386-8494) is responsible to submit any changes to any programs, collection, marketing and processing of recyclable materials from the Carroll Community College within 30 days of the change.

Single stream Recycling from the Carroll County Public Schools and Carroll Community College is currently under contract collection and the responsibility of the Carroll County Department of Public Works and consists of routed pick-ups to 44 schools and 3 support facilities in conjunction with pickups from other public service facilities and libraries. Material from these collections are brought to the Northern Landfill transfer station and transferred by compactor truck to Recycle America, a subsidiary of Waste Management, Inc., 7175 Kit Kat Road, Elkridge, MD 21075. It is the responsibility of the Department of Public Works to provide schools listed in the program (1) 8 yard container for single stream with the exception of Francis Scott Key High School having two (2) and Carroll Community College with seven (7). Every school is scheduled one pick up per

week per container. Additional containers and or pickup of recyclable materials from the schools will be made available by the Bureau of Solid Waste if collection warrants.

All contracted haulers must recycle all recyclable materials collected. Any new or replacement contracts the school board enters into for hauling recycling material, other than Carroll County Department of Public Works, must include a plan of how the recyclable materials will be collected, marketed and recycled and submitted to Carroll County Bureau of Solid Waste, from the school board, within 30 days of the change for approval. The County School Board request for new contract from other than the Department of Public Works will be reviewed within 30 days of submission of the change for approval.

The individual schools have the responsibilities of making sure that all materials mentioned in the plan will be collected and hauled from the schools in a timely manner.

The processing, marketing and disposition of recyclable single stream materials is handled through Recycle America through 2013. Recycle America was awarded the recycling contract effective July 1, 2003 through June 30, 2008 with two additional five-year renewal options. This will be monitored by the Carroll County Bureau of Solid Waste and Recycling. As of October 1, 2010 all County Public Schools will be participating in this recycling program.

The Carroll County School Recycling Program will be reviewed every three years and adjusted accordingly as part of the Solid Waste Management Plan.

3.1.1.4.4 SCHOOLS IN THE PROGRAM:

ELEMENTARY

Carrolltowne
6542 Ridge Road, Sykesville 21784

Charles Carroll
3719 Littlestown Pike, Westminster 21158

Cranberry Station
505 North Center Street, Westminster 21157

Ebb Valley
3100 Swiper Road, Manchester 21102

Eldersburg
1021 Johnsville Road, Sykesville 21784

Elmer A. Wolfe
119 North Main Street, Union Bridge 21791

Freedom District
5626 Sykesville Road, Sykesville 21784

MIDDLE

Mount Airy
102 Watersville Road, Mount Airy 21771

New Windsor
1000 Green Valley Road, New Windsor 21776

North Carroll
2401 Hanover Pike, Hampstead 21074

Northwest
99 Kings Drive, Taneytown 21787

Oklahoma Road
6300 Oklahoma Road, Sykesville 21784

Shiloh
3675 Willow Street, Hampstead 21074

Sykesville
7301 Springfield Avenue, Sykesville 21784

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Friendship Valley 1100 Gist Road, Westminster 21157	Westminster East 121 Longwell Avenue, Westminster 21157
Hampstead 3737 Shiloh Road, Hampstead 21074	Westminster West 60 Monroe Street, Westminster 21157
Linton Springs 375 Ronsdale Road, Sykesville 21784	HIGH Century 355 Ronsdale Road, Sykesville 21784
Manchester 3224 York Street, Manchester 21102	Francis Scott Key 3825 Bark Hill Road, Union Bridge 21791
Mechanicsville 3838 Sykesville Road, Sykesville 21784	Liberty 5855 Bartholow Road, Eldersburg 21784
Mount Airy 405 North Main Street, Mount Airy 21771	Manchester Valley 3300 Maple Grove Road, Manchester 21102
Parr's Ridge 202 Watersville Road, Mount Airy 21771	North Carroll 1400 Panther Drive, Hampstead 21074
Piney Ridge 6315 Freedom Avenue, Sykesville 21784	South Carroll 1300 West Old Liberty Road, Sykesville 21784
Robert Moton 1413 Washington Road, Westminster 21157	Westminster 1225 Washington Road, Westminster 21157
Runnymede 3000 Langdon Drive, Westminster 21158	Winters Mill 560 Gorsuch Road, Westminster 21157
Sandymount 2222 Old Westminster Pike, Finksburg 21048	OTHER Carroll County Career and Technology Center 1229 Washington Road, Westminster 21157
Spring Garden 700 Boxwood Drive, Hampstead 21074	Carroll County Outdoor School Hashawha Environmental Center 300 John Owings Road, Westminster 21158
Taneytown 100 Kings Drive, Taneytown 21787 300	Carroll Springs School 495 South Center Street, Westminster 21157
Westminster 811 Uniontown Road, Westminster 21158	Gateway School 45 Kate Wagner Road, Westminster 21157
William Winchester 70 Monroe Street, Westminster 21157	South Carroll Career and Technology Center 1300 West Old Liberty Road, Sykesville 21784
Winfield 4401 Salem Bottom Road, Westminster 21157	C.L.A.S.S. (Community Learning and Suspension Service) Program/Flexible Student Program

Carroll Community College
1601 Washington Road
Westminster, MD 21157-6913

225 Kate Wagner Road, Westminster
Transportation Department
125 North Court Street, Westminster

3.1.1.4.5 COLLECTION SCHEDULE

Single stream recycling from the Carroll County Public Schools and Carroll Community College is currently under contract collection and the responsibility of the Carroll County Department of Public Works and consists of routed pick-ups to 44 schools and 3 support facilities in conjunction with pick ups from other public service facilities and libraries. Material from these collections are brought to the Northern Landfill transfer station and transferred by compactor truck to Recycle America, a subsidiary of Waste Management, Inc., 7175 Kit Kat Road, Elkridge, MD 21075. All schools listed in the program are designated one (1) 8 yard container for single stream with the exception of Francis Scott Key High School having two (2) and Carroll Community College with seven (7). Every school is scheduled one pick up per week per container. Additional containers and or pickup of recyclable materials from the schools will be made available by the Bureau of Solid Waste if collection warrants.

3.1.1.4.6 OPERATIONS MANAGEMENT

The Bureau of Solid Waste, Recycling Operations will monitor Public School recycling to ensure participation. The bureau will report to the Director of Facilities and Supervisor of Plant Operations any issues within 60 days of finding changes to the program and collaborate on steps needed to correct any deficiencies and areas of improvement.

3.1.1.4.7 ENERGY CONSERVATION POLICY

Carroll County Public Schools is evaluating their current policy to include new initiatives for conservation resources.

3.1.1.5 CONSTRUCTION AND DEMOLITION DEBRIS

Construction and demolition (C&D) debris is material generated as a by-product of building demolition, construction and renovation, site clearance, excavation and roadwork. C&D materials vary greatly depending on the project, although certain components are found in each construction category.

Building Demolition Mixed rubble, concrete, metal, pipes, bricks, timber, with some other waste from fixtures and fittings and soil.

Construction/Renovation Waste includes wood, roofing, fixtures, wallboard, insulation materials, pieces of ducts and pipes and carpet remnants.

Site Clearance Trees, brush, stumps, soil, and potential for mixed concrete, rubble, together with some extraneous paper, plastics, and other waste materials.

Excavation Mostly earth, soil, stones (sometimes contaminated with site clearance wood waste and buried pipes).

Roadwork Mostly asphalt, concrete (with/without reinforcing bar) and soil.

A relatively large volume of land clearing debris is common in a developing area such as Carroll County. Historically, most contractors traditionally buried such materials on the job site. Changes in Maryland regulations now prohibit that act. Construction and land clearing debris must be disposed of in a licensed landfill or it can be processed and recycled. Other options, such as controlled burning of debris, are still permitted; however, a permit is required through the Carroll County Health Department (burning is prohibited from June 1 through August 31). Conditions relative to alternatives to on-site disposal have become increasingly restrictive as well as expensive. Carroll County has traditionally received numerous complaints concerning buried debris dump sites and is now prohibiting on-site disposal of land clearing debris. Due to the existence of karst topography, Carroll County maintains a sinkhole registry and assists landowners with repairs. Many of the sinkholes reported are not from the solution of limestone by water, but rather are the result of the burying and subsequent decomposition of organic land clearing debris (stumps, logs, brush, etc.) in recently established residential developments, i.e., less than 25 years old. Residents generally encounter extreme difficulties in filling such sinkholes due to the relatively slow and persistent rate of organic decomposition.

Current regulations require contractors to secure off-site disposal locations for land clearing and demolition debris.

There are categories of material that are not accepted at the County landfill, i.e., stumps (see Appendix C, Solid Waste Ordinance).

About 10,000 to 12,000 tons of this type of material makes its way to the County landfill each year. The Northern Landfill included two rubble cells (Cells R-1 and R-2) in its design. The cells were filled in numerical order. Cell R-1 opened in 1988 and reached capacity in 1992, and was capped in 1994. Cell R-2 opened in 1992, reached capacity in 1996, and was capped in 1998. Total capacity for both cells was 93,350 C.Y. Since 1996, acceptable rubble is being placed in the lined cell of the Northern Landfill or diverted through the transfer.

Material, such as removed roadbed material, masonry and stone debris, is often taken to the one commercial recycling facility located in Carroll County, C. J. Miller, LLC in Finksburg. C. J. Miller crushes and then reuses such material as aggregate. Contractors are encouraged to take clean, segregated concrete, asphalt, stone and masonry debris material to C. J. Miller. Often, however, the material is mixed with soil and other debris making it difficult to recycle. In such cases, the resultant material is disposed of in the landfill cell.

3.1.1.6 CONTROLLED HAZARDOUS SUBSTANCES

The total of Controlled Hazardous Substances, as defined in COMAR, is not limited to waste. No data on volume is available for such substances in Carroll County. A map showing the location of the RCRA Notifiers/Handlers is shown on Figure 3-2. This reflects the numbers of facilities that store such materials on-site. Most of the controlled substances are used in the facilities processes. There is always some residual and, in the

case of substances such as solvents used for tool and machine cleaning, contractors are generally employed that supply both the usable solvent and remove the used solvent.

3.1.1.7 DEAD ANIMALS

Dead farm stock is a large part of the dead animal issue in Carroll County. In 1983, four rendering plants were in operation in central Maryland. In addition, another operated in southern Pennsylvania. Only Valley Proteins, Inc. remains in Baltimore and they do not accept cattle. The plant does accept horse carcasses.

Carroll County farmers generally bury or compost dead stock on their farms; however, disposal options such as rendering plants or the landfill may be necessary when large numbers of stock are affected. The Northern Landfill does accept dead stock when necessary.

In addition to dead stock, road kills of wild animals must also be managed. Road kills picked up by County road crews are brought to the Northern Landfill.

3.1.1.8 BULKY OR SPECIAL WASTES (AUTOMOBILES, APPLIANCES, ETC.)

Scrap automobiles in Carroll County are handled through private industry (see Figure 3-3). Carroll County facilities do not accept whole scrap automobiles or automobile parts as per the Solid Waste Ordinance. Individuals contract with private dealers for removal, recycling and disposal of automobile wastes. Some tonnages are available through recycling reports. The automotive recycling industry is a complex one that is highly variable. Some recyclers only deal with the acceptance, dismantling and recycling of vehicles.

Bulky wastes like appliances ("white goods"), are accepted at County facilities at no charge. All of the accepted "white goods" are recycled through a contractor. All items containing chlorofluorocarbons (CFCs) and other coolants are appropriately purged, documented and crushed. Carroll recycled 6,650 tons of "white goods" in 2014. Projections have been based on that data and are listed in Table 3-1.

3.1.1.9 SCRAP TIRES

Carroll County operated a scrap tire shredding and landfill disposal program until the early 1990's. Large off-road scrap tires that could not be shredded, approximately 100 per year, were anchored and placed in Rubble Cell #1 at the Northern Landfill.

Currently, all acceptable scrap tires are handled through a contractor to be hauled out of the County for recycling or processing at licensed facilities.

3.1.1.10 WASTEWATER TREATMENT PLANT SLUDGE

Treatment for the removal of pollutants results in the production of sewage sludge and, as standards become tighter, sewage sludge production also increases. The predominant method of sewage sludge management has traditionally been land application. As Carroll is a county of traditional agricultural use, many farm owners are solicited to accept sewage sludge for land application (see Figure 3-4). Regulations do not allow sewage sludge to be applied on fields where crops are grown for direct human consumption, such

as vegetables; however, sewage sludge can be applied on fields where livestock feed is grown.

There are eight publicly-owned community water supplies and sewerage systems in Carroll County, and 31% of Carroll's population lives within incorporated towns. In all cases, the planned service areas extend beyond the towns' limits. However, except for the Westminster system, all other towns require that the property be within their corporate limits or the property must be annexed in order to receive public water and sewer. Forty-five percent of the County's population has the benefit of a public water supply while 48% have sewer service.

Carroll County owns or operates five wastewater treatment plants. These plants service the Hampstead and Freedom areas as well as South Carroll High School, Runnymede Elementary School, and Pleasant Valley. Hampstead is operated by County personnel while Freedom is operated under contract by the Maryland Environmental Service (MES). Sewage sludge volumes are illustrated on Table 3–4.

There are six other publicly owned sewage treatment plants located within Carroll County's towns: Manchester, Mount Airy, New Windsor, Taneytown, Union Bridge and Westminster. Each of these is operated by the incorporated town that they service. Tonnages for these plants are illustrated in Table 3–4. Four of the towns, Mount Airy, Taneytown, Union Bridge and Westminster, have contracts for land application of sewage sludge. That application is accomplished under a permit from the Maryland Department of the Environment. All of Manchester's sewage sludge is landfilled and in the winter all of the plants may use landfill disposal as land application is not possible. New Windsor has not generated sufficient sewage sludge to necessitate dredging of their lagoon.

There are three privately owned and operated treatment plants in Carroll County: Bowling Brook School, Pheasant Ridge Estate and Hampstead Industrial Center.

As landfill disposal is often necessary, special conditions have been established. The Carroll County Solid Waste Ordinance (Appendix B) requires that sewage sludge only be accepted at County landfills under specific circumstances. Sewage sludge disposal must first be approved by the Maryland Department of the Environment (MDE) and the County. Sewage sludge must be dewatered, exhibit no liquid phase, and be tested as specified in Section D(a) of the Solid Waste Ordinance. The County also reserves the right to request additional testing to ensure the sewage sludge does not exhibit any hazardous characteristics. Sewage sludge may not be mixed with any other material.

Sewage sludge generated within Carroll County is not the only concern. As Carroll County is traditionally agricultural, many farmers are solicited to accept sewage sludge generated in other areas for land application. That sewage sludge cannot always be immediately applied and storage is sometimes necessary. Under Carroll County Code §158.051, Sewage Sludge Storage, (see Appendix C) sewage sludge can only be stored at publicly owned sewage treatment plants. Sewage sludge storage is defined as an interim measure prior to either land application or landfill disposal. Currently there are no licensed sewage sludge storage facilities in Carroll County.

3.1.1.11 SEPTAGE

Septage is the residual material collected from individual residential septic systems. Most of Carroll County's homes have systems such as this and contract for septage collection and disposal. It is estimated that residential septage generation in Carroll County is from 6.5 to 7.5 million gallons per year. Traditionally, septage has been either disposed of through wastewater treatment plants or land applied.

Recent Federal and State regulations have limited septage management options. Direct application of septage to land is now prohibited. In response, a treatment system has been added at the Westminster Wastewater Treatment Plant that is dedicated to the disposal and treatment of septage. The plant has a peak design flow of 39,000 gallons per day (gpd) with an average daily flow of up to 26,000 gpd. The facility is being operated by the City of Westminster under an agreement (No. 477) with the County. The septage is pre-treated and the resultant liquid phase sent through the wastewater treatment plant. The residual sewage sludge is then removed for landfill disposal. Sewage sludge volumes are included in the sewage sludge management section.

There are 20 independent septage contractors operating in Carroll County. County residents rely on their service; of course, regular maintenance of individual septic systems is imperative to uninterrupted system operation and environmental protection.

3.1.1.12 OTHER WASTES

3.1.1.12.1 RECYCLING

In 1988, the State of Maryland passed the Maryland Recycling Act (MRA) requiring each jurisdiction to develop and implement recycling programs. Under the act, each county with a population greater than 150,000 homes must reduce its solid waste stream by 20% through recycling. Counties with lower populations must recycle 15%. The mandate had to be met by January 1, 1994.

Carroll County, with a population under 150,000, was initially required to recycle 15% of its waste stream by 1994. In 1993, the County achieved a 22% recycling rate, surpassing the 15% required by the Act. As of October 1998, the County's population surpassed the 150,000 mark requiring the County to achieve the 20% recycling rate. In 2004, the County recycled 29% and received 3% source reduction credits for a total diversion rate of 32%.

In the 2012 legislative session, the Maryland General Assembly passed House Bill (HB) 929: *Environment – Recycling Rates and Waste Diversion – Statewide Goals*, Chapter 692, Acts of 2012 (the "law"). The law takes effect on October 1, 2012, and requires full implementation of the county's revised recycling plan by December 31, 2015. The law also requires the county to revise its recycling plan by July 1, 2014. The plan must include a provision that provides for a reduction through recycling of at least 35% for a county with a population greater than 150,000 or 20% for a county with a population less than 150,000, of the County's solid waste stream by weight, or submits adequate justification,

including economic and other specific factors, as to why the reduction cannot be met.

Carroll County has met and exceeded the 35% recycling rate since 2009. This rate has been possible through aggressive education and outreach in Schools, at Public Events, Fairs, and Businesses and through Social Media, converting to an expanded single stream recycling program, a 2009 Energy Efficiency and Conservation Block Grant that was authorized by the Energy Independence and Security Act of 2007. Under Section 544, Item 10, the funds may be used for “activities to increase participation and efficiency rates for material conservation programs, including source reduction, recycling, and recycled content procurement programs that lead to increases in energy efficiency. With this Grant we were able to purchase 10,618, 65 gallon recycling carts. The carts were given to three local haulers to distribute to their recycling customers and determined that their recycling averaged an increase of 15%.

3.1.1.12.2 YARD TRIM

Yard trim includes grass clippings, brush and leaves, resulting from residential or commercial yard and garden maintenance. All eight of Carroll County's incorporated towns provide residents with curbside collection or drop-off sites for yard trimmings. The City of Westminster has organized leaf and yard trim collection programs. It is anticipated that most of the towns continue to use the County compost yard.

In May of 1994, Carroll County banned yard trimmings from being landfilled. State law also bans source separated yard waste. County haulers, municipalities, businesses and residents may deliver acceptable yard trimmings, loose or in paper bags, to the Northern landfill at no charge. A portion of closed Cell #1 of the landfill has been paved for the acceptance and processing of the materials. The woody materials and yard waste are processed by a grinder into a mulch product. A private contractor, Harvest RGI, handles the grinding of yard wastes to produce a marketable mulch and compost product at their facility located at the leased Hoods Mill property.

3.1.1.12.3 ELECTRONICS

From 2002 to 2005, the County held five, single-day, electronics recycling events. The five events resulted in the collection of 71.28 tons of electronics. Due to the success of the events, the County started a permanent residential electronics drop-off program at the Northern Landfill. The program went into effect December 1, 2005.

The County accepts a wide range of electronics including all computers and peripherals. The program is for residents only and is currently accepting the materials at no charge. The County has a contract through the Northeast Maryland Waste Disposal Authority (NMWDA) for the transportation and recycling of the electronics.

3.1.1.12.4 AGRICULTURAL WASTES

Agricultural wastes consist of livestock manures and crop residuals. No estimates of such wastes exist; however, management practices are known. Manure is generally used as fertilizer, and in many cases, stored on farms, prior to field application. Crop residue is generally plowed into fields as nutrient.

3.1.1.12.5 MINING WASTES

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

3.1.1.12.6 ASBESTOS

The established disposal protective, enforced by the Carroll County Solid Waste Ordinance, involves placement in 6 mil polyethylene bags that are then contained in fiberboard drums with outside labels denoting asbestos. The containers are then segregated in the solid waste placement areas of the permitted landfills. Small amounts of asbestos have been landfilled the last three years (FY 2013 – 4.39; FY 2014 – 6.79; FY 2015 – 1.15)

3.1.1.12.7 LEACHATE

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

Carroll County collected and transported for treatment, over 9 million gallons of leachate during 2015 (see Table 3–5). Sites with leachate collection systems are Hoods Mill, Bark Hill, and Northern landfills. Leachate is collected and trucked principally to the Westminster Wastewater Treatment Plant. Volumes are projected to continue at Northern while decreasing at capped sites (Bark Hill and Hoods Mill). The County is currently designing a project to permanently cap slopes of Northern’s Cells 1 and 2 to minimize leachate generation.

3.1.1.12.8 GREASE

Grease waste is produced from restaurants and commercial kitchens. New facilities are fitted with grease traps that can be cleaned regularly. Grease is considered a solid waste and can be disposed of with other commercial waste. Some grease is sent to rendering plants. No segregated tonnages exist.

3.1.1.12.9 FLUORESCENT AND COMPACT FLUORESCENT LIGHTS THAT CONTAIN MERCURY

Fluorescent and Compact Lights are accepted for recycling at two Household Hazardous Waste Collection Special Events held at the Vehicle Maintenance

Center located 1250 Old Meadow Branch Road, Westminster, MD 21157. This service is free for County Residents.

These events are managed through Maryland Environmental Services (MES) and the agreement remains in force unless terminated by the contractor. Maryland Environmental Service is responsible for contracts to collect, recycle and marketing of fluorescent lights collected by the county. In 2010, the County collected 2,321 total bulbs from our special events.

Private retailers, such as Home Depot, Lowe's and Ace Hardware, offer recycling opportunities for CFL bulbs at their stores for the community.

The county also monitors information about manufactures and retailers that offer fluorescent tube/CFL bulbs collection programs. This information is made available to the public through our Bureau of Solid Waste and Recycling web site, public events and presentations.

3.1.1.12.10 SPECIAL EVENTS RECYCLING PROGRAM (SERP)

In 2014, the Maryland General Assembly passed Senate Bill 781, Environment – Recycling – Special Events. The law requires organizers of special events meeting certain criteria to provide a recycling receptacle adjacent to each trash receptacle, ensure recycling receptacles are clearly distinguished from trash receptacles, and ensure that recyclable materials are collected for recycling. Special event organizers must conduct recycling in accordance with the County's Comprehensive Solid Waste Management Plan (CSWM). The law also required each county to update its plan by October, 2015, to address the collection and recycling recyclable materials from special events.

A. Special Events Subject to the Recycling Program:

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

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

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

Public sites within Carroll County that host or may host special events include any local, Municipally-owned, County- owned, State, and Federally-owned streets are subject to the Special Events Recycling Program (SERP). Sites are identified as parks, venues, sports fields, fairgrounds, etc., and all public schools that host special events.

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

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 the 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 the County recycling 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.

The special events recycling program must include, at a minimum, the collection of 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 provision of separate containers for organic and non-organic recyclables.

Recycling at a State-owned site must follow the State agency's recycling plan, if available. Recycling at a Federally-owned site must follow any applicable Federal recycling plan. If no State or Federal recycling program is available for the site, the special event organizer must set up a recycling program in accordance with the SERP. 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. Carroll County Department of Public Works: Communicate the requirements of the law to prospective special events organizers and owners and 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
2. Carroll County Office of Recycling, in cooperation with the Office of Zoning Administration: Prior to issuance of a zoning certificate for a special event the Department of Public Works, Recycling Operations must receive a recycling plan with location of waste and recycling facilities.
3. Special Events Organizer: Responsible for providing recycling bins and ensuring collection for recycling in accordance with the requirements in §B, beginning October 1, 2015.

D. Program Monitoring:

The Office of Recycling and special events organizers will monitor progress and performance of the SERP.

1. Special Events permits issued for use of county sites will include a statement on the permit application that recycling is required for events subject to the SERP.
2. A fact sheet or other informational document outlining the requirements of the SERP will be distributed with each special event permit issued by the county.
3. Notification will be sent via direct mail to each municipality outlining the requirements of the SERP and links to the information will be available on the Carroll County Department of Recreation and Parks, Recycling, and Solid Waste webpages.

The special event organizer is responsible for monitoring the implementation of recycling at the special event. The 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 contractors' performance.

E. Program Enforcement

The County Office of Recycling or the equivalent office of the municipality in which the event is located may conduct inspections of the event to ensure compliance with the SERP. If a violation of the SERP is detected, the County or municipality may pursue an enforcement action against the special events organizer. A person that violates the SERP can be subject to a civil penalty not exceeding \$50 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.

3.1.2 WASTE IMPORTED AND EXPORTED

Carroll County does not accept waste generated in other jurisdictions (see Appendix C, Solid Waste Ordinance). However, the majority of waste generated in the County is exported. Most of the waste (89,724 tons in 2015), except for sewage sludge, delivered to the County landfill, is being transported to an out-of-county landfill, through a contract with Advanced Disposal and the NMWDA. This contract has additional extensions that could take it through 2029. Additional MSW (19,221 tons MSW in 2014) is transported to other facilities through private contracts with commercial businesses.

3.1.3 SOLID WASTE ENTERING CARROLL COUNTY FOR RECOVERY AND PROCESSING

C. J. Miller, LLC, of Finksburg is accepting and crushing broken concrete and asphalt into a usable aggregate for road building. Recent figures show 120,000 tons of asphalt processed by C. J. Miller, LLC in 2015.

Roll-off Express (Progressive Waste), also located on Dede Road, is a solid waste processing facility permitted to process up to 156,000 tons per year. They are currently processing C&D, commercial, industrial, and bulky wastes and recovering OCC or cardboard and paper. They have proposed to accept residential MSW as well.

3.2 REFUSE COLLECTION SYSTEMS IN CARROLL COUNTY

Carroll County has been given broad legal authority by the Maryland General Assembly regarding solid waste management (Public Local Laws of Maryland, Article 7, Sections 15A-1 through 15A-10). Through this law, Carroll County officials gained the authority to:

- Control the waste stream throughout the jurisdiction;
- Procure and finance, through revenue bonds, future solid waste disposal facilities;
- Enter into public/private joint ventures to construct and operate waste disposal facilities.

This legislation gives Carroll County flexibility in solid waste management decisions and allows a variety of financing approaches for future solid waste facility development.

Within the unincorporated area of Carroll County, that is the areas outside of any incorporated town limits, an "open-ended" method of residential refuse pick-up exists. An "open-ended" system refers to one in which one or more waste haulers operate without control or regulation in a given area. Those haulers contract on an individual basis with homeowners and commercial establishments. An undetermined number of individuals also self-hauls to the County landfill. Currently, the only provisions of drop-off areas in the unincorporated sections of the County are at the Northern and Hoods Mill landfill sites. There is also no system for providing bulky trash pick-up to these areas.

The eight incorporated municipalities in Carroll County have all taken responsibility for administering their own waste collection and additional disposal services, with varying degrees of expenditure in terms

of dedicated personnel and equipment (see Table 3–6). All of these towns have a closed-end waste pick-up system. The term "closed-end" means that only one hauler or the town personnel operate the residential trash pick-up within that municipal area so described. In all cases, the routes are controlled by a bid process. At present, all of the county municipalities contract with a single hauler.

Bulky item collection services vary widely in terms of frequency of pick-up, ranging from once-a-year "spring cleaning" service, to once-a-week collection. The City of Westminster and the Town of Sykesville provide on-call service for bulk pick-up. Hampstead, Manchester, New Windsor and Taneytown provide seasonal pick-up service through their contracted hauler. Residents of Union Bridge are responsible for their own disposal of bulky items.

The Town of Sykesville budgets and administers its own personnel and equipment for waste collection. They provide once-a-week collection for waste and recycling. Table 3–6 shows a breakdown of current municipal waste management services provided by municipalities in Carroll County.

3.3 EXISTING SOLID WASTE ACCEPTANCE FACILITIES

Carroll County's public waste handling and disposal facilities are located at Northern Landfill. All types of residential and commercial solid wastes are currently accepted, including white goods, scrap tires, construction rubble, and yard trimmings. Figure 3–5 shows the location of County waste disposal facilities.

3.3.1 COUNTY-OWNED AND OPERATED FACILITIES

3.3.1.1 NORTHERN LANDFILL

The County's Northern Landfill comprises 220 acres located on Maryland Route 140 southeast of the City of Westminster. It opened in December of 1988, as a state-of-the-art secured sanitary landfill, with a double 60 mil HDPE liner, leachate collection and management system, and a computerized scalehouse. Northern Landfill accepts only County generated waste.

The cost of developing the first 12.7-acre cell of Northern Landfill was approximately \$3.9 million and included landfill site development, lining, and the leachate management system. Additional costs included \$600,000 to acquire the land and approximately \$400,000 to provide ancillary site development such as fencing, roads, and buffers. Cell 2, a 13 acre cell with a capacity of 668,205 cubic yards, began accepting waste February 18, 1993. It is expected to reach capacity early 2007. Cell 3 was constructed in 2007. It is a 17.7 acre cell with volume capacity of 342,844 cubic yards.

The designed life was originally estimated at 15 to 20 years, based on 200 tons per day (TPD) of delivery at inception and growth to 500 TPD. Chapter 5.0 includes recalculated projections for the Northern Landfill.

NORTHERN LANDFILL	- Located at 1400 Baltimore Blvd., Westminster, MD
(Sanitary Landfill, Rubble Landfill,	- Grid Coordinates
Recycling, Natural Wood & Yard Waste)	• Latitude N 39° 32' 58"
	• Longitude W 76° 56' 29"
	- MD State Coordinates (1983)
	• East 1,328,790
	• North 687,432
	- It comprises 220 acres, 65 of which are sanitary cells.

- Municipal solid waste and rubble are landfilled. Scrap metal and various materials are collected for recycling; natural wood and yard wastes are processed for mulch or compost at an alternate facility.
- Owned and operated by Carroll County Government, MD
 - The permit was originally issued in June 1986. The current permit was issued October 13, 2015 and expires October 12, 2020.

3.3.1.2 NORTHERN LANDFILL PROCESSING FACILITY AND TRANSFER STATION

The County's Processing and Transfer Facility comprises 3 acres collocated with the landfill on Maryland Route 140 southeast of the City of Westminster. It opened in 1998 in order to transfer some County wastes to conserve capacity in Northern Landfill.

- NORTHERN LANDFILL PROCESSING FACILITY AND TRANSFER STATION**
(Recycling & Transfer Station)
- Located at 1400 Baltimore Blvd., Westminster, MD
 - Grid Coordinates
 - Latitude N 39° 32' 58"
 - Longitude W 76° 56' 29"
 - MD State Coordinates (1983)
 - East 1,328,790
 - North 687,432
 - It comprises 3 acres.
 - Municipal solid waste and rubble are loaded for transfer and disposal at an alternate site; recyclables are similarly loaded for additional processing and recycling offsite.
 - Owned and operated by Carroll County Government, MD
 - The current permit expires March 9, 2019.

3.3.2 PRIVATE FACILITIES

This section includes private facilities located in Carroll County that accept and/or process waste for reuse or disposal. Included are **known** incinerators, transfer stations, composting sites, sanitary and rubble landfills, resource recovery facilities, CHS facilities, injection wells, and industrial waste liquid holding impoundments. They are as follows:

3.3.2.1 HARVEST RGI, LLC (NATURAL WOOD AND YARD WASTE)

Harvest RGI, LLC, has operations at 7800 Kabik Court in Woodbine, MD. It primarily engages in manufacturing and supplying mulches, compost and soil blends and related operations.

The facility accepts natural wood waste and yard waste.

- HARVEST RGI, LLC.**
Natural Wood & Yard
Waste Recycling
- Located at 7800 Kabik Court, Woodbine, MD
 - Grid coordinates
 - Latitude N 39° 21' 28"
 - Longitude W 77° 1' 26"
 - MD State Coordinates (1983)
 - East 1,305,480
 - North 615,559

- The facility occupies approximately 30 acres of site.
- Natural wood waste and yard waste are processed into mulch and compost for market.
- The current Natural Wood Waste Permit expires February 12, 2019.

3.3.2.2 ROLL-OFF EXPRESS

Roll-off Express is a privately-owned and operated processing facility. The materials are sorted and marketed. Residuals are disposed of properly permitted solid waste facilities outside of Carroll County.

Roll-Off Express

- Located on Dede Road, Finksburg, MD
- Grid Coordinates
 - Latitude N 39° 29' 30"
 - Longitude W 77° 50' 50"
- MD State Coordinates (1983)
 - East 1,344,831
 - North 665,425
- Processing Facility Permit #2012-WPF-0159
- Permit issued June 10, 2013 (5-year permit).

3.3.3 CLOSED COUNTY FACILITIES

3.3.3.1 BARK HILL LANDFILL

Bark Hill Landfill, a 10-acre facility, one mile west of Uniontown in the western part of the County, was closed in 1981. The site was originally an open burn site and was taken over and operated by the County as a landfill in 1972. The site is now part of the County's open-space program; capping was completed during 1991. The site is being monitored.

BARK HILL LANDFILL

- Located on Raywell Ave., near Middleburg Rd., Uniontown, MD.
- Grid Coordinates
 - Latitude N 39° 34' 26"
 - Longitude W 77° 08' 40"
- MD State Coordinates (1983)
 - East 1,271,420
 - North 702,298
- 12 acres of a 20+ acre site was used as a landfill and closed in late 1981. Design closure was approved and completed in 1981 at cost of \$250,000.
- This site was retrofitted with a cap liner as per MDE approved regulations. Work was completed in October of 1991 at a cost of \$1,900,000
- The site is owned by Carroll County Government, MD.

3.3.3.2 BACHMAN VALLEY ROAD TIRE FACILITY

This site was operated from the 1970's to 1985 for the disposal of demolition debris and scrap tires. The County installed a cover over the facility in 1992. The County has not accepted scrap tires at this site since 1985.

BACHMAN VALLEY

- Located on the southeast side of Bachman Valley Road (Route 496

TIRE FACILITY

- at Saw Mill Road), MD.
- Grid Coordinates
 - Latitude 39° 50' 08"
 - Longitude 76° 58' 15"
- MD State Coordinates (1983)
 - East 1,320,549
 - North 721,581
- The site comprises 2 acres of a 6-acre parcel.
- Whole scrap tires were accepted at this site and filled in an old quarry.
- The site was owned by the Lippy Brothers, Inc., and was leased by Carroll County Government, MD. It began operations in the late 1970's and was closed in September 1985. It is now owned by Carroll County, MD.

3.3.3.3 HODGES LANDFILL

Hodges Landfill (32 acres), located one mile north of Eldersburg, in southeastern Carroll County, was in operation until 1981. Like the Bark Hill site, it is also part of the County's open-space program as a park is proposed as a future park site. The site was capped in 1991.

HODGES LANDFILL

- Located on the west side of Hodges Road, 250 yards north of the intersection with Bartholow Road, MD.
- Grid Coordinates
 - Latitude N 39° 25' 16"
 - Longitude W 76° 57' 24"
- MD State Coordinates (1983)
 - East 1,324,433
 - North 639,033
- Approximately 32 acres.
- MSW was accepted at the site until it closed in 1981 at which time design closure and earth cover were completed.
- The site was retrofitted with a membrane-lined cap in 1991 at a cost of \$2,500,000.

3.3.3.4 JOHN OWINGS LANDFILL

John Owings Landfill, located on the east side of Route 97, approximately 3 miles north of Westminster, covers approximately 88 acres, of which 35.7 acres was used for waste, and was owned and operated by a private hauling firm until the County took possession of the property in 1973. Capping was completed in 1997.

JOHN OWINGS LANDFILL

- Located on the north side of John Owings Road, west of Bear Branch, ½ mile west of the intersection with Route 97, MD.
- Grid Coordinates
 - Latitude N 39° 38' 41"
 - Longitude W 76° 59' 43"
- MD State Coordinates (1983)
 - East 1,312,926
 - North 720,222

- The site has been closed since November 1988. In the last year of its life it served as a transfer station only for homeowners, using automobiles and pick-up trucks.
- Capped in 1997 at a cost of \$4,019,071.

3.3.3.5 KATE WAGNER LANDFILL

Kate Wagner Landfill is located south of Westminster in Carroll County, southeast of the intersection of Chapel Road and Old Westminster Road and south of the intersection of Old Westminster Road and Kate Wagner Road.

The current owner is Alfred E. Barnes. The property has belonged to the Barnes family since 1899 and is believed to have been used primarily for farm and grazing purposes until January 2, 1965, when Francis and Rosina Barnes leased a portion of the estate to Carroll County for the purpose of disposing of non-toxic waste materials. Prior to the signing of the lease with Carroll County; however, it was known that "G. L. Cabbage" operated the site as a repository for refuse for the area, including the City of Westminster.

The Kate Wagner Landfill was never permitted by the State of Maryland and does not utilize any type of containment system. Records indicate, however, that Carroll County leased the land to be used as a landfill and other individuals and companies were known to have used the Kate Wagner dump site prior to the lease with Carroll County.

The Kate Wagner Landfill was an unpermitted landfill from the mid 1960's until 1974 when it was closed. The landfill was listed on the Comprehensive Environmental Response, Compensation and Liability Information System because sample results from monitoring wells revealed the presence of low levels of volatile organic compounds (VOC's). Investigation is nearly complete, and it appears that only minimal remediation will be necessary.

KATE WAGNER LANDFILL

- Located just south of the intersection of Kate Wagner and Old Westminster Roads.
- Grid Coordinates
 - Latitude N 39° 32' 30"
 - Longitude W 77° 01' 15"
- MD State Coordinates (1983)
 - East 1,304,736
 - North 682,068
- Approximately 10 acres of a 40 acre parcel was used as a landfill.
- MSW and industrial wastes were accepted.
- The site is privately owned by Mr. Alfred Barnes.
- It was closed in 1974 and covered with 2' of earth.

3.3.3.6 THE RECYCLING BARN

For several years, the County worked with the Carroll County Association for Retarded Citizens (CCARC) to set up and operate a recycling drop-off and storage facility near the Carroll County Regional Airport. The facility consisted of a barn and several trailers. The facility was staffed by members of CCARC who weighed, sorted, and stored the following recyclables:

- Aluminum
- Newspaper
- Cardboard
- Mixed Glass

The facility was closed in the fall of 1993. The function has now been relocated to Northern Landfill and the facilities demolished and removed.

RECYCLING BARN

(Recycling Transfer Station)

- Was located at Route 97 at Old Bachman Valley Road (near the Carroll County Airport)
- Grid coordinates
 - Latitude N 39° 38' 53"
 - Longitude W 77° 00' 00"
- MD State Coordinates (1983)
 - East 1,312,538
 - North 704,601
- Site consisted of an old barn on five acres of land which was operated by the Carroll County Association for Retarded Citizens until July of 1990. It was then operated by Carroll County Government until closure.
- This site was operated as a temporary transfer/drop-off recycling center handling 5 to 10 tons per day of newspaper, glass, bi-metal cans, aluminum cans and cardboard per day.
- It operated without a permit, as none was necessary.
- The site closed on September 25, 1993, and the operations transferred to Northern Landfill.