

**BERKELEY COUNTY, WEST VIRGINIA
COMPREHENSIVE LITTER AND SOLID WASTE
CONTROL PLAN**

Prepared by

The Berkeley County Solid Waste Authority

Approved by

**The West Virginia
Solid Waste Management Board**

September 21, 2022

**BERKELEY COUNTY, WEST VIRGINIA
COMPREHENSIVE LITTER AND SOLID WASTE CONTROL PLAN**

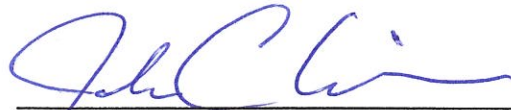
In order to provide the citizens and businesses of Berkeley County with an effective recycling, composting, resource recovery, collection, litter control and disposal program for municipal solid waste generated or disposed in Berkeley County, the Berkeley County Solid Waste Authority, hereinafter referred to as the "Authority" is adopting the attached Berkeley County Comprehensive Litter and Solid Waste Control Plan.



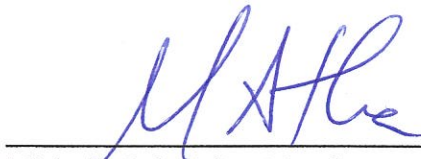
Clint Hogbin, Chairperson



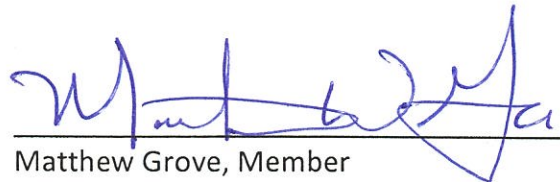
Mark Barney, Vice-Chairperson



John Christensen, Secretary



Michele Gula Atha, Member



Matthew Grove, Member

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INTRODUCTION

The United States is very much a disposal-oriented society. As a result, solid waste management is an immediate, serious, day-to-day problem for all communities in the United States. Many of the traditional means of management are under public scrutiny as concerns for the environment, health and welfare become more acute. Landfills that once served as a seemingly simple solution continue to receive a smaller focus of the waste management techniques.

In 1976, United States Congress passed the Resource Conservation and Recovery Act. As a result, West Virginia created the Resource Recovery-Solid Waste Disposal Authority, now known as the West Virginia Solid Waste Management Board (WV-SWMB). Many states, including West Virginia, have enacted various statutes to address the management of solid waste. In West Virginia, legislative changes were invoked in solid waste laws starting in 1988 and continuing nearly without exception through 2022.

The purpose of this Plan update is to keep the Authority in compliance with WV Code §22C-4-1 et. Seq. and the Title 54 Series 3 "Rules on developing, updating and amending Comprehensive Litter and Solid Waste Control Plans". To the extent resources allowed, this Plan attempted to examine existing solid waste management practices of litter control, collection, reduction, reusing, recycling, composting, resource recovery, transferring and landfilling of solid waste. This Plan will attempt to identify problems and outline potential solutions in an effort to protect public health, safety, welfare and the environment in Berkeley County.

Since its inception in 1989, the Authority has implemented and managed a multitude of solid waste programs. Many of these programs are very successful and resulted in the Authority or its Board members being recognized at the county, state or Federal levels. As a result, the Authority clearly conducts award winning solid waste programs for its residents.

These accolades are:

2021

- ✓ 2nd place clean county award

2020

- ✓ 1st place clean county award

2019

- ✓ 2nd place clean county award

2018

- ✓ 1st place clean county award
- ✓ Volunteer of the Year (Clint Hogbin) Association of West Virginia Solid Waste Authorities
- ✓ Citizen of the Year (Clint Hogbin) Berkeley County Chamber of Commerce

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2017

- ✓ 2nd place clean county award

2016

- ✓ 1st place clean county award.
- ✓ Outstanding Litter Control Environmental Award (Lt. Ron Gardner)

2015

- ✓ 1st place clean county award.
- ✓ West Virginia Recycling Champion Award (John Christensen) by the Recycling Coalition of West Virginia.

2014

- ✓ 2nd place clean county award.

2013

- ✓ Excellence in Environmental Stewardship Award by WV-DEP.

2012

- ✓ Volunteer of the Year (Edgar Mason) by Association of West Virginia Solid Waste Authorities.
- ✓ Potomac River Leadership Award (Clint Hogbin) by Alice Ferguson Foundation. 2010: West Virginia Recycling Champion Award (Gerry Fitzgerald) by the Recycling Coalition of West Virginia.

2009

- ✓ West Virginia Recycling Champion Award (Clint Hogbin) by the Recycling Coalition of West Virginia.
- ✓ Award Plaque by Berkeley County Commission.

2008

- ✓ USA Freedom Corps- The President's "Call to Service Award"; Lifetime Achievement Award (Clint Hogbin) by Treasury Secretary Henry Paulson.
- ✓ West Virginia Recycling Champion Award (Edgar Mason) by the Recycling Coalition of West Virginia.

2007

- ✓ Chuck Chambers Public Service Award by West Virginia Environmental Council (Clint Hogbin).

2004

- ✓ Conservation Service Award- by Eastern Panhandle Conservation District.

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2003

- ✓ Award Plaque- by WV Solid Waste Management Board.

2000

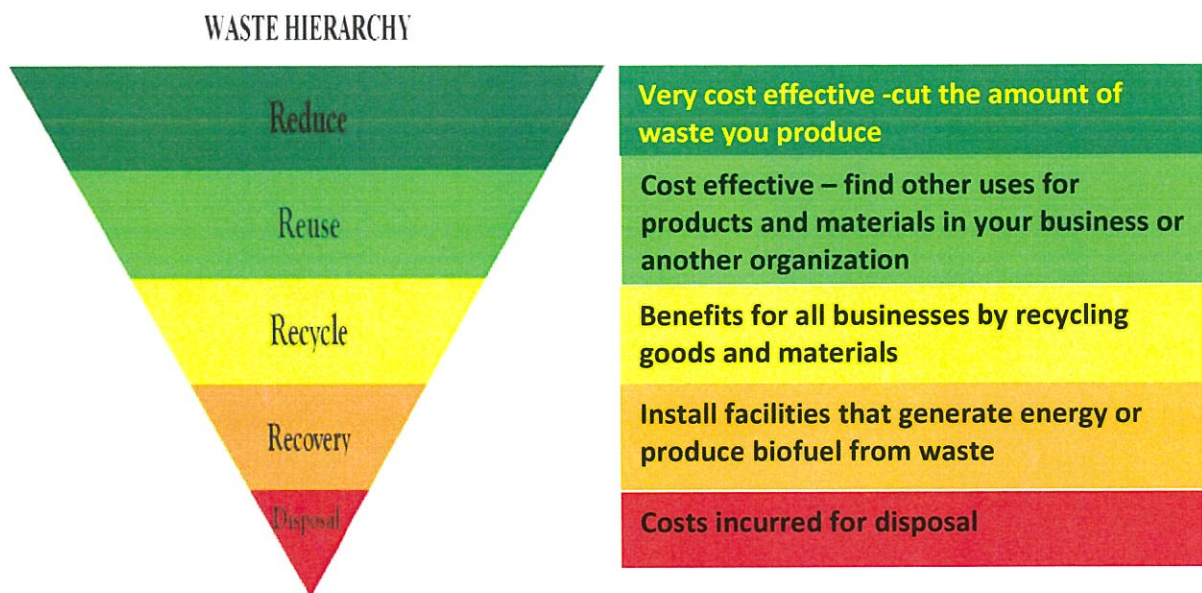
- ✓ Award Plaque- Local Leadership Award (Clint Hogbin) by Eastern Panhandle Conservation District

EXECUTIVE SUMMARY - GOALS AND OBJECTIVES

The U.S. Environmental Protection Agency in its “National Overview: Facts and Figures on Material, Waste and Recycling” pegs the nation’s municipal waste stream at 292 million tons per year. Generation of municipal waste has dropped from 4.57 pounds per person per day in 1990 to 4.9 pounds per person per day in 2018. The increase is mainly the result of the EPA’s inclusion of food waste reporting. The report shows that Americans recycle 94 million tons, or 32% of the 292 million tons. The report also shows a per person recycling rate of 1.16 pounds per person per day, a .42 pounds per person rate for composting and a .30 pounds per person rate for food management (1).

According to *Statista.com*, the number of landfills has steadily declined over the years, from 6,326 in 1990 to 1,250 in 2018. However, the average size of landfills has increased. Clearly, Americans place an enormous burden on the environment in the United States. Berkeley County is no exception. West Virginia's solid waste laws establish an integrated waste management hierarchy as depicted below. This hierarchy includes the following five components.

Source Reduction (or waste prevention),
Reuse of products.
Recycling, including composting.
Resource Recovery.
Disposal through landfilling.



Footnotes:

1: <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials>

2: <https://www.statista.com/statistics/186346/number-of-landfills-in-us-municipal-solid-waste/>

EXECUTIVE SUMMARY - GOALS AND OBJECTIVES

- 1) Continue to provide for environmentally safe management of municipal solid waste while following the established waste management hierarchy and;
- 2) Continue to reduce the degradation of the environment caused by the management of municipal solid waste and;
- 3) Continue to attempt to reach the legislative landfill reduction goals of 50% reduction and;
- 4) Continue to foster the awareness of the economic and aesthetic value of a beautiful and scenic Berkeley County and;
- 5) Continue the efforts to reduce the amount of municipal solid waste disposed of in an unlawful manner and;
- 6) To act as a guide for State and local agencies in developing future solid waste facilities and programs for Berkeley County.

CHAPTER ONE

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER 1: HISTORY AND GEOGRAPHIC FEATURES

History:

Berkeley County was created by an Act of the Virginia House of Burgesses in February 1772. The County was created from the northern third of Frederick County (Virginia). At the time of the county's formation, the county consisted of the areas that make up the present day Jefferson, Berkeley and the eastern section of Morgan County. Berkeley County is the state's second oldest county.

Berkeley County has significant and unique history. The first native settlers in the Eastern Panhandle region of present-day West Virginia were the Mound Builders. By the late 1500s and early 1600s, the powerful Iroquois Confederacy (consisting of the Mohawk, Onondaga, Cayuga, Oneida, Seneca and Tuscarora tribe) control the area. During the early 1700s, West Virginia's Eastern Panhandle region, including present-day Berkeley County, was inhabited by the Tuscarora Indians.

In 1670, John Lederer, a German physician and explorer employed by Sir William Berkeley, colonial governor of Virginia, became the first European to set foot in present-day Berkeley County. In 1726, Morgan Morgan founded the first permanent English settlement of record in West Virginia on Mill Creek near the present site of Bunker Hill in Berkeley County. The state of West Virginia has erected a monument in Bunker Hill commemorating the event and has placed a marker at Morgan's grave, which is in a cemetery near the park. The Morgan Morgan Cabin and associated farmland has been protected by the Berkeley County Farmland Protection Program and the Berkeley County Historical Landmarks Commission.

Residents from Berkeley County were strong in support for Independence during the American Revolutionary War (1776-1783). Most able-bodied men in the county volunteered for service in the American army, including General Horatio Gates. General Gates was one of George Washington's highest-ranking officers during the War of Independence. Berkeley County was reduced in size twice during the 1800s. On January 8, 1801, Jefferson County was formed out of the county's eastern section. Then, on February 9, 1820, Morgan County was formed out of the county's western section.

Berkeley County was of strategic importance to both the North and the South during the Civil War (1861-1865). The county lay at the northern edge of the Shenandoah Valley. Martinsburg was very important because the main line of the Baltimore and Ohio Railroad was of great importance to both armies. Martinsburg was also close to the Union arsenal at Harpers Ferry. In addition to supplying over six hundred soldiers to the War, Berkeley County was also the home of Belle Boyd. Belle Boyd was a famous spy for the Confederacy. She was born in Martinsburg in 1844 and lived there until the outbreak of the war. Over one thousand (1,039) men from Berkeley County participated in World War I (1917-1918). Of these, forty-one were killed and twenty-one were wounded in battle. A monument to those who fell in battle was erected in 1925.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Geographic Features:

Berkeley County is in the Eastern Panhandle of West Virginia and is bordered by the State of Maryland to the North, Virginia to the south, and the Counties of Morgan and Jefferson in West Virginia to the West and East, respectively. Martinsburg is the county seat. Martinsburg was chartered by an Act of the Virginia General Assembly in October 1788 on the lands of General Adam Stephen. Martinsburg was incorporated by West Virginia on March 30, 1868.

Berkeley County consists of 321.14 square miles and is the 41st county by size. Berkeley County has an average temperature of 49.1 degrees. Berkeley County is the 2nd most populated County in the State and has a per capita rating of 371.1 persons per square mile (1). It is reported to have an average rainfall of 45 inches per year with an additional average snowfall of 76 inches per year. Berkeley County is within the Appalachian Ridge and Valley region. The Allegheny Mountains of this region belong to the Appalachian Mountain system. They form part of a series of long ridges and broad valleys that run from northeast to southwest. These mountains are made of folded layers of sedimentary rock. This rock formed from deposits laid down by ancient rivers and seas. Erosion has worn down the softer layers, forming long parallel ridges of harder rock with valleys in between. Most streams and rivers run along the valleys between the ridges. A few streams cross the ridges in water gaps (breaks in the ridges). Water gaps occur where weak rock was worn away, or where streams cut through hard rock as nature lifted and folded it.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Based upon information from the West Virginia Geological and Economic Survey, the geological conditions of Berkeley County are extremely complex and not fully understood. There are 23 known types of bedrock formations in Berkeley County. Nearly all the formations are limestone, dolomite or permeable shales. As a result, manufacturing operations in Berkeley County utilize large volumes of limestone. The high calcium carbonate content and the low silica content make the county's limestone very valuable in the concrete manufacturing process. Bedrock Formations of Berkeley County:

1. Marcellus-Needmore Shale
2. Oriskany Sandstone
3. Helderberg Group
4. Rose Hill Formation
5. Tuscarora Sandstone
6. Juniata Formation
7. Chambersburg Limestone
8. New Market Limestone
9. Row Park Limestone
10. Beekmantown Group
11. Pinesburg Station Dolomite
12. Rockdale Run Formation
13. Stonehenge Formation
14. Stoufferstown Member
15. Conococheague Formation
16. Big Spring Station Member
17. Elbrook Formation
18. Waynesboro Formation
19. Tomestown Dolomite
20. Chilhowee Group
21. Precambrian Formation
22. Mahantango Formation
23. Martinsburg Formation

IDENTIFICATION OF PROBLEMS:

Berkeley County contains significant historical resources. As a result, efforts are ongoing to protect these resources. The large number of the historical resources frequently makes large scale land use development projects a challenge. This suggests smaller scale solid waste facilities distributed across various regional locations more feasible versus one large regional facility in one single location.

The geological conditions of Berkeley County are complex and not fully understood. The overwhelming majority of bedrock formations in the County are limestone, dolomite, or permeable shale. Due to the karst formations, a landfill could pose a threat or hazard to the area's ground or surface water. The karst geology combined with other factors raises the need to establish a comprehensive system of recycling centers, composting operations, transfer stations, resource recovery facilities as alternatives to landfilling. Due to the karst geology, the siting or expansion of commercial solid waste landfills from a geological perspective will be difficult regardless of the use of state-of-the-art composite liners.

SOLUTIONS AND RECOMMENDATIONS:

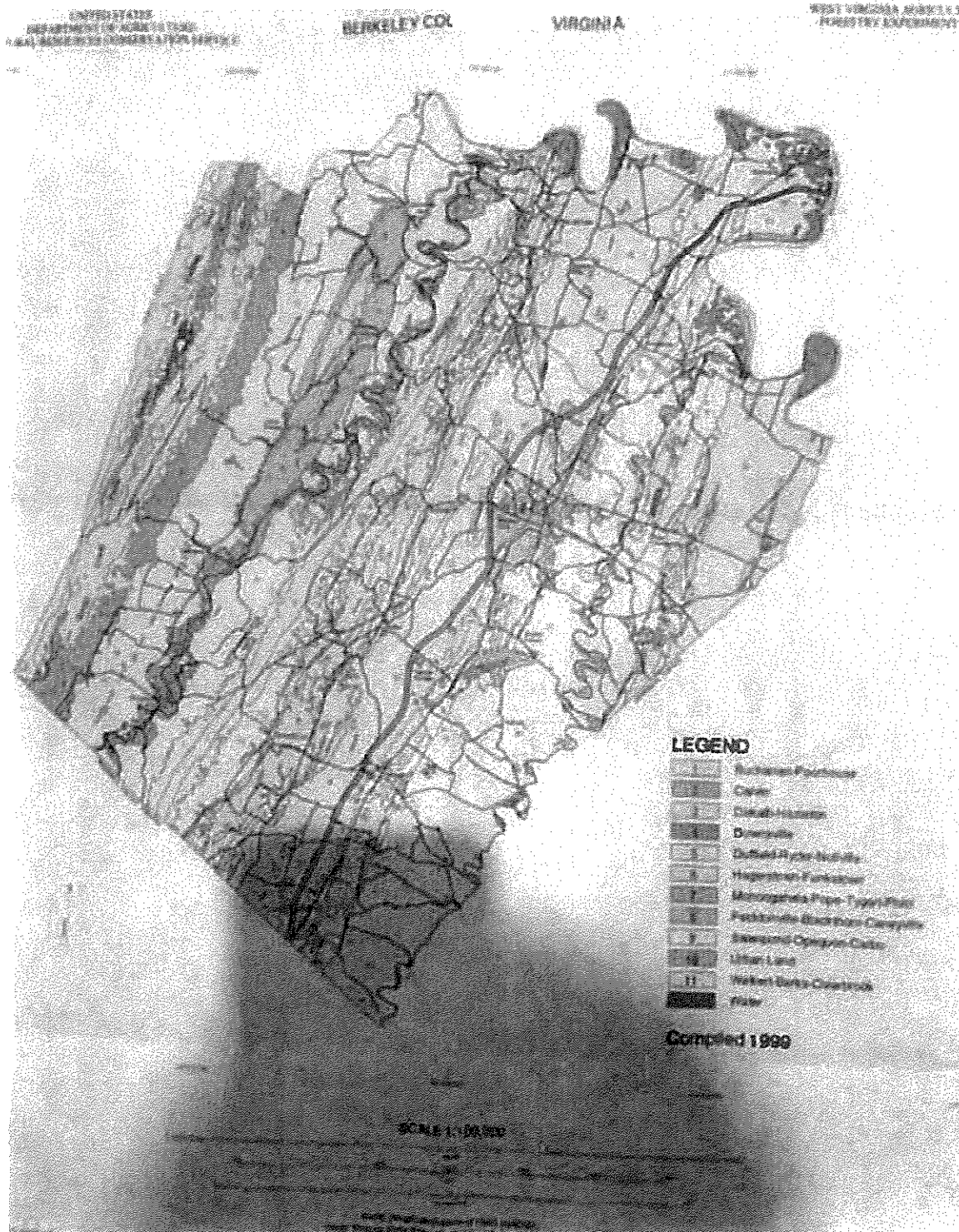
While there is nothing Berkeley County can do to change its historical resources or geological conditions, efforts must remain vigilant to ensure the residents are aware of the need to protect such valuable resources while properly managing its wastes.

Footnote:

- 1) Data found at: <https://data.census.gov/cedsci/profile?g=0500000US54003>

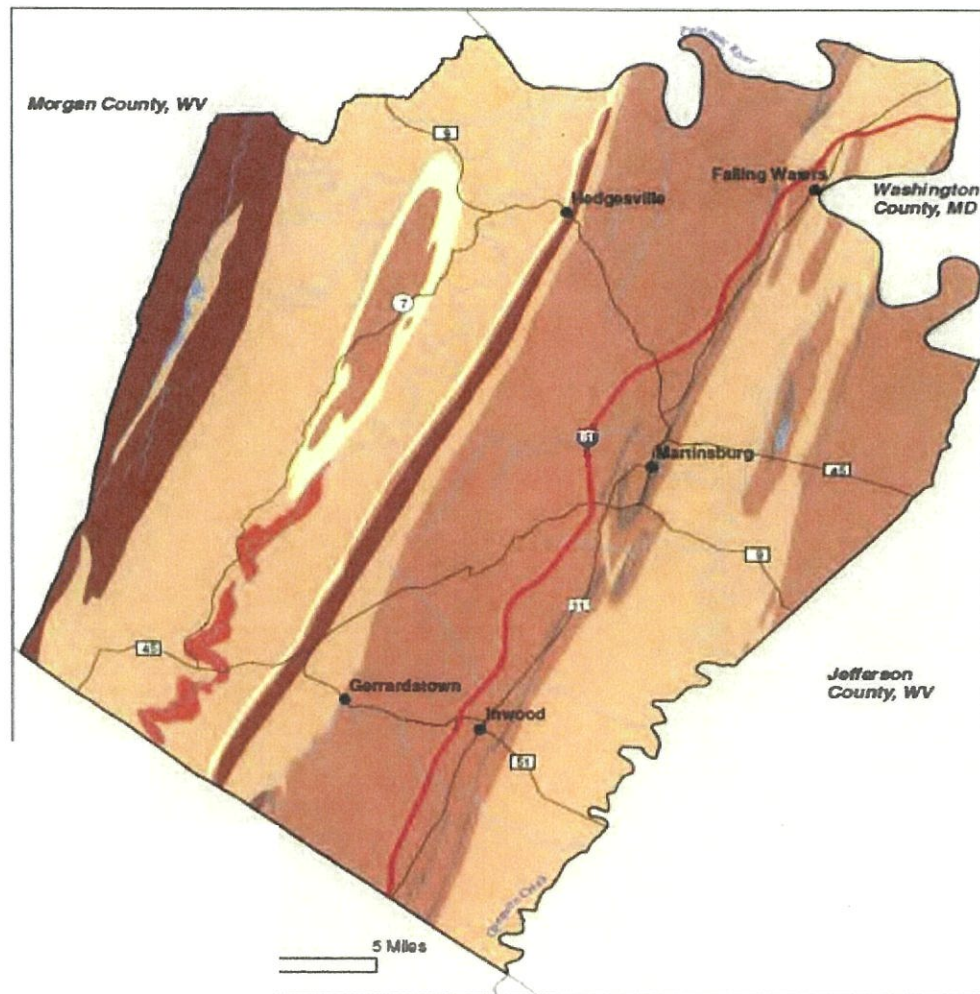
EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

GENERAL SOIL MAP



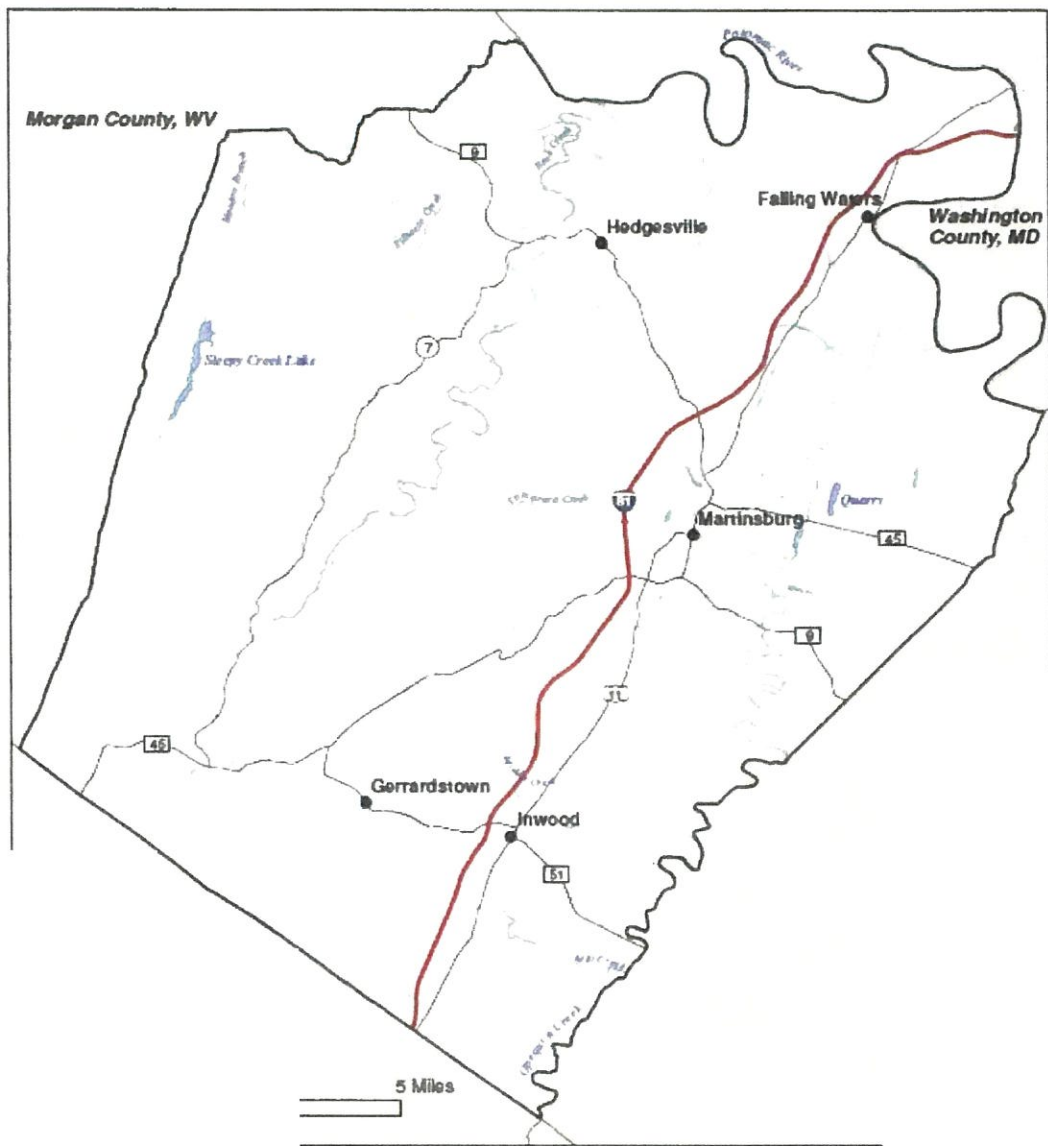
Graphic courtesy of US Department of Agriculture.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS



Map courtesy of the Berkeley County Comprehensive Plan

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS



CHAPTER TWO

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER 2: DEMOGRAPHIC INFORMATION AND PROJECTION:

For 2019, the US Census Bureau reports that West Virginia has a reported population of 1,792,147 residents. Much of West Virginia continues to experience a population decline. However, Berkeley County is not projected to do so. In fact, Berkeley County and many regional counties in West Virginia, Maryland, Virginia and Pennsylvania have been experiencing a significant population increase.

Municipalities in Berkeley County include the Town of Hedgesville and the City of Martinsburg. Other urban areas include Bedington, Jones Springs, Shanghai, Van Clevesville, Ganotown, Gerrardstown, Inwood, Bunker Hill, North Mountain, Johnstown, Darksville, Pikeside, Arden, Marlowe, Whiting Neck, Tabler Station, Glengary, Tomahawk, Woods Resort and Falling Waters.

The US Census Bureau (1) also estimates that Berkeley County has a population of 119,171 residents in the year 2019. The US Census Bureau estimates that there are 46,395 households in the County with a median household income of \$62,370.00.

Footnote:

1) Data found at: <https://data.census.gov/cedsci/profile?g=0500000US54003>

The WVU Bureau of Business and Economic Research was also utilized for population data as depicted in the chart below. WVU estimates that the County's population will continue to grow reaching 130,787 residents in the year 2030.

	US Census 2019 Population	Population Forecast 2020	Population Forecast 2025	Population Forecast 2030
COUNTY				
Berkeley	119,171	118,838	125,106	130,787

Chart developed by BCSWA using data released in March 2017 by Bureau of Business and Economic Research, College of Business and Economics, West Virginia University found at: [County Table_Final_Jan2017.xlsx \(wvu.edu\)](#)

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

As stated previously, in 2018, US-EPA studies indicated that each person in the United States generated approximately 4.9 pounds of solid waste per day. Based on the US Census Bureau 2019 population projection of 119,171 Berkeley County generates approximately 292 tons of solid waste per day. Based on the WVU 2020 population projection of 118,838 residents, Berkeley County generates approximately 291 tons of solid waste per day. Therefore, it can be estimated that the County is currently generating between 291-292 tons of solid waste each day. As detailed in this Plan, this volume of solid waste is managed by a variety of facilities including recycling, composting, resource recovery, transfer station and three commercial landfills.

In addition, the West Virginia Solid Waste Management Board (WV-SWMB) has issued population and waste generation projections for the State. Berkeley County is comprised of Wasteshed E. It is important to note that the waste generated in many parts of Wasteshed E are not managed at the same facilities as the solid waste generated in Berkeley, Morgan or Jefferson Counties. Nearly all waste generated in Grant, Hampshire, Hardy, Mineral, and Pendleton Counties are processed by transfer stations in Petersburg and Romney and landfilled at the Tucker County Landfill or the Mountain View Landfill near Cumberland Maryland. As detailed in this Plan, solid waste originating from Berkeley, Jefferson and Morgan Counties is managed by a variety of facilities including recycling, composting, resource recovery, transfer station and the utilization of three commercial landfills. The WV-SWMB projections are detailed below

Projected Monthly Municipal Solid Waste Tonnage for Wasteshed E

	2015	2020	2025	2030	2035
Berkeley	7,702	8,247	8,793	9,329	9,938
Grant	817	815	810	801	794
Hampshire	1,599	1,551	1,497	1,427	1,377
Hardy	967	969	969	958	956
Jefferson	3,880	4,085	4,284	4,468	4,681
Mineral	1,916	1,899	1,889	1,867	1,849
Morgan	1,206	1,208	1,207	1,198	1,195
Pendleton	507	482	454	422	398
Totals	18,594	19,256	19,903	20,470	21,188

Footnote:

1) Chart found in 2021 *West Virginia Solid Waste Management Plan*.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

IDENTIFICATION OF PROBLEMS:

The US EPA reports that the generation of municipal solid waste in 2018 is 4.9 pounds per person per day. Therefore, it can be estimated that Berkeley County is projected to generate 320 tons per day in the year 2030 (assuming no change in rate of waste generation).

Increasing populations guarantee heavier burdens on all aspects of municipal solid waste management. Valuable landfill space is at risk of being consumed at a higher rate thereby increasing the need for higher priorities for transfer stations, reuse techniques, source reduction, recycling, composting and resource recovery facilities. Larger populations will also lead to an increase in roadside litter and open dumping activity.

SOLUTIONS AND RECOMMENDATIONS:

In reality, the Authority in itself cannot affect the projected demographic data. However, it is important that the Authority be willing to take new and innovative steps to understand and manage the growing municipal solid waste stream. This willingness is being demonstrated with the support, promotion and utilization of recycling, composting and resource recovery facilities.

CHAPTER THREE

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER 3: TRANSPORTATION:

Berkeley County's transportation system consists of roads, bridges, railroads, public transportation buses, airports, bicycle and pedestrian facilities. The majority of the system is comprised of roadways, which are the responsibility of the WV-DOH. Berkeley County is served by Interstate 81, US Route 11, State Routes 7, 9, 45, 51, 901 and various secondary roads. It is estimated that there are currently 525 miles of roads in Berkeley County. They are further defined as 26 miles of Interstate, 86 miles of primary roads and 413 miles of secondary roads.

However, due to a lack of roadway improvement combined with extensive unplanned development, many of the County's travelers are operating with severe restrictions that affect their safety, speed, maneuverability and comfort. In some cases, the flow of traffic is unstable and often includes many unplanned stops. As population has grown in Berkeley County, improvements in the county's transportation system have also occurred. However, there continues to be a challenge to serve the ever increasing traffic flow needs throughout the county. In addition, to the increasing traffic, many of the local roads are not designed to handle current volumes and are physically deteriorating. Residents are increasingly frustrated about the situation, as private automobile is by far the dominant mode of travel for county residents. According to the Berkeley County Comprehensive Plan, over 95 percent of residents use an automobile to travel to work and to other activities. With the current and projected population growth, management of Berkeley County's transportation network is critical.

Interstate 81, known as the West Virginia Veterans Memorial Freeway, is the central artery in the Berkeley County road system. I-81 is a fully controlled highway with twenty-six miles and seven interchanges in Berkeley County. From Exit 12 to Maryland is six (6) lanes of travel. According to the Berkeley County Comprehensive Plan, an average daily traffic on I-81 through Berkeley County has increased from approximately 45,000 vehicles per day in 2006 to 76,000 vehicles per day. The I-81 interchange areas present many challenges with regard to access management. Expanding commercial land uses in these areas cause access management to be very important. However, as a result of high traffic volume and increased vehicular use on roads servicing the interchanges these areas have a high need for safety improvement. In recent years, statistics and tragedies highlight dangers when traveling on Interstate 81. Sadly, fatal crashes, rear end collisions, minor fender benders occur on a regular basis on I-81.

Strip development, presence of schools, heavy traffic volume and congestion along Route 9, particularly west toward Hedgesville, have also resulted in hazardous driving conditions throughout the route. The inability of Route 9 west toward Hedgesville to support local and through traffic at an efficient level is a major impediment to access throughout the county. From the Morgan County line to Hedgesville, Route 9 passes through mountainous terrain and is almost a continuous series of curves. From Hedgesville to Martinsburg the topography is rolling and there are few passing opportunities. It is frequent for traffic to be bumper to bumper in sections of Route 9 west during certain periods of most days.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Other important roads in Berkeley County include Route 45, Route 51, Route 7, Route 901 and Route 11. All of these routes are important transportation links within the County for local residents. Nearly all segments of these roads are operating with hazardous driving conditions.

Significant road upgrades of Route 9 east from Martinsburg to Charles Town may provide a safe transportation link suitable for the transportation of solid waste. The solid waste from the Jefferson County Transfer Station, Entsorga's Resource Recovery Facility and associated traffic from the offices of Waste Management of West Virginia and Apple Valley Waste of West Virginia has utilized this route since 1995 without any significant safety issues.

Route 51/11 in the general Inwood area has been identified by the WV-DOH as an area where roadway improvements are needed as congestion dominates the flow of traffic. The WV-DOH has completed significant improvements to this area including the use of roundabouts. Additional construction, including more lanes and roundabouts are underway.

To track transportation needs, the 4-State region has created the Hagerstown/Eastern Panhandle Metropolitan Area Long Range Multimodal Transportation Plan (HEPMPO). HEPMPPO adopted a comprehensive examination of future travel needs. Their Plan identifies a number of potential problem areas within the county due to projected population and employment increases and provides recommended improvements. The table pasted below is a list of proposed projects for Berkeley County.

Project ID	Facility	Segment	Description	Cost (2013 \$)
4	I-81	Berkeley County Line to WV 45	Widen to six lanes	\$273.7M
13	US 11	Berkeley County Line to Tabler Station Road	Intersection improvements	\$14.7M
14	US 11	Tabler Station Rd to WV 45/9	Widen to four lanes	\$35.3M
16	US 11	Edwin Miller Boulevard to Potomac River	Intersection improvements	\$24.9M
36	WV 9	Morgan County Line to County Route 1	New four lane alignment	\$25.4M
38	WV 9	County Route 1 to Industrial Circle	Widen to six lanes	\$13.8M
40	WV 45	I-81 to WV 9 (Queen Street)	Widen to six lanes	\$19.7M
43	WV 51	Gerrardstown to I-81	Intersection improvements	\$6.4M
45	WV 51	I-81 to US 11	Widen to four lanes	\$12.4M
46	WV 51	US 11 to Tarico Heights	New four lane alignment	\$11.6M
47	WV 51	County Route 26 to W. Washington Street	New two lane alignment <i>Berkeley/Jefferson counties</i>	\$77.5M
51	CR 1	WV 9 to WV 901	Widen to four lanes	\$73.6M
57	WV 901	US 11 to County Route 1	Widen to four lanes	\$32.9M
58	King Street	I-81 to US 11	Intersection improvements	\$3.9M
62	Lutz Avenue Extension	Existing Lutz Avenue to Meridian Parkway	New two lane road	\$3.5M
63	Delmar Orchard Road	Klee Drive to West King Street	Road Reconstruction (2 lanes)	\$19.1M
92	Novak Road	US 11 to Airport Drive	Widen to four lanes	\$22.8M
105	WV 45	I-81 to WV 51	Reconstruction of roadway/safety improvements	\$73.8M
B1	Martinsburg Bypass	I-81 to WV 9	Construct new roadway	\$47.7M
M1	Commercial Drive	Delmar Orchard Road to WV 45	Construct new roadway	\$12.3M
M2	East-West Connector	Klee Drive to Proposed Commercial Drive	Construct new roadway	\$5.7M
M3	North-South Connector	Proposed East-West Connector to Proposed Klee Drive	Construct new roadway	\$2.3M
M4	Commercial Road Connector	Delmar Orchard Road to Proposed Commercial Drive	Construct new roadway	\$2.3M
M5	Main Residential Road	Residential loop connection to Delmar Orchard Road	Construct new roadway	\$11.5M
M6	Residential Through Road	Arden-Nollville Road to Delmar Orchard Road	Construct new roadway	\$8.5M

Source: HEPMPPO Direction 2040 Long Range Transportation Plan Update

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

The remaining local and secondary roads serve an important function of providing access to land and development within the rural areas of the County. These local or secondary roads often have intersections and curves below standard radius and their design is often substandard in accordance with the geometric design of streets and highways.

Berkeley County also has a variety of rail services. The CSX Transportation System traverses the County East to West. This double track line is designated as a "Category A" mainline reportedly carrying about 28 million tons of freight per year. This line also provides passenger service to about 300 passengers daily to Washington D.C. Passenger service is available via Amtrak to Washington D.C. to the East and Chicago to the West. In addition, the Winchester and Western Railroad operates a line from Hagerstown MD. through Berkeley County to Winchester VA. The Maryland Transit Administration operates commuter rail service between Martinsburg and Washington, DC, Monday through Friday on the MARC Brunswick Line. Trips beginning in Martinsburg for Washington's Union Station have increased from two to three trips per day. The return trips, from Washington to Martinsburg in the PM, have increased from three to four trips per day. No midday commuter rail trips serve Martinsburg. The West Virginia State Rail Authority maintains the station in Martinsburg. According to the MARC 2013 WV Statewide Rail Plan, the overall number of riders boarding in Berkeley County on the Brunswick Line has increased since 2006. The average daily ridership boarding in Martinsburg has risen from 184 in 2006 to 208 in 2011 and has consistently been the highest ridership of the West Virginia stations. Ridership numbers peaked in 2008 at 223 riders for the Martinsburg station and a total of 547 riders for all of the West Virginia stations.

The West Virginia Eastern Regional Airport provides the only air services in the County. The West Virginia Eastern Regional Airport is the largest airport in the State. In addition, the airport has the longest runway in the state. The airport is open to the public but there are no scheduled flights. It serves as an important source of transportation for a variety of industries in the area. The West Virginia Air National Guard currently has a unit based at the airport. The installation consists of approximately 205 acres and 34 buildings totaling 347,441 square feet. During peak surges, the installation population is approximately 1,500 personnel. Expansion plans for a new terminal were completed in 2005 widening the runway to 200 feet, adding stormwater management improvements, a parallel taxi-way, and a new hangar complex. In 2009, Runway 26 was extended from 7,000 to 7,815 feet and Runway 8 was extended for 7,000 to 8,815 feet.

The Potomac River is the only river bordering Berkeley County. It cannot be utilized for water transportation. This is due largely to shallow water, multiple hydroelectric dams and the large presence of passive recreational activities.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

IDENTIFICATION OF PROBLEMS:

Berkeley County has a fairly extensive network of Federal, State and local roads. However, unplanned growths, strip development, sprawl and congestion has caused the flow of traffic across the County to become unstable and often includes many unplanned stops. These roads often operate with restrictions; which affect safety, speed, maneuverability and comfort. Therefore, the siting of any type of large-scale solid waste facility would be difficult due to immediate negative impact on an already questionable transportation system. Exceptions to this concern are roads with adjacent access to 1-81, Table Station Connector Road and the four lane section of Route 9 from Exit 12 on 1-81 toward Jefferson County.

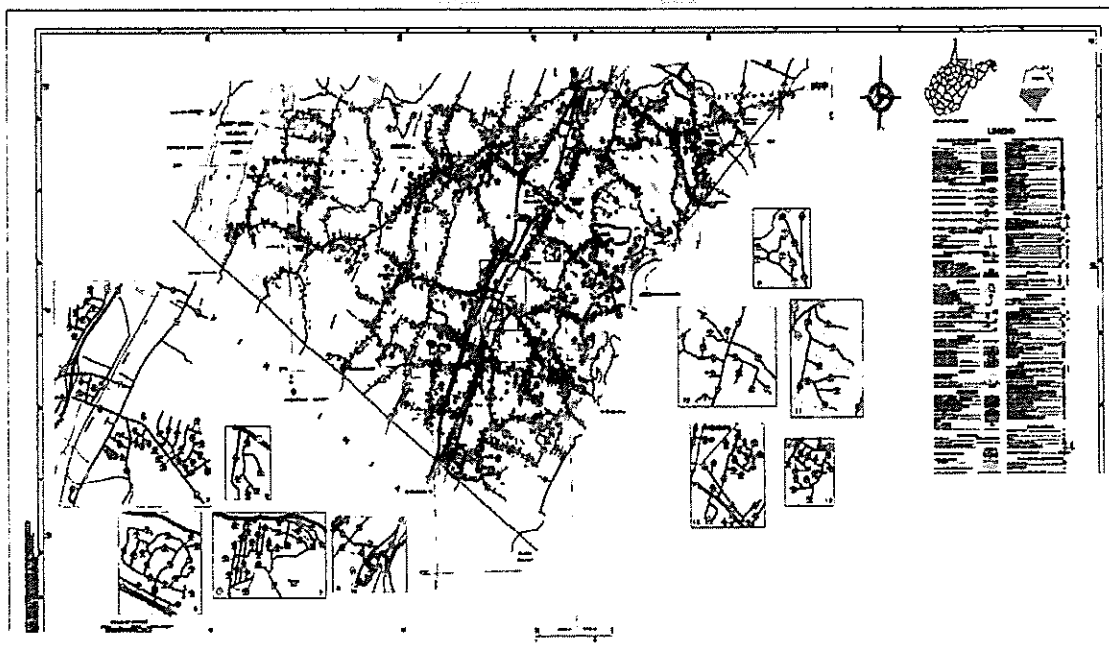
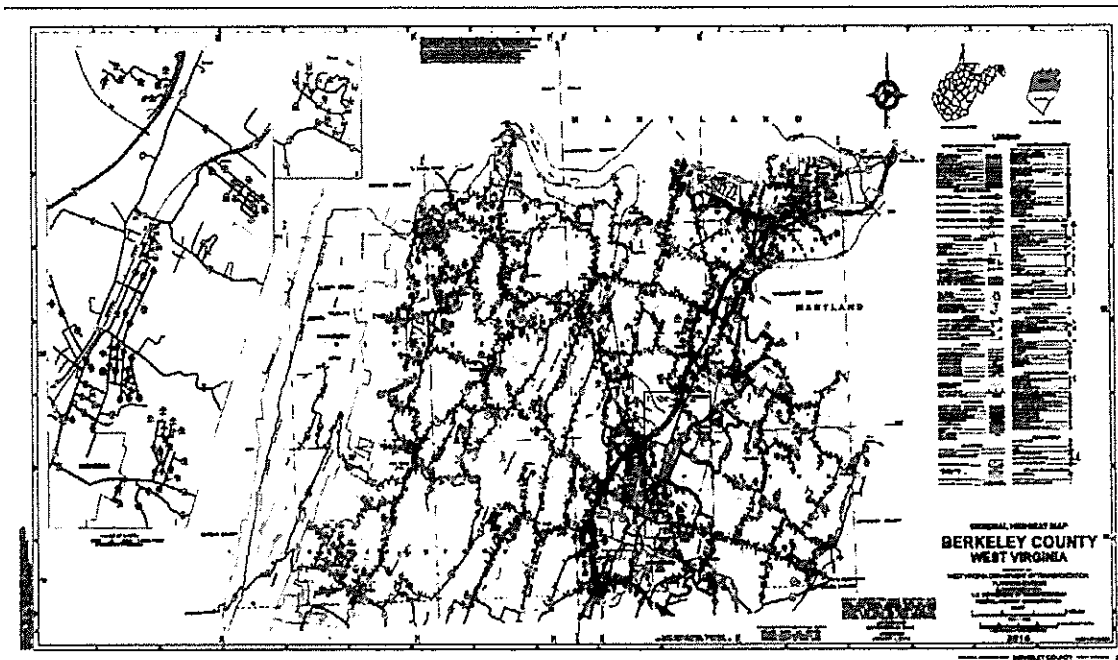
Based on complaints from residents, combined with documented evidence of several past accidents and other safety related problems, there presently exist transportation related concerns with the various routes presently utilized to access the LCS Services Landfill.

Because of the existence of 1-81 and a large volume of through traffic and the associated service travel facilities (i.e. hotels, fast food eating establishments, etc.), more roadside litter may be generated that might not otherwise be expected from the county's population.

SOLUTIONS AND RECOMMENDATIONS:

In reality, the Authority in itself cannot affect the transportation system. However, it is important that the Authority be willing to not support the siting of large scale commercial solid waste facilities that are accessed by those roads which cannot support such traffic and to support the siting of solid waste facilities where the roads can support them.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS



Map courtesy of the West Virginia DOT

CHAPTER FOUR

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER 4: SOURCE REDUCTION

Source reduction is the highest preferred method for the management of solid waste. Source reduction involves changing the ways products are designed, manufactured, purchased or consumed in order to prevent solid waste creation. Although source reduction is the highest mandated preference in the waste hierarchy, traditionally it receives very little attention. Source reduction involves reducing the amount of trash produced, reducing the toxicity of waste or providing a longer useful life of products. As the US-EPA notes, source reduction saves natural resources, conserves energy, reduces pollution, lowers toxicity and saves money. America has become a "throw - away" society. We have come to expect the convenience of many practices which contribute to excess trash. Source reduction has played a role in the recent declining waste generation trends.

Some examples of source reduction are:

1. Leaving grass clippings on lawns; and
2. Photocopying on both sides of paper; and
3. Using a cloth towel instead of paper towels; and
4. Using a coffee mug instead of a disposable cup.

Reduction may be achieved through some basic strategies. One strategy is inventory management and improved operations. Examples of such measures under this category are the inventorying and tracing of all raw materials, instituting purchasing controls that favor non-hazardous materials over toxic ones, an improved material receiving, storage and hauling practice.

Simple economics is one of the strongest justifications for establishing a source reduction program. A source reduction program can save limited financial resources by helping to conserve landfill space. The legislatively designated solid waste hierarchy places source reduction, or waste prevention, as the most preferred method of solid waste management. Given that tons "not handled" should be among the least costly and least environmentally damaging, source reduction should be very effective. However, efforts toward such a specific program in Berkeley County and West Virginia are rare. If they did exist they would be hampered by the difficulty of measuring the positive impacts of such a program. Source reduction programs receive less public attention than recycling and composting because source reduction is something that "doesn't happen". Measuring something that "doesn't happen" can be difficult, uncertain and labor intensive. Most solid waste authorities, including Berkeley County, do not have resources to implement a source reduction program.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

IDENTIFICATION OF PROBLEMS:

Except at the various zero waste businesses in the County, significant amounts of solid waste is unnecessarily created that could be better addressed by source reduction measures. However, there are few, if any, local promotion of the benefits of source reduction.

SOLUTIONS AND RECOMMENDATIONS:

Within 5 years, the Authority should attempt to improve upon its existing website to promote the benefits of source reduction. The program could focus on the need for improved shopping habits to assist residents to identify items that are over packaged.

Within the next 10 years, the Authority will encourage businesses and municipalities to evaluate and study the feasibility of potentially implementing the US-EPA's "source reduction" program. Its objective is to improve and better ascertain the positive impacts of source reduction efforts

CHAPTER FIVE

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER 5: REUSE

Reuse is the second highest preferred method for management of solid waste. In simplest terms, reuse is a waste reduction strategy where a product is used for the same or new purpose without undergoing a physical change. Reuse is using a product or material again for its original purpose, without the need for processing or manufacturing. For example, the reuse of grocery store bags for the handling of household garbage is an example of reuse. However, the burning of a paper bag and spreading the ashes in the garden is not an example of reuse as the bag underwent a physical change. Many source reduction and recycling strategies include reuse. The reasons for investigating reuse strategies are the same as those for source reduction. Simple economics is one of the most persuasive justifications for employing reuse strategies. Reuse techniques help conserve landfill space and reduce dependence on costly waste management practices.

Reuse may be achieved at the local level through the establishment of an internal clearing house for excess materials through the use of a waste exchange. A waste exchange operates on the principle that one man's trash is another man's treasure. Most waste exchanges are non-profit organizations which publish catalogs listing available waste and wastes needed. Simply put, waste exchanges link waste generators with waste users.

IDENTIFICATION OF PROBLEMS:

Despite many opportunities, there is little ongoing promotion of local opportunities for reuse of solid waste.

SOLUTIONS AND RECOMMENDATIONS:

Within 5 years, the Authority should improve its current webpage link to establish a program for a waste exchange. Linking of the Authority's website to an existing waste exchange program could be of great assistance to the local public.

Within 10 years, the Authority should study the feasibility of creating a waste exchange facility.

CHAPTER SIX

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER 6: RECYCLING AND COMPOSTING

Recycling is the remanufacture of waste products. Many waste products such as paper, glass, cans, electronics and plastic can be used as raw materials in the manufacturing of new or different products. Recycling is a continuous cycle of purchase, consumption, collection, returning to the manufacturing process, remanufacture of a new product and the purchase of the new product.

Recycling has grown to become an important part of the United States economy and is clearly a central part of today's solid waste management. Recycling is often the only practical means to manage certain types of waste. Along the way, recycling creates jobs, preserves valuable landfill space and saves public funds. Recycling also conserves energy, reduces air and water pollution, reduces greenhouse gases and conserves natural resources.

Here are some more reasons why society should continue to increase its recycling activities:

1. Manufacturing with recycled aluminum cans uses 95% less energy than creating the same amount of aluminum with bauxite; and
2. A ton of PET plastic containers made with recycled plastic conserves about 7,200 kilowatt hours. One ton of recycled plastic saves 5,774 Kwh of energy, 16.3 barrels of oil, 98 million Btu's of energy, and 30 cubic yards of landfill space; and
3. The Steel Recycling Institute states that steel recycling saves enough energy to electrically power the equivalent of 18 million homes for a year. One ton of recycled steel saves 642 KWH of energy, 1.8 barrels of oil, 10.9 million BTU's of energy, and 4 cubic yards of landfill space.; and
4. One ton of recycled glass saves 42 Kwh of energy, 0.12 barrels of oil (5 gallons), 714,000 BTU's of energy, 7.5 pounds of air pollutants from being released and two cubic yards of landfill space. Over 30% of the raw material used in glass production now comes from recycled glass; and
5. By diverting yard waste from landfilling, recycling can reduce the production of methane which is a powerful greenhouse gas that can trap 25 times more heat than carbon dioxide; and
- 6) Recycling one ton of paper can save 17 trees, 7,000 gallons of water, 380 gallons of oil, 3.3 cubic yards of landfill space and 4,000 kilowatts of energy-enough to power the average U.S. home for six months-and reduce greenhouse gas emissions by one metric ton of carbon equivalent (MTCE); and
7. Recycling creates new jobs. When you recycle, more jobs are created than when you merely landfill waste. Landfilling 10,000 tons of solid waste in a landfill creates six jobs while recycling 10,000 tons of solid waste creates 36 jobs.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

8) Recycling is often less expensive than landfilling. This is particularly true when factoring the long term costs associated with landfilling.

As previously stated, the U.S. Environmental Protection Agency in its "National Overview: Facts and Figures on Material, Waste and Recycling" pegs the nation's municipal waste stream at 292 million tons per year. Generation of municipal waste is 4.9 pounds per person per day in 2018. The report shows that Americans recycle 94 million tons, or 32% of the 292 million tons. The report also shows a per person recycling rate of 1.16 pounds per person per day, a .42 pounds per person rate for composting and a .30 pounds per person rate for food management.

Paper is often considered the single most important item for a community to recycle in order to cut down on disposal costs and save landfill space.

Glass is probably the most ideal recycling item. All kinds of glass containers, heavy or light, whole or broken- can be recycled and reused an indefinite number of times. Crushed glass, known as cullet, is easily used in the production of new bottles, jars and other containers. By using cullet, which melts at a lower temperature than the raw materials used to make glass, manufacturing firms save on energy. Glass is 100 percent recyclable and the recycling process produces little waste or by-products.

The plastic soft drink bottle is made of a simple type of plastic, PET (Polyethylene Terephthalate). Certain plastic beverage bottles are made with a material different from PET and this consists of a High Density Polyethylene (HDPE). Plastic milk and soft drink containers are loosely identified by their shape and have very short life spans. Therefore, they have a high turnover rate which guarantees a continuous supply for the recycling stream. The plastic soft drink containers are being recycled into products such as fiber backing, paint brush bristles, stuffing for pillows, ski jackets and sleeping bags. Plastic is used in the manufacture of rigid urethane foam which is utilized in making fiberglass bathtubs and shower stalls, corrugated awnings and swimming pools. Additional items made from recycled plastics include appliance handles, power tool bodies and automobile parts.

Residential: Berkeley County has a variety of drop-off and curbside recycling programs. Waste Management of West Virginia operated the first voluntary residential drop-off recycling program in five locations (Inwood, Mt. Lake Road, Grapevine Road, Martinsburg and Hedgesville). This program was started on July 1, 1990 and closed unexpectedly in 1994. Waste Management stated that they closed the program because the unstaffed sites were contaminated. However, the closure of this program coincided with a request by Waste Management to the WV-PSC to initiate a mandatory curbside recycling program for their Berkeley County customers. The proposed program was not to be made available to non- Waste Management customers. It was subsequently denied a permit by the WV-PSC in lieu of a recycling alternative program offered by the Authority.

In May 1995, the Authority initiated the operation of the new voluntary drop-off recycling program. The program was designed and is operated in a manner consistent with the "Berkeley County Recycling Ordinance". The ordinance passed by the Berkeley County Commission in December, 1994. The ordinance was updated in 2006 by the Berkeley County Commission and re-titled "Berkeley County Comprehensive Recycling Plan".

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Initially the program operated at two locations. However, today the program operates at three locations.

South Berkeley Recycling Center: The Authority obtained 10 acres of land on Pilgrim Street in the Inwood area and moved the Inwood Recycling Center to that property. The center was re-named the South Berkeley Recycling Center. This facility is open 5 days per week and offers comprehensive recycling services. The facility currently accepts aluminum foil, aluminum cans; steel cans; green, blue, yellow, clear and brown glass bottles, ferrous and non-ferrous metals, appliances with and without Freon; ink-jet cartridges; toner cartridges; clothes, shoes, books, mixed paper; newspaper; magazines; plastic bag #2 & #4; yard waste; brush; oil; antifreeze; batteries; CFL lamps; electronics; clean lumber, Christmas trees, food waste and vegetable oil. Other services offered randomly include tire collection events, paper shred events and pesticide collection events.

Grapevine Road Recycling Center: In 1996, the program opened a new location east of Martinsburg at Porterfield's Collision Center. In 1997, the center moved about 2 miles to the Grapevine Road Recycling Center. This facility currently accepts aluminum foil, aluminum cans; antifreeze; steel cans; batteries; green, blue, yellow, clear and brown glass bottles; ferrous and non-ferrous metals, non-Freon and Freon appliances; ink-jet cartridges; toner cartridges; clothes, shoes, books, mixed paper; newspaper; magazines; oil; yard waste, brush and Christmas trees, food waste and vegetable oil. Other services offered include the collection of plastic containers #1 thru #7, Styrofoam, carpet sections, plastic wrap by Entsorga for the purpose of fuel manufacturing. This center can also host random tire collection events, paper shred events and pesticide collection events.

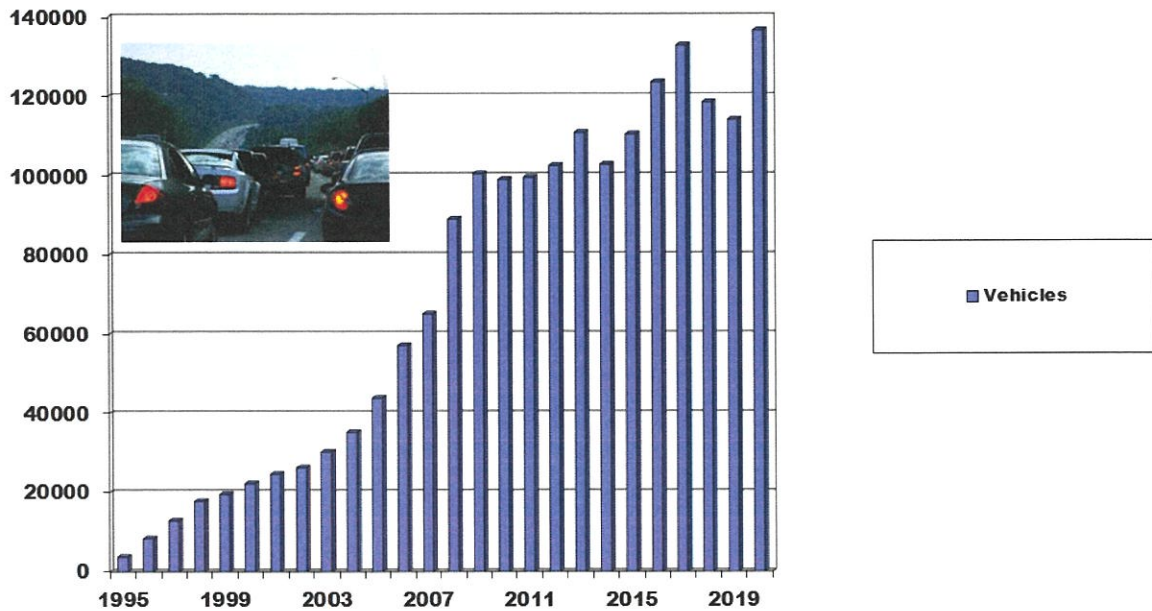
Hedgesville Recycling Center: The Hedgesville Center is not a comprehensive center. It offers recycling services for mixed paper, cardboard, newspaper, paperboard, clear glass, brown glass, green glass, blue glass, yellow glass, aluminum cans, steel cans, tin cans and bi-metal cans. Due to space and funding issues, this center offers no new services since its inception.

North Berkeley Recycling Center: In 1998, a fourth location was opened at the Handi Mart in Marlowe. This center, like the Hedgesville location, was not a comprehensive center. It offered recycling services for mixed paper, cardboard, newspaper, paperboard, clear glass, brown glass, green glass, blue glass, yellow glass, aluminum cans, steel cans, tin cans and bi-metal cans. This center closed in 2009 when the recycling program lost significant amounts of revenue from the Berkeley County Council and the commodity market. However, efforts continue to re-establish a location for a center in the northern part of Berkeley County.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

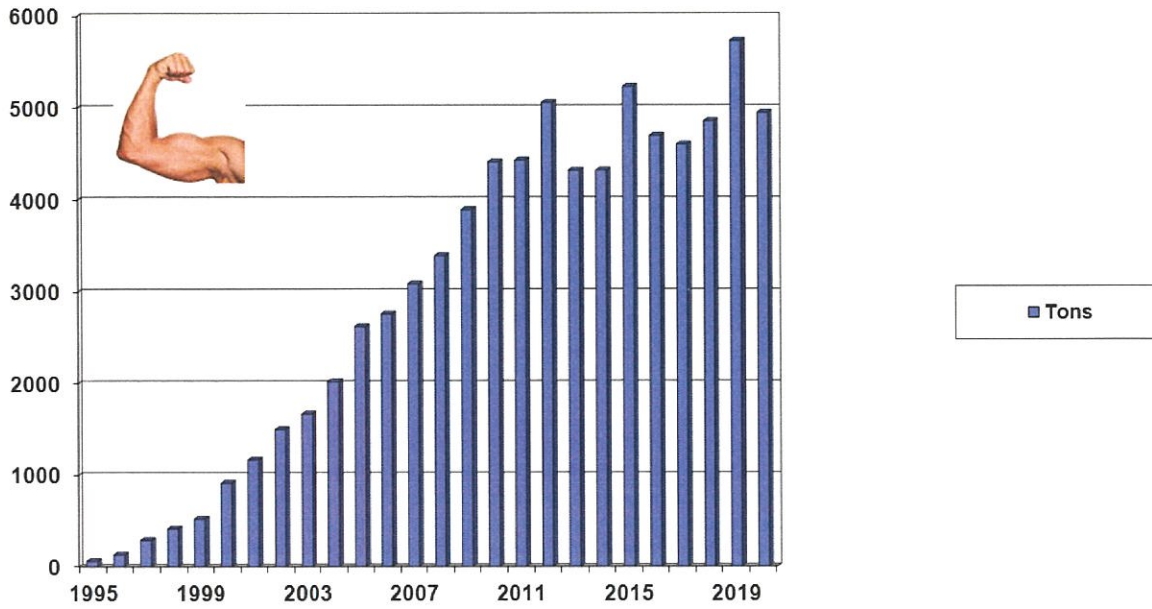
The Authority's recycling program has enjoyed strong community support and strong participation growth. The following chart depicts participation since inception of the program.

Drop Off Program Participation



EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

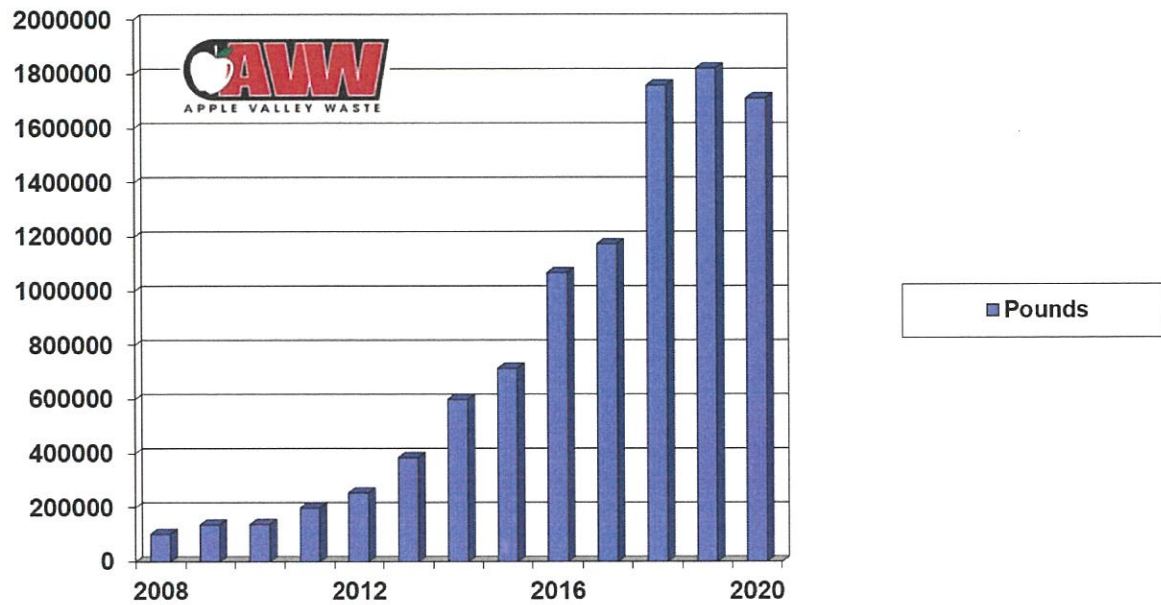
As well, the Authority's recycling program has enjoyed strong increases in tonnage collected. The following chart depicts tonnages collected and processed. All numbers are reflected in "tons".



For those who prefer a curbside pickup program, Apple Valley Waste is permitted by the WV-PSC to provide a fee based curbside residential recycling services throughout the County. The following chart depicts participation since inception of the curbside program. However, the WV-PSC requires Apple Valley to dispose of all collected recyclables within the Berkeley County Recycling Program. This requirement was taken to in an effort to reduce the probability of the curbside recycling program from harming the participation and tonnage levels of the Authority's long established drop off recycling program. Other residential haulers in the county and region include Panhandle Dumpsters and a Maryland company called Collectors Trash. These two haulers operate under the Harper Decision. Panhandle Dumpster do not offer residential recycling services, but Collectors Trash does offer such services.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Apple Valley's curbside program has generated significantly fewer tonnages for recycling than the county's drop off program. The following chart depicts tonnages collected and processed. All numbers are reflected in pounds.



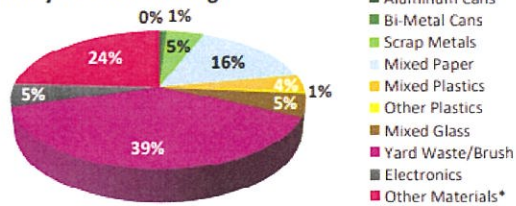
EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Berkeley

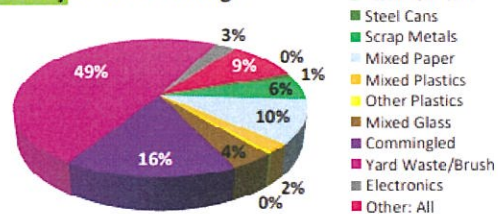
Drop-Offs:	3	Materials Collected: Separated & Commingled			
Curbside Collections:	2	Geographic Area of Responsibility: 90%			
		TONNAGE		REVENUE	
Item	2017	2019	2017	2019	Markets
Aluminum Cans	16.38	22.17	\$17,369.64	\$20,504.45	Conservit
Bi-Metal Cans	28.85		\$0.00		
Steel Cans		32.34		\$0.00	Conservit
Scrap Metals	230.90	318.61	\$20,847.74	\$30,164.04	Conservit
Mixed Paper	743.78	588.36	\$17,534.84	\$965.86	Chambersburg Waste Paper
Mixed Plastics	180.69	126.13	\$4,946.40	\$4,198.40	Trigon
Other Plastics	20.21	18.21	\$0.00	\$0.00	Trex
Mixed Glass	247.75	230.88	\$5,332.45	\$6,177.00	Carry All Products
Commingled		901.30		\$9,237.15	Apple Valley Recycling Center
Yard Waste/Brush	1,772.00	2,759.38	\$22,299.08	\$3,745.00	Tabb Composting Facility
Electronics	248.65	157.33	\$24,647.65	\$0.00	Green Wave
Other Materials*	1,114.23		\$29,997.26		
Other: Textiles		181.57		\$0.00	Planet Aid
Other: Food/Lumber		295.00		\$0.00	Tabb Composting Facility
Other: Liquids		20.47		\$0.00	Valicor
Other: Batteries		4.13		\$0.00	Battery Solutions
Other: Books		15.14		\$0.00	Planet Aid
Other: Florescent Lamps		0.70		\$0.00	Air Cycle
Other: Media/Ink Jet		0.84		\$0.00	Green Discs
Other: Vegetable Oil		3.31		\$60.38	Resource Oil
	4,603.44	5,675.89	\$142,975.06	\$75,052.28	

*CY 2017 Report listed "Other Materials" as one item. Tonnage & Revenues were not broken down by item.

Bekeley CY 2017 Tonnage



Berkeley CY 2019 Tonnage



Footnote: The above charts are from the 2021 West Virginia Solid Waste Management Plan.

Commercial: Waste Management of West Virginia offers a recycling program to its commercial customers within the County as part of its nationally recognized "Recycle America Program". In Berkeley County, the program primarily targets cardboard recycling at businesses. Waste Management also offers newspaper, glass bottle and can recycling opportunities.

Republic Waste Services also offers a recycling program to its commercial customers within the County.

Chambersburg Waste Paper (CWP) is the region's largest waste recycler. CWP operates a material recovery facility in nearby Chambersburg, Pennsylvania. They provide large scale recycling services for all types of paper including cardboard, mixed paper, metals, cans, and plastics for commercial businesses (1).

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Apple Valley Waste operates the Apple Valley Recycling Center at Hunters Green Parkway in Hagerstown, Maryland. This facility is a state-of-the-art municipal single stream recycling facility that can accept up to 20 tons of recycling material per hour. The facility employs 20 people and operates 5 days per week including Saturday's following a holiday. The facility processes over 100 tons per day of recyclables and where the Authority can market its single stream curbside recycling collection materials. In addition, recyclables originating from Jefferson County WV and Washington County, Md. also utilize this facility (2). More information is available at <https://www.applevalleyrecyclingcenter.com/>

City of Martinsburg: In July 1993, the City of Martinsburg began operating a curbside recycling program as a result of the legislative mandate requiring municipalities whose population exceeds 10,000 to offer curbside recycling services. According to the US Census Bureau, the population of Martinsburg is approximately 18,777 residents or 16% of the total County's population. The recycling program is open to Martinsburg residents only and was designed to operate independently of the Authority's recycling program. Starting in May 2021, the City of Martinsburg entered into an agreement with Apple Valley Waste for a new single stream recycling program. The initial cost for beginning the service with Apple Valley Waste was \$300.00, which included two 30-yard roll off containers. Currently, the cost of the haul fee for the two 30-yard roll off containers is \$225.00 each per week. The City's contracted cost for single stream recycling is \$65.00 per ton. Accepted items for recycling include: glass bottles, metal cans (aluminum, tin & foil), plastic containers (#1 through #7 only), paper cartons, paperboard boxes, cardboard, newspapers, magazines and soft cover books. Single stream recycling is collected every Wednesday of each month and collection is based upon garbage collection schedules within the Five Wards of the City of Martinsburg.

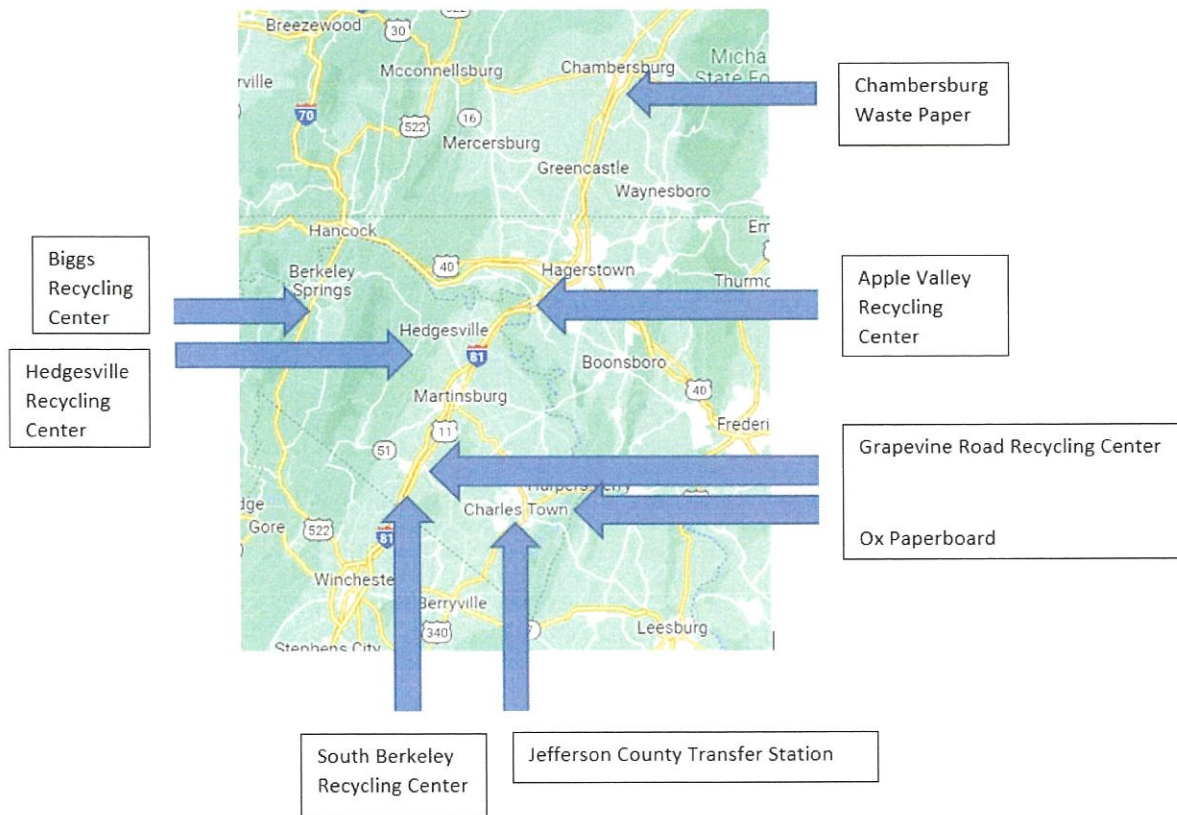
The City of Martinsburg also operates a drop off center known as the East Stephen Street Recycling Center. It is open on Saturday only; from 8:30am to 2:30pm. From May 2021 through September 2021, the City of Martinsburg reported 42 tons of recyclables collected. In 2014, the City of Martinsburg reported 63.36 tons recycled.

Footnote:

- 1) Email from Richard Bapst dated September 30, 2021
- 2) Email from Brad Dennen dated October 13, 2021
- 3) Email from Jeff Wilkerson dated October 15, 2021.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Map -Regional Public and Private Recycling Facilities



EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

The following chart represents the known combined capacity of the two existing comprehensive recycling centers and the Hedgesville Recycling Center operated in 2020 by the Berkeley County Solid Waste Authority.

Aluminum Cans:	45,078 lbs.
Antifreeze:	7,200 lbs.
Batteries:	14,056.33 lbs.
Books:	30,521 lbs.
Brush:	3,456,000 lbs.
CFL:	478 lbs.
Food:	140,000 lbs.
Long Tube:	689 lbs.
Lumber:	460,000 lbs.
Electronics	312,307 lbs.
Glass (all colors):	450,620 lbs.
Media:	1,644 lbs.
Single Stream:	1,710,080 lbs.
Mixed Paper	1,274,906 lbs.
Oil	44,800 lbs.
Plastic #1 - #7:	177,089 lbs.
Plastic Bags:	47,195 lbs.
Scrap Metal:	624,342 lbs.
Steel Cans:	48,738 lbs.
Textiles:	353,674 lbs.
Thermostats:	0 lbs.
Yard Waste:	690,000 lbs.
Vegetable Oil:	5,320 lbs.

Public education is very important to the success of recycling. Therefore, the Authority is continually educating the public about the recycling programs available to County residents. Depending upon funding, the Authority frequently purchases flyers depicting the specifics of the Authority's recycling program. These flyers are mass mailed to the extent the program funding allows. The Authority also provides two "recycling hotlines". The cell phone number is published widely and is a direct link to a recycling attendant. The attendants can answer questions related to any known recycling program in the County. Additional education efforts are made through the Internet with Facebook and an electronic newsletter called "Recycling News". The Authority also utilizes an active Internet webpage at: www.berkeleycountyrecycling.com. The webpage is managed by the Berkeley County IT Department.

The Authority also develops a list of all recycling programs, public or private, that are open for public access. This list is published or shared broadly. In addition, the Authority has been the subject of many recycling related news articles, handouts, flyers and paid advertisements. Those publications are also made available to the public via the Internet and handouts at the Authority's recycling centers.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

The Authority has purchased and distributed tens of thousands of pamphlets. In addition, paper flyers, e-mail distribution, banners, signage, radio appearances and newspaper advertisements are all currently used examples of on-going efforts to educate the public of certain aspects of the recycling program.

The Authority has and will continue to develop newspaper articles, flyers and other forms of public education on an on-going basis. It aims to inform the public of solid waste problems, various provision of WV law relating to solid waste management and the benefits of recycling.

IDENTIFICATION OF PROBLEMS:

Despite decades of education, there are enormous amounts of municipal solid waste available for recycling that is not being collected.

There are no permitted recycling processing facilities (i.e. material recovery facilities) in Berkeley County. In the past, the lack of a processing facility has made it difficult for recyclers to operate a recycling program because the programs must be designed to operate with little or no contamination right at the point of collection. As a result, the drop-off programs expend funds staffing the recycling facilities with attendants. However, Apple Valley has developed a comprehensive material recovery facility in Washington County, Md. that has the potential to easily serve Berkeley County

There are only two drop-off recycling centers for yard waste, brush, Christmas trees, air conditioners, ferrous/non-ferrous metals, plastic bags, clean lumber and appliances with Freon. This makes it inconvenient for the public to recycle those items in those areas without those services.

The South Berkeley Recycling Center does not offer a plastic bottle recycling or resource recovery services.

The City of Martinsburg does not collect yard waste, brush and electronics as part of their curbside recycling collections or at their drop-off site.

It is difficult to accurately track solid waste volumes recycled by private industry because most do not report tonnages to the Authority.

There are no comprehensive recycling drop-off recycling center in Western and Northern sections of the County.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

SOLUTIONS AND RECOMMENDATIONS:

The Authority believes it can make the greatest impact on reducing landfill dependence by concentrating its efforts on innovative programs aimed at improving recycling, resource recovery and composting services. The continued promotion of recycling will need to remain a priority. The Authority will continue to encourage individuals and businesses to voluntarily participate with the various recycling centers and within private recycling efforts.

The Authority will continue its efforts to expand the recycling infrastructure for improved recycling services in the Hedgesville and North Berkeley areas of the County.

The Authority will continue to develop all forms of public education on an ongoing basis to inform the public of the solid waste programs and the benefits of recycling.

Within the next 5 years, the Authority will continue to monitor the Apple Valley material recovery facility to determine if the need to construct such a facility in Berkeley County remains a need for construction in Berkeley County.

Within the next 5 years, the Authority will conduct efforts with the Berkeley County School System to ascertain the likelihood of integrating a solid waste and recycling curriculum into the schools as part of an ongoing education program with the area youth.

Within the next 5 years, the Authority will continue its efforts to develop a comprehensive recycling drop-off sites in Western and Northern sections of the County. These facilities should collect yard waste, brush, clothes, shoes, books, Christmas trees, electronics, air conditioners, ferrous/non-ferrous metals and plastic bottles.

Within the next 5 years, support efforts to encourage the City of Martinsburg to collect yard waste and brush as part of their curbside recycling collections or at their drop-off site.

Within the next 5 years, efforts should continue to offer and expand recycling services at the schools. These efforts could include such as "Operation Green Lid" which is occurring at two schools in the County.

Within the next 5 years, the Authority should locate funds to conduct a study to determine opportunities to improve the recycling of the construction waste stream without harming the existing recycling efforts of construction waste.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

COMPOSTING/ YARD WASTE

According to the US-EPA, in 2018 yard waste represented over 12% of the total solid waste generated in the United States. Simply put, this material is often nothing more than leaves and grass. If other organic wastes such as paper, food waste and wood waste are added, the volume jumps to over 62% of the waste stream. Most of this material can be easily managed at home with the implementation of backyard composting or in a yard waste collection program. These efforts to manage the organics for composting often save time, money and landfill space (1).

Footnote:

1) Data collected from <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials>

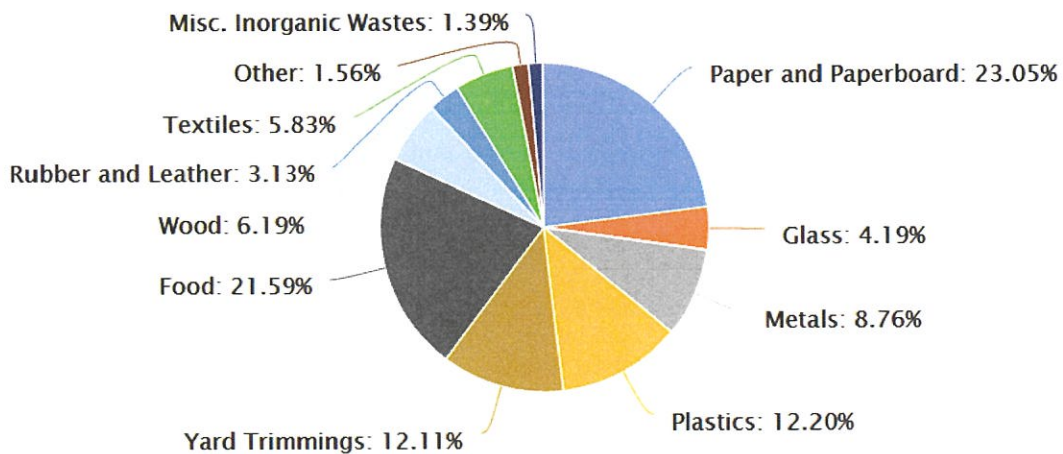
Generation

The total generation of MSW in 2018 was 292.4 million tons, which was approximately 23.7 million tons more than the amount generated in 2017. This is an increase from the 268.7 million tons generated in 2017 and the 208.3 million tons in 1990.

Total MSW Generated by Material, 2018



292.4 million tons



EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Recognizing that yard waste places a strain on solid waste collection, disposal facilities and uses up valuable landfill space, the WV Legislature (§22-15A-22b) banned the disposal of yard waste in landfills as of January 1, 1997. As a result, three yard waste collection facilities were developed in Berkeley County. The City of Martinsburg owns and once operated a yard waste collection facility (Registration # YWR-02-001) that was available to city residents. However, in 2000, the City abandoned the collection of yard waste and the use of this facility was eliminated.

The Authority presently collects yard waste, brush and Christmas trees at both the Grapevine Road Recycling Center and the South Berkeley Recycling Center. The Authority will continue efforts to expand the present recycling efforts for improved services of yard waste, brush and Christmas trees to future recycling centers around the County.

It is the desire of the Authority to continue to support the Tabb and Sons Composting Facility in Jefferson County for the organic materials collected in the Berkeley County Recycling Program. The Tabb and Sons facility is a well-established non-commercial composting operation located near Leetown, WV. The facility employs 6 people and utilizes clean lumber, yard waste, brush, stumps, deer carcasses and food waste as part of its agricultural operation. The operation is supported by a hauling operation that consists of 6 rolloff trucks and 100+ rolloff containers. The operation accepts waste for composting from primarily Berkeley and Jefferson County, but small volumes of waste material originates within a 100 mile radius

In 2003, the Authority, with the assistance of Norseman Plastics, conducted WV's first truckload composting bin sale event. The one day event was conducted at the Martinsburg Mall. Subsequently, additional truckload sales of compost bins and rain barrels also occurred at the same location. In recent times, the Authority sold these bins directly from the Authority's recycling locations. However, due to budgeting and staffing reasons, the ongoing sales stopped in 2014. But, from 2013 to 2019, educational seminars were conducted in Berkeley County for the proper operation of the backyard c o m p o s t bins.

In 1997, the Authority developed a yard waste collection facility at both the Grapevine Road Recycling Center and the South Berkeley Recycling Center. These facilities collect grass, leaves, weeds, garden debris, sod, brush and Christmas trees. The yard waste material is delivered to the Lyle C. Tabb Composting Facility in Leetown, WV where it is composted into organic fertilizer. Both centers are heavily utilized by the public. The centers have collected and p r o c e s s e d 43,679 tons of brush/yard waste material since it began operation in 1997. Therefore, the brush/yard waste collection at the Grapevine Road Recycling Center and the South Berkeley Recycling Center has saved Berkeley County citizens an estimated \$ 2 . 2 5 M in landfill costs (43,679 x \$51.70) from 1997 through 2020.

In 2015, the Authority implemented the collection of food waste at both the Grapevine Road Recycling Center and the South Berkeley Recycling Center. The food waste collection implementation was successful and has since expanded to include a collection offering at the South Berkeley Recycling Center.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

IDENTIFICATION OF PROBLEMS:

The Authority recognizes there are only two yard waste collection facilities in Berkeley County. That situation is fundamentally unfair to residents who need to significant distances to utilize these facilities. For example, residents of Hedgesville and Marlowe must travel 20-25 miles (round trip) to utilize the Grapevine Road or South Berkeley Recycling Centers.

The Authority recognizes that the continual promotion of backyard composting as a solution to handling of yard waste is not at sufficient levels for a growing Berkeley County.

The Authority recognizes that the composting of sewage sludge is typically more complex than the composting of organics. Sewage sludge composting should only be considered after a thorough review, siting and permitting process.

SOLUTIONS AND RECOMMENDATIONS:

The Authority will continue its efforts to locate land for improved recycling services of yard waste, Christmas trees, brush and other organic material around the County.

It is the desire and commitment of the Authority to continue to support the Lyle C Tabb III and Sons Composting Facility in Jefferson County for the composting the yard waste material collected in the Berkeley County Recycling Program.

Within the next 3 years, the Authority should develop a program to educate residents of the benefits of the diversion of yard/garden waste by promoting backyard composting. This would include repeating composting bin truckload sales on a more frequent basis and education program to train citizens how to properly use them.

Within the next 5 years, the Authority should locate funding to conduct a study on the implementation of a commercial collection program for food waste at commercial establishments

CHAPTER SEVEN

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER7: RESOURCE RECOVERY

Waste management in the United States is evolving from a focus solely on the expeditious disposal of waste by landfilling to a focus on solid waste as a composite of various materials flowing through a consumer society, each being managed in such a way as to recover the highest value possible. Resource recovery has a central role to play along with source reduction, reduce techniques and recycling –all composite parts of a "zero waste" strategy.

Internationally and nationally, there is growing consensus to divert more solid waste from landfills and to thereby achieve "zero waste." Zero waste policies typically encompass ambitious, long term strategies to nearly eliminate waste from being landfilled. The implementation of zero waste strategies yield considerable local benefits, including GHG emissions reductions, energy savings, extended landfill capacity, addition of jobs to the economy, conservation of natural resources and avoidance of landfill disposal costs. Zero waste is simply smart capitalism.

Resource recovery has the potential to significantly reduce the use of landfills for the waste stream. Therefore, the preferred option to conserve valuable landfill space, lower greenhouse gas emissions, reduce leachate discharges and create a source of energy. Resource recovery is the stepping-stone to realize the benefits of zero waste. Resource recovery can lower greenhouse gas emissions and thereby cause significant methane benefits. Resource recovery facilities produce almost no methane and for many materials generate lower greenhouse gas emissions than landfilling. Note that resource recovery facilities should always be coupled with a recycling program to ensure that the resource recovery facility does not undermine the region's recycling infrastructure.

Entsorga West Virginia is a fully permitted Class B resource recovery facility operating at 119 Recovery Way, Martinsburg WV. The facility has a monthly limit of 9,999 tons per month. The facility is the first mixed waste resource recovery facility in West Virginia. The facility is reportedly the first in the United States utilizing HEBIOT technology. Entsorga markets its product as fuel stock to ARGOES –a cement manufacturer employing 250 people in Berkeley County with an annual payroll of \$14,000,000. The facility is utilized by waste haulers Apple Valley Waste, Republic, Waste Management and CWP as well as a variety of out of shed sources. The facility also offers a "free day" the third Tuesday of each month and has a 'pay by the bag' program available to the general public. The facility also offers a mixed plastic service (carpet, plastic containers, plastic packaging, styrofoam, etc.) to the Authority for use by the public at the Grapevine Road Recycling Center.

An analysis of the Entsorga facility outbound for 2020 showed the following diversion rate:

SRF: 11,062 tons (40.7% of intake)

Estimated lost water weight: 9,546.58 tons (35.15% of intake)

Landfill: 5,944.32 tons (21.89% of intake)

Ferrous Metals: 348.86 tons (1.3% of intake)

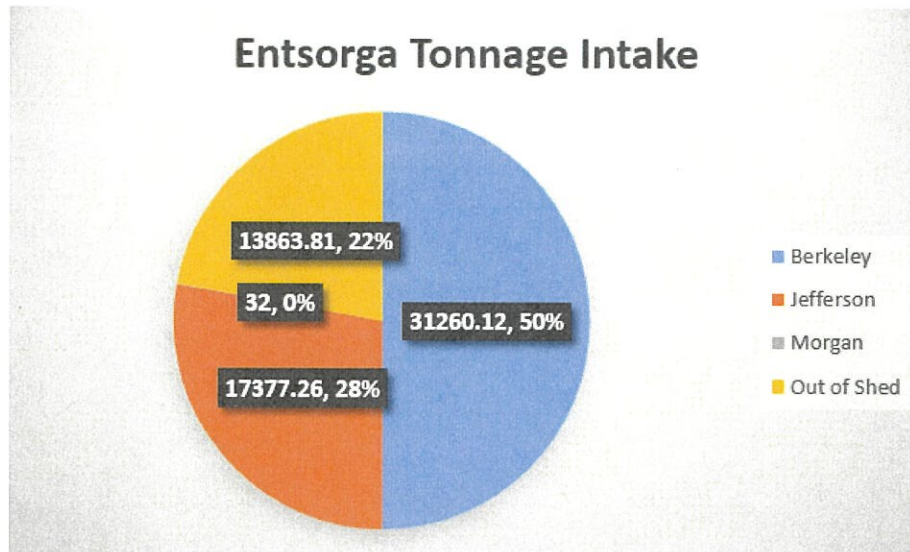
Non-Ferrous Metals: 209.12 tons (.77% of intake)

Cans: 48.57 tons (.018% of intake)

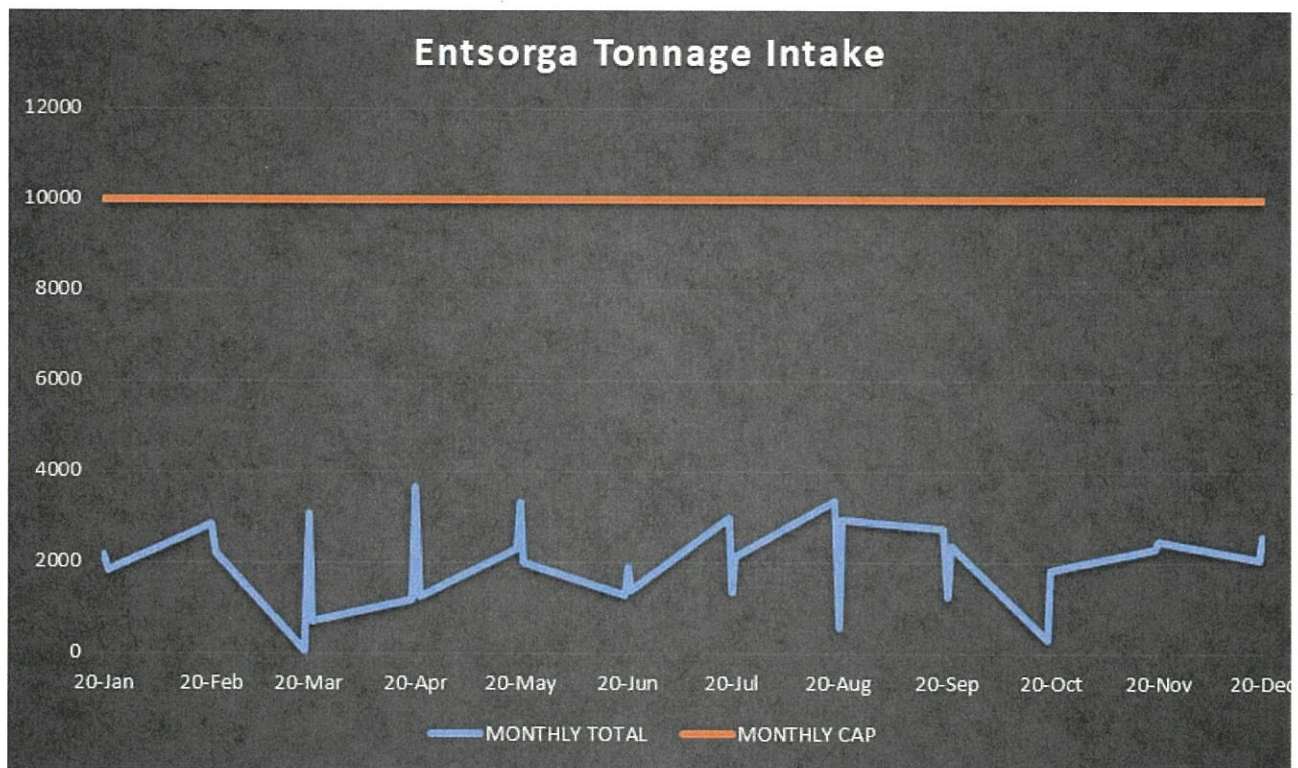
Total Landfill Diversion for 2020: 78.11%

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Below is a chart reflecting the tonnage intake into Entsorga using data provided by the month tonnage report:



Below is a chart reflecting the tonnage intake into Entsorga using data provided by the month tonnage report:



EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

IDENTIFICATION OF PROBLEMS:

Entsorga West Virginia is the first recovery facility in the State. As a result, the general public will need to be educated as to the economic and solid waste management advantages of such as facility.

Commercial waste haulers, accustomed to landfilling solid waste, will need to be educated as to the solid waste hierarchy and the requirement to develop and implement zero waste strategies whereby landfilling is the option of last resort in order to comply with that hierarchy.

Without a resource recovery facility in the region, it will be otherwise impractical to achieve the 50% landfill diversion goal established by the WV Legislature.

SOLUTIONS AND RECOMMENDATIONS:

Within two years the Authority, in cooperation with Entsorga, should create a public awareness campaign to educate area residents and businesses about the advantages of a resource recovery facility.

Within five years, the Authority should evaluate a plan that achieves the established waste management hierarchy for waste generated in Berkeley County, that includes the development and implementation of zero waste strategies in order to, at a minimum, conform to the 50% landfill diversion goal set forth in WV Code §22-15A-16.

CHAPTER EIGHT

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER 8: TRANSFER STATIONS

Transfer stations can provide a vital link for efficient handling of municipal solid waste to a disposal facility. Specifically, transfer stations serve to consolidate, compact and load waste from small collection vehicles into long haul trailers for transport to more distant solid waste facilities. There exist no permitted transfer stations in Berkeley County. However, there are three transfer stations in Wasteshed E (Jefferson, Hampshire and Grant Counties).

Historically, none of the waste stream generated from Berkeley County is managed via the transfer station in either Hampshire or Grant Counties. However, since 1994, the Jefferson County Solid Waste Authority (JCSWA) has owned a Class B transfer station at its property on Jefferson Orchard Road, Kearneysville, WV. The transfer station operates under permit # SWA7046/WVO 109589 and does play a role in the management of waste generated from Berkeley County. On January 5, 2007, the transfer station completed \$2.5M of upgrades that allowed it to better handle large volumes of solid waste. The transfer station upgrades were completed in cooperation with Waste Management of West Virginia. Once the upgrades were completed, the historical amounts of solid waste processed through the transfer station significantly increased. The rates at the transfer station in October, 2021 are \$81.25 per ton. The transfer station has a monthly permit limit of 9,999 tons per month.

Waste haulers, such as AVW of West Virginia, Panhandle Pumping and Waste Management of West Virginia, utilize the transfer station. The transfer station was designed to transfer waste to the WMI owned landfill in Waverly, Virginia called the Atlantic Waste Landfill. Reportedly, WMI needed this additional capacity for West Virginia waste at its LCS Services Landfill and the Mountain View Landfill. However, recent data show that today the transfer station waste is almost exclusively transferred to the Mountain View Reclamation Landfill in Greencastle Pa. and LCS Services in Berkeley County.

Year	Total Intake (Tons)	Atlantic Waste, VA (Tons)	LCS Services (Tons)	Mountain view (Tons)	Charles City, Va (Tons)
2008	54079	477	1186	41733	0
2009	43922	134	1360	30137	48
2010	39591	216	1399	25377	0
2011	36161	43	1296	23151	0
2012	34579	0	1061	23960	0
2013	32177	0	1222	19948	0
2014	29408	0	18547	10861	0
2015	42934	0	22135	20799	0
2016	44539	0	19487	25052	0
2017	42729	0	13246	29483	0
2018	55671	0	7351	48320	0
2019	49101	0	10017	39084	0
2020	50822	0	13827	36995	0

Chart courtesy of the Berkeley County Solid Waste Authority with data provided by the Jefferson County Solid Waste Authority

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

IDENTIFICATION OF PROBLEMS:

The Authority believes that the development of a transfer station may become important as landfill capacity diminishes and the continued urbanization continues in the County. If so, funding would need to be identified to site, construct and operate such a facility.

SOLUTIONS AND RECOMMENDATIONS:

The Authority should reserve land on its 140 acres on Grapevine Road and land on its 10 acres in Inwood for the potential use of a future transfer station.

CHAPTER

NINE

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER 9: LANDFILL FACILITIES

Prior to 1960, solid waste collection and disposal in Berkeley was largely unregulated. At that time, municipal open dumps were created to place waste in one location. The City of Martinsburg operated a burning dump on City property near the present day Martinsburg Sewage Treatment Facility. Additionally, the Berkeley County Court owned and operated a similar facility south of the Town of Hedgesville on Cannon Hill Road. This method of solid waste management often resulted in the degradation of air, surface and groundwater. These facilities often created significant odors and were breeding grounds for disease carrying insects, rodents and animals.

In 1969, the Berkeley County Commission purchased property on Grapevine Road that contained a private existing dump for the purpose of consolidating the County's waste in one area. The landfill became known as the "Berkeley County Landfill". While the County Commission owned the site, the City of Martinsburg operated the facility until 1982. Then, the Berkeley County Commission took over operation of the facility until 1989. At that time, the Berkeley County Commission created the Authority which now owns the facility. This landfill was the first landfill in West Virginia to use synthetic liners and the first in the State to have an active landfill gas collection program. Due to extensive litigation by the LCS Landfill, the Berkeley County Landfill stopped accepting waste in the fall of 1991. In 1992, the Authority made application to the WV-DEP'S Landfill Closure Assistance Program (LCAP) to permanently close and cap the Berkeley County Landfill. Subsequently, the facility was accepted into the LCAP program. The LCAP program placed all closed landfills on a priority list. Due to low environmental risk, the Berkeley County Landfill received relatively low priority for closure. The closure construction started in 2003 and was completed in 2004. This closure costs for the landfill was an estimated \$4.5M.

Nationally, a shift in landfill ownership has occurred over the recent decades. Another factor affecting landfill markets is the growing consolidation among privately held companies in the solid waste industry. This has led to the practice where the larger private waste haulers will only transport waste to their own landfills even if it means bypassing a solid waste facility owned by a competitor and traveling further distances. A demonstration of consolidation has occurred in Berkeley County. The LCS Services Landfill is a privately owned and operated landfill in Berkeley County. In the early 1990's, it was owned by Chambers Development Company; then in the mid 1990's ownership changed to USA Waste; then again, in 1997, the ownership changed to Waste Management of West Virginia.

LCS Services, North Mountain Sanitary Landfill: Municipal solid waste from Berkeley County is commonly landfilled at the LCS Services Landfill. The facility operates under permit number SWF-1020/WV0109479. This landfill is located about 1.5 miles north of Hedgesville in Berkeley County. It was originally an 82 acre facility and had a capacity of approximately 7.5 million tons. In 1999, its footprint was reduced to 67 acres as an outcome of a US Federal Court Agreed Order. The LCS Services Landfill is a Class B Landfill facility with a permit restriction of 500 tons/day and 9,999 tons per month.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

In addition, the LCS Services Landfill is further required by the WV-PSC to reserve capacity for regional municipalities and private haulers as a result of approved capacity contracts (07-0782- SWF-PC). These contracts require the LCS Service's Landfill to reserve the following amounts for these haulers:

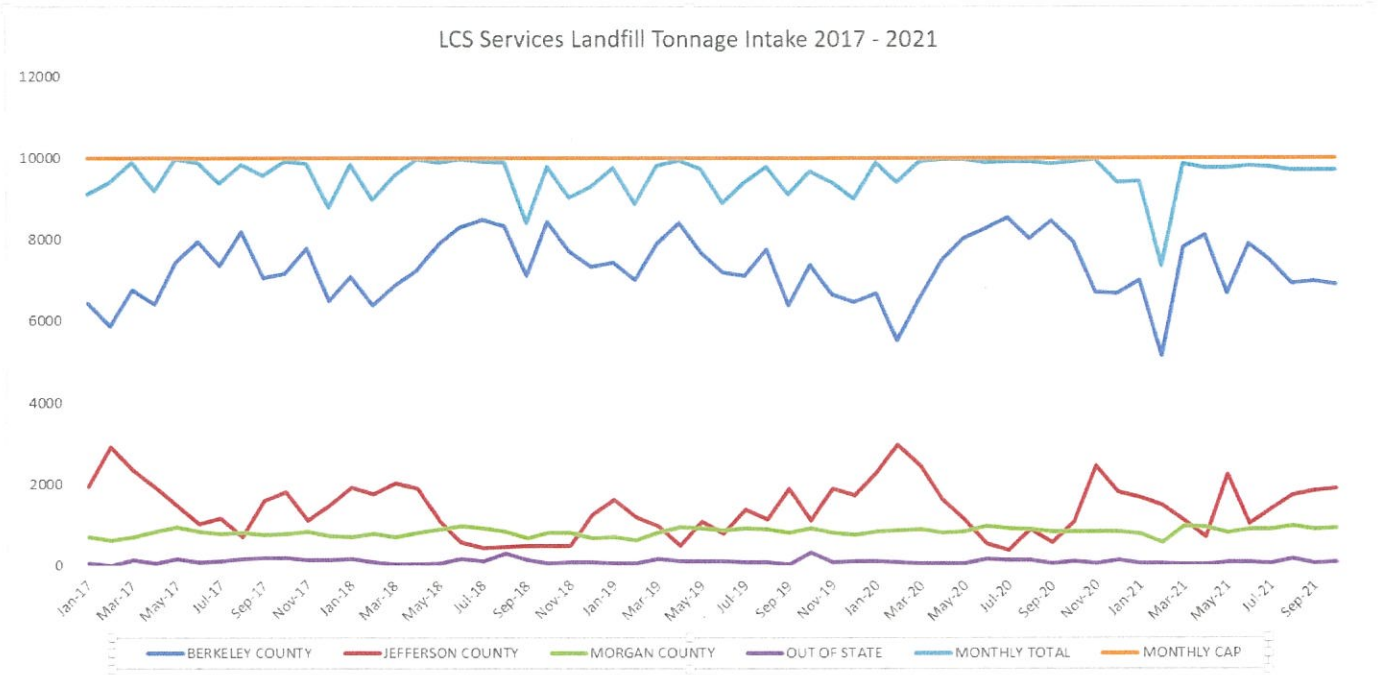
Town of Bath	20 tons per week
Waste Management of West Virginia:	198 tons on Monday's 208 tons on Tuesday's 203 tons on Wednesday's 210 tons on Thursday's 198 tons on Friday's
Apple Valley Waste Services:	65 tons per day
Republic:	30 tons per day
Panhandle Pumping Inc.:	30 tons per day
Aker by Maax:	10 tons per day
Morgan Sanitation:	35 tons on Monday's 25 tons on Tuesday's 20 tons on Wednesday's 23 tons on Thursday's 25 tons on Friday's
City of Martinsburg:	40 tons per day
Corporation of Shepherdstown:	20 tons per week
Corporation of Ranson:	10 tons per day

Since operations began at LCS in 1991, tonnage reports thru October, 2021 show that an estimated 3,202,431 tons of municipal solid waste have been deposited in the landfill. The 2020 Annual Report for the LCS Services Landfill reports that the facility is expected to reach capacity in the year 2049. This approximation assumes an annual consumption rate of 194,900 cubic yards and a remaining permitted capacity of 5,753,600cubic yards. Furthermore, the Authority notes that the projected capacity for the landfill has varied as much as 25+ years in various reports.

The LCS Services Landfill is not permitted to accept free flowing liquids (such as oil, antifreeze and paint), auto batteries, certain electronic devices, drill cutting waste from horizontal wells and appliances containing freon. In 2005, the Authority prohibited the placement of Class A Landfills in Berkeley County through the Berkeley County Commercial Solid Waste Facility Siting Plan; which was approved by the West Virginia Solid Waste Management Board. After a two year study, a 30+ page report (Appendix D) was also released specifying the specific reasons why the LCS Services Landfill should not be converted to a Class A landfill. A subsequent request by the landfill for Class A status was also denied in 2012 as an offered alternative to the Entsorga West Virginia resource recovery facility.

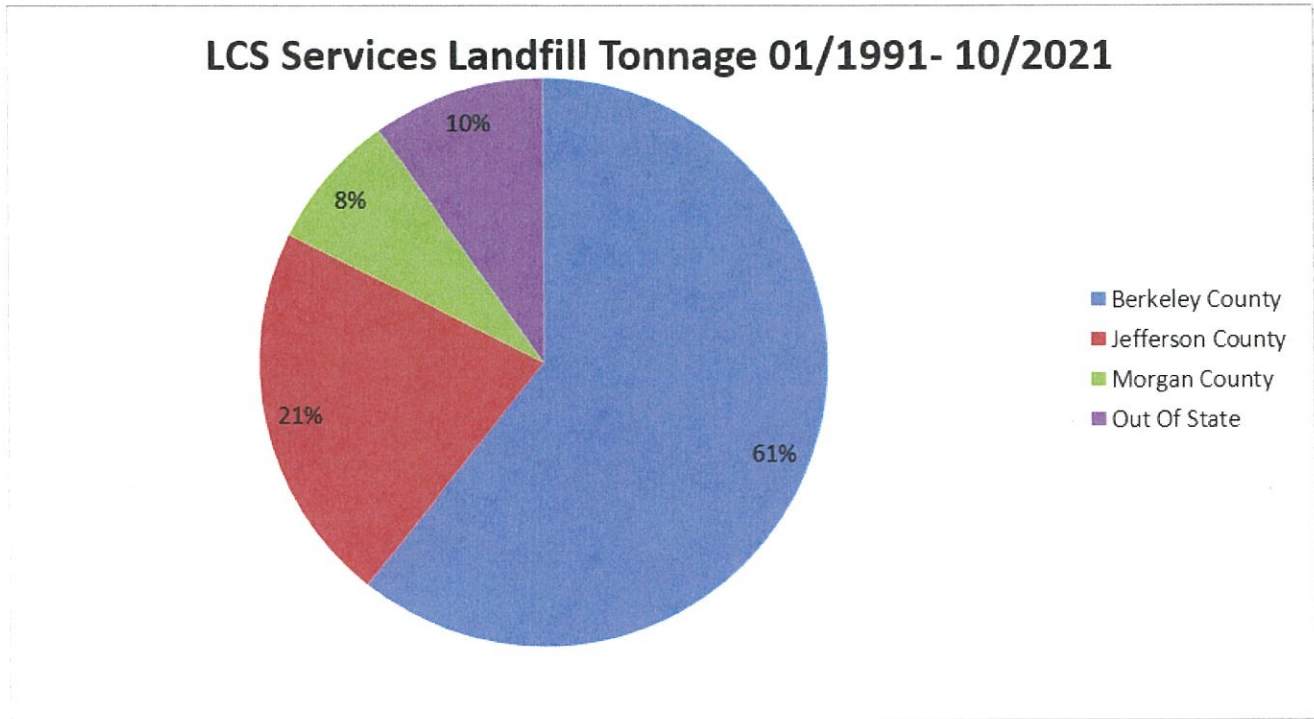
EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Below is a graphical representation showing the actual tonnages of waste that has been landfilled at the LCS Services Landfill in 2017- 2021.



EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Below is a chart showing the percent of local waste when compared the overall waste accepted at the LCS Services Landfill.



Mountain View Reclamation Landfill: Since 1990, municipal solid waste from Berkeley County has also been landfilled at the Mountain View Reclamation Landfill near Upton, Pennsylvania. The Mountain View Facility is located in Montgomery and Antrim Townships, Franklin County PA and is owned by Waste Management. Waste Management has a written host agreement with Antrim Township (dated August 14, 1995 and revised on March 21, 2001) which specifically allows for the acceptance of out of state waste and requires capacity to be reserved for the Township's needs and payment of various fees. The facility once covered 236 acres with a disposal area of at least 222 acres. In 2009, a permitted expansion extends the landfills life another 23 years for the three state region (PA, WV, MD). The facility is permitted for a maximum of 1,850 tons per day with an average daily limit of 1,500 tons/day. Waste Management, Republic Services, Panhandle Pumping, Panhandle Dumpsters, Collectors and Chambersburg Waste Paper utilize the Mountain View Reclamation Landfill for municipal solid waste that originates from Berkeley County. Waste haulers Panhandle Dumpsters and Collectors have not applied for a WV-PSC permit, therefore they cannot not deposit waste in West Virginia solid waste facilities. In addition, solid waste from the Jefferson County Transfer Station is also landfilled at Mountain View.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Below is a chart showing the actual tonnages delivered to the Mountain View Landfill.

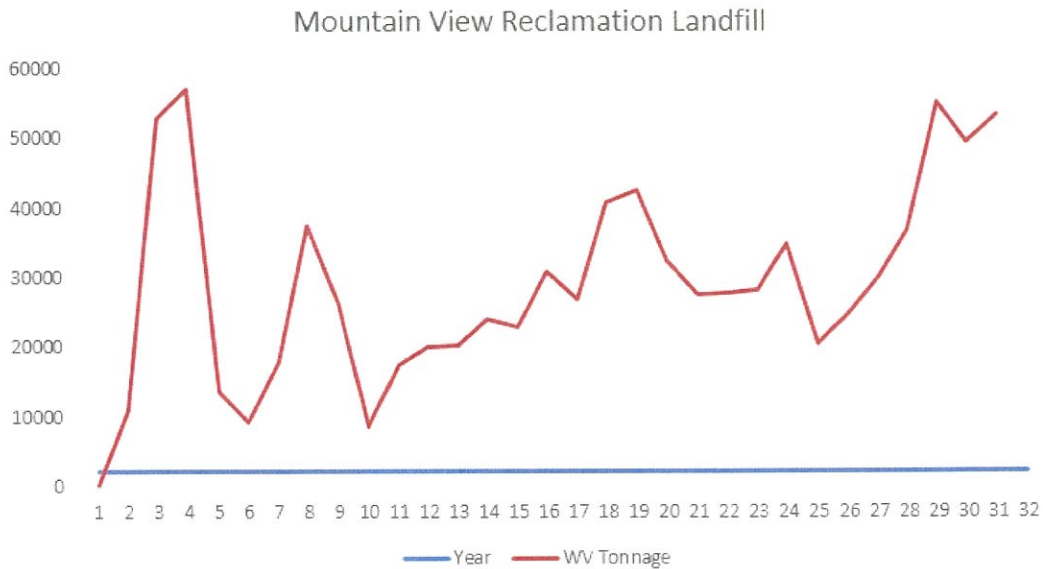
Mountain View Reclamation Landfill

Year	WV Tonnage	Overall Tonnage
1990	21.6	
1991	10,964	
1992	52,776	
1993	57,077	
1994	13,586	
1995	9,218	
1996	17,740	
1997	37291.4	
1998	26061.1	
1999	8397.3	
2000	17238.4	
2001	19991.1	
2002	20187.7	
2003	23843.8	
2004	22811.3	439769.3
2005	30680.7	30680.7
2006	26796.8	391832.6
2007	40699.7	393723.1
2008	42418.3	385185.9
2009	32301.4	286018.3
2010	27464.3	254943.9
2011	27696.5	268004
2012	28030.5	286585.1
2013	34735.7	275854.9
2014	20355.8	288564.1
2015	24550.7	254194.1
2016	29918.26	267212.1
2017	36713.4	260896.6
2018	55159.4	334940.5
2019	49302.1	376863.7
2020	53,322	358960.2
2021		

Footnote: Chart Courtesy of the Berkeley County Solid Waste Authority with data from PA-DEP found at [Solid_Waste_Disposal_Information - Power BI Report Server \(pa.gov\)](#).

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Below is a graphical representation showing the actual tonnages of West Virginia waste that Waste Management, Republic Services, Panhandle Pumping, Panhandle Dumpsters, Collectors and Chambersburg Waste Paper utilize the Mountain View Reclamation Landfill for municipal solid waste. Waste haulers Panhandle Dumpsters and Collectors have not applied for a WV-PSC permit, therefore they cannot not deposit waste in West Virginia solid waste facilities.

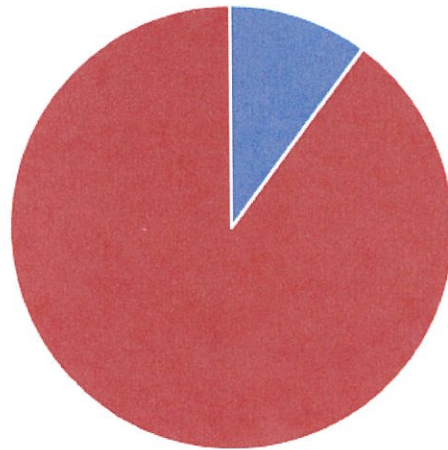


Footnote: Chart Courtesy of the Berkeley County Solid Waste Authority with data from PA-DEP found at [Solid Waste Disposal Information - Power BI Report Server \(pa.gov\)](#).

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Below is a chart showing the percent of West Virginia waste when compared the overall waste accepted at the Mountain View Landfill.

WV Waste Intake % 2004 - Present



■ WV Waste ■

Footnote: Chart Courtesy of the Berkeley County Solid Waste Authority with data from PA-DEP found at [Solid_Waste_Disposal_Information - Power BI Report Server \(pa.gov\)](#).

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

IESI PA Blue Ridge Landfill: Since 2001, municipal solid waste from Berkeley County is also landfilled at the PA Blue Ridge Landfill near Chambersburg PA. This landfill is owned by Waste Connections. Commercial waste haulers Apple Valley Waste and IESI utilize this facility for municipal waste that originates in Berkeley County. This facility is owned and operated by IESI. As shown below, this facility has accepted over 3,000+ tons annually from West Virginia for many years. According to the most recent, Franklin County, PA Municipal Solid Waste Plan, over 2% of the solid waste accepted at the Blue Ridge Landfill originates from outside the state of Pennsylvania. This landfill has a daily maximum cap of 2,000 tons per day with an average daily limit of 1,700 tons. Municipal solid waste into this facility originates from Pennsylvania, Maryland, West Virginia, District of Columbia, New York and New Jersey.

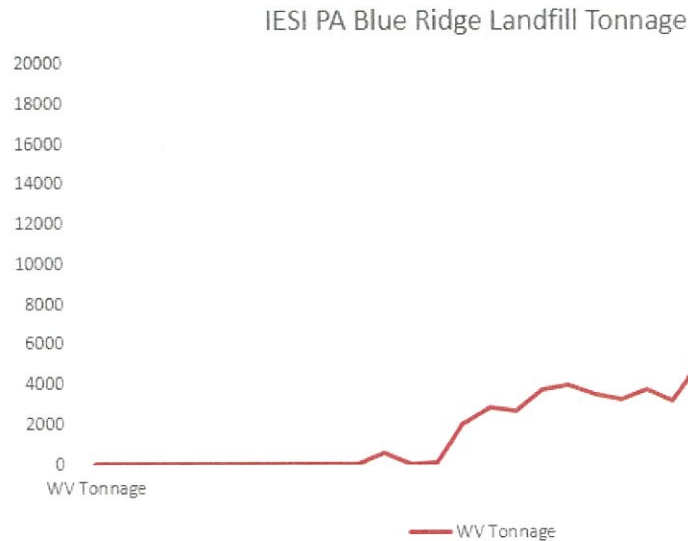
IESI PA Blue Ridge Landfill
West Virginia Waste

Year	Tonnage	Overall
1990	0	
1991	0	
1992	0	
1993	0	
1994	0	
1995	0	
1996	0	
1997	0	
1998	0	
1999	0	
2000	0.7	
2001	589.1	
2002	12.4	
2003	86.5	
2004	2004.5	331453.6
2005	2821.3	446488.2
2006	2644.7	452070.4
2007	3754.8	453835.7
2008	3959.9	485966
2009	3509.1	499624.2
2010	3241.9	515572.3
2011	3700.4	530512.9
2012	3175.6	524225.3
2013	5063.3	524698.3
2014	12671.9	506937.9
2015	13109.3	644026.7
2016	12492.7	719887.2
2017	17474.9	719734.4
2018	14662.9	757125.9
2019	10610.2	753102
2020	4550.7	724410.9
2021		

Footnote: Chart Courtesy of the Berkeley County Solid Waste Authority with data from PA-DEP found at [Solid_Waste_Disposal_Information - Power BI Report Server \(pa.gov\)](#).

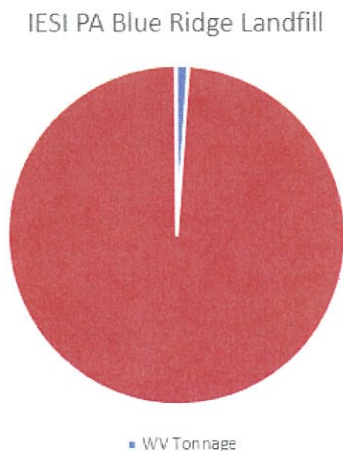
EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Below is a graphical representation showing the actual tonnages of West Virginia waste that haulers Apple Valley Waste, IESI and others deliver to the PA Blue Ridge Landfill.



Footnote: Chart Courtesy of the Berkeley County Solid Waste Authority with data from PA-DEP found at [Solid_Waste_Disposal_Information - Power BI Report Server \(pa.gov\)](https://www.pa.gov/PA-DEP).

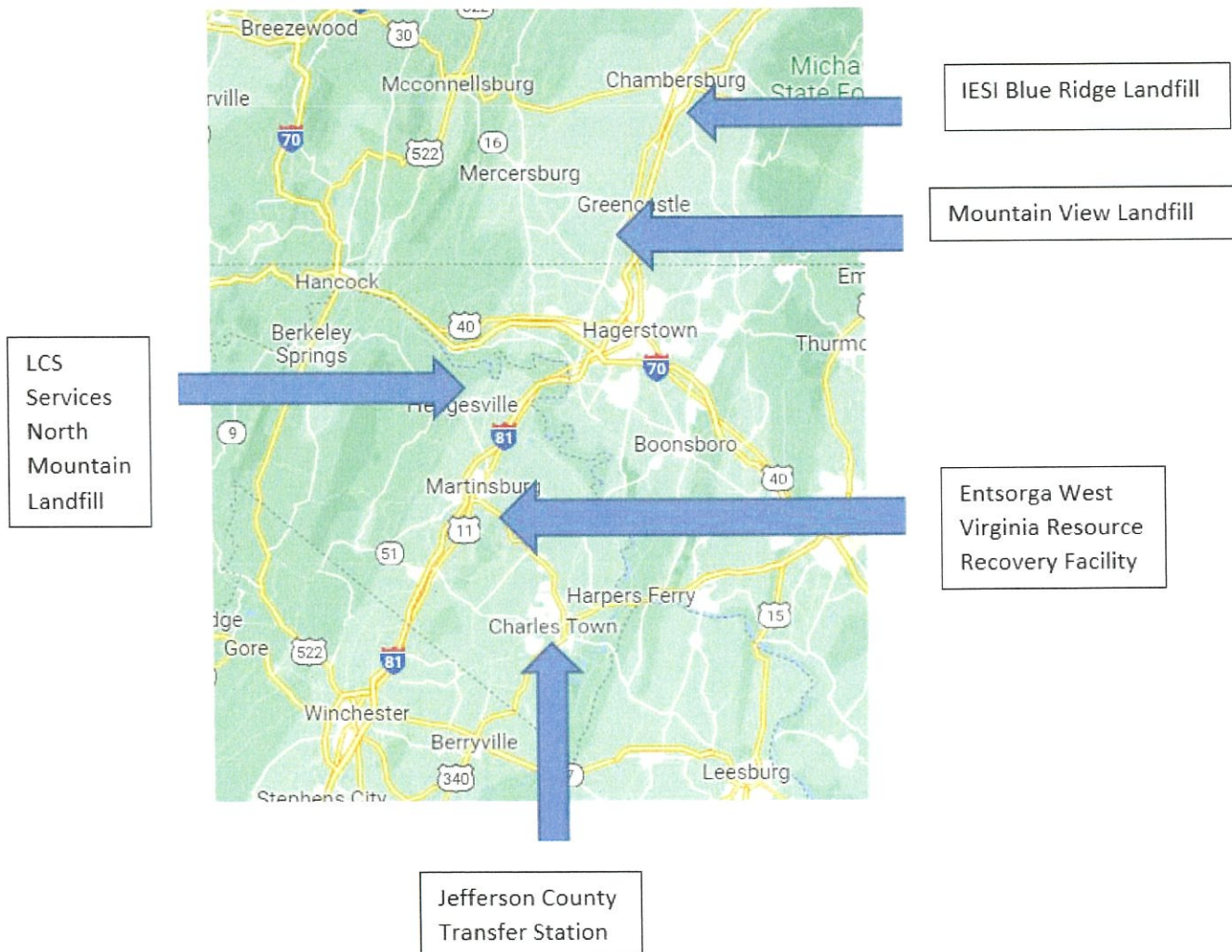
Below is a chart showing the percent of West Virginia waste when compared the overall waste accepted at the PA Blue Ridge Landfill from 2004-2021.



Footnote: Chart Courtesy of the Berkeley County Solid Waste Authority with data from PA-DEP found at [Solid_Waste_Disposal_Information - Power BI Report Server \(pa.gov\)](https://www.pa.gov/PA-DEP).

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Map - Regional Public and Private Solid Waste Facilities



IDENTIFICATION OF PROBLEMS:

The Authority does not have the financial resources to provide ongoing maintenance support for the closed and capped Berkeley County Landfill, without aid from the WV- DEP's Landfill Closure Assistance Program.

In Berkeley County, the siting of new landfills and the expansion of the existing one will be difficult due to continued public concerns over noise, odor, traffic, litter, mud, property values and the general concern over environmental damage surrounding the immediate community.

SOLUTIONS AND RECOMMENDATIONS:

- 1) Assuming that the LCS Services Landfill, the Mountain View Reclamation Landfill and the Blue Ridge Landfill continues to serve the needs of Berkeley County, the Authority concludes that there lacks sufficient justification for the development of a new landfill or an expansion of any existing one to serve the Berkeley County waste stream.
- 2) Within 5 years, the Authority should continue to evaluate the possibility of locating a solar farm on the old Berkeley County Landfill to improve funding for the Authority's programs

CHAPTER TEN

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER 10: COLLECTION SERVICES

Prior to 1996, the residential and commercial collection services for Berkeley County were provided by Waste Management of West Virginia (WMI). They held the lone WV-PSC Certificate of Convenience and Necessity to collect and haul solid waste from all commercial and all residential locations within the County except for the City of Martinsburg. In 2006, Waste Management sold its residential permit to Apple Valley Waste Services. In 2008, Apple Valley Waste Services sold the residential permit to AVW of West Virginia d/b/a Apple Valley Waste.

AVW of West Virginia d/b/a Apple Valley Waste operates under WV-PSC Certificate #F- 7496. They presently charge residential customers in Berkeley County a flat WV-PSC approved "tariff rate" of \$27.75 plus a 5.94% fuel surcharge per month. In Berkeley County, AVW of West Virginia also has a \$4.85 per bag voluntary rate program. AVW of West Virginia has 124 employees and in the year 2020 its revenue was \$12.6 M.

In 1990, former residential waste hauler Waste Management reported that there were 9,425 residential accounts in Berkeley County. In 2007, Apple Valley Waste Services reports the number of residential accounts in the county have grown to 20,100. In 2015, AVW of West Virginia (AVW) reported 20,679 residential accounts in Berkeley County and an additional 768 residential customers across 23 accounts with aggregated billing to one entity. In 2021, AVW of West Virginia (AVW) reported that there are now 22,520 residential accounts in Berkeley County. AVW of West Virginia operates 26 rear load collection vehicles for Berkeley, Jefferson and Washington Counties. In addition, AVW has between 60 to 75 roll off containers in Berkeley and Jefferson County for its residential customers. AVW employs one hundred twenty four (124) people for its operations, including administrative staff. AVW's office is located in the Burr Industrial Park in Jefferson County. In addition, AVW also purchased Morgan Sanitation and provides the commercial and residential for all of Morgan County and a small part of Hampshire County.

According to information provided by the City of Martinsburg, they have seven registered vehicles (six 25 yard garbage trucks and one 8 yard garbage truck) which they utilize to collect solid waste from 6,352 residential customers and 574 commercial customers. In addition, the City has three vehicles (2 recycling trucks and one 550 dump truck) to support the recycling program. The Martinsburg Sanitation Department employs 13 people. Open top rolloff containers are provided for the commercial businesses and curbside recycling collection of steel and aluminum cans, newspaper, cardboard, plastic and glass bottles is provided for residents of the City. The City of Martinsburg presently charges residential customers a flat rate of \$300.00 per year. The charge also includes the costs for the operation of the residential curbside recycling program. Annual commercial dumpster rates are \$1,250.00 for weekly service.

Panhandle Pumping Inc.: PPI operates under PSC Certificate Number F-7487. The PPI office is located near Martinsburg. The PPI certificate was first obtained from the WV-PSC in September, 2005. Their certificate was expanded in 2015 to include a new service for the disposal of liquid concrete waste. Besides the liquid concrete waste, PPI is only authorized to haul construction and demolition material. PPI has two (2) rolloff trucks in service and one (1) spare truck for Berkeley and Jefferson Counties and owns 120+ rolloff containers. PPI commercial rates are considered negotiable.

Waste Management of West Virginia (WMI) has a WV-PSC Certificate of Convenience and Necessity to provide waste hauling and recycling services for commercial accounts in Berkeley County. According to statista.com, Waste Management is the nation's largest trash company, with approximately 48,250 employees and in the year 2020 its revenue was \$10B. WMI has approximately 2,000 commercial customers in Berkeley and Jefferson County. WMI employs 22 people in their operations for Berkeley and Jefferson County. WMI has eight (8) rolloff trucks, seven (7) commercial trucks, two (2) rear load trucks and two (2) non-collection related service trucks. WMI commercial rates are considered negotiable.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

On October 29th 2007, the WV-PSC issued Certificate of Convenience and Necessity F- 7504 to Allied/ Republic Waste Services. Republic is the nation's second largest trash company, with an estimated 35,000 employees and in the year 2020 revenue was \$10.15B. Republic began service in Berkeley and Jefferson County in February, 2008. Republic currently operates two trucks for both Berkeley and Jefferson County. Republic has approximately 20–30 commercial accounts in Jefferson County and 50 –60 accounts commercial accounts in Berkeley County. Republic employs two to three truck drivers and two to three sales reps for the Berkeley and Jefferson County operations. Republic's commercial rates are considered negotiable. Republic offers solid waste and recycling services including cardboard (OCC), metals, single stream recycling, old news print.

In 2006, the United States Southern District Federal Court issued a ruling that had an immediate and significantly positive impact on the waste hauling environment in Berkeley County. In "Harper vs. WV-PSC", the United States Southern District Court for the Southern District of West Virginia (Case # 2:03-cv-00516) declared the WV-PSC "Certificate of Convenience and Necessity" unconstitutional as it relates to interstate commerce. The court found that no evidence supported any of the PSC's purported justifications for the Certificate of Convenience and Necessity. The effect of the ruling was that several waste haulers and recyclers were now allowed to enter the WV market without obtaining a WV-PSC CoN as long as the hauler disposed of the solid waste or recyclables out of state. As a result, no less than 12 waste haulers and recyclers entered the Berkeley County market in the months following the ruling. The "Harper" haulers servicing Berkeley County are:

Chambersburg Waste Paper (CWP) is one of the largest and most significant solid waste haulers and recycler's within Berkeley County. CWP is legally operating under the Harper Exception and complies with the requirement to haul its collected material to facilities out of state. CWP operates a large recycling facility in nearby Chambersburg, Pennsylvania with over 50 employees. They provide recycling services for all types of paper including cardboard, mixed paper and office papers as well as metal, wood and plastics. CWP also consults with businesses to help them improve their sustainability. CWP has a large fleet of over 150 tractor trailers and 600 roll off containers to service accounts.

Panhandle Dumpsters is legally operating under the Harper Exception and complies with the requirement to haul its collected material to facilities out of state. At this time, Panhandle hauls over 1,000 tons per month to the Mountain View Landfill. Panhandle presently charges residential customers in Berkeley County a flat \$23.00 per month. Panhandle has grown to offer services in Jefferson County. Panhandle reports they service 7,652 residential accounts in Berkeley and Jefferson County. They operate 7 rear load collection vehicles for 124 rolloff containers in Berkeley and Jefferson County for its commercial accounts. Panhandle employees 54 people for its operation.

Collector's Trash Service: Collectors Trash is legally operating under the Harper Exemption and complies with the requirement to haul its collected material to facilities out of state. Their office is located in Williamsport, Md. and they provide commercial and residential services to various sections of Berkeley and Jefferson County.

Conservit is a well-established commercial recycler of recyclables from Maryland that provides collection services for aluminum cans, scrap metal and appliances.

Mid-States Oil is a commercial recycler from Maryland that provides collection services for used oil and antifreeze.

Planet Aid is a commercial recycler from Maryland that provides collection services for used clothing, books and shoes.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Records Solutions is commercial recycler from Maryland that provides collection services for paper for shredding.

Resource Oil is a commercial recycler from Pennsylvania that provides collection services for vegetable based cooking oil.

Shred It is a commercial recycler from Maryland that provides collection services for office paper for shredding.

Spirit Oil Services is a commercial recycler from Maryland that provides collection services oil, antifreeze and petroleum based grease.

Valley Proteins is a commercial recycler from Virginia that provides collection services for food grease and cooking oil.

In 2000, it was calculated that a minimum of 61% of county households were subscribing to collection service. In 2005, the number had grown to a minimum of 68% of county households were subscribing to collection service. In 2014, the number had grown to a minimum of 69 % of county households were now subscribing to a collection service. In 2019, Census data shows there were 46,395 households in Berkeley County. Apple Valley (22,520), City of Martinsburg (6,352) and Panhandle Dumpsters (7,652) report a combined total of 36,524 residential collection accounts. Therefore, basic math reflects that, in 2019, the number had grown to a minimum of 78.7 % of county households were subscribing to collection service.

This percentage of county households subscribing to collection services must be considered an absolute MINIMUM because the many residents live in high density developments, apartments and other similar multi-family units and are classified as commercial accounts and simply are NOT factored in this equation. For example, one of the largest developments in Berkeley County (Woods Resort) contains thousands of homes, but is a commercial account served by WMI of West Virginia.

IDENTIFICATION OF PROBLEMS:

Berkeley County residents who have a difficult time affording collection services may not be aware of "free day". It is a statutory requirement that landfills provide one free day per month. In addition, Entsorga offers a free day each month at its facility. It is also a statutory requirement that each household must either subscribe to trash service or be able to show a monthly proof of disposal receipt.

SOLUTIONS AND RECOMMENDATIONS:

The WV-Public Service Commission issued two hauling permits to allow additional commercial haulers to operate within the County due to overflowing dumpsters, inefficient and inadequate service by Waste Management. This led to substantial reductions in the numbers of complaints received in reference to trash service. As part of its ongoing program, the Authority should consider approaching regional legislators to allow non-PSC certificated waste haulers to deliver recyclables and mixed waste to instate resource recovery facilities.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

In an effort to increase utilization of resource recovery, the Authority should consider asking the WV Legislature to lower the market entry hurdles for a WV-PSC Certificate of Need. This action could potentially give waste haulers CWP, Panhandle Dumpsters and Collectors Trash the option of using the Entsorga, WV facility.

VOLUNTARY CURBSIDE RECYCLING COLLECTIONS:

Historically, there has been limited public interest in expanding the collection of recyclables into a fee based curbside pickup. Past surveys and data from nearby programs have shown that mandatory curbside collection of recyclables is supported by no more than 30%-35% of the public. However, the certain curbside collection programs for the voluntary curbside collection of recyclables are available in Berkeley County.

In 1991, the West Virginia Recycling Act required the collection of three recyclables at the curb for municipalities that have a population over 10,000. Therefore, the City of Martinsburg offers curbside recycling for plastic 1-7, newspapers, aluminum cans, steel can and glass bottles.

In 2007, AVW of West Virginia and the Authority implemented a cooperative whereby Christmas trees were accepted at the curb for recycling on a voluntary basis for \$25.00 per pickup. Each year, the program collects hundreds of trees and Apple Valley donated 50% of the proceeds to the Boy & Girls Club of the Eastern Panhandle.

In 2008, AVW of West Virginia and the Authority implemented a curbside collection for the collection and recycling of white goods including units containing Freon. The service is available to AVW of West Virginia customers. There is no additional charge for the collection of up to two items per month.

In 2011, "AW Recycling" sold its PSC permit and services to AVW of West Virginia. AVW converted the program from a "blue bag" program to a "single stream program". The cost per household for single stream recycling is \$4.87 per month. As required by the WV-PSC, all recyclables shall be marketed to the Berkeley County Recycling Program. Currently, approximately 2,923 households are participating in the single stream program.

SOLUTIONS AND RECOMMENDATIONS:

The Authority should continue to work with waste haulers to implement voluntary curbside recycling programs where practical. These programs must be developed with the requirement that the tonnages collected at the curb are specifically marketed to the Berkeley County Recycling Program. Without this requirement, the current Berkeley County Recycling Program will lose effectiveness and success.

CHAPTER ELEVEN

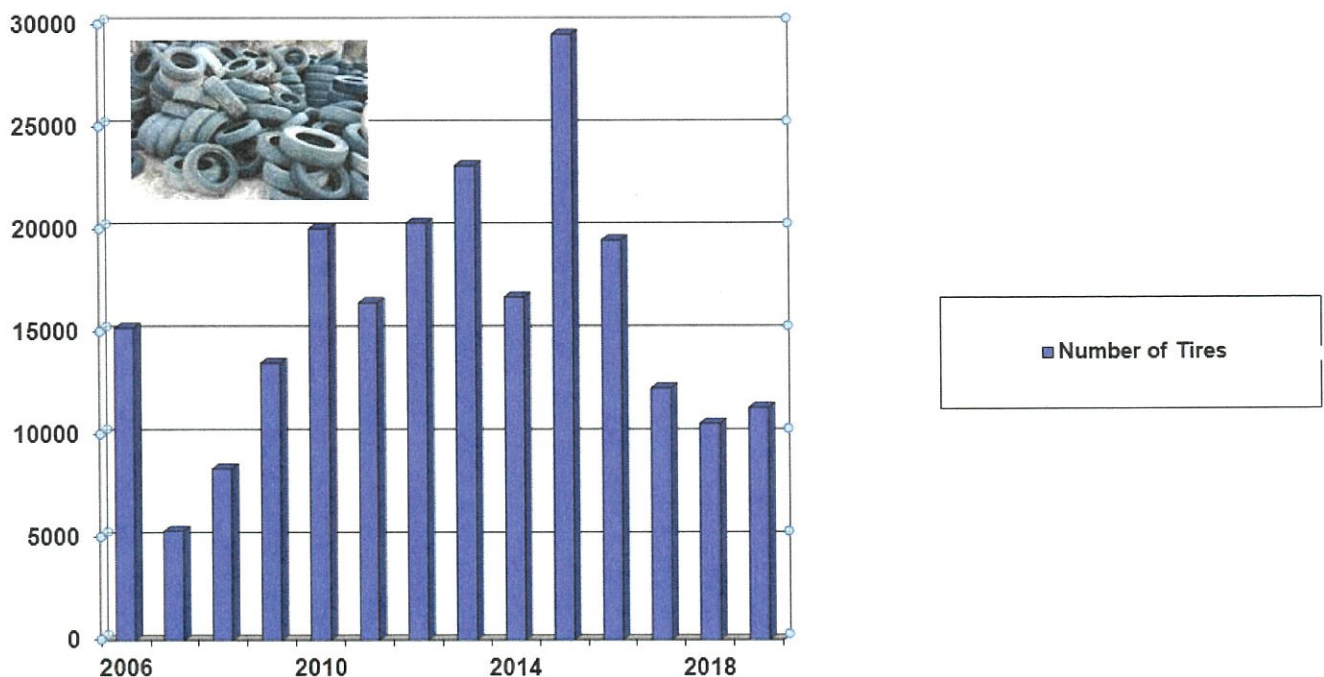
EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER 11: OPEN DUMPS

Open dumping is a persistent environmental crime in West Virginia. Berkeley County is no different. An open dump simply means any solid waste disposal activity which does not have a permit under WV Code §22-15-1 et. seq., or is in violation of state law or where solid waste is disposed of in a manner that does not protect the environment.

The WV-Division of Environmental Protection spends almost \$1 Million annually on open dump and river cleanups through a program known as Pollution Prevention and Open Dump Program (PPOD). PPOD uses landfill fees to clean up illegal dumps and to gather evidence to prosecute illegal dumping activity. According to the WV DEP website, the Open Dump Cleanup Program uses landfill fees to clean up illegal dumps and to gather evidence to prosecute illegal dumping activity. Currently the program has completed more than 15,000 projects that have resulted in the removal of an estimated 147,000 tons of material, including 26,000 tons of steel, 62,000 appliances and over 2,000,000 tires. There are an estimated 15,000 open dumps across WV. The efforts of the PPOD average up to 900 dumps removed yearly, at a total of 9,500 tons/year. With assistance from volunteers, solid waste authorities, and county commissions, PPOD has been able to reclaim 10,504 acres of WV land to date.

The Authority is very active with the utilization of the PPOD program. According to the 2021 WV Solid Waste Management Plan, from 1989 to 2007, the Authority worked with the DEP's PPOD program in cleaning up 194 open dumps and reclaiming over 88 acres of land. Since 2006, in cooperation with the Authority, the PPOD program conducts annual tire events that has collected an estimated 221,327 tires.



EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

In addition, the Authority's litter control program has worked for decades with the PPOD program to clean up open dumps. The following chart represents a breakdown of the PPOD cleanup activity in Berkeley County from 2014 to 2020. Additional information is available on the WV-DEP website at <http://www.dep.wv.gov/dlr.reap/ppod/Pages/default.aspx>

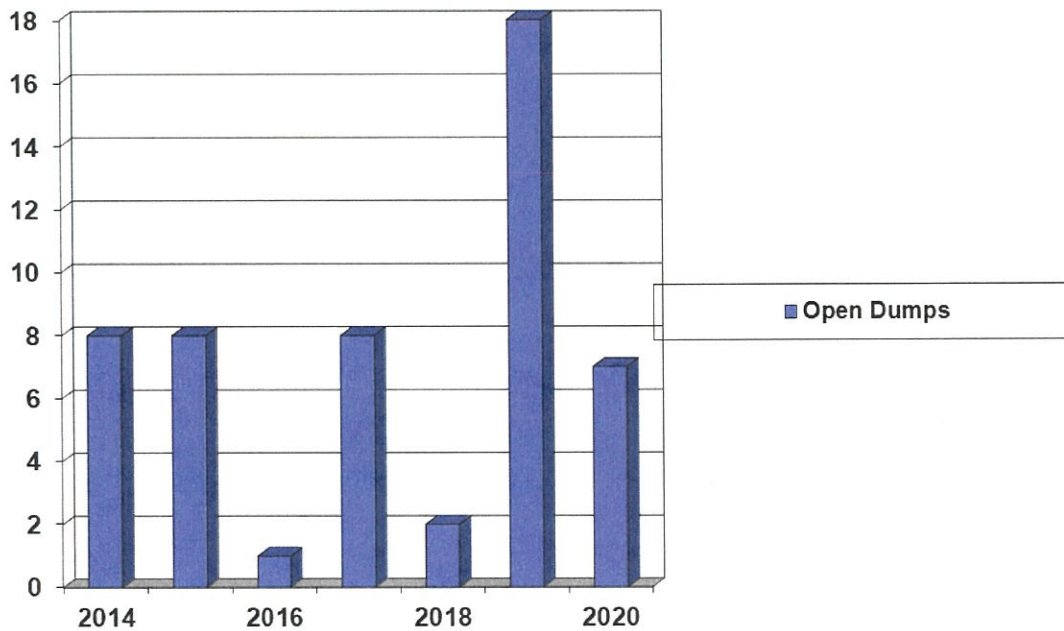


Chart courtesy of the Berkeley County Solid Waste Authority

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

In 2014, the Authority updated and expanded its litter control enforcement program to include the establishment of an online complaint form, dedication of part time in house staff and the establishment of a part time 20 hour per week litter control officer (LCO). The LCO was established via a relationship with the Berkeley County Council and the Berkeley County Sheriff's Department. The officer works in conjunction with litter and open dumping complaints filed with the Authority.

Litter Control Complaints

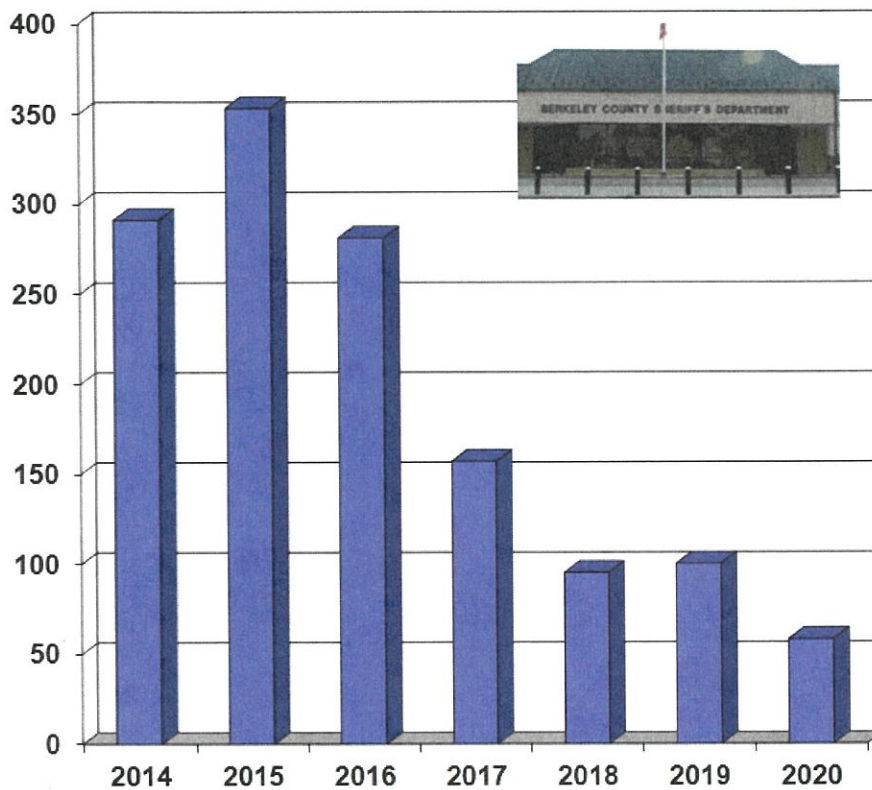
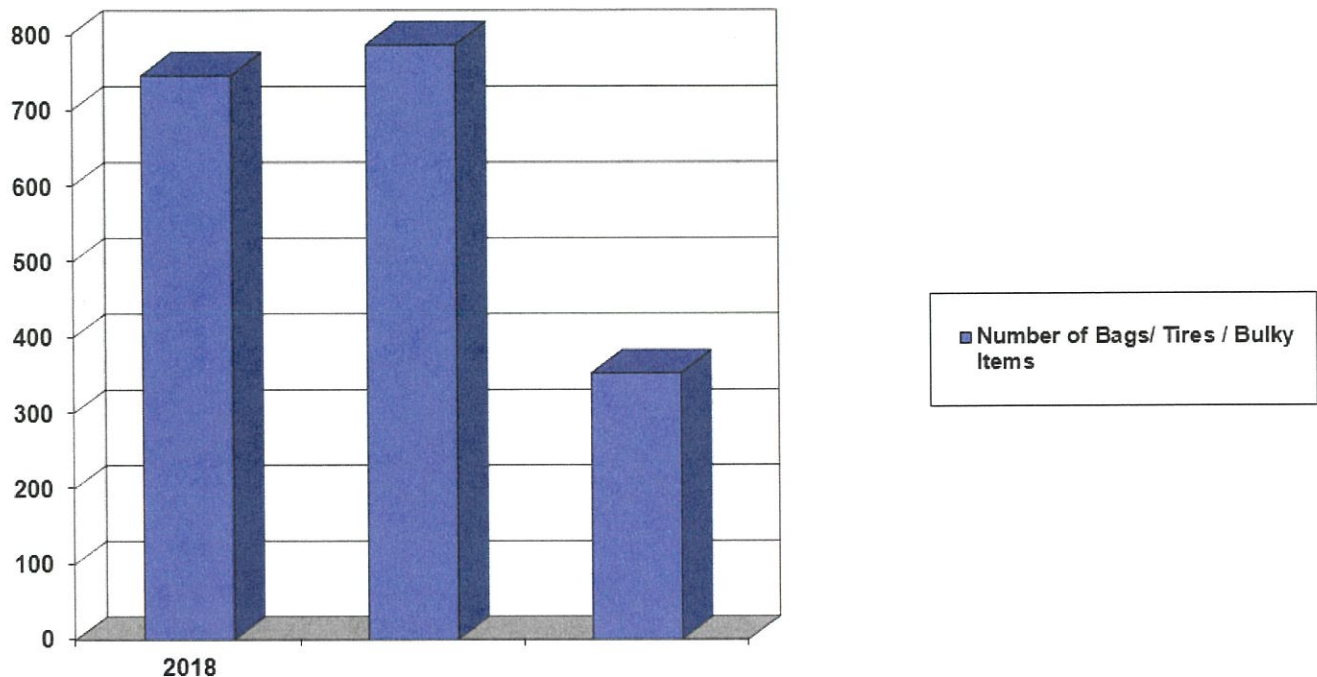


Chart courtesy of the Berkeley County Solid Waste Authority

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Starting in July, 2018, the Authority also began a stream cleanup program. The program was initially in cooperation with the CBIG Implementation Grant Program. However, funding is now provided locally. This program, in conjunction with the roadside litter program has removed a combined weight of 570,996 pounds of stream/roadside litter.



To the extent practical, the Authority supports two watershed groups in the County. These groups consist of volunteers that dedicate time, energy and funding to improve the waterways of the County. These groups are:

The Opequon Creek Project Team (OCPT), a 501(c)(3) tax exempt corporation, was formed in April 2005 to plan and implement nonpoint source pollution reduction projects in the watershed. Several local, state and federal government agencies are represented at OCPT's regular meetings, and clean-up and tree planting events have attracted many watershed residents and their families. OCPT's has become a force in the community's effort to protect and enhance its natural resources. OCPT's purpose is to act as an advocate and steward of the Opequon watershed and to undertake projects that will lead to reduction in pollutants (primarily nutrients, sediment, fecal coliform bacteria, and trash) entering the Opequon Creek and its tributaries in Berkeley and Jefferson Counties, West Virginia. OCPT has conducted more than 20 cleanups on the Opequon Creek. More about this group can be viewed at: <http://www.opequoncreek.org/>

Blue Heron Environmental Network is a watershed group that strives to act as an advocate and steward of the Back Creek watershed and to undertake projects that will lead to reduction in pollutants (sediment, fecal coliform bacteria and trash) entering Back Creek and its tributaries in Berkeley County. Their efforts include annual cleanup event along a section of Back Creek that follows Allensville Road. More about this group can be viewed at: <https://www.facebook.com/pages/Blue-Heron-Environmental-Network/121364874546221>

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

IDENTIFICATION OF PROBLEMS:

Despite successful cleanup programs, open dumping is still a serious environmental crime in Berkeley County. The Authority and others are cleaning open dumps throughout the county.

SOLUTIONS AND RECOMMENDATIONS:

The solution to the problem of open dumping is proper education and strict law enforcement. It is doubtful the litter problem will be significantly improved or fixed by passing more legislation unless that legislation addresses enforcement and/or education needs.

Within one year, the Authority will also consider purchasing more signage to be placed at areas of frequent dumping to notify the public of video monitoring within the County.

Within five years, the Authority will consider the implementation of additional funding for improved litter control enforcement programs.

CHAPTER TWELVE

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER 12: ROADSIDE LITTER

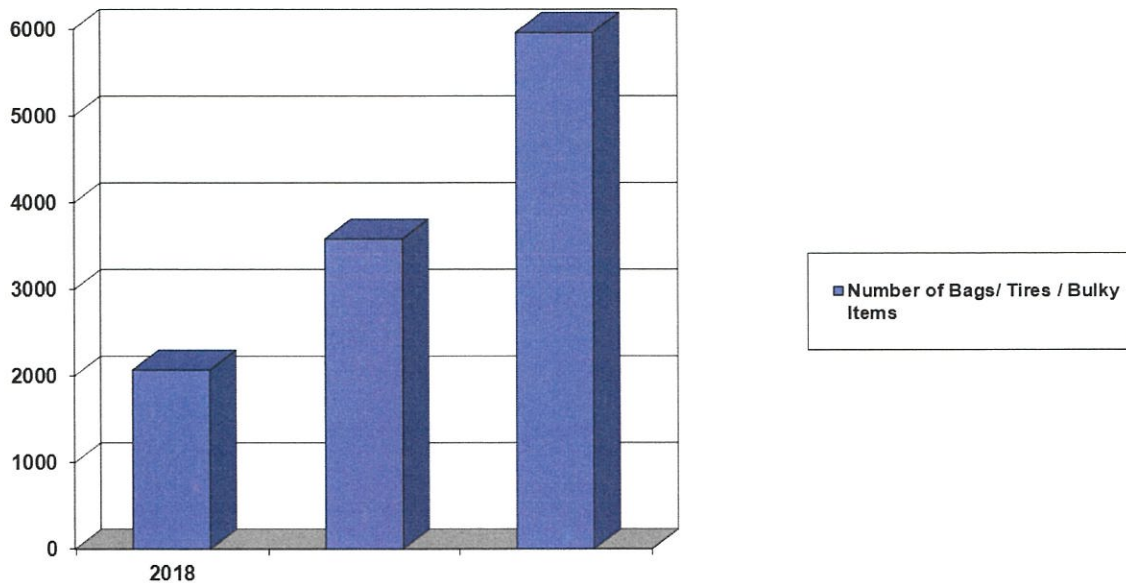
Roadside litter is a persistent environmental crime in West Virginia and the United States as a whole. Berkeley County is no different. It has been reported the state spends \$3 million of taxpayer money per year to pay for litter cleanup.

The Rehabilitation Environmental Action Plan (REAP) operates a state-wide litter collection program involving the public called Adopt-A-Highway. The program allows groups to voluntarily agree to collect litter in 2-3 mile increments of any road within the county twice per year. This agreement is in exchange for the organization's name being posted on a sign in the area of the adopted road. The participants are provided orange colored trash bags and safety equipment. The collected roadside litter is picked up by the WV-DOH. The Berkeley County Adopt-A-Highway program began in 1989 and is still very active today. The Department of Highways collects the trash along the highway that has been bagged by programs such as Adopt-a-Highway and prisoner release work. They provide vests, gloves, plastic bags and safety signs to the organizations involved. Additionally, they maintain rest areas and public stream access areas. Berkeley County was once awarded \$500.00 for having the highest percentage of roads adopted by any of the state's 55 counties and reportedly continued for years to have the highest percentage of miles adopted of all the counties in the state. At its peak, Berkeley County had 76 organizations contributing 1,370 volunteers. That covered 191 miles of Berkeley County roads; representing more than 30 percent of the county's roads. Today, REAP reports that 42 groups in Berkeley County are currently actively participating in the Adopt-A-Highway program. Between August 1, 2020 and August 1, 2021 these groups reported that they collected 258 bags of litter.

Berkeley County remains an active player in the Make it Shine Program. This includes the promotion of the WV Make It Shine Statewide Cleanup event typically held in early April. Make It Shine Event reported that between August 1, 2020 and August 1, 2021, participates in the West Virginia Make IT Shine program cleaned 7 open dump sites in Berkeley County. These cleanup efforts combined produced 14 tires and 1,410 pounds of trash. From 2014 to 2020, Berkeley County has been awarded 1st or 2nd place in a Statewide Clean County contest. This contest is conducted by REAP and reflected positively on the efforts made by the Authority in litter control. In addition, Berkeley County has been a long time promoter and participant in the Potomac River Cleanup Event conducted by the Alice Ferguson Foundation. For its role in protecting the Potomac River, in 2012, the Berkeley County SWA was awarded the coveted Potomac River Champion Award.

Berkeley County has made great strides in roadside litter since 2018. With funding assistance from the Berkeley County Council, a government run litter pickup program utilizing community service personnel was established. The program has enjoyed broad support from Berkeley County Courts, Berkeley County Day Report Center and the Berkeley County Prosecutor's Office. The day to day oversight of the roadside litter pickup program is by the Berkeley County Marshall's Office. Disposal of the material occurs at the Grapevine Road Recycling Center or the South Berkeley Recycling Center, with assistance from Apple Valley Waste and Entsorga. Since its conception through 2020, the program has picked up 7,464 bags, 4,129 bulky items from 915 miles of roads.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS



This chart is courtesy of the Berkeley County Solid Waste Authority and based on information provided by the Berkeley County Marshal's Office.

There are also litter control education programs offered by a local non-profit community group called Berkeley Community Pride (BCP). BCP was established in 2004 to keep the county's rural areas free of litter and to educate future generations. In 2009, a scholarship program was established through the Shepherd University Foundation to inspire students by funding two \$500.00 scholarships for students majoring in environmental studies. The organization also awards seven scholarships for area youths to attend the Audubon Discovery Camp and helps judge and award environmental projects at the annual Berkeley County Schools science fair. BCP also awards local businesses, individuals or organization with its annual Green Award. More can be learned about BCP at www.bcpwv.org

In 2015, the Authority and AVW of West Virginia established a new awards competition to stimulate participation in the Adopt-A-Highway program. The awards program consisted of cash prizes offered to the top three organizations based on the amount of litter collected and reported to REAP.

The Authority recognizes the WV Legislature allows the establishment of many community service programs to address litter problems. They are as follows:

- 1) West Virginia Code, §22C-4-22, allows County Commissions and regional jail authorities to establish a jail or prison inmate program, including regular litter pickup.
- 2) West Virginia Code, §49-5-13, allows children adjudged to be in need of extra parental supervision to be placed in a program including participation in a litter control program.
- 3) West Virginia Code, §49-5-13B, allows the Circuit Court to include participation by the child in a litter control program as part of penalties, conditions, and limitations imposed upon the child in the disposition of the child before the Court

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

4) West Virginia Code, §61-11-17, allows the Court, in addition to or in lieu of other punishment, to require the person found guilty of a misdemeanor to participate in the litter control program.

5) West Virginia Code, §62-11A-1, allows the Court to grant a defendant the privilege of leaving jail during necessary and reasonable hours to devote time to the litter control program.

6) West Virginia Code, §62-12-3, provides an alternative for sentencing that allows the court to impose participation in the litter control program of the County as a condition of probation.

7) West Virginia Code, §62-12-113, allows the Board of Probation and Parole to impose, as a condition of parole, participation in the litter control program of the County.

IDENTIFICATION OF PROBLEMS:

Despite a successful Adopt-A-Highway program, roadside litter is still a serious environmental crime in Berkeley County. The Authority and citizens regularly report highway littering. In particular, the various roads into and out of the LCS Services Landfill are often noted as frequently littered highways.

Concerns are being expressed that the highway litter could find itself blown into yards, farm fields or woodlots causing problems for wildlife. Highway litter is also known to contribute to highway accidents. The use of jail inmates or alternative sentencing to clean up roadside litter does occur but there is little evidence of an organized ongoing effort.

I-81 has a littering problem. Concerns exist that the problem is made more difficult by grass mowing activities that occur prior to litter pickup.

SOLUTIONS AND RECOMMENDATIONS:

The Authority sees the solution to roadside littering as proper education and strict enforcement.

Berkeley County has implemented many of the tools for the management of litter control programs. As part of an ongoing basis, the Authority will meet with appropriate officials to determine if the litter cleanup programs are successful. In addition, the Authority will encourage the publication in the local news media of names of individuals found guilty of littering. Since the route to the LCS Services Landfill is a heavily littered road, the Authority will consider publicizing the requirement that all vehicles transporting solid waste to the landfill should be secured.

The Authority recognizes that there are potential creative legislative solutions that have been considered in the past that have the potential to address littering problems. Therefore, the Authority will continue to support common sense litter enforcement legislative solutions on an ongoing basis to address litter problems.

There is also evidence of litter blowing off vehicles in route to the LCS Services Landfill. Past comments from the county's litter control officer support this observation. Within 5 years, the Authority will seek funding to purchase a litter trap for both Back Creek and the Opequon Creek in an attempt to automate the collection of litter in the waterways.

CHAPTER THIRTEEN

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER 13: SPECIALITY WASTE

WHITE GOODS/APPLIANCES/FERROUS-NONFERROUS METALS:

The Authority recognizes that many white goods such as stoves, dryers, hot water heaters, refrigerators, freezers and air conditioners present a unique disposal problem due to their bulk, weight and the possibly of containing Freon. Fortunately, the collection and recycling of these metals in Berkeley County are the most advanced of all recyclable materials. For many years, the recycling of these materials occurred even before recycling became part of mainstream solid waste management.

The collection of white goods and appliances without Freon occurs at the Grapevine Road Recycling Center, South Berkeley Recycling Center, Stephen Street Recycling Center and the LCS Services Landfill. Apple Valley Waste Services is required to provide for two bulky items per month at no additional charge to its Berkeley County customers. Any items in excess of the first two are charged accordingly. Apple Valley recycles their appliances at the Grapevine Road Recycling Center. Finally, Lowes Home Improvement will also provide collection services for these items for a fee under certain defined circumstances.

In 1998, every recycling program in the county dropped the collection of units that contained chlorofluorocarbons (Freon) unless the Freon was previously removed by an US- EPA approved handler. Since 2003, there has been substantial progress made on the collection of the Freon items. Today, the Stephen Street Recycling Center and the LCS Services Landfill still does not accept items containing freon. However, Apple Valley Waste, Grapevine Road Recycling Center and South Berkeley Recycling Centers do accept units containing Freon. Apple Valley Waste charges a \$30.00 fee for any item that requires the removal of Freon.

IDENTIFICATION OF PROBLEMS:

Recycling services for such items could be improved by the establishment of drop off recycling centers in the Northern and Western parts of the County.

SOLUTIONS AND RECOMMENDATIONS:

The Authority should continue its efforts to expand the present recycling infrastructure for improved recycling services of ferrous and nonferrous metals around the County.

TIRES:

According to the US Tire Manufacturers Association (see footnote), it is estimated the United States generates about 304 million scrap tires per year. The growth in "end use" markets is primarily due to increased consumption of tire derived fuel. Ground rubber for athletic and recreational surfaces, rubberized asphalt, flooring material and other products consumed only 30 million scrap tires. According to the Rubber Manufactures Association (RMA), the burning of tires (or TDF) as a fuel provides a significant disposal method for tires, However, this method of disposal appears to be in on the decline. According to US Tire Manufacturers Association, scrap tires are one of the most recycled products in the United States. Unfortunately, end-of-life markets are not keeping pace. The association's 2019 Scrap Tire Management Report reveals that almost 76% of scrap tires were recycled in products such as rubber modified asphalt, the manufacturing of automotive products and mulch for landscaping and other products, and tire-derived fuel in 2019. This is down from 96% in 2013, when scrap tire recycling peaked.

Footnote: Data from <https://ehsdailyadvisor.blr.com/2021/03/tire-recycling-and-the-environment-benefits-and-challenges/>

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Sadly, illegal tire disposal is a serious rampant problem in the County and there exists no continuous ongoing public program to collect and recycle used tires in Berkeley County. Unfortunately, tire collection efforts for the immediate future will rely on the present collection efforts of the businesses that sell tires and the collection efforts by the BCSWA and REAP PPOD as a result of the Waste Tire Management Act. It is the desire of the Authority to continue the tire collection efforts held in cooperation with the WV-DEP REAP PPOD. Unfortunately, the recycling of those tires collected by the WV-DEP is very unlikely in the immediate future.

It is estimated that on average each American generates one waste tire per year. Therefore, it can be estimated that Berkeley County generates about 119,000 tires per year. The landfilling of whole tires can pose problems because the tires fail to compact within the landfill. While other solid waste materials do compact, the tire rises up or "floats" to the surface. This could easily lead to damage the landfill synthetic cap. As a result, most states banned whole tires from landfill disposal. Landfill disposal of whole tires was banned effective June 1, 1996 in West Virginia.

There is no tire recycling or tire derived facilities (TDF) facilities operating in Berkeley County. Based on observation and belief, locally many of the used tires are returned to the retailer when a new tire is purchased. In an effort to address the tire management issue, the legislature passed the Waste Tire Management Act. This Act created a \$5.00 fee on vehicle registration renewal to fund on-going tire cleanup programs. Twice per year, the Authority conducts tire collection events. Funding and staffing assistance is also provided by REAP PPOD. However, due to COVID and contractor issues, no tire collection events occurred in Berkeley County for 2020 or 2021. Generally, these events are the largest collection of tires in the three county Eastern Panhandle region.

Data from all tire collection events are shown below:

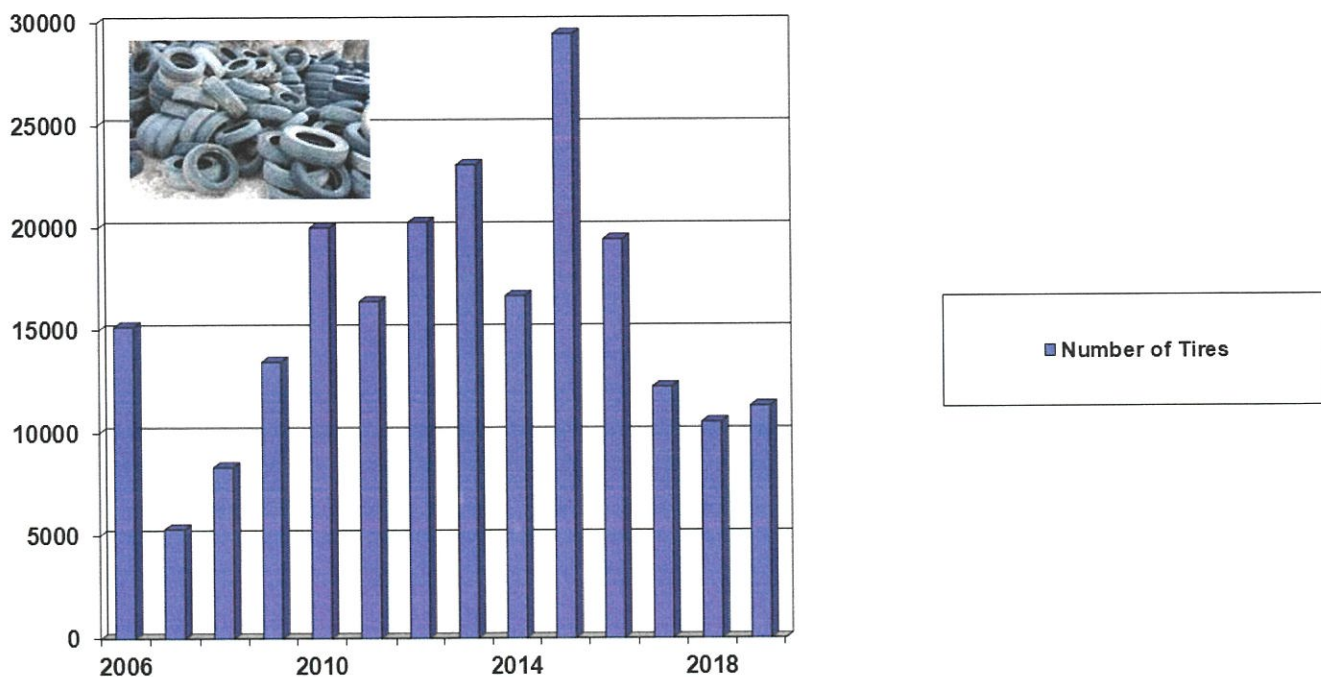


Chart courtesy of the Berkeley County Solid Waste Authority

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

IDENTIFICATION OF PROBLEMS:

Illegal tire disposal continues to be a serious problem in Berkeley County. There exist no ongoing program to collect tires for recycling in Berkeley County. There exist no local end user markets for the recycling of collected old tires.

SOLUTIONS AND RECOMMENDATIONS:

It is the desire of the Authority to continue the special tire collection efforts held in cooperation with the WV-DEP PPOD. Unfortunately, the recycling of those tires collected by PPOD is very unlikely in the immediate future. Therefore, within the next 5 years, the Authority will evaluate market conditions within a 100-mile radius and then consider the feasibility of collecting tires as part of its ongoing recycling program

Used Oil, Oil Filter Anti-Freeze Disposal:

In reality, oil and antifreeze are not a solid waste. However, they are a frequent component of the municipal solid waste stream. Both oil and antifreeze is a free flowing liquid, therefore they are banned from placement in all West Virginia landfills.

Oil is insoluble, persistent and can contain chemicals and heavy metals. It is very slow to degrade. According to the US-EPA's document "Recycling Used Oil; What can you do" found at <http://nepis.epa.gov> used oil from a single oil change can ruin a million gallons of fresh water- a years' supply for 50 people.

According to the US-EPA document, consumers who change their own oil generate at least 200 million gallons of used oil nationally per year and they represent 60 percent of the nation's automotive oil changes. It is estimated Americans improperly disposed of 120 million gallons of this used oil by dumping it on the ground, pouring it down storm drains or by putting it into trash cans destined for landfilling. Recycling of this oil would save the United States 1.3 million barrels of oil per day. The US-EPA reports that one gallon of used oil provides the same 2.5 quarts of lubricating oil as 42 gallons of new crude oil.

Another similar waste product from consumers who change their own oil is the disposal of used oil filters. Used oil filters contain hazardous chemicals such as benzene, arsenic and traces of lead which can pollute groundwater, rivers and streams. As a result, some states have banned used oil filters from landfills. Therefore, the proper collection and disposal of oil filters for recycling is increasingly important.

IDENTIFICATION OF PROBLEMS:

While the Authority has made no attempt to document the quantity of used oil or used oil filters being disposed of improperly in the County, it almost certainly occurs.

There is only one private location for the public to properly recycle used oil filters in Berkeley County

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

SOLUTIONS AND RECOMMENDATIONS:

The Authority should continue its public education program using all available outlets to promote the free collection of used oil within the Berkeley County Recycling Program.

Within the next 5 years, the Authority should implement the collection of used oil filters for recycling at both the Grapevine Road Recycling Center and the South Berkeley Recycling Center

DRY CELL, RECHARGEABLE & LEAD ACID BATTERY:

Many studies conclude that batteries of all types make up a small percentage of a typical waste stream. Lead acid batteries are considered one of the most toxic items which find their way into the municipal solid waste stream. When significant quantities of sulfuric acid and lead are released and react with other contents of a landfill it creates a potentially lethal situation. As a result, the WV Legislature (§22-15A-22) banned all lead acid batteries from landfill disposal on June 1, 1994.

Given the present disposal options, recycling is the only safe solution for lead acid batteries. Fortunately, these types of batteries are 100% recyclable. Recycling batteries not only conserves natural resources and energy, it reduces the risks to human health and the environment. The average lead acid battery weighs approximately 35 pounds; which is about half lead and the remainder contains about a gallon of sulfuric acid and the battery's plastic case.

Most states, including West Virginia, require a system of collecting lead acid batteries for recycling. Any person selling or offering lead acid batteries for sale at retail or wholesale in West Virginia shall:

- 1) Accept, at the point of transfer, spent lead acid batteries from customers in exchange for new batteries purchased. However, it is not necessary to exchange a used battery in order to purchase a new one;
- 2) Post written notices using at least one inch size letters on a poster clearly visible to all customers and containing the universal recycling symbol and the language "it is unlawful to dispose of a lead acid battery in a WV landfill"

According to the US-EPA, since the enabling of such legislation nationwide the current recycling rate of lead acid batteries rose to over 80%. Most lead acid batteries are now collected at local automotive service or repair garages or retail stores selling lead acid batteries. Overall, the collection and recycling efforts for lead acid batteries tend to be successful because collection and recycling programs are a convenient means of disposal and many stores offer small financial rebates for the return of a used lead acid battery, similar to the deposit law concepts advanced in several states. Ultimately, the primary motivation for this recovery is the profit from the sale of the lead.

In addition, dry cell and rechargeable batteries contain a number of heavy metals and toxic chemicals and their dumping has raised concerns over soil contamination and water pollution.

These batteries can be recycled by breaking it apart in a hammer mill; a machine that hammers the battery into pieces. The broken battery pieces are then placed into a vat, where the lead and heavy materials fall to the bottom and the plastic floats. At this point, the polypropylene pieces are scooped away and the liquids are drawn off, leaving the lead and heavy metals. Each of the materials goes into a different recycling "stream".

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

For these reasons, in 2008, the Authority implemented the acceptance of lead acid, rechargeable and dry cell battery for recycling at the Grapevine Road Recycling Center and the South Berkeley Recycling Center.

IDENTIFICATION OF PROBLEMS:

There is a well-established program for the collection of lead acid batteries in Berkeley County. Additionally, there are two community drop off facilities that accepts rechargeable and dry cell batteries. However, these services should be expanded to include the northern and western parts of the County.

SOLUTIONS AND RECOMMENDATIONS:

The Authority should continue its public education program using all available outlets to promote the free collection of used batteries within the Berkeley County Recycling Program.

HOUSEHOLD HAZARDOUS WASTE:

Every household generates waste that is considered "hazardous". Examples of household hazardous waste are paint, pharmaceuticals, compact and long tube fluorescent lamps, solvents, pesticides and paint thinners. Many of these waste items are actually banned in landfills. Unfortunately, because some of these items cannot be easily recycled they make their way into landfill.

In 1997, the Authority, in cooperation with the West Virginia Department of Agriculture, initiated a recycling program for plastic pesticide and agriculture chemical containers. To qualify for recycling, the container must have held agricultural pesticides, insecticides, herbicides, fungicides, spray oil additives or surfactants. This program does not collect any consumer packages. The collection originally site was the Grapevine Road Recycling Center. The WV-Department of Agriculture held the containers in a large locked container until sufficient quantities are met. Then, the material is sent to the manufacture new plastic containers. Presently, the WV-DOA reports that the program continues in the field while managed from their Inwood office. In 2013, the Authority and the WV-DOA hosted a one day pesticide collection event at the Grapevine Road Recycling Center for the residents of the County.

In June 2008, the Authority, conducted the first HHW event in Berkeley County. This event was funded by a WV-SWMB grant and focused on the collection of paint. A second event was held in 2010 and proved enormously popular. However, these events were expensive with costs ranging from \$12k to \$20k per day and have not been repeated since 2010.

In 2011, the Authority implemented the permanent collection of CFL lamps for recycling at both the South Berkeley Recycling Center and the Grapevine Road Recycling Center. In 2014, a pilot program was also conducted at these sites for the collection of long tube fluorescent lamps that were 4 foot long or shorter. This collection effort collected over 1,500+ lamps.

IDENTIFICATION OF PROBLEMS:

There have been only two collection events in Berkeley County for paint. Observations by the Authority indicate that the public support exists for the permanent establishment of paint collection. However, the cost of a comprehensive collection of paint is expected to be in excess of \$20,000.00 per event and the Authority currently lack sufficient funding to operate such a program.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

HHW collections occur on a daily basis for compact fluorescent lamps and pharmaceuticals. However, collection events for paint, pesticides and other hazardous materials do not occur frequently.

SOLUTIONS AND RECOMMENDATIONS:

The creation and operation of a household hazardous waste program in Berkeley County will require extensive financial resources and training. Due to the potential risks to the county's environment, it is clearly a needed program. Within the next 5 years, the Authority will evaluate the feasibility of adding paint to the Berkeley County Recycling Program.

TEXTILE RECYCLING:

Americans throw away over 25 billion pounds of clothes each year and most of it ends up in landfills. Only 15 percent of clothes get donated or recycled. According to the EPA, textiles and fabrics have one of the lowest recycling rates for any reusable material. Even legitimate charities like the Goodwill only end up selling about 20 percent of what gets donated in their retail stores anyway. The rest gets sold to textile recycling companies that either sell the clothes to overseas markets or pound them down to make industrial rags and carpeting materials.

Historically, textile recycling has been a function of local rescue missions and Goodwill entities. However, locally there are increasing reports that these facilities are turning away customers due to the increased tonnages of textile donations. Planet Aid has placed drop off containers at approximately 24 locations for old clothes, shoes and books in the county. Some of these containers are at the Grapevine Road and South Berkeley Recycling Centers.

Another textile related item is the disposal of mattresses and box springs. These items are frequently found in open dumps. Sadly, there is no regional recycling activities of these items and these items do not compact well when landfilled. According to the article "Carpet and Mattress Recycling Made Simple with newly Released How-To Guides" printed in the November, 2015 Waste Advantage Magazine, more than 50,000 mattresses are discarded each day in the United States. According to the article, as much as 90% of mattress components are recyclable, but only a tiny fraction of mattresses are recycled.

IDENTIFICATION OF PROBLEMS:

Despite the significant collection opportunities, significant amounts of used clothing is landfilled and found in open dumps.

SOLUTIONS AND RECOMMENDATIONS:

Within 5 years, the Authority should consider an education campaign in cooperation with the entities that accept clothing to promote the increased collection of the material.

Within 5 years, the Authority should evaluate the feasibility of implementing a trial program for mattress and box spring recycling within the Berkeley County Recycling Program.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

COMPUTER, ELECTRONIC WASTE

The profusion of electronics in American life has produced a new solid waste problem. The volume of electronic waste has led to mounting concerns that the outdated electronics which contain lead and other dangerous or valuable substances could lead to pollution. The standard CRT monitor contains from 4 to 8 pounds of lead, which lines the cathode ray tube. Once in a landfill, these components release toxic substances and mix with liquids that may threaten groundwater.

Electronic products are made from valuable resources and materials, including metals, plastics, and glass, all of which require energy to mine and manufacture. Donating or recycling consumer electronics conserves our natural resources and avoids air and water pollution. In 2019, according to Earth911.com, Americans generated 6.92 million tons of e-waste with only 15 % being recycled.

In 2002, the Authority hosted the first e-cycling event in West Virginia. The one day event collected 40,509 pounds from 262 participants. This event was funded by the US-EPA. In 2006, another two day event collected 57,854 pounds of electronics for recycling. Additional special events were held in 2006 and 2007, collecting 57,854 pounds and 52,119 pounds respectively. In 2008, West Virginia became the 12th State to establish a Statewide electronics recycling program. The law requires that producers institute a state approved take back plan for the recycling of monitors, computers, televisions and other devices. In addition to submitting a recovery plan, manufacturer's pay the state a registration fee. The fees are used to fund grants for electronics recycling. In 2010, the Legislature passed SB398, which banned certain electronic devices from being placed in a West Virginia landfill. West Virginia was the 17th State to ban certain electronic waste from landfills. In 2016, the West Virginia legislature passed HB4540. This legislation became effective July 1, 2016. The legislation amended and reenacted §22-15A-22 of the Code of West Virginia, relating to removing the prohibition of disposal of certain electronics in landfills; and permitting county or regional solid waste authorities to prohibit disposal of covered electronics in landfills where they have determined that a cost effective recycling alternative for handling covered electronic devices exists. Locally, Berkeley, Jefferson and Morgan County Solid Waste Authorities have determined there are cost effective recycling alternatives.

In 2010, the Authority initiated a continuous collection of electronics at the South Berkeley Recycling Center. From 2010 – 2020, the program collected and recycled 4,683,523 pounds of electronic waste. Additionally, AVW of West Virginia and Morgan Sanitation began programs to collect these devices at the curb. A contract was developed that required the curbside collections of electronics in Berkeley, Jefferson and Morgan Counties to be marketed to the South Berkeley Recycling Center.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Electronics Tonnage

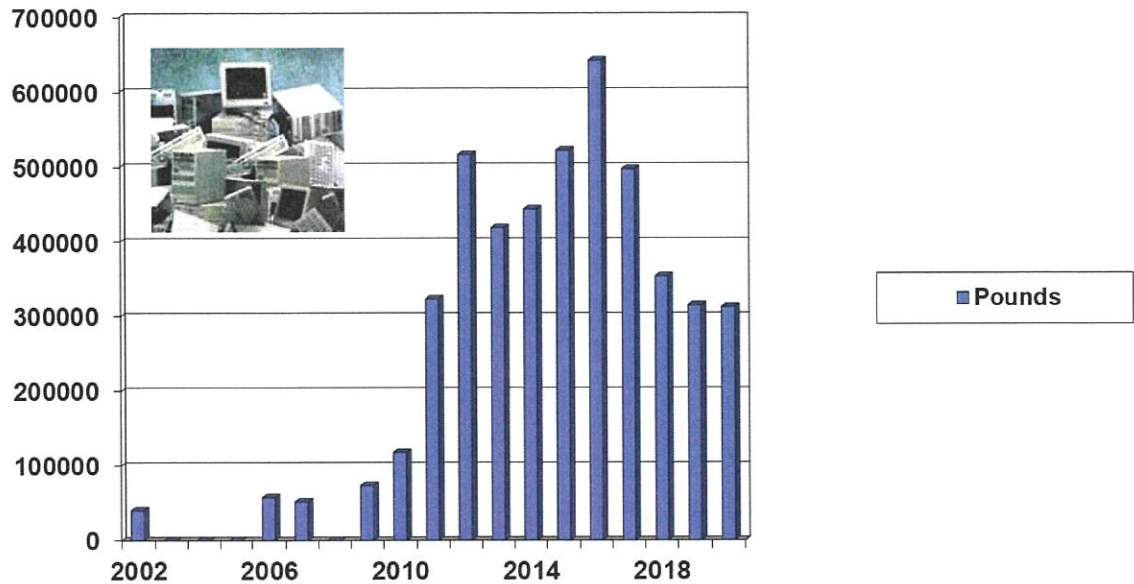


Chart courtesy of the Berkeley County Solid Waste Authority

IDENTIFICATION OF PROBLEMS:

While the electronics program in Berkeley County is operating smoothly, there is a developing concern that the ability to locate affordable markets. With the increase of e- cycling materials into the commodity markets, it is becoming more difficult to locate affordable markets.

SOLUTIONS AND RECOMMENDATIONS:

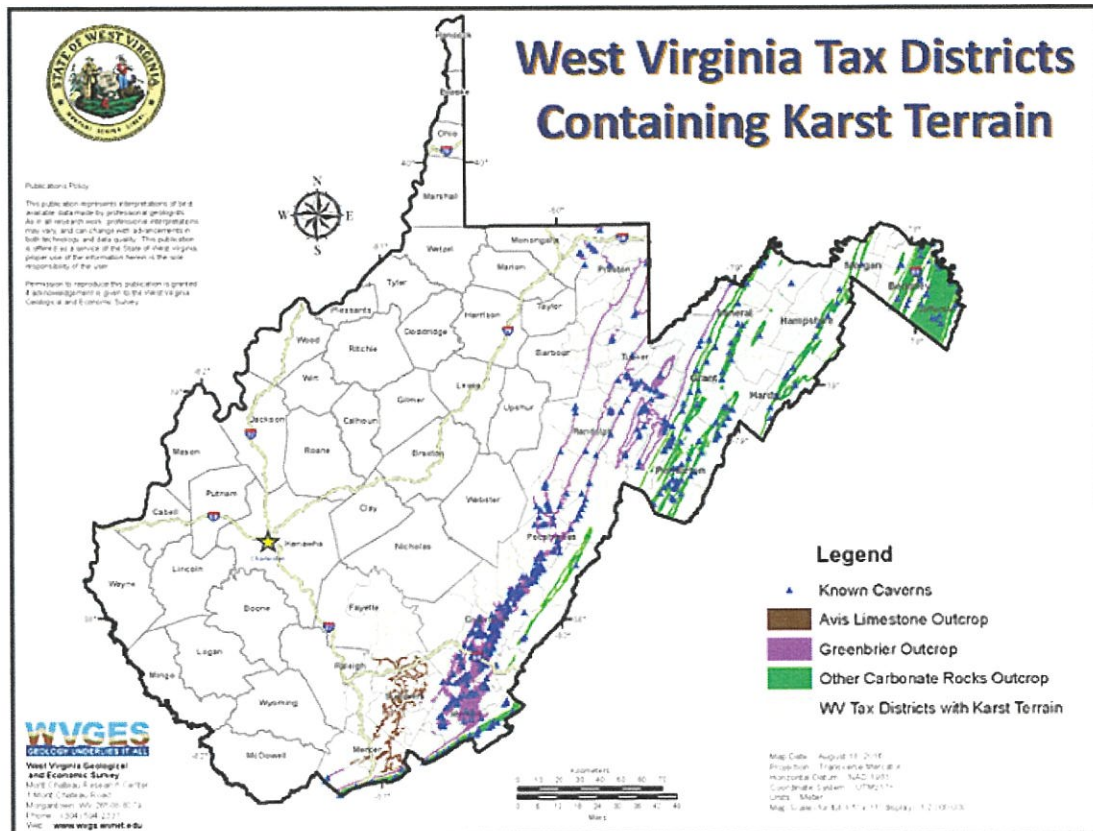
The Authority should make every effort to maintain the ongoing electronics recycling program while seeking alternative recycling firms that have the proper stewardship principals for handling such materials.

DRILL CUTTING WASTE:

In 2011, the West Virginia Legislature passed the Horizontal Well Control Act. Amongst many things, this Act required the landfilling of drill cutting waste from horizontal drilling activities. In 2014, during a special session, the Legislature passed HB107 into law which implemented changes to the WV Solid Waste Management Act. HB107 stated that a commercial solid waste facility that is not located in a county that is, in whole or in part, within a karst region as determined by the West Virginia Geologic and Economic Survey may lawfully receive drill cuttings and drilling waste generated from horizontal well sites above the monthly tonnage limits of the commercial solid waste facility under certain conditions and limitations.

Furthermore, on March 13, 2015, HB2283 which authorized the Department of Environmental Protection to promulgate legislative rules related to the drill cuttings from horizontal gas wells finished its legislative action. The WV-DEP Title 33 CSR 1 rule included provision 5.6.e which stated "a commercial solid waste facility located in a county that is, in whole or in part, within a karst region as determined by the West Virginia Geologic and Economic Survey, may not accept drill cutting and drilling waste generated from horizontal well sites". Below is a map from WVGES showing karst regions in Berkeley County. Therefore, the landfilling of drill cutting waste within a special unlimited tonnage landfill or within a regular tonnage limited cell is banned in Berkeley County.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS



Map courtesy of the West Virginia Geological and Economic Survey. Shown above is a WV-GES Map of the karst areas of West Virginia

CHAPTER FOURTEEN

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER 14: FUNDING

Many of the solid waste programs in West Virginia are clearly underfunded. Berkeley County solid waste programs are no exception.

Any Authority is legislatively authorized to implement a local tipping fee, not to exceed 50 cents per ton of solid waste disposed in a commercial solid waste facility in the county. The Authority has implemented this fee on waste disposed at the LCS Services Landfill at the 50 cents per ton level. The revenue resulting from this fee generated \$52,704.15 in fiscal year 2021. The LCS Services Landfill has a monthly tonnage cap of 9,999 tons per month and a daily cap of 500 tons per day. Assuming maximum utilization, this fee could generate no more than \$4,999.50 per month of revenue (\$59,994.00 per year) for the Authority. To increase the tonnage intake into landfills is at cross odds with the statutory hierarchy of landfill reduction. Therefore, the only means to increase more revenue from landfilling would involve a legislative change that allows the local solid waste authority to increase the 50 cent per ton rate.

The Entsorga, West Virginia Resource Recovery Facility also has a monthly tonnage cap of 9,999 tons per month and a daily cap of 500 tons per day. The revenue resulting from this fee generated \$10,614.55 in fiscal year 2021. Assuming maximum utilization, this fee could generate no more than \$4,999.50 per month of revenue (\$59,994.00 per year) for the Authority. This facility represents new income to the Authority. This facility is unique in that it supports the mandatory statutory hierarchy of landfill reduction.

As well, every Authority receives an equal share of funding from the West Virginia Solid Waste Management Board. This funding is also derived from fees placed on solid waste disposed in commercial solid waste facilities across the State. In fiscal year 2021, the revenue from this fee generated \$21,888.69 for all solid waste authorities across the State. This fee provides revenue to implement and operate solid waste programs in Berkeley County. However, any desire to increase the tonnage intake into landfills is at cross odds with the statutory hierarchy of landfill reduction.

To address the day to day operational cost of the county's recycling and litter control programs, the Authority developed a cooperative with the Berkeley County Council. The Berkeley County Council has agreed in writing to participate with financial contributions to the recycling and litter control program's operating budget. As evidenced from the following chart, both the Berkeley County Council and the Authority have made a serious financial commitment to the solid waste programs in the County. It is anticipated that continued commitment from both parties are likely to continue.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Fiscal Year	BCSWA Contribution	County Council	Commodity Market Revenues
1996	\$ 20,000.00	\$ 20,000.00	\$ -
1997	\$ 21,000.00	\$ 34,609.00	\$ -
1998	\$ 21,000.00	\$ 26,774.00	\$ -
1999	\$ 21,000.00	\$ 21,200.00	\$ -
2000	\$ 26,968.00	\$ 21,200.00	\$ -
2001	\$ 33,144.00	\$ 22,200.00	\$ 1,558.06
2002	\$ 41,054.96	\$ 25,000.00	\$ 1,890.05
2003	\$ 43,536.45	\$ 29,042.00	\$ 2,332.04
2004	\$ 48,523.65	\$ 32,000.00	\$ 5,034.62
2005	\$ 56,007.00	\$ 88,796.00	\$ 12,600.97
2006	\$ 56,000.00	\$ 84,853.00	\$ 22,368.47
2007	\$ 56,000.00	\$ 94,592.84	\$ 26,837.30
2008	\$ 56,000.00	\$ 94,593.50	\$ 29,680.00
2009	\$ 56,000.00	\$ 85,134.00	\$ 36,164.27
2010	\$ 56,000.00	\$ 68,107.00	\$ 77,803.68
2011	\$ 56,000.00	\$ 68,107.00	\$ 95,227.56
2012	\$ 38,000.00	\$ 78,107.00	\$ 125,296.78
2013	\$ 38,000.00	\$ 78,107.00	\$ 96,005.44
2014	\$ 38,000.00	\$ 78,107.00	\$ 100,593.33
2015	\$ 53,000.00	\$ 78,107.00	\$ 98,695.00
2016	\$ 53,000.00	\$ 78,107.00	\$ 118,218.00
2017	\$ 59,811.00	\$ 70,638.00	\$ 147,191.00
2018	\$ 63,980.00	\$ 66,128.00	\$ 145,465.00
2019	\$ 99,767.00	\$ 66,128.00	\$ 154,506.00
2020	\$ 117,290.00	\$ 52,900.00	\$ 126,421.89
2021	\$ 120,692.30	\$ 66,128.00	\$ 132,905.00

In cooperation with county or regional Authorities, there are several state agencies (WV- DOH, WV-DEP, WV-PSC and WV-SWMB) that implement various funding components of solid waste programs. The Authority has been very successful at obtaining both public and private grant funding. To date, the Authority has successfully obtained \$6.24M in grants since its inception in 1989. The following represents a breakdown of grants awarded to the Authority.

2023: The Authority was awarded a \$15,000.00 grant by the WV-SWMB. This grant will be utilized to fund cardboard/ mixed paper hauling fees and hosting a composting education seminar.

2023: The Authority was awarded a \$2,200.00 matching REAP Litter Control Grant to purchase radio advertisements for an anti-litter campaign.

2022: The Authority was awarded a \$2,000.00 matching REAP Litter Control Grant to purchase anti-litter billboards advertisements.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

2021: The Authority was awarded a \$11,800.00 grant by the WV-SWMB. This grant was utilized to fund cardboard/mixed paper hauling fees, maintenance/repairs and equipment.

2021: The Authority was awarded a \$149,500.00 REAP Recycling Assistance Grant. This grant made loading dock infrastructure improvements to the Grapevine Road Recycling Center, replaced a tractor and made site improvements at the SBRC.

2021: The Authority was awarded a \$14,700.00 REAP Covered Electronic Devices Grant. The grant was used to fund on going transportation expenses associated with the acceptance of electronics.

2021: The Authority was awarded a \$2,500.00 matching REAP Litter Control Grant to purchase anti-litter billboards advertisements.

2020: The Authority was awarded a \$20,000.00 REAP Covered Electronic Devices grant. The grant was used to fund the purchase of four 15 yard rolloff containers for the transportation of electronics.

2020: The Authority was awarded a \$2,500.00 matching REAP Litter Control Grant to purchase anti-litter billboard advertisements.

2019: The Authority was awarded a \$6,971.00 grant by the WV-SWMB. This grant was utilized to purchase Texas blocks.

2019: The Authority was awarded a \$99,000.00 REAP Recycling Assistance Grant. This grant funded concrete improvement at the SBRC purchased tires, shale and gravel.

2019: The Authority was awarded a \$3,000.00 matching REAP Litter Control Grant to purchase anti-litter billboard advertisements.

2018: The Authority was awarded a \$8,200.00 grant by the WV-SWMB. This grant was utilized to purchase two steel storage containers.

2018: The Authority was awarded a \$3,000.00 matching REAP Litter Control Grant to purchase anti-litter billboards.

2017: The Authority was awarded a \$89,350.00 REAP Recycling Assistance Grant. This grant funded the purchase of a skidloader and an open top rolloff.

2017: The Authority was awarded a \$9,652.00 REAP Covered Electronic Devices grant. The grant was used to fund labor and fuel expenses for the collection of electronics.

2017: The Authority was awarded a \$2,920.00 matching REAP Litter Control Grant to purchase litter supplies.

2016: The Authority was awarded a \$2,820.00 grant by the WV-SWMB. This grant was utilized to purchase recycling bags.

2016: The Authority was awarded a \$10,000.00 REAP Covered Electronic Devices grant. The grant was used to fund supplies for the collection of electronics.

2016: The Authority was awarded a \$3,000.00 matching REAP Litter Control Grant to purchase anti-litter equipment, radio and newspaper advertisements.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

2015: The Authority was awarded a \$1,000.00 grant by the WV-SWMB. This grant was utilized to purchase comprehensive plan supplies.

2015: The Authority was awarded a \$10,000.00 REAP Covered Electronic Devices grant. The grant was used to fund ongoing collection of electronics.

2015: The Authority was awarded a \$1,500.00 matching REAP Litter Control Grant to purchase anti-litter pamphlets.

2015: The Authority was awarded a \$105,362.00 REAP Recycling Assistance Grant. This grant made infrastructure improvements to the Grapevine Road Recycling Center and the curbside dual stream building.

2015: The Authority was awarded a \$7,400.00 Food Composting Pilot grant by the US- EPA. The purpose of the grant was to fund a seminar for backyard composting and the conduct a one year pilot for the acceptance of food waste within the drop off program.

2014: The Authority was awarded a \$20,000.00 grant by the WV-SWMB. This grant was utilized to brush grinding on an emergency basis and fund expenses with updating the Comprehensive Litter and Solid Waste Control Plan.

2014: The Authority was awarded a \$10,000.00 REAP Covered Electronic Devices grant. The grant was used to fund on going expenses associated with the acceptance of electronics.

2013: The Authority was awarded a \$45,000.00 from the US-Federal Emergency Management Agency for the grinding of brush generated from the June 29, 2012 derecho storm event.

2013: The Authority was awarded a \$12,500.00 grant from the WV-Solid Waste Management Board. This grant was utilized to grind brush.

2013: The Authority was awarded a \$12,000.00 REAP Covered Electronic Devices grant. The grant was used to fund on going expenses associated with the acceptance of electronics.

2013: The Authority was awarded a \$125,750.00 REAP Recycling Assistance Grant. This grant made infrastructure improvements to the South Berkeley Recycling Center.

2012: The Authority was awarded a \$1,945.00 from the US-Federal Emergency Management Agency for the removal of snow from a storm event.

2012: The Authority was awarded a \$18,000.00 REAP Covered Electronic Devices grant. The grant was used to fund on going expenses associated with the acceptance of electronics.

2012: The Authority was awarded a \$12,000.00 grant from the WV-Solid Waste Management Board. This grant was utilized to conduct a one day paint collection event.

2011: The Authority was awarded a \$10,000.00 grant from the WV-Solid Waste Management Board. This grant was utilized to grind brush.

2011: The Authority was awarded a \$98,000.00 REAP Recycling Assistance Grant. This grant made general infrastructure improvements to both the Grapevine Road and the South Berkeley Recycling Center.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

2011: The Authority was awarded a \$14,620.00 REAP Covered Electronic Devices grant. The grant was used to fund on going expenses associated with the acceptance of electronics.

2010: The Authority was awarded a \$17,800.00 REAP Covered Electronic Devices grant. The grant was used to fund on going expenses associated with the acceptance of electronics.

2010: The Authority was awarded a \$10,000.00 grant from the WV-Solid Waste Management Board. This grant was utilized to grind brush.

2009: The Authority was awarded a \$112,200.00 REAP Recycling Assistance Grant. This grant made general infrastructure improvements to both the Grapevine Road and the South Berkeley Recycling Center.

2007: The Authority was awarded a \$75,627.00 REAP Recycling Assistance Grant. This grant was used to purchase a skid steer, road trailers, safety barriers and to make repairs to various equipment.

2007: The Authority was awarded a \$10,000.00 WV-SWMB grant to conduct a one day paint collection event in 2008.

2007: The Authority was awarded a \$3,500.00 matching REAP Litter Control Grant to purchase anti-litter banners, radio and newspaper advertisements.

2007: The Authority was awarded a \$4,000.00 PPOD grant to conduct a one month recycling event for items containing freon.

2006: The Authority was awarded a \$50,000.00 grant from the Berkeley County Commission to conduct a siting plan study of the 140 acres owned by the Authority on Grapevine Road.

2006: The Authority was awarded a \$17,000.00 WV-SWMB grant to conduct a siting plan study of the 140 acres owned by the Authority on Grapevine Road.

2005: The Authority was awarded a \$30,000.00 REAP Recycling Assistance Grant to purchase chain link fence for GVRC, promotional pamphlets, road trailers, and improvements to the SBRC loading dock.

2006:- The Authority was awarded a \$17,000.00 grant to conduct two electronic recycling events. These events were held in May & June, 2006.

2004: The Authority was awarded a \$96,675.00 WV-DNR Recycling Assistance Grant. This grant was used to purchase rolloff containers, road trailers, traffic counters, install fencing around GVRC, and complete the SBRC retaining wall.

2004: The Authority was awarded a \$3,700.00 grant from FEMA for reimbursement for brush grinding as a result of damage from Hurricane Ivan.

2004: The Authority was awarded a \$50,000.00 grant to complete the two SBRC retaining walls and to purchase rolloff containers.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

2004: The Authority received a \$10,000.00 legislative digest grant for one retaining wall at SBRC.

2004: The Authority was awarded a \$2,500.00 WV-DNR Litter Control Grant to be utilized to fund the recycling of units containing freon.

2003: The Authority was awarded a \$10,000.00 legislative digest grant to make site improvements at the SBRC.

2003: The Authority was awarded \$9,332.00 from FEMA to pay for brush grinding as a result of Hurricane Isabel.

2003: The Authority was awarded \$39,805.00 from the WV-DNR to purchase and install chain link fence around SBRC, concrete barriers, contamination bins, freon unit event, purchase concrete blocks and mulching activity.

2002 through 2004: The Authority received a \$4.5M grant to complete the LCAP project on the old Berkeley County Landfill.

2002: The Authority was awarded a \$20,000.00 WV-SWMB grant to purchase a utility tractor and storage shed for SBRC.

2002: The Authority was awarded a US-EPA Region #3 grant to conduct WV's first e- cycling event.

2001: The Authority was awarded a \$31,500.00 WV-DNR Recycling Assistance Grant to purchase six 40 cubic yard rolloff containers to be utilized at the new South Berkeley Recycling Complex.

2000-The Authority was awarded a \$16,325.00 recycling grant from the West Virginia Solid Waste Management Board. This grant was utilized to purchase another 48' trailer for plastic bottles, another 10'x12' paper shed and concrete barriers to form a brush/Christmas tree storage area at the South Berkeley Recycling Center.

2000-The Authority was awarded \$9,000.00 from the legislative digest funding program of which \$8,000.00 was utilized for Operation Groundhog and \$1,000.00 was utilized for a freon recycling event.

2000- The Authority has received a \$980.00 recycling grant from the National Association of PET Container Resources (NAPCOR) to initiate an education campaign directed at second & third graders. The purpose of the grant is to improve participation of the plastic bottles recycling aspect of the Authority program. The program was administered over the course of the school year culminating with a coloring contest on America Recycles Day.

1999- The Authority received \$8,000.00 from the legislative digest funding program to be utilized for Operation Groundhog.

1999-The Authority received a \$38,843.50 WV-DNR Recycling Assistance Grant for the expansion of services at the Grapevine Road Recycling Center to include plastic bottles #1 and #2. This grant included purchasing three 48' over the road box trailers and the construction of a six bay loading dock. As well the grant included one instructional sign and a public education campaign including newspaper ads and flyers.

1997- The Authority received a \$23,000.00 WV-DNR Recycling Assistance Grant for the purchase of one storage container and a utility tractor for the Grapevine Road Recycling Center.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

1994-The Authority received a \$57,150.00 grant from the WV-DNR Recycling Assistance Grant Program for the purchase of the initial equipment to start the Berkeley County Recycling Program. This included two 10'x 10' paper sheds, a 23 cubic yard mobile recycling container, three 40 cubic yard rolloff containers and one 100 foot - 5 bay building.

1991- The Authority received a \$20,000.00 WV-DNR Recycling Assistance Grant to complete a recycling feasibility study. This grant was also utilized to develop a recycling flyer and to purchase other recycling education materials.

In the past, royalties were received that were from the operation of a "gas to energy" facility at the Berkeley County Landfill. These royalties ceased in 1995 when the facility was closed by the owner/operator (Manus Corp.) and the gas line was sold to Shenandoah Gas Company.

These grants were distributed to the City of Martinsburg:

2002- The City of Martinsburg received \$85,000.00 WV-DNR Recycling Assistance Grant to complete repairs to the recycling building located at the Stephens Street Recycling Center.

1995- The City of Martinsburg received \$100,000.00 WV-DNR Recycling Assistance Grant to purchase equipment, advertising, education materials and recycling bins

IDENTIFICATION OF PROBLEMS:

State and County assessment fees provide some of the needed funding to implement and operate solid waste programs. Historically, those funding mechanisms have presented concerns because the fee is volume based. For example, recycling and composting activities reduced the amount of waste landfilled which in turn reduces the income from assessment fees.

The present funding level of the Authority only allows maintaining the status quo as it relates to implementation of many solid waste programs. This included many of the recommendations and conclusions of this Plan.

Funding opportunities potentially exist through State and Federal grant programs. However, these grants require extensive management resources. Even after successful selection of a particular grant, it is difficult to continually operate programs on intermittent grant funding.

The present funding level of the Authority does not allow for the hiring of sufficient staff to implement and operate solid waste programs.

SOLUTIONS AND RECOMMENDATIONS

The tipping (assessment) fee at commercial solid waste facilities, particularly landfills, has proven to be an effective way to fund reuse, source reduction, recycling and composting programs. It is good public policy that tipping fees on landfills reflect all the costs of landfilling, both short term and long term. Nationally, tipping fees also are utilized to fund many solid waste programs. However, the present tipping (assessment) fees directed to Authorities are simply not enough to support an effective ongoing litter control, reuse, source reduction, recycling, and composting or resource recovery programs to meet the legislative mandated goal of 50% reduction.

Therefore, within the next 5 years, the Authority should pursue working with the WV Legislature to consider increasing the tipping fees at landfills to support the needed programs.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

The Authority has identified the following additional potential funding sources and will evaluate the likelihood of using these avenues of funding on an ongoing basis:

- 1) Tipping fees from commercial solid waste facilities.
- 2) Federal Grants (US-EPA)
- 3) Private Foundation gifts or donations (subject to WV Ethics Commission approval)
- 4) Berkeley County Council Grant
- 5) WV-DEP REAP Recycling Assistance Grant
- 6) WV-SWMB Grant Program
- 7) WV-DEP LCAP Program
- 8) WV-PPOD Program
- 9) WV-DEP REAP Covered Electronic Device Grant
- 10) WV-DEP REAP Litter Control Grant
- 11) WV -Solid Waste Management Board Loan Program
- 12) Berkeley County Public Service Stormwater District Grant Funding

SOLID WASTE ASSESSMENT DISTRIBUTION

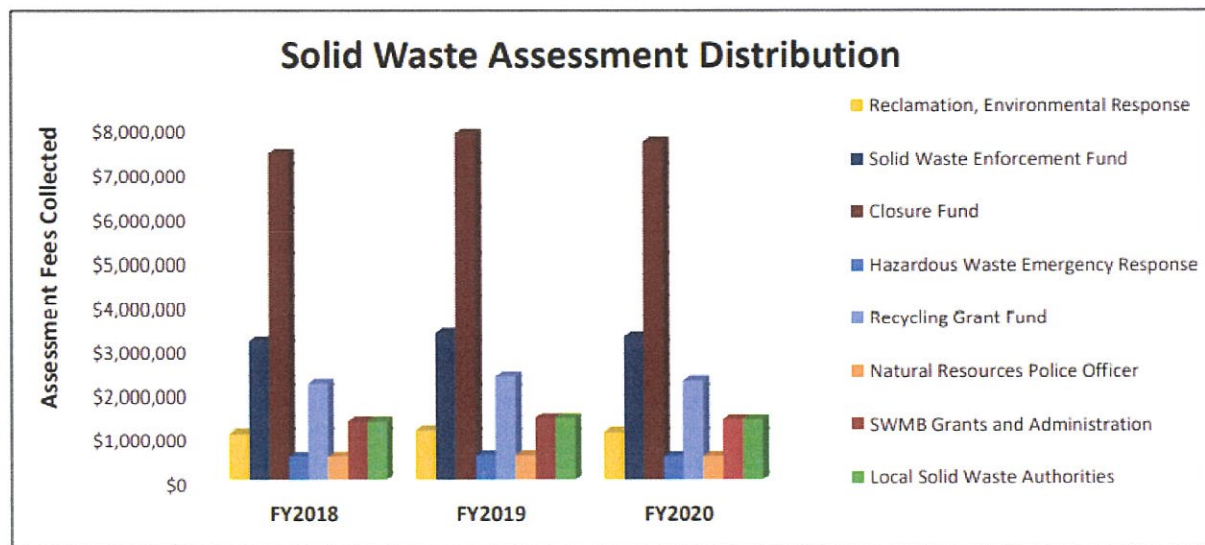


Chart courtesy of the West Virginia Solid Waste Management Plan

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Solid Waste Assessment Fees Distributed by Program

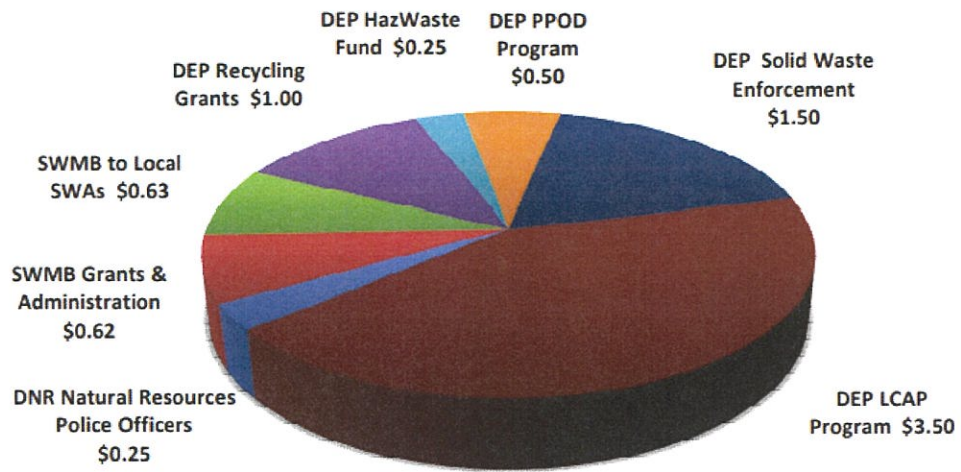


Chart courtesy of the West Virginia Solid Waste Management Plan

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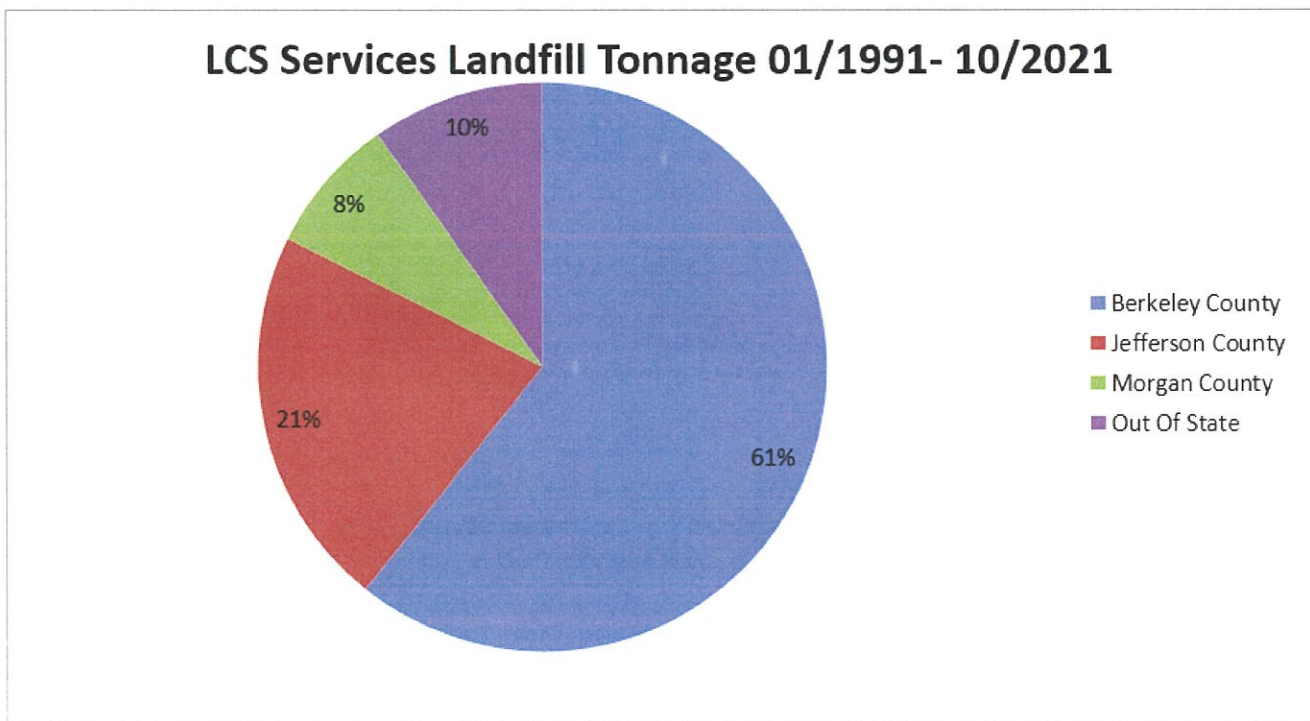
EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER 15:ASSESSMENT OF WASTE GENERATED OUTSIDE BERKELEY COUNTY

Berkeley County is the recipient of municipal solid waste from both outside and inside Wasteshed E. The County at times in the past has been the focal point of a local, regional and statewide public debate over imported waste.

As required by Title 54 "Rules for Developing Comprehensive Plans" is an assessment of the disposal of solid waste generated outside the boundaries of Berkeley County but disposed of in Berkeley County.

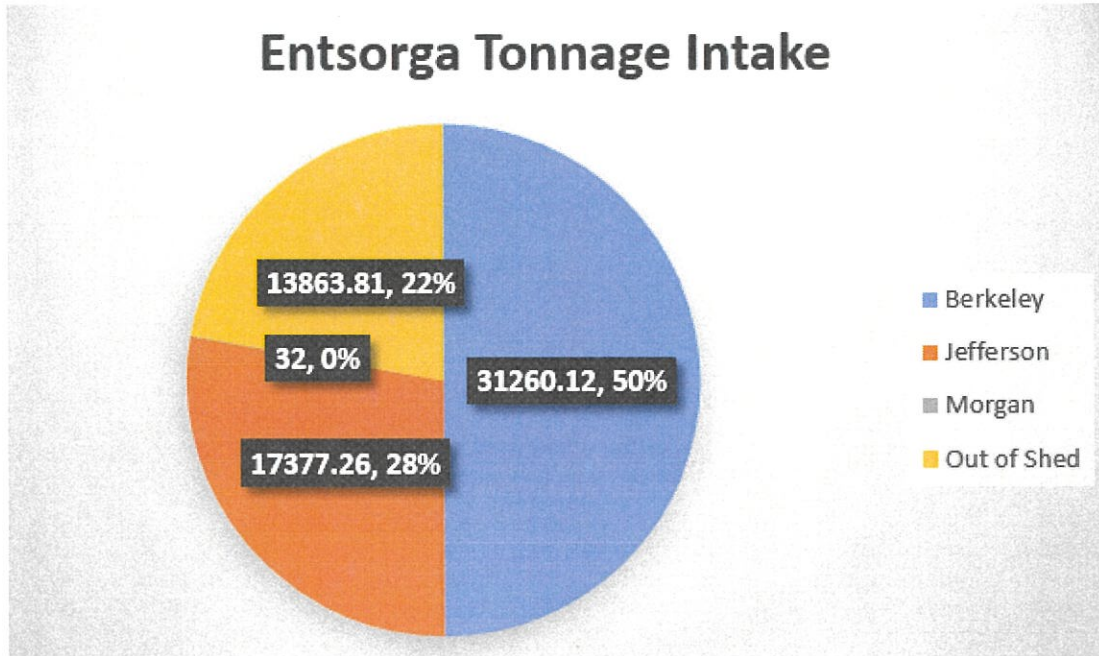
Since 1991, the LCS Services Landfill has served as one disposal location for Berkeley, Jefferson, Morgan and Hampshire Counties of Wasteshed E. Berkeley and Jefferson County waste stream is historically also disposed at, the Mountain View Reclamation Landfill, Jefferson County Transfer Station and the IESI Blue Ridge Landfill. The following chart details the waste disposed at LCS from Berkeley, Morgan and Jefferson counties and out of shed. The data is based on monthly tonnage reports from the LCS Services Landfill. Since its inception, the LCS Services Landfill has accepted 310,969.77 tons of waste from outside of Wasteshed E. This tonnage represents 10% of its overall intake as shown graphically below:



Graph courtesy of the Berkeley County Solid Waste Authority using data from LCS tonnage reports.

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

Entsorga West Virginia started accepting waste in 2019. This facility is permitted to accept no more than 500 tons per day and 9,999 tons per month. The following chart details the waste disposed at Entsorga from Berkeley, Morgan and Jefferson counties and out of shed. The data is based on monthly tonnage reports from the Entsorga facility. Since its inception, Entsorga has accepted 13,863 tons of waste from outside of Wasteshed E. This tonnage represents 22% of its overall intake as shown graphically below:



Graph courtesy of the Berkeley County Solid Waste Authority using data from Entsorga tonnage reports.

CHAPTER SIXTEEN

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

CHAPTER 16: MANDATORY DISPOSAL PROGRAM

Open dumps and roadside litter are harmful to the environment. The act of littering scars the County's natural beauty. The Authority recognizes that Government agencies and dedicated volunteers do not have the resources to clean all the roads and streams within the County and keep them clean as part of an on-going basis. The Authority believes that education plays an important role in addressing this problem. Therefore, the Authority will continue public education efforts to notify residents by the local news media and social media as to the provisions of the West Virginia law requiring mandatory disposal and the requirement of being able to provide proof of proper disposal.

The Authority supports the current mandatory disposal regulations and laws in the State. The Authority concludes the existing law requiring "proof of disposal" combined with strong enforcement is fundamentally the most fair and effective system. Mandatory disposal also allows low income, thrifty or environmentally conscious residents to haul their own solid waste to recycling centers, transfer stations, resource recovery facilities with free or lower fees than a landfill. Additionally, the LCS Landfill and Entsorga can be utilized for free on the designated "free day".

As stated earlier in this Plan, in 2019, Census data shows there were 46,395 households in Berkeley County. Apple Valley (22,520), City of Martinsburg (6,352) and Panhandle Dumpsters (7,652) report a combined total of 36,524 residential collection accounts. Therefore, basic math reflects that, in 2019, the number had grown to a minimum of 78.7 % of county households are subscribing to collection service. This has grown substantially from 61% from the year 2000.

However, these percentages of county households subscribing to collection services must be considered an absolute MINIMUM because the City of Martinsburg, Republic and Waste Management report that many residential - type developments, apartments and other similar multifamily units are not classified by their accounting system as residential accounts and were NOT factored in this equation.

Therefore, the Authority adopts the following proof of proper solid waste disposal rule for all Berkeley County citizens and businesses

1.1 Scope and Purpose. – This rule provides guidance to persons occupying a residence or operating a business establishment in this County regarding the approved method of providing proof of proper solid waste disposal.

1.2. Authority-- W.Va. Code §22C-4-10.

Proof of Proper Solid Waste Disposal.

2.1. Applicability. - Each person occupying a residence or operating a business establishment in this County must be able to provide proof, to the Division of Environmental Protection Inspectors or Division of Natural Resources Conservation Officers or West Virginia State Police or the Berkeley County Sheriff that his solid waste was disposed of at an approved solid waste facility.

2.2. Forms of Proof. - Proof of proper solid waste disposal includes:

EXISTING CONDITIONS, PROBLEMS AND SOLUTIONS

2.2. a. Records demonstrating that a person has subscribed to and used a solid waste collection service and has paid the fees established therefore; or

2.2. b. Records, including bills of receipt, demonstrating that a person has delivered his or her waste to any approved solid waste facility for disposal.

2.3. Record keeping Requirements. -- The owner or operator of each approved solid waste facility in this County must maintain records of each delivery of solid waste made by an individual who is not in the business of hauling or disposing of solid waste. Such records must include:

2.3.a. The name and address of the individual who delivered the waste for disposal;

2.3.b. A description of the origin, type and estimated amounts of the waste delivered for disposal; and

2.3.c A copy of the bill of receipt for the waste delivered for disposal.

2.4 Maintenance and Retention of Records. All records required under this rule must be maintained for a minimum of three (3) years. They must be made available for the inspection by an authorized representative upon request.

CHAPTER SEVENTEEN

Chapter 17: Conclusions and Recommendations:

The Authority concludes that it took several generations to create the county's solid waste problems and it will likely take generations to solve it. It is clear that continued reliance on landfills will not solve the county's municipal solid waste problem. The reality is that change is happening. Alternative disposal methods have been investigated and implemented regionally including source reduction, reuse, recycling, composting, resource recovery and transfer stations. As a result, the Authority has established the following hierarchy for solid waste collection and disposal in the Plan.

1. Reduction
2. Reuse
3. Recycling and Composting
4. Resource Recovery
5. Landfilling
6. Incineration (Incineration of municipal solid waste is banned statewide)

In doing so, the Authority concludes that environmental concerns must be equally balanced with sound economic growth. The Authority will continue to exert all possible efforts toward the environmentally sound development of solid waste programs for the County.

The Authority assessed the existing solid waste conditions, identified problems, and developed alternative approaches to solving the identified problems. Additionally, the Authority identified what the public desires to achieve in the form of improvements to various solid waste programs and an associated timetable for the implementation of the conclusions and recommendations over the next 20 years.

Based on this Plan, the Authority has reached the following conclusions on existing solid waste conditions in Berkeley County:

Berkeley County continues to have substantial solid waste issues to address. However, improvements have been significant particularly in litter control, recycling, composting, and resource recovery. Furthermore, the implementation of several waste and recycling haulers for commercial accounts have been successful. However, the Authority continues to struggle to develop comprehensive recycling centers in the North and Western parts of the County.

All Berkeley County residents and businesses have access to solid waste collection, disposal and recycling services.

The population of Berkeley County has grown at a rapid rate. This growth will place tremendous burdens on the existing solid waste management programs and the implementers of those programs

Berkeley County continues to have substantial amounts of paper, glass, cans, metals, yard waste, electronics, plastic and other material which are not being recycled.

Conclusions and Recommendations:

Berkeley County has seen a tremendous growth in public recycling and composting programs but continues to not reach the 50% diversion rate as directed by the WV Legislature. However, such a goal may be achievable once the Entsorga facility is fully operational. The need to reduce landfilling by the priority utilization of reduction, reuse, recycling and resource recovery should continue to be pursued aggressively.

The Berkeley County Litter Control Program, operated by the Authority in cooperation with the Adopt-a-Highway Program, WV Division of Highways, Berkeley County Sheriff's Office, Berkeley County Council and the Berkeley County Community Service Program is actively removing roadside litter and open dumps in the County.

The Berkeley County Litter Control Program, operated by the Authority, also conducts stream cleanup efforts in cooperation with the Berkeley County Public Stormwater Service District is actively removing litter and open dumps from the streams and lakes in the County.

Unfortunately, due to the presence of I-81, Berkeley County has a litter problem which cannot be addressed through local education programs. Efforts will continue to rely on the local enforcement and related judicial systems to address and the WV-DOH for the cleanup of I81.

It is been calculated that a MINIMUM of 79 percent of the households are participating in a subscription based collection service. However, there continues to be a lack of support for mandating such subscription services as the evidence suggests there is no direct correlation to subscription services and litter.

Since operations began at LCS in 1991, tonnage reports thru October, 2021 show that an estimated 3,202,431 tons of municipal solid waste have been deposited in the landfill. The 2020 Annual Report for the LCS Services Landfill reports that the facility is expected to reach capacity in the year 2049. This approximation assumes a consumption rate of 14,000 cubic yards per month and a waste density of .64 tons per cubic yards. Furthermore, the Authority notes that the projected capacity for the landfill has varied as much as 25+ years in various prior reports.

Conclusions and Recommendations:

Waste Management also owns and operates the Mountain View Reclamation Landfill. Since 1990, municipal solid waste from Berkeley County has also been landfilled at the Mountain View Reclamation Landfill near Upton, Pennsylvania. The Mountain View Facility is located in Montgomery and Antrim Townships, Franklin County PA and is owned by Waste Management. Waste Management has a written host agreement with Antrim Township (dated August 14, 1995 and revised on March 21, 2001) which specifically allows for the acceptance of out of state waste and requires capacity to be reserved for the Township's needs and payment of various fees. The facility once covered 236 acres with a disposal area of at least 222 acres. In 2009, a permitted expansion extends the landfills life another 23 years for the three state region (PA, WV, MD). The facility is permitted for a maximum of 1,850 tons per day with an average daily limit of 1,500 tons/day. Waste Management, Republic Services and Chambersburg Waste Paper utilize the Mountain View Reclamation Landfill for municipal solid waste that originates from Berkeley County. In addition, some waste from the Jefferson County Transfer Station is also landfilled at Mountain View.

Since 2001, municipal solid waste from Berkeley County is also landfilled at the PA Blue Ridge Landfill near Chambersburg PA. This landfill is owned by Waste Connections. Commercial waste haulers Apple Valley Waste and IESI utilize this facility for municipal waste that originates in Berkeley County. This facility is owned and operated by IESI. As shown below, this facility has accepted over 3,000+ tons annually from West Virginia for many years. According to the most recent, Franklin County, PA Municipal Solid Waste Plan, over 2% of the solid waste accepted at the Blue Ridge Landfill originates from outside the state of Pennsylvania. This landfill has a daily maximum cap of 2,000 tons per day with an average daily limit of 1,700 tons. Municipal solid waste into this facility originates from Pennsylvania, Maryland, West Virginia, District of Columbia, New York and New Jersey.

Entsorga West Virginia is a fully permitted Class B resource recovery facility operating at 119 Recovery Way, Martinsburg WV. The facility is the first mixed waste resource recovery facility in West Virginia. The facility is reportedly the first in the United States utilizing HEBIOT technology. Entsorga markets its product as fuel stock to ARGOES – a cement manufacturer employing 250 people in Berkeley County with an annual payroll of \$14,000,000. The facility is utilized by waste haulers Apple Valley Waste, Republic, Waste Management and CWP as well as a variety of out of shed sources. The facility also offers a “free day” the third Tuesday of each month and has a ‘pay by the bag’ program available to the general public. The facility also offers a mixed plastic service (carpet, plastic containers, plastic packaging, styrofoam, etc.) to the Authority for use by the public at the Grapevine Road Recycling Center. The facility is permitted to accept 500 tons per day and 9,999 tons per month.

When considering the available capacity and the permitted disposal limitations and the projected disposal requirements, there is sufficient capacity at the three regional landfills (LCS, Mountainview, Blue Ridge), one resource recovery facility (Entsorga), recycling facilities (Grapevine, Hedgesville and South Berkeley), one composting facility (Tabb and Son) and one transfer station (Jefferson County) to satisfy the disposal needs of Berkeley County for more than 20 years.

Conclusions and Recommendations:

However, to address the expected growth in the waste stream, the Authority should monitor any need to develop the solid waste infrastructure by siting, permitting and constructing a transfer station, commercial recycling facility or commercial construction waste recycling facility in Berkeley County.

SUMMARY:

In spite of the identified problems, the Authority remains optimistic about the implementation of this Plan. County residents are resourceful in solving their problems. Most county residents clearly appreciate the natural beauty and quality of life in which they enjoy. Because of the diversity of the activities described in this Plan, different programs will be implemented as time, funding and personnel become available. It is anticipated that the implementation and operation of this Plan will be for a 20 year period.

Timetable for the Implementation of Programs*

	2022	2023	2024	2025	2030	2035	2040	2045
Establish a website link promoting the benefits of "source reduction".		X	X	X	X	X	X	X
Encourage public and private implementation of "source reduction" programs.			X	X	X	X	X	X
Establish a website promoting waste exchange activities.			X	X	X	X	X	X
Study the feasibility of creating a waste exchange facility in Berkeley County.			X	X	X	X	X	X
Monitor regional MRF's to evaluate the need to construct a MRF in Berkeley County.			X	X	X	X	X	X
Evaluate the integration of a solid waste and recycling curriculum into schools.	X	X	X	X	X	X	X	X
Establish recycling drop-off site in Western and Northern sections of the County.			X	X	X	X	X	X
Expand "Operation Green Lid" at more schools and non-profits.	X	X	X	X	X	X	X	X
Study increasing C & D waste stream recycling without harming existing source separated lumber recycling.			X	X	X	X	X	X
Develop a program to educate residents of the benefits of backyard composting.		X	X	X	X	X	X	X
Study the potential implementation of a commercial collection program for food waste.			X	X	X	X	X	X
Encourage waste haulers to establish a waste management hierarchy.		X	X	X	X	X	X	X
Evaluate the possibility of locating a solar farm on the old Berkeley County Landfill.			X	X	X	X	X	X

Consider the implementation of additional funding for more litter control officers.	X	X	X	X	X	X	X	X
Seek funding to purchase litter traps for Back Creek and the Opequon Creek watersheds.			X	X	X	X	X	X
Evaluate markets for the feasibility of collecting tires as part of the ongoing recycling program.			X	X	X	X	X	X
Implement the collection of used oil filters for recycling at GVRC and SBRC.			X	X	X	X	X	X
Continue PR programs to promote the free collection of used batteries.	X	X	X	X	X	X	X	X
Evaluate the feasibility of adding used paint collection to the Recycling Program.			X	X	X	X	X	X
Evaluate the feasibility of implementing mattress and box spring recycling in Berkeley County.		X	X	X	X	X	X	X
Attempt to maintain the ongoing electronics recycling program while seeking alternatives.	X	X	X	X	X	X	X	X
Pursue the WV Legislation that increases tipping fees at landfills to support needed programs.			X	X	X	X	X	X

*All programs are intended to be ongoing based on the availability of funds. Refer to the text in the Plan for specific details.

APPENDIX

A

APPENDIX A

BERKELEY COUNTY COMPREHENSIVE RECYCLING PLAN

This operational agreement shall be known and cited as the "Berkeley County Comprehensive Recycling Plan."

Purpose:

This Plan is enacted for the purpose of establishing and expanding a comprehensive recycling program as authorized by Chapter §22, Article 15A Section 17 of the Code of West Virginia, as amended, to encourage source separation of solid waste, to educate the public on the benefits of recycling, to reduce the need to utilize landfills for the county's waste stream, and to develop the recycling infrastructure within the county.

Section One:

It is the intent of the Berkeley County Commission that there be no mandatory recycling plan established in the county in the absence of voter petition and election as defined in West Virginia Code §22-15A-18(c)(3)(e); therefore, participation in this plan shall be voluntary.

Section Two:

The Berkeley County Solid Waste Authority may hire a recycling coordinator whose responsibility will be to manage the county comprehensive recycling program established under this Plan. The recycling coordinator shall report and be responsible to the Board of Directors of the Berkeley County Solid Waste Authority.

Section Three:

The Berkeley County Solid Waste Authority is hereby delegated the authority to implement the comprehensive recycling plan and to contract with such entities as it deems necessary to carry out the purposes of this Plan.

Section Four:

The Berkeley County Solid Waste Authority shall establish and implement a county recycling program. From time to time, the Berkeley County Solid Waste Authority shall report to the Berkeley County Commission on the effectiveness, including tonnages collected and participation levels of the recycling program and shall make recommendations to the Berkeley County Commission regarding any proposed amendment of this Plan to meet the recycling goals established by the West Virginia Legislature.

Section Five:

The Commission shall consider the report and recommendations of the Berkeley County Solid Waste Authority and shall take such further action as it deems necessary to meet the recycling goals established by the West Virginia Legislature as defined in Chapter §22, Article 15A, Section 16 of the Code of West Virginia, as amended.

Section Six:

In the establishment and implementation of the county recycling plan, the Berkeley County Solid Waste Authority shall provide for the collection of the following recyclables:

1. Aluminum cans;
2. Steel and bi-metal cans;
3. Newspapers;
4. Cardboard;
5. Clear glass;
6. Brown glass;
7. Green glass;
8. Magazines;
9. Brush;
10. Yard Waste;
11. Wood products;
12. Ferrous and non-ferrous metals;
13. Plastic bottles #1 and #2; and
14. Mixed office paper

Additional recyclable materials may be collected or substituted from time-to-time as determined by the Berkeley County Solid Waste Authority. In addition, the Berkeley County Solid Waste Authority may conduct special events from time to time as deemed prudent by the Authority. These events may include, but not be limited too, the recycling of units containing freon, electronics and household hazardous waste items.

Section Seven:

The Berkeley County Solid Waste Authority shall provide for at least four drop-off locations, one in the Hedgesville area; one in the Martinsburg area; one in the Marlowe/Falling Waters area; and one in the Inwood area. The Berkeley County Solid Waste Authority may establish such other drop-off locations, as it deems necessary. The Berkeley County Solid Waste Authority shall provide for the methods of collection at the drop-off location that will allow all recyclable materials to be separated into separate identifiable recyclable materials and shall only collect the aforementioned recyclable materials which can be reasonably accommodated at any given drop off location. Each person depositing recyclable materials at such drop-off location shall deposit such recyclable materials in the appropriate depository for such recyclable materials.

The Berkeley County Solid Waste Authority shall evaluate and report to the Commission the likely costs, benefits and effectiveness of the implementation of a commercial transfer station and/or a commercial recycling recovery facility as a component of the Berkeley County Recycling Program.

The goal of these facilities is to expand the development of the solid waste infrastructure to include the capability of handling larger tonnages of solid waste and recyclables from the business community and the processing of recyclable materials in an effort to gain the benefits associated with the economics of scale.

The day to day funding of the Berkeley County Recycling Program shall be a cooperative between the Berkeley County Solid Waste Authority and the Berkeley County Commission and shall be determined by each party on an annual basis. In addition, the Berkeley County Solid Waste Authority shall apply for all local, state, private and Federal grants to aid in the implementation of the Plan.

Section Eight:

The Berkeley County Solid Waste Authority shall provide for public awareness instruction to inform the public about the importance and benefits of recycling and the proper methods for the public to dispose of recycling materials. The program shall provide notice to all persons occupying residential, commercial, institutional or other premises within the County, of the operation, location, and persons responsible for the management of the county recycling plan.

Section Nine:

The Berkeley County Solid Waste Authority may take such other actions as it deems necessary to carry out the purpose of the Plan and to meet the goals established by the West Virginia Legislature.

Section Ten:

The Plan shall become effective November __15th__, 2006.

Section Eleven:

This Plan may, from time to time, be amended by the majority of the members of the Berkeley County Commission as they deem it necessary only after consultation with the Berkeley County Solid Waste Authority and shall continue in effect until amended or repealed by the Berkeley County Commission.

Section Twelve:

If a court of competent jurisdiction declares any provision of this Plan to be invalid or ineffective, in whole or in part, the effect of such decision shall be limited to those provisions which are expressly stated in the decision to be invalid or ineffective, and all other provisions of this Plan shall continue to be separate and fully effective.

Section Thirteen:

The Berkeley County Solid Waste Authority shall include a signed and approved copy of this plan in the "Berkeley County Comprehensive Litter and Solid Waste Control Plan" as the Berkeley County Recycling Plan at the next routine updating of the Comprehensive Litter and Solid Waste Control Plan.

and all other provisions of this Plan shall continue to be separate and fully effective.

Section Thirteen:

The Berkeley County Solid Waste Authority shall include a signed and approved copy of this plan in the "Berkeley County Comprehensive Litter and Solid Waste Control Plan" as the Berkeley County Recycling Plan at the next routine updating of the Comprehensive Litter and Solid Waste Control Plan.

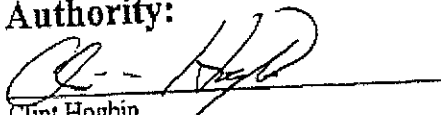
On behalf of the Berkeley County Commission:

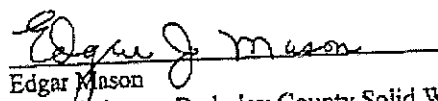

Howard Strauss
President, Berkeley County Commissioner

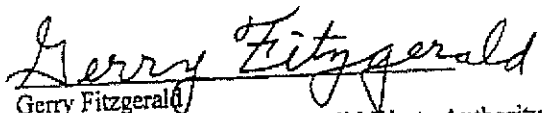

Steven Teufel
Berkeley County Commissioner

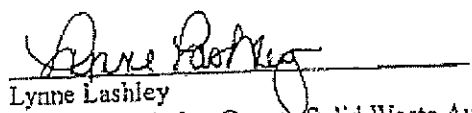

Ronald Collins
Berkeley County Commissioner

On behalf of the Berkeley County Solid Waste Authority:


Clint Hogbin
Chairman, Berkeley County Solid Waste Authority


Edgar Mason
Vice Chairman, Berkeley County Solid Waste Authority


Gerry Fitzgerald
Secretary, Berkeley County Solid Waste Authority


Lynne Lashley
Member, Berkeley County Solid Waste Authority

APPENDIX

B

APPENDIX B

LITTER CONTROL PROGRAM AGREEMENT

This Agreement is made this the 1st day of July 2014 by and between the BERKELEY COUNTY COUNCIL, BERKELEY COUNTY SHERIFF AND BERKELEY COUNTY SOLID WASTE AUTHORITY as follows:

WHEREAS, the BERKELEY COUNTY SOLID WASTE AUTHORITY agrees and is hereby delegated the authority to administer the county's litter control programs in cooperation with the BERKELEY COUNTY SHERIFF and BERKELEY COUNTY COUNCIL as set forth in this LITTER CONTROL PROGRAM AGREEMENT.

NOW, THEREFORE, THE PARTIES HERETO AGREE AS FOLLOWS:

1.0 Goals:

It is the goal of this agreement to strive to become a trash free County. It is hereby acknowledged that litter, open dumping and open burning reduction improves the County's ability to attract new economic development, improves water and air quality, improves property values, improves community pride and aesthetics. To accomplish these goals, the three aforementioned entities agree in principle to the following.

1.1) BERKELEY COUNTY SOLID WASTE AUTHORITY: To conduct and administer ongoing public awareness campaigns, litter control collection events, apply and manage litter control grants and to document complaints from the public.

1.2) BERKELEY COUNTY SHERIFF: To encourage the public cooperation with the litter control laws of the State of West Virginia. To swiftly investigate crimes of roadside littering, open dumping and open burning that occur and when necessary, cite flagrant criminal violators and help prosecute them to the fullest extent of the law.

1.3) BERKELEY COUNTY COUNCIL: To the extent practicable, provide funding support to the Berkeley County Solid Waste Authority and the Berkeley County Sheriff to support these ongoing goals.

2.0 BERKELEY COUNTY SOLID WASTE AUTHORITY:

2.1) Utilizing newspaper, radio, Internet, social media, community forums and other similar forms of communication, the Berkeley County Solid Waste Authority shall conduct an ongoing public awareness campaign promoting the goals of this LITTER CONTROL PROGRAM AGREEMENT; and.

2.2) To assist the public in the proper management of solid waste, conduct recycling and special collection events for the proper disposal of solid waste; and

2.3) To apply and manage available litter control related grants from local, State, Federal and private sources; and,

2.4) To document complaints from the public regarding litter, open dumping and open burning activities and forwarding such complaints for cleanup or enforcement activities.

3.0 Berkeley County Sheriff.

3.1) The BERKELEY COUNTY SHERIFF agrees to employ a minimum of one (1) 20 hour per week part time Litter Control Officer during the term of this agreement. The purpose of the Deputy is to enforce the litter control,

open dumping and open burning laws of the State. The Litter Control Officer shall be an employee of the BERKELEY COUNTY SHERIFF and shall be subject to the administration, supervision and control of the BERKELEY COUNTY SHERIFF, except as such administration, supervision and control is subject to the terms and conditions of this LITTER CONTROL PROGRAM AGREEMENT.

3.2) BERKELEY COUNTY SHERIFF, in its sole discretion, shall have the power and authority to hire, discharge and discipline the Litter Control Officer.

3.3) In the event the Litter Control Officer is absent, the Litter Control Officer shall notify both his supervisor at the BERKELEY COUNTY SHERIFF and the BERKELEY COUNTY SOLID WASTE AUTHORITY. If possible, the BERKELEY COUNTY SHERIFF agrees to assign another officer to substitute for the absentee. In the event the Litter Control Officer is absent due to illness or disability for a period of ten (10) consecutive days, BERKELEY COUNTY SHERIFF agrees to employ and/or assign a substitute Litter Control Officer to assume and perform the duties of the absentee.

3.4) The maximum number of hours that the Litter Control Officer shall perform in a work week shall be a minimum of 20 hours and shall not exceed that number unless by prior written approval of both the BERKELEY COUNTY SHERIFF and the BERKELEY COUNTY SOLID WASTE AUTHORITY. The duty hours shall be set by the BERKELEY COUNTY SHERIFF. It is understood and agreed that time spent by the Litter Control Officer attending court in relation to cases arising from and/or out their employment as a Litter Control Officer shall be considered as hours worked under this Agreement.

3.5) The Litter Control Officer shall be a certified police officer, possess sufficient knowledge of the applicable Federal and State laws regarding litter control, open dumping and open burning. The Litter Control Officer shall complete the WV-DEP Litter Control Officer Training.

3.6) The Litter Control Officer shall be required to regularly attend the monthly meetings of the BERKELEY COUNTY SOLID WASTE AUTHORITY to report on enforcement activities. In lieu of attending, a written report may be substituted.

4.0 Berkeley County Council.

4.1) The BERKELEY COUNTY COUNCIL agrees to provide and to pay the Litter Control Officers' salaries and employment benefits in accordance with the applicable salary schedules and employment practices of the BERKELEY COUNTY SHERIFF, including but not necessarily limited to: sick leave, annual leave, retirement compensation, disability salary continuation, workers compensation, unemployment compensation, life insurance, and medical/hospitalization insurance.

4.2) The BERKELEY COUNTY COUNCIL agrees to provide and to pay to the BERKELEY COUNTY SOLID WASTE AUTHORITY for the administration of the litter control programs at the rate of 8 hours per week.

5) Term of Agreement -The term of this agreement is perpetual unless affirmatively terminated or amended by one or more of the parties pursuant to this agreement.

6) Evaluation -It is mutually agreed that the three entities shall evaluate annually the LITTER CONTROL PROGRAM; including but not limited to the performance of the Litter Control Officer.

7) Good Faith - BERKELEY COUNTY SOLID WASTE AUTHORITY, BERKELEY COUNTY SHERIFF and BERKELEY

COUNTY COUNCIL, their agents and employees agree to cooperate in good faith in fulfilling the terms of this Agreement.

8) Modification -This LITTER CONTROL PROGRAM AGREEMENT constitutes the full understanding of the parties and no terms, conditions, understandings or agreement purporting to modify or vary the terms of this document shall be binding unless made in writing and signed by all parties to this LITTER CONTROL PROGRAM AGREEMENT .

9) Termination of Agreement -This Agreement may be terminated by either party upon 180 days written notification that any other party has failed to substantially perform in accordance with the terms and conditions of this Agreement.

Clint R. Hogbin, Chairman
Berkeley County Solid Waste Authority
PO Box 1227
Inwood WV 25428

Kenneth Lemaster, Sheriff
Berkeley County Sheriff's Department
510 South Raleigh Street
Martinsburg, West Virginia 25401

Douglas Copenhaver, President
Berkeley County Council
400 West Stephen Street
Martinsburg WV 25401

APPENDIX

C

BERKELEY COUNTY RECYCLING DIRECTORY 2022

Entities that accept residential recyclables:

Advance Auto Parts

14849 Apple Harvest Drive, Martinsburg

Phone: 304-262-3036

Hours: Mon-Sat; 7:30am-9pm; and Sun 9am-8pm

Accepts used oil (5 gallon limit), oil filters and car batteries.

Advance Auto Parts

1392 Edwin Miller Blvd., Martinsburg

Phone: 304-263-0125

Hours: Mon-Sat; 7:30am to 9pm: and Sun 9am-8pm

Accepts used oil (5 gallon limit), oil filters and car batteries.

Advance Auto Parts

5617 Hammonds Mills Rd, Martinsburg,

Phone: 304-271-8722

Hours: Mon-Sat; 7:30 am to 9pm: and Sun 9 am-8pm

Accepts used oil (5 gallon limit) and car batteries.

Advance Auto Parts

4995 Gerrardstown Rd, Inwood

Phone: 304-821-1133

Hours: Mon-Sat; 8 am to 9pm: and Sun 9am-8pm

Accepts used oil (5 gallon limit), oil filters and car batteries.

Apple Valley Waste of West Virginia

362 West Burr Blvd.

Kearneysville, WV 25430

4995 Gerrardstown Rd, Inwood

Phone: 877-267-1280

Contact: Customer Service

Residential curbside recycler of paper, cardboard, cans and plastic.

Auto Zone

1510 New York Ave., Martinsburg

Phone: 304-262-6145

Hours: Mon-Sat; 7:30am - 10:00pm; and Sun; 8:00am-8:00pm

Accepts used oil (5 gallon limit) and car batteries.

Auto Zone

1305 Edwin Miller Blvd., Martinsburg

Phone: 304-267-3884

Hours: Mon-Sat; 7:30am - 10:00pm and Sun; 8:00am-8:00pm

Accepts used oil (no limit) and car batteries. Customers will be given \$5.00 credit for used batteries.

Battery Mart

2159A Winchester Ave., Martinsburg

Phone: 304-267-7033

Hours: Mon-Fri; 8:00am - 6:00pm and Sat; 9:00am - 3:00pm

Accepts auto batteries, rechargeable batteries, cell phones, batteries from laptops, 2 way radio and cordless tool. Does NOT accept batteries from airplanes.

Berkeley Community Pride

142 North Queen Street

Martinsburg WV

Phone: 304-262-0065

Call for dates and times

Accepts mixed paper, clean cardboard, catalogs and shredded paper at Quad Graphics certain Saturday's of certain months.

Berkeley County Recycling Program

Operated by the Berkeley County Solid Waste Authority

The most comprehensive recycling program in the region.

Office Location:

870 Grapevine Road, Martinsburg.

Office Phone: 304-267-9370 (Tuesday - Friday; 8:30am - 4:30pm)

SBRC Recycling Hotline: 304-671-2925 (Tuesday – Saturday; 9:00am-5:00pm)

GVRRC Recycling Hotline: 304-671-2979 (Tuesday – Saturday; 9:00am-5:00pm)

E-Mail: office@berkeleycountyrecycling.com

Webpage: <http://www.berkeleycountyrecycling.com>

Hedgesville Location:

Hedgesville Recycling Center

Eagle Plaza, Hedgesville

Days of Operation: Saturday Only; 9:00am - 5:00pm

E-Mail: office@berkeleycountyrecycling.com

Webpage: <http://www.berkeleycountyrecycling.com>

Martinsburg Location:

Grapevine Road Recycling Center

111 Landfill Drive, Martinsburg

Phone: 304-267-9370

Days of Operation: Tuesday - Saturday; 9:00am- 5:00pm

Recycling Hotline: 304-671-2925 (Tuesday – Saturday; 9:00 am – 5:00pm)

E-Mail: office@berkeleycountyrecycling.com
Webpage: <http://www.berkeleycountyrecycling.com>

Inwood Location:

South Berkeley Recycling Center

637 Pilgrim Street,

Inwood WV 25428

Phone: 304-267-9370

Days of Operation: Tuesday - Saturday; 9:00am - 5:00pm

Recycling Hotline: 304-671-2925 (Tuesday – Saturday; 9:00am-5:00pm)

E-Mail: office@berkeleycountyrecycling.com

Webpage: <http://www.berkeleycountyrecycling.com>

Best Buy

276 Retail Commons Pkwy.

Martinsburg, WV 25403

Phone: 304-262-5538

Hours: Monday to Saturday; 10am to 9pm Sunday 11am to 7pm

Accepts TV's (2) per customer per day, not over 32" \$25/tv charge.

Computer's (3) per customer per day, hard drives must be removed.

Bethlehem Apparatus

935 Bethlehem Drive

Bethlehem PA 10817

1-610-838-7034

Hours: Monday thru Friday; 8:30am to 4:00pm

www.bethlehemlamprecycling.com

Accepts fluorescent lamps, anything mercury contaminated.

Biedler's Electric Motor Repair

1390 Charles Town Road, Martinsburg.

Phone: 304-263-9995

Hours: Monday -Friday 8:00am–5:00pm; Sat. 8:00am –12:00 noon

Accepts 9 volt batteries and old electric motors.

City of Martinsburg Recycling

East Stephen Street,

Martinsburg, WV 25401

Phone: 304-264-2126

Hours: Saturday: 8:00am - 2:00pm

Recycling for City of Martinsburg residents only. Accepts newspapers, metal cans, glass bottles, plastic bottles 1-7 and scrap metal.

Clean Earth of Maryland

Hagerstown, MD

Phone: 301-791-6220.

Hours: Mon - Fri; 7:30am - 4:30pm

Accepts for a fee -- bricks, rock, concrete and asphalt.

Conservit, Inc.

Sharpsburg Pike, Hagerstown, MD.

Phone: (301) 791-0100.

Hours: Mon – Fri; 7:30am – 4:00pm; Closed on Saturdays.

Accepts aluminum cans, scrap metal, copper, brass and stainless steel.

Appliances with or without freon. No construction and demolition debris, windows or nonmetallic items.

Cupp's Automotive

201 Wilson Street, Martinsburg WV

Phone: 304-267-2280

Hours: Mon - Fri; 8:00am - 6:00pm and Sat; 8:00am - 4:00pm

Accepts used oil – no limit. Prefer 5 gallon containers.

Department of Agriculture

1900 Kanawha Blvd East

Charleston WV 25305

Phone (304) 558-2209

Accepts pesticide containers for agricultural use only.

Call for dates and places that individuals can be serviced.

Contact: Lakyn Hughes

Falling Waters Campsite

Falling Waters, WV.

Phone: (304) 274-2791

Hours: M-S 9am to 5 pm: Sun 1 pm to 5 pm

Accepts any size empty propane tanks.

Food Lion - Martinsburg

1317 Old Courthouse Square

Martinsburg, WV 25404

Phone: (304) 260-0726

Accepts all kinds of plastic bags.

Food Lion – Hedgesville

147 Roaring Lion Drive

Hedgesville WV 25427

Phone: 304-754-9500

Accepts all kinds of plastic bags.

Food Lion – Inwood

PO Box 1387

Inwood WV 25428

Phone: 304-229-0464

Accepts all kinds of plastic bags.

Going Postal

736 Foxcroft Ave.,

Martinsburg WV 25401

Phone: 304-262-9602

Hours: Monday – Friday; 8:30am to 6pm: Saturday 9am to 4 pm

Accepts Styrofoam peanuts but must be in clear plastic bags, air pockets and clean bubble wrap.

Goodwill Industries

100 Eagle School Road, Martinsburg.

Phone: 304-267-3177 x103

Hours: Mon - Sat; 9:00am – 9:00pm and Sun; 12:00am – 5:00pm

Accepts clothing, household goods, toys, shoes, furniture (not broken or torn) and computers. No mattress, water beds or sofa beds.

Hedgesville Auto Parts

300 West Main Street

Hedgesville, WV 25427

Phone: 304-754-7941

Hours: Mon-Fri; 8:00am-7:00pm and Sat; 8:00am – 5:00pm

Accepts used batteries with purchase of a new one.

Home Depot

Ranson, WV

Phone: 304-728-6464

Hours: M-S 6am -10pm; Sun 8am-8pm

Accepts unbroken CFL Bulbs. Lithium rechargeable batteries only.

Lion's Club Office

633 Virginia Ave., Martinsburg.

Phone: 304-264-1927

Accepts old eye glasses at Tower's Restaurant, Martinsburg Mall, Hedgesville Plaza, Allegheny Optical, Martinsburg Library, BB&T on Queen Street, Berkeley County Courthouse, Grapevine Recycling Center, South Berkeley Recycling Center, and their office.

Lowe's Home Improvement Warehouse of Martinsburg

4001 Apple Harvest Drive, Martinsburg.

Phone: 304-267-7009

Hours: Mon – Sat; 6:00am - 10pm and Sun; 8:00am – 8:00pm

Accepts propane tanks and "PRIMO" 5 gallon water jugs. Accepts metal appliances with purchase of a new one, CFL bulbs, rechargeable batteries, and plastic bags.

Martinsburg Service Center

123 Reliance Road

Martinsburg, WV 25403

Contact: Mike Crowl

Phone 304-267-8810

Accepts 55 gallon drums of oil or less, clean used oil.

Martinsburg Rescue Mission

W. King 602 Street, Martinsburg

Phone: 304-263-6901

Hours: 8:00 am – 7:00pm

Accepts phone books, newspaper, cardboard, shredded paper from businesses. Accepts household goods and clothing. (does not accept appliances or car seats of any kind)

Maryland Paper

16151 Elliot Parkway

Williamsport, MD.

Phone: (301) 223-6550

Hours: Mon – Fri; 8:00am – 3:00pm

Accepts newspapers and cardboard only.

Martin's Grocery Store

901 Foxcroft Avenue

Martinsburg, WV 25401

Phone: 304-267-8448

Accepts plastic bags

Mid-Atlantic Foam

**326 McGhee Road
Winchester, VA, USA, 22603**

540-662-0882 phone

540-662-9104 fax

800-662-1065 toll free

jcp@mid-atlanticfoam.com

Commercial recycler of polystyrene foam.

Office Max

745 Foxcroft Avenue

Martinsburg WV.

Phone: 304-263-6900.

Hours: Mon - Fri; 8:00am – 9:00pm and Sun; 9:00am – 6:00pm

Accepts all brands of jet cartridges and toner cartridges, laptops & printers.

Also offers paper shredding services for a fee.

Potomac Farms

789 Potomac Farms Drive

Shepherdstown, WV 25443

Phone: 304-876-3188

Accepts brush for free.

Potomac Metals

410 16th Avenue

Ranson, WV 25438

Phone: 304-724-1002

Buy and recycles scrap metal

Plastic Loose Fill Council

Phone: 1-800-828-2214

Email: epspackaging.org

You will hear a recorded message. Give your name and zip code and recording will give the name of businesses that will accept peanuts.

RBRC Battery Hotline

1-877-2-732-9253

www.calltorecycle.org

St. Luke United Methodist Church

700 New York Avenue

Martinsburg, WV 25401

Phone: 304-263-2788.

Hours: Mon - Fri; 9:00am-1:00pm

Accepts aluminum can tabs.

Tractor Supply Co.

1212 North Queen Street

Martinsburg, WV

Phone: 304-263-5072

Accepts used oil with a 5 gallon limit and used battery with purchase of new one.

Trigon Plastics

12 South Fort Zellers Road

Newmanstown PA 17073

Nick Jovich, Materials Manager

1-717-575-4317

nickj@trigonplastics.com

Accepts single stream plastics.

Tyson's Tree Wood Recycling

261 Berryville Pike, Charles Town, WV.

Phone: (304) 728-2599.

Hours: Mon - Fri; 8:00am - 4:30pm

Accepts brush, yard waste, stumps and dirt for a fee. No grass clippings, lumber.

UPS Store:

484 Williamsport Pike

Martinsburg WV 25404

Phone: 304-264-4999

Hours: Mon – Fri; 8:00am – 6:30pm and Sat; 9:00am – 3:00pm

Accepts Styrofoam packing peanuts and air paks.

US Cellular

764 North Foxcroft Ave., Martinsburg

Phone: 304-264-0400

Hours: Mon -Thur; 9:00am -7:00pm, Fri 9:00am – 9:00pm

Sun; 12 noon – 6:00pm

Accepts cell phones and phone batteries.

WalMart

800 Foxcroft Avenue

Martinsburg WV 25401

Phone: 304-263-6061

Accepts plastic bags.

Weis

1102 North Queen Street

Martinsburg WV 25401

Phone: 304-263-1515

Hours: Mon-Sun; 6am to 11pm

Accepts plastic bags.

Winchester Scrap

1302 Martinsburg Pike

Winchester, VA

Phone: 540-383-7442

Hours: Mon-Fri; 7:30 am to 4:30 pm, Sat 7:30 am to 1:00 pm

Recyclers that provide commercial service to Berkeley County:

Apple Valley Waste of Maryland

Apple Valley Recycling Center

16608 Hunters Green Parkway

Hagerstown, MD

Phone: 866-934-1584

Contact: John Decker

Commercial recycler of paper, cardboard, glass, cans and plastic.

Cam Tabb Composting

1040 Old Leetown Road

Kearneysville WV 25430

Phone: 304-676-5703

Contact: Cam Tabb

Commercial recycler of construction lumber, wood, brush, yard waste and stumps.

Chambersburg Waste Paper

P.O. Box 975

Chambersburg PA

Phone: 1-717-264-4890 x500

Contact: Richard Bapst

Commercial recycler of paper and cardboard.

Conservit, Inc.

Sharpsburg Pike, Hagerstown, MD.

Phone: (301) 791-0100.

Hours: Mon – Fri; 7:30am – 4:00pm

**Commercial recycler of aluminum cans, scrap metal and appliances without freon.
No construction and demolition debris, windows or nonmetallic items.**

Hagerstown Recycling

100 Nottingham Street

Hagerstown MD, 21740

1-301-791-7170

Contact: John Burkner

Hours: Mon – Fri; 9:00am – 1:00pm

Commercial recycler of cardboard and mixed paper

PC Renewal

3848 Grafton Rd.

Morgantown, WV

Phone: 304-291-8550

Hours: Mon – Thursday; 9:00am – 3:00pm

Contact: Susan Crosco

Accepts computers and office equipment for recycling.

Planet Aid**6730 Santa Barbara Ct.****Elkridge, MD 21075****Phone: 410-796-1510****Fax: 410-796-1511****Hours: Mon-Fri; 9:00am – 5:00pm****www.planetaid.org****Commercial recycler of used clothing, books and shoes.****Potomac Metals****410 16th Avenue****Ranson, WV 25438****Phone: 304-724-1002****Accepts Alum, brass, copper, lead, stainless steel, steel, insulated wire****Potomac eCycle (Division of Potomac Metals)****7917 Wellingford Drive****Manassas, Va 20109****Phone: 571-292-5772****Computers and most electronics****Records Solution****1520 Commerce St.****Winchester, Va 22601****1-540-667-1710****Hours: Mon – Fri; 8:00am – 6:00pm****Contact: Noah White****Accepts paper for shredding & recycling. Can provide storage of old documents.****Resource Oil Inc.****2011 E Main Street****Waynesboro, PA 17268****1-717-467-1899****Vegetable based cooking oil.****Shred It****850 E. Gude Drive, Suite H****Rockville, MD 20850****Hours: Mon – Fri; 8:30am – 5:30pm****1-888-322-3218****Office Paper shredding and recycling**

Spirit Oil Services

**15801 Lockwood Road
Williamsport, MD 21795**

Phone: 301-223-1251

Hours: Mon – Fri; 8:00am – 4:00pm

Contact: Scott Avery

Accepts oil/antifreeze/petroleum based grease for recycling

Valley Proteins

P.O. Box 3588 22604

151 Valpro Dr.

Winchester Va. 22603

Phone: 540-877-2590

Accepts food grease and cooking oil for recycling.

APPENDIX

D

APPENDIX D

1

BEFORE THE BERKELEY COUNTY SOLID WASTE AUTHORITY

DECISION

IN THE MATTER OF THE

FORMAL REQUEST

BY WMI/ LCS SERVICES FOR AN AMENDMENT TO THE

BERKELEY COUNTY

COMMERCIAL SOLID WASTE FACILITY SITING PLAN

INTRODUCTION

The purpose of this document is to set forth the findings and conclusions of the Berkeley County Solid Waste Authority (hereinafter "Authority"), in regard to the "Formal Request for Siting Plan Changes to Authorize Class A Siting Approval for Conversion From Class B to Class A And Tonnage Increase for the North Mountain Sanitary Landfill Hedgesville, Berkeley County, West Virginia" by Waste Management/ LCS Services (hereinafter "applicant" or "LCS") originally submitted on September 18, 2002, and thereafter supplemented.

The Authority has based its decision on the criteria specified in WV Code §22C-4-24(b) and the Code of State Regulations, Title 54, Series 4, Legislative Rule, titled The Development of Commercial Solid Waste Facility Siting Plans; as follows: The efficient disposal of solid waste (including, but not limited to, all solid waste which is disposed of within the county or region regardless of its origin), economic development, transportation infrastructure, property values, groundwater and surface water, geological and hydrological conditions, aesthetic and environmental quality, historic and cultural resources, the present or potential land uses for residential, commercial, recreational, environmental conservation or industrial purposes, and the public health, welfare and convenience.

In making its decision, the Authority reviewed several sources of information, some of which are specifically cited where appropriate, which sources include but are not limited to:

- 1) Berkeley County Commercial Solid Waste Facility Siting Plan, May 1995.
- 2) Written submissions from the applicant dated September 18, 2002, March 18, 2003, and June 18, 2003.
- 3) Site visits to the North Mountain Sanitary Landfill, the most recent of which was conducted by the Board on August 15, 2003, and separate visits to the surrounding area by individual Board members.
- 4) Verbal submissions at various public meetings made by representatives of the applicant.
- 5) The institutional files of the Authority and the Authority's past interactions with the applicant and its parent company: Waste Management, Inc.
- 6) Written and oral comments submitted prior to, during or within a ten day period following the June 15, 2004 public hearing.

FINDINGS AND CONCLUSIONS

The efficient disposal of solid waste, including, but not limited to, all solid waste which is disposed of within the county or region regardless of its origin.

- 1) The waste stream of Berkeley, Morgan and Jefferson Counties has grown in recent years. The applicant's basic assertion, stated in its simplest terms, is that a comparison of the local waste stream with the capacity of the North Mountain Sanitary Landfill indicates that the former is larger than the latter, even if out of area waste is not considered.
- 2) Consequently, claims the applicant, the local waste stream cannot be adequately managed absent an increase in the monthly tonnage permitted and an elimination of the permitted daily tonnage at the North Mountain Sanitary Landfill. This logic would be valid if the landfill served only these three counties, if no other solid waste disposal facilities were available, and if the applicant's data were correct. None of these underlying assumptions, however, are valid. Pennsylvania, Maryland and Virginia all lie within a short distance of the North Mountain Sanitary Landfill. Consequently, any analysis of waste disposal needs and capacity cannot be limited to these three counties or to the North Mountain Sanitary Landfill, but rather must include the available capacities of all landfills and other disposal facilities in the region, including the Mountain View Reclamation Landfill near Upton, Pennsylvania (about 30 miles Northeast of the North Mountain Sanitary Landfill), and the waste streams utilizing those facilities, whether originating in these counties or otherwise.
- 3) The data supplied by the applicant regarding the local waste stream has been inconsistent. In its September 18, 2002, submission, the applicant (using a nonstandard waste stream calculation method), declared that "the tonnage generated in Berkeley County alone" (is) "approaching 9,000 tons and exceeds 15,000 for the tri-county region." The Authority notes that the applicant's waste stream calculation method was substantially different from the formula typically used by government agencies, including the West Virginia Solid Waste Management Board, and resulted in data that was inconsistent with past representations of the applicant. In its March 18, 2003, and in other contexts, the applicant provided different data, from which the Authority has calculated that the landfilled waste stream of Berkeley, Morgan and Jefferson Counties, according to the applicant's own data, averaged 10,834 tons per month for the year 2002. This same March 18, 2003, submission also noted the applicant's desire to accept waste at the North Mountain Sanitary Landfill from Warren County, Virginia and Washington County, Maryland. (Until recently, WMI haulers from Washington County had used other WMI disposal facilities rather than the Washington County Landfill, which WMI does not own.)

- 4) To gain a better understanding of the projected landfill needs of the County and region, the Authority sought information from the State's official planning agency on solid waste matters. The West Virginia Solid Waste Management Plan prepared by the West Virginia Solid Waste Management Board in January 2003, concluded the projected landfill tonnage requirements for Berkeley, Morgan and Jefferson Counties for the year 2005 to be 8,653 tons per month. However, correspondence from the WV Solid Waste Management Board, dated September 9, 2004, indicated that these monthly tonnage calculations do not include construction and demolition waste, sewage sludge and other such waste, and were based on the most current information at the time of publication.
- 5) Upon closure of the old Berkeley County Landfill in 1991, and after the LCS Landfill opened, representatives of Waste Management often stated to members of the Authority and the public its intention and constitutionally protected right to utilize the Mountain View Reclamation Landfill near Upton, PA. as the primary disposal area for West Virginia waste from the region. These officials stated that the capacity of that facility alone would serve a region of Pennsylvania, Maryland, West Virginia and other sources for 30 + years. West Virginia waste collected by Waste Management for the following decade, in volumes deemed suitable strictly by Waste Management, were disposed of in that facility despite available disposal capacity in West Virginia at the very same applicant's facility.
- 6) Data from the PA-DEP shows the following historical exports to the Mountain View Reclamation Landfill from West Virginia as:
 - 1991: 10,964 tons or 5.3% of total intake
 - 1992: 52,776 tons or 19.1% of total intake
 - 1993: 57,077 tons or 21.2% of total intake
 - 1994: 13,586 tons or 4.5% of total intake
 - 1995: 9,218 tons or 2.4% of total intake
 - 1996: 17,740 tons or 5.2% of total intake
 - 1997: 37,291 tons or 12.2% of total intake
 - 1998: 26,061 tons or 6.9% of total intake
 - 1999: 8,397 tons or 1.96% of total intake
 - 2000: 17,238 tons or 3.9% of total intake
 - 2001: 19,991 tons or 4.76% of total intake
 - 2002: 20,188 tons or 4.5% of total intake
 - 2003: 23,843.8 tons or 5.36% of total intake

- 7) Waste Management, which acquired the LCS facility in 1998, recently stated that the utilization of the Mountain View facility for West Virginia waste "is winding down." Though Waste Management representatives were asked to supply an explanation for this, no reasonable explanation has been given, nor did they supply any data or information relating to the multi-state waste-stream or the capacity of existing programs and facilities to handle that waste stream, nor was any documentation offered to substantiate that Mountain View is "winding down" regarding West Virginia waste. Various contacts with the PA-DEP and associated data confirm that the Mountain View Landfill is available for West Virginia waste and that there is no restriction, legal or otherwise, requiring Mountain View to reduce its intake of non-Pennsylvania waste. The PA-DEP data reflects continuous historical intake from other states, including, but not limited to, Maryland, New Jersey, New York, District of Columbia, Connecticut, Florida and Virginia. The PA-DEP data also reflects a permitted capacity of 1,500 ton per day. It thus appears that this "winding down," if it existed at all, was an internal management decision by Waste Management, which it has thus far not chosen to explain.
- 8) The PA-DEP data shows that from 1991 to 1995, acceptance of all waste at Mountain View, regardless of origin, averaged about 288,310 tons per year; with the West Virginia component representing 10.5%. From 1996 to 2000, acceptance of all waste at Mountain View, regardless of origin, increased to average about 377,967 tons per year; with the West Virginia component dropping to 6.0%. In the year 2001 and 2002, acceptance of all waste at Mountain View, regardless of origin, again increased to average about 432,733 tons per year; with the West Virginia component again dropping to just 4.6%.
- 9) Therefore, the Authority concludes that the present intake of waste, regardless of origin, at Mountain View has been allowed to increase by about 67% from the general time period when those assurances were made by Waste Management of sufficient air space at Mountain View for West Virginia for the next 30 + years, but West Virginia's proportional component has declined by over 50% in that same period. The Applicant has provided no reasonable explanation for the decline, even after receiving a draft of this decision and having had ample time thereafter to respond.
- 10) The Authority also notes that according to tonnage reports supplied by the owners of the North Mountain Sanitary Landfill, there was a 2003 monthly average of 6,006.22 tons of Berkeley County waste; 3,055.59 tons of Jefferson County waste; and 708.26 tons of Morgan County waste disposed at their facility in 2003. Those reports also reflect a monthly average of 142.65 tons of out of shed waste disposed at their facility in 2003. As well, data from the PA - DEP also reflects a monthly average of 1,986.98 tons of West Virginia waste disposed at the Mountain View Reclamation Landfill. Therefore, a 2003 monthly average of 11,757 tons of Berkeley, Morgan and Jefferson County waste was calculated by the BCSWA from these tonnage reports and the PA - DEP data.
- 11) Rather than the Authority becoming entwined in the debate over the tonnage numbers and only for the purposes of this amendment request, the Authority assumed the waste stream of the three counties is between 8,653 tons per month (as provided by the WV Solid Waste Management Board) and the July, 2002 monthly high of 12,189 tons per month (as provided by the applicant). In either event, the combination of the Mountain View Landfill and the LCS Services Landfill provide sufficient available capacity to handle the entire local waste stream.

- 12) Since the applicant has requested a 15,000 tons per month permit for LCS, it is anticipated that the applicant will desire to market its remaining capacity of 2,811 tons per month to 6,347 tons per month to regional markets; such as Warren County, Va. and Washington County, MD as defined in its March 18, 2003 submission or any of the lower 48 states and Canada as defined in its WV DEP permit.
- 13) Prior to being acquired by Waste Management, Inc., LCS vehemently resisted the Authority's efforts to open a Class B publicly-owned landfill, for which the Authority had obtained all necessary permits, and indeed had secured funding via the issuance of bonds by the West Virginia Solid Waste Management Board. In legal proceedings, and in the negotiations that resulted in their settlement, LCS consistently maintained that a public landfill was not needed because LCS alone was sufficient to meet local needs. LCS persuaded the Authority to abandon its plans to open a public landfill by assuring the Authority that LCS would reserve sufficient capacity to meet local needs within its existing Class B tonnage limit and would implement recycling or materials recovery programs to reduce the burden on its landfill. The Authority thus abandoned its landfill, keeping its end of the bargain, but LCS has since failed to keep either of its commitments. LCS's decision to thwart the Authority's plans to upgrade and reopen was a business decision that served LCS's purpose, at the time, of avoiding competition from other local landfills. Now, that same lack of competition is being used by LCS to argue that the Class A conversion is needed. However, it is apparent to the Authority that the "need" for the Class A conversion is largely a result of LCS's and Waste Management's decisions not to keep their earlier commitments to 1) serve local needs via the existing capacity of the LCS and Mountain View Reclamation Landfills, and 2) to implement appropriate recycling and materials recovery programs.
- 14) The applicant stated in an October, 2002 public meeting that the failure of the Authority to immediately grant conversion to Class A status would result in an immediate disruption of service at the landfill caused by premature closures of the landfill when it reached its monthly tonnage cap, with a corresponding inability of its local affiliated hauler (Waste Management of West Virginia) and others to dispose of waste. In fact, there was no immediate disruption of service, but disruptions did occur in 2004 during a period in which Waste Management of West Virginia and other regional Waste Management owned haulers refused to use disposal facilities not owned by Waste Management, Inc., thus imposing a disproportionate burden on the LCS Landfill and other Waste Management owned facilities. Following regulatory and public pressure on Waste Management of West Virginia, it took several actions including but not limited to beginning to use the Jefferson County Transfer Station to relay solid waste to the Mountain View Reclamation Landfill near Upton Pa. and the Atlantic Waste Disposal Landfill near Waverly Va., and one of its regional affiliates began using the Washington County Landfill, thus alleviating the pressure. No longer restricted to WMI owned facilities, the disruptions in hauling services "caused" by early closure of the LCS Landfill have diminished and are expected to cease in the near future. It thus appears that the parent company of the applicant, Waste Management, has the ability to dispose of its hauling subsidiaries' waste at various locations, and can choose to do so in a manner that does not overburden the LCS Landfill.

- 15) The applicant raises the issue that the Class A conversion request is based on a need to serve the three counties of West Virginia, one Maryland county and one Virginia county. However, the Authority notes that another method to reduce the need for landfill disposal is the operation of recycling programs or the establishment of recycling and composting facilities. Here the Authority notes four examples whereby the applicant or its parent company has disregarded or opposed such recycling efforts.
- a) Prior to its being acquired by WMI, the applicant conducted a public relations campaign assuring the public that ultimately the landfill facility would include a resource recovery facility or recycling facility, or an industry based on recycling. These statements were documented in its original State permitting submissions for the landfill. For unknown reasons, WMI has chosen not to implement any of these alternatives.
 - b) In 1994, Waste Management presented to the Authority, drawings and documents of a proposed commercial solid waste recycling facility to be built at its Rt. 9 Martinsburg location. Again, for unknown reasons, this proposed facility never materialized.
 - c) During the course of the review of this request, developers proposing an alternative to landfill disposal expressed frustration to the Authority that the applicant's parent company would not conduct meaningful discussions in regard to providing hauling services to the potential establishment of a "waste to ethanol" plant in Berkeley County.
 - d) The applicant participated in gaining an exemption from the yard waste landfill ban found in WV Code §20-11-8(b). This action ultimately resulted in the closure of a yard waste recycling collection program operated by a Berkeley County municipality and required the landfill disposal of material already being successfully managed by a recycling alternative.
- 16) In addition to requesting a conversion to Class A status, the applicant also calls for the elimination of the 500 tons per day cap. This per day cap is unique in West Virginia (though daily caps are used in other states, including Pennsylvania). But LCS is in a unique location. As hereafter discussed in detail, LCS is immediately adjacent to an established residential neighborhood and is near a historic community with significant cultural heritage and is dependent upon an already-failing system of roads that are not well-suited for the traffic generated by the facility; including traffic which passes by numerous schools and into multiple school zones. The 500 tons per day cap thus has unmeasurable value to the community by regulating the daily flow of traffic upon the local transportation network and into the historic and residential communities near the facility and by minimizing the adverse impact of such traffic on the area. As a result, the Authority would not support the elimination of a per day cap, even should the applicant's request for Class A status be otherwise approved.

- 17) The Authority notes that Waste Management promotes the conversion to Class A status as providing assurance of capacity for local waste. This assurance may have value to local municipalities and other non-Waste Management haulers who may find it more difficult to utilize another landfill than would Waste Management. However, as noted in paragraph 14, WMI is capable of providing assurance of capacity for local waste via other non LCS Landfill facilities as well.
- 18) The Authority recognized in its 1995 Siting Plan and the 2004 Siting Plan (as submitted to the WV-SWMB), that a large portion of the fee charged to citizens by waste haulers is to cover transportation cost, therefore a solid waste facility should be located as near to the solid waste generators as possible. The process of hauling the entire county's waste stream to a point far removed from the collection point will only increase the cost of collection and discourage subscription with the waste hauler, thus increasing illegal dumping. Nonetheless, the Authority also concluded in the 1995 Siting Plan and the 2004 Siting Plan (as submitted to the WV-SWMB) that costs was not a factor that would override the other siting criteria by stating that the "proper siting of a proposed facility, or proper siting of a proposed expansion or conversion of an existing facility, should never be based solely on transportation cost".

Economic Development

- 1) Historically, the County and the region have had a farming based economy since the arrival of the first permanent settlers in the first half of the 1700's. Agriculture is still a major industry in the County. However, prime farmland is rapidly giving away to non agriculture uses.
- 2) Since 1990, Berkeley County has experienced a steady growth in residential, commercial, tourism and industrial development that has contributed to broadening the diversity of the economic base and improving the array of work or career opportunities for the resident labor force. Unemployment in the County is usually lower than the State average. The favorable employment conditions in the County and the region reflect a more diversified economic structure than is typical of the rest of the State. This economic development occurred with little or no regard to the existence of the applicant's facility because much of the County and region's waste stream during this thirteen year period was voluntarily being forwarded by Waste Management to the Mountain View Landfill in Pennsylvania even though sufficient air space existed at the North Mountain Sanitary Landfill in West Virginia.
- 3) Nonetheless, the economic development goals for the County and the region are defined by the Region 9 Planning and Development Council in the Overall Economic Development and Regional Development Program (OEDRD, 1998). This report lists no goal or objective that supports landfill disposal as presently or potentially playing a positive factor in the region's economic development. In fact, the stated goals and objectives for economic development are inconsistent with the activities associated with a Class A landfill. For example, Region 9 notes that "economic development activities should not negatively impact the desired social and environmental qualities of the locality." The Authority concludes that a conversion to a Class A landfill at the proposed location will curtail the expansion and development of more desirable industry and significantly adversely impact the social and environmental qualities of the locality; which are inseparable from the desired economic development activities of the local area; particularly travel, institutional, residential development and other tourism related activities.
- 4) The Authority recognizes that business, industry and County residents need adequate services to dispose of solid waste in order to function successfully. While the OEDRD program documents certain failing infrastructure and details the need for improved sewer, water and road infrastructure it never once mentions the need for access to higher-capacity solid waste landfills. This is consistent with information from other sources. For example, according to the West Virginia Governor's Office of Community and Industrial Development, solid waste landfills have not been an important factor in attracting businesses to the State (The Socioeconomic Impacts of Landfills). The Authority concludes that there is no substantial indication that Berkeley County deviates from this pattern. Thus, although LCS maintains that increased capacity at LCS would promote economic development, the Authority finds otherwise.

- 5) The OEDRD Program refers to the tourist industry as an important ingredient in the overall mix of the County's economy. Outsiders are attracted by the County's beauty, history and the recreational activities found in the area. According to the OEDRD, the full potential of the tourist trade in the County and the region is far from realized - even though it is reported the County already enjoys a positive economic impact of \$171 million from the tourism industry. Berkeley County has only recently begun to reap the benefits of thousands of travelers passing through the County each day via Interstate 81. The recent expansion of the motel - hotel industry has begun to tap the unrealized value of this business. It is generally understood that one in seven Americans work in the travel industry, which suggests that about 3,000 jobs in Berkeley County are directly related to travel. The logical progression in the encouragement of tourism is promotion of the "linger longer" concept and the active development of historic, cultural and natural attractions. The Authority concludes that a conversion to a Class A landfill at the proposed location is incompatible with the growing tourist industry and would likely interfere with the expansion or development of this more desirable industry.
- 6) The operation of commercial solid waste landfills provides very few job opportunities or job potential in Berkeley County. Surveys conducted by the Authority show that the operation of both private (in house) and/or public non-commercial solid waste recycling facilities almost certainly provide more job opportunities than a typical solid waste landfill. Some of the private industries in the County have established in-house recycling processing facilities to serve large volumes of recyclables created by the facility and thereby create jobs in the management of the material. Landfill disposal is known to be extremely capital intensive, creating few jobs per dollar spent and competes with local reduction/reuse/recycling efforts for recycling portions of the waste stream, thus undermining the statutorily defined hierarchy for solid waste management in West Virginia. This observation does not deviate from the generally understood standard that the recycling of 10,000 tons of material supports 36 jobs while landfill disposal of that same amount creates about 6 jobs. Even the applicant noted in its June 18 submission that the facility has only nine full time employees and the conversion to Class A will only increase full time employment by about three.
- 7) Although the applicant has suggested the landfill can be used as a positive factor in attracting business to the County, no evidence was produced to support that claim. For example, Fantus Corporation, a nationally known consulting firm specializing in industrial location decisions, says that landfills are a minor factor for business location decisions, falling well below market considerations and cost factors. According to the West Virginia Governor's Office of Community and Industrial Development, landfills have not been an important factor in attracting business to the state because businesses that have major solid waste disposal needs have received permits to operate their own landfills.

Transportation Infrastructure

- 1) In regard to the impact the conversion to a Class A landfill would have on the local transportation network, the Authority relied, in part, upon its personal observations and experiences of the local transportation network. The Authority found West Virginia Route 9 to be generally inadequate and incompatible with traffic associated with a Class A landfill. This conclusion was based upon Authority's personal observations and knowledge of:
 - a) multiple vehicular wrecks and near misses, including landfill related traffic; and,
 - b) extensive daily usage of the road by hundreds of school buses and teenage drivers serving five public schools; and,
 - c) the general condition of the Route 9 traffic as overcrowded, congested, containing strip development, excess ponding of storm water affecting safety, difficulty entering traffic - even at traffic lights, and a general nuisance; and,
 - d) the location of the proposed new entrance to LCS which would discharge on Route 9 in a sharp curve with an up hill grade.
- 2) In addition to personal observations, the Authority sought existing West Virginia Department of Transportation information regarding the roads in question. The primary public road that would be utilized by the vehicles accessing the landfill would be West Virginia Route 9; regardless of whether the traffic approaches from the East or the West.
- 3) In May 1995, the West Virginia Department of Transportation completed a "Feasibility/Location Study" of West Virginia Route 9 from Martinsburg to Berkeley Springs. This feasibility study addresses the exact section of Route 9 that would be utilized by the vehicles traveling to the landfill. Generally, the feasibility study concluded the steady growth in the Eastern Panhandle has created a demand for a separate, safer, new East to West high volume four lane facility with a higher traffic carrying capacity than the present two lane, windy highway now in place.
- 4) The study defines the segment of West Virginia Route 9 in question as mostly a two lane rural highway. The study clearly notes the original route was constructed in the 1920's and was designed for low volumes of traffic traveling less than 40 mph. The study also notes the route has had very little improvement over the years. During the site visitation, the Authority could find road improvements on Rt. 9 only in a very short stretch immediately at the Interstate on Exit 16. Otherwise, the Authority found no other recent significant roadway improvements. The study specifically notes the segment from Hedgesville to Martinsburg has a rolling profile and few passing opportunities are provided and notes that the entire segment of existing Route 9 has basically no roadside recovery area for errant vehicles.
- 5) The feasibility study educates the reader by defining different segments of a road as having a level of service between "A" and "F"; with "A" representing vehicles traveling unimpeded and "F" representing a forced or breakdown in flow.

- 6) According to American Association of State Highway and Transportation Officials (AASHTO) A Policy on Geometric Design of Highways and Streets the level of service of "C" is an acceptable level for rural and small town roads; however the feasibility study notes the section of West Virginia Route 9 from I-81 to Hedgesville in the year 1990 was already operating at the poor level of service of an "E". Since, the applicant's facility did not open until 1991, it is very likely this poor designation did not yet consider any landfill related traffic; much less consider the traffic levels associated with the proposed Class A conversion or the increased residential, tourism and school related vehicular traffic added to this segment since 1990. The feasibility study further notes that the projected level of service for the segment of West Virginia Route 9 from I-81 to Hedgesville in the year 2010 is the lowest rating of an "F".
- 7) As noted, the Department of Transportation documents the 1990 level of service of "E" between I-81 and Hedgesville. It defines the level of service "E" as extremely unstable because of virtually no usable gaps in the traffic stream. Any disruption to the traffic stream, such as a vehicle entering from a ramp or a vehicle changing lanes causes following vehicles to give way to admit the vehicle. At capacity, the traffic stream has no ability to dissipate even the most minor disruptions. Any incident can be expected to produce a serious breakdown with extensive queuing. Maneuverability within the traffic stream is extremely limited, and the level of physical and psychological comfort afforded to the driver is extremely poor.
- 8) Additionally, the feasibility study notes that in the section of WV Route 9 from Hedgesville through Martinsburg, multi-vehicle accidents dominate. The feasibility study states that this can be the result of a greatly increased volume of traffic and numerous intersections with other heavily traveled routes. The feasibility study shows the accident rate for each section in the study segment of Route 9 range from 44 to 613 accidents per hundred million vehicle miles. The study notes the accident rate on all but one section of this segment of Route 9 are above the statewide average of 255 accidents per hundred million vehicle miles.
- 9) The Authority concludes the present transportation infrastructure serving the applicant's location unquestionably is inconsistent and incompatible with large volumes of landfill-related truck traffic and that the additional truck traffic associated with a Class A landfill will only further degrade an already failing transportation infrastructure and place the public at increased risk of harm.

- 10) The Authority recognizes the benefits to the citizens who live along Allensville Road and West Virginia State Route 901 of the Applicant's proposal to construct a second entrance road on West Virginia State Route 9 just west of the Town of Hedgesville. The Applicant has since indicated, however, that no such entrance road will be built unless the Applicant is granted Class A status. This proposed private access road and the subsequent closure of the Allensville Road entrance was first offered by the applicant to the community back in the early 1990's as a means to partially address community concerns during its original permitting process. Based upon information and belief, the original proposal offered the permanent closure of the Allensville Road entrance.

Prior to the public hearing, the new entrance proposal had less value than the original community offering because it did not call for the permanent closure of the Allensville Road entrance. Rather, it allowed for the option of using the Allensville Road entrance, at the higher tonnage level, at the applicant's discretion. It should be noted that the Authority agrees with the applicant that the present access route on Rt. 901 and Allensville Road is wholly inadequate. The Authority further notes the receipt of correspondence (June 24, 2004) received after the public hearing stating the applicant withdraws the use of Allensville Road as an entrance if the request to amend the Siting Plan to allow for a Class A landfill is granted.

The Authority also concludes that the placement of higher volumes of truck traffic on an already failing WV State Route 9 is equally inadequate as Rt. 901 and Allensville Road. This inadequate situation is further negatively compounded when one considers that the proposed intersection of the second access road onto State Route #9 is in the arc of a sharp curve; which would negatively affect the safety of the present Rt. 9 traffic. In addition, at the intersection area, there exists an uphill gradient on Rt. 9 that would make it difficult, if not impossible, for the trucks utilizing the facility to exit the facility without affecting the safety and maneuverability of present Rt. 9 traffic. In its comments to the Authority, the Applicant has indicated that these are not legitimate concerns because they lie within the jurisdiction of the Department of Transportation, but the Authority is mandated by statute to consider transportation infrastructure in its decision.

- 11) One cannot conclude the discussion on the transportation criterion without considering the type of traffic on West Virginia Route 9. Based upon observations, the traffic on Rt. 9 is typically passenger cars, SUV's, pickups and school buses. All of these types of vehicles are generally incompatible with large volumes of landfill-related truck traffic. Berkeley County over a period of many years has and continues to be the fastest growing school district in the State based upon student population. In 1992, the County had the 7th largest student population in the State and has grown to become the second largest school population in the State. It is projected that in the next seven years, Berkeley County, which now represents 65% of the growth of student population in West Virginia, will grow by an additional 3,500 students and is expected to then contain the largest student population of any County in West Virginia.

- 12) This approximate 3 mile segment of Rt. 9 in question which will directly bear the brunt of the increase in landfill related truck traffic also contains the traffic associated with five (5) public schools that represent a vital component of the County's overall school system. Based upon information and belief, the segment of WV 9 that contains these 5 schools is the heaviest density of schools in the entire County, with a combined population of 3,578 students. It is generally understood that this segment of 5 schools represents the heaviest density of students in the entire State. For example, just one of those schools, Hedgesville High School has a student population of 1,324 students which holds the largest school population in the County and the sixth largest in West Virginia. This school, like many of the others in this segment on Route 9, is currently under going million dollar building improvements to accommodate the expected larger student populations.
- 13) The Authority also agrees with the findings documented in correspondence from W. Randy Smith, Sheriff of Berkeley County; whereby he states "it is my belief that there is an incompatibility issue between the proposed increase of large volumes of commercial waste trucks and the usage of an already overburdened road." The Sheriff further adds "as it stands now, the road is a general safety issue and the proposed entrance location onto Route 9 for the landfill is in a sharp curve and is likely to create a new public safety, welfare and convenience problem for the present travelers on Rt. 9"

Property Values

- 1) The Authority concludes the applicant has proposed a conversion to a Class A landfill near two existing urban areas in the County; the Town of Hedgesville and the urban area of North Mountain. These urban areas are defined as such in the Berkeley County Comprehensive Development Plan (1990), Berkeley County Commercial Solid Waste Facility Siting Plan (1995), Berkeley County Commercial Solid Waste Facility Siting Plan (2004 - as submitted to the WV-SWMB), and the Berkeley County Comprehensive Litter and Solid Waste Control Plan (2003). Both urban areas are presently being adversely impacted by traffic issues, odors, litter and mud from the applicant's facility.
- 2) The applicant's property directly borders a large section of urban area called "North Mountain". This community, with its homes and school drawn close to Route 901 and Allensville Road, has also borne the brunt of the traffic, odors, litter and mud from the existing landfill. This community is primarily residential with the exception of the landfill. During the course of the site tour, the Authority observed that there is a stagnation of new homes and possibly even deterioration of the Allensville Road community, which is in contrast to the vigorous development of residential housing typical throughout most of Berkeley County.
- 3) The Authority notes that near the landfill facility is the Town of Hedgesville. This historic and residential municipality has a growing residential and tourism based economy. The town's west entrance is so close to the proposed second entrance of the landfill that it will be visible from one of the town's entrance signs.
- 4) In addition, the Authority concludes there are two smaller residential areas of concern; the areas of Potato Hill Street and Kate's Hollow Road. There are nine (9) newer homes in a wooded residential development on Potato Hill Street in addition to the older and historic structures of the street. This residential area is directly accessed from the Town of Hedgesville and, like the urban area of North Mountain, generally borders the landfill property. Unlike North Mountain and the Town of Hedgesville, this residential area does not have landfill related traffic, litter and mud issues but is adversely impacted by landfill odors. During an investigation of odor complaints in the vicinity of the landfill in 2002, WV-DEP inspectors noted landfill related odors on Potato Hill Street.
- 5) Finally, there are 15 homes located on Kate's Hollow Road and the attached Jokado Lane. This small residential area is not presently impacted by the applicant's landfill in any manner known by the Authority. However, the conversion to Class A status will bring to this area the negative sights and sounds associated with the landfill's truck traffic because the proposed second entrance road will be directly adjacent to this area.
- 6) None of the above residential and urban areas were addressed by any of the submissions made by the applicant. As a result, the Authority concludes that the applicant has failed to sufficiently address the impact on property values of these nearby urban and residential areas which will be significantly and adversely impacted by increased traffic in certain areas, increased litter and mud in other areas, and the potential for increased odors from the landfill.

- 7) The 1995 Siting Plan and the 2004 Siting Plan (as submitted to the WV-SWMB) state that the Town of Hedgesville (and the City of Martinsburg) contained areas of historic value and therefore the siting of a landfill within or near these municipalities is prohibited. The 1995 Siting Plan and the 2004 Siting Plan (as submitted to the WV-SWMB) also prohibited the siting of a landfill or any associated activity within or near a "major area of urbanization." The Authority concludes that the proposed location is both near the Town of Hedgesville and one major area of urbanization. To reclassify the facility to Class A would only exacerbate the problems already impacting the residents of these areas.

Groundwaters and Surface waters

- 1) The Authority has concluded that water is one of the most important natural resources to consider in planning for the future development of Berkeley County.
- 2) The applicant has installed a composite liner system consisting of compacted clay and a flexible synthetic material as required by the US-EPA at all landfills in West Virginia. The landfill also has a second backup synthetic liner in conformity with the US-EPA's regulations requiring double-liners for disposal facilities receiving hazardous waste. The US EPA has concluded that "manmade impermeable materials that might be used for liners or covers are subject to eventual deterioration, and although this might not occur for 10, 20 or more years, it eventually occurs and, when it does, leachate will migrate out of the facility." 46 FR 11128, Federal Register (1981). In the Federal Register, July 26, 1982, (page 32284) the US-EPA said a "liner is a barrier technology that prevents or greatly restricts migration of liquids into the ground. No liner, however, can keep all liquids out of the ground for all time. Eventually liners will either degrade, tear, or crack, and will allow liquids to migrate out of the unit."
- 3) In the August 30, 1988 Federal Register (page 33345) the US-EPA further states "first, even the best liner and leachate collection systems will ultimately fail due to natural deterioration, and recent improvements in municipal solid waste landfill containment technologies suggest releases may be delayed by decades to come." A 1990 study, Field Behavior of Double Liner System, also concludes that "the permeation of a compacted clay liner is inevitable, (because) no compacted clay or any other type of liner material is either totally impervious or immune to chemical interactions of various types". This same study also concluded that new state of the art flexible membrane liners can be expected to leak at a rate of about 20 gallons per acre per day, even if they are installed with the very best and most expensive quality control procedures.
- 4) Concerned that these sources indicate that state of the art landfill liners like those used at the applicant's facility eventually will fail to protect the environment, the Authority looked to the site's geological and hydrological conditions to better determine if the proposed conversion to a Class A facility placed the groundwater at greater risk.
- 5) The Authority also looked to Characterization Of The Geology and Hydrology In The Vicinity Of The LCS Services, Inc., North Mountain Waste Management Facility in Berkeley County, West Virginia, And The Potential Impacts Of This Facility On The Environment And Water Supplies (March, 1991). This study was conducted by the North Mountain Site Environmental Review Team. This team consisted of eight team members and two advisors. The team included two geologists from the WV Geological Survey; two geologists from the WV-DNR; two professors of geology (WVU and University of Toledo); a Director of the Office of Environmental Health (within the WV Department of Health and Human Resources) and a county sanitarian. The study noted, amongst many things, that "the site of the LCS Services, Inc., waste management facility is underlain by a sequence of shales, siltstones, sandstones, and carbonate rocks which constitute a rather complex system of heterogeneous, anisotropic aquifers and thin aquitards. The shales on site are highly fractured, with some large open fractures, which readily transmit water and which could provided routes of rapid movement for landfill leachate that escapes into the ground."

The study continues by stating that "the groundwater shed which includes the leachate storage pond could provide ten (10) million gallons per day" ... "this simply illustrates the value of this aquifer, one of West Virginia's most prolific. *

- 6) The study made four recommendations and seven additional suggestions, amongst other things, for reducing the risk of groundwater and surface water contamination. The study documented mapped thrust faults and various sandstone and limestone formations. The Authority will not offer a discussion of the entire study. However, in regard to the request for Class A status, the Authority will note that the risks of groundwater and surface water pollution in two large study areas could be completely eliminated by locating the leachate storage pond on the west side of North Mountain and by keeping the landfill itself off the mapped thrust faults. For this moment in time, the applicant has offered its intention to keep the landfill's footprint some undefined distance from the thrust faults and certain sandstone formations, but has not offered to move the leachate storage pond.

The Authority concludes the conversion of the landfill to Class A status will either increase the production of leachate to be managed at the site, or result in increased concentrations of toxic or hazardous substances in the leachate, or both. This leachate management already occurs at a location that presents a risk of groundwater aquifer contamination. Increasing the production or concentration of leachate will only increase this risk. In the 1995 Siting Plan and the 2004 Siting Plan (as submitted to the WV-SWMB), the Authority determined that the placement of landfills on or near aquifers or other areas of hydrological sensitivity is prohibited.

- 7) The June 18 submission, indicated as part of the reclassification request that the proposed access road "may be within 300 feet of a wetland". In the 1995 Siting Plan and the 2004 Siting Plan (as submitted to the WV-SWMB), the Authority prohibited the siting of any solid waste facility or any activity associated with the facility, without exception, within 300 feet of any wetland.
- 8) In addition, the Authority concludes that even if these zones were not previously designated as prohibited, the applicant failed to affirmatively and clearly demonstrate that the requested re-designation is appropriate and proper, that the increased leachate production could be managed, and the construction of the access road could be conducted appropriately without harm to the environment.

Geological and Hydrological Conditions

- 1) In the 1995 Siting Plan and the 2004 Siting Plan (as submitted to the WV-SWMB), the Authority stated that the geology and hydrology surrounding a facility must be well suited without a doubt. The Authority further concludes that the geological and hydrological conditions of Berkeley County are complex and as a result landfill siting is difficult from this perspective alone. A review of the applicant's landfill site geology illustrates this point very well.
- 2) The Authority found amongst its historical files various data in regard to the landfill location. This data offers stark contrast to the geological and hydrological suitability language of the site offered by the applicant.
- 3) The first letter, by the West Virginia Geological and Economic Survey, dated August 8, 1986 which, in part, states, "that a worse site could not have been picked".
- 4) A letter from a Professor of Geology of the University of Toledo, dated March 27, 1990, states, in part: "In my opinion, the landfill will contaminate the groundwater of the Great Valley east of North Mountain. The extent of eventual contamination is difficult to ascertain without additional detailed hydrogeological studies. However, the work of my students suggests that pollutants may reach as far east as the drainage of Harlan Run, some 1 1/2 miles east of Little North Mountain. I have no idea what substances will be disposed of in this landfill, so I cannot comment on the potential hazards involved. I am most sympathetic to the plight of homeowners with domestic wells in this area. Moreover, it seems to me that a major obstacle is being placed in the path of future economic development of this area east of North Mountain, once it becomes common knowledge that the ground water supply will be polluted. As a professional geologist and university professor, who has dealt with the intricacies of surface and subsurface geology of this region for many, many years, I strongly oppose this landfill. It is located with no regard to the local geology. It will most certainly present monumental problems for the citizens of Berkeley County in the near future."
- 5) Additionally, a second state agency expressed concern about the site geology and hydrology. The WV-DNR, on October 30, 1990, stated, in part, "the pond being constructed in the location of a spring which indicates the close proximity of the groundwater table to the surface in this location. The pond site overlies strata (shale) which is heavily cleaved and fractured and dips strongly to the east (approximately 45 degrees) toward a limestone formation which has moderately developed karst features. The potential for rapid movement of contaminants along faults, joints, fractures and associated solution cavities in the limestone presents an unacceptable environmental risk/health hazard to private groundwater supplies nearby, and could potentially pollute a large area of the Great Valley near North Mountain."
- 6) Another letter from the WV Geological and Economic Survey, dated June 26, 1996, states, in part: "if the leachate escaped from the landfill holding ponds, it would travel east and possibly contaminate groundwater and supplies. In addition to the fault zone acting as a conduit for leaking leachate, there are also many bedding planes, fractures and cleavage planes inclined to the east that will also transmit any fluid. This, in our opinion, was the major problem with the location of the LCS Landfill. However, the landfill was a done deal before we were asked to comment on the location, and it was approved by DNR with very little expertise."

- 7) Also, another 1996 memorandum, documented during an event whereby the sampling of Kate's Run below the LCS Landfill was underway to determine if leachate was entering Kate's Run from a leak in LCS's composite liner at the active fill site. This memorandum, authored by WV - DEP Environmental Enforcement representative David Farley, who states " the discoloration may be a result of sediment being washed off the LCS site during storm water events. Typically sediment is not off white but this area is karst topography (limestone), which is primarily Calcium, and the sediment tends to be off white in color".
- 8) In the March 18, 2003 submission, the applicant stated "after extensive study by the West Virginia Department of Environmental Protection of the geological and hydrological conditions, the disposal area of the permit was approved". The Authority notes that a copy of this "extensive study" was requested by the Authority but it was never provided by the applicant. Instead the applicant referred to an "evaluation performed by the technical staff of the WV-DEP". However, this evaluation was likewise not provided. The Authority concludes that the Applicant is either misinformed or disingenuous, because the landfill was accepting solid waste in 1991, well before the West Virginia Department of Environmental Protection was created. If any extensive study was conducted it was conducted by the WV-DNR; the same agency which expressed grave concerns about the site geology.
- 9) The 1995 Siting Plan and the 2004 Siting Plan (as submitted to the WV-SWMB) clearly state the Authority's desire to evaluate the potential impact, past or present, of surface blasting in areas located near faults, fractures or other areas of geological instability. The Authority was made aware that the applicant's leachate pond is located in a previously surface mined area that was also blasted. However, the applicant failed to address surface blasting and its impact upon the conversion to Class A status. The applicant also failed to address the prohibition in the 1995 Siting Plan of siting of a landfill, or any activity associated with the facility within surface mined areas. Therefore, the Authority concludes that the applicant failed to affirmatively and clearly demonstrate that the requested re-designation is appropriate and proper and that the solid waste facility could be appropriately operated in the public interest.
- 10) In the June 18 submission, the applicant notes the bedrock formations "in and around the facility" included six (6) formations that were designated as prohibited zones for landfill development in the 1995 Siting Plan. The Authority concludes that these bedrock formations were designated in 1995 as prohibited zones with sound reason and upon sound advice from the West Virginia Geological and Economic Survey and has maintained their prohibition in the 2004 Siting Plan (as submitted to the WV-SWMB).
- 11) A representative of the Authority with experience in hydrogeology contacted the West Virginia Geological and Economic Survey and determined that there have been no post - 1995 study or information by that agency to offer new or contrasting information in regard to the geology of Berkeley County.

- 12) The Authority notes that the study titled the Characterization Of The Geology and Hydrology In The Vicinity Of The LCS Services, Inc., North Mountain Waste Management Facility in Berkeley County, West Virginia, And The Potential Impacts Of This Facility On The Environment And Water Supplies (March, 1991) also documented mapped thrust faults and various sandstone and limestone formations which exhibit high permeability. The 1995 Siting Plan clearly states that within the County are major faults and fractures that exhibit high permeability and expressly prohibited the siting of a landfill within or near an area of high permeability, such as a fault (regardless of displacement age). The 2004 Siting Plan also maintained this prohibition (as submitted to the WV-SWMB). The 1995 Siting Plan also prohibits the siting of a landfill or activity associated with the landfill within 200 feet of known faults. These issues were basically unaddressed by the applicant. Therefore, the Authority concludes that the applicant failed to affirmatively and clearly demonstrate that the requested re-designation is appropriate and proper and that the solid waste facility could be appropriately operated in the public interest.

Aesthetic and Environmental Quality

- 1) In consideration of aesthetic and environmental quality, the Authority considered the overall aesthetic and environmental quality of the potential impacts of the higher volumes associated with the conversion to Class A status. While the Authority recognizes that the site appeared in order during the course of the pre-planned site tour, the Authority is also well aware of the many community concerns of litter, noise and the off site landfill related odors documented by the WV-DEP, the Authority and citizens.
- 2) In 2001, during the course of a public hearing conducted in the community by the WV-DEP in consideration of the applicant's five year permit renewal, the Authority and members of the public complained vocally about many, many months of landfill related odors within the neighboring residential urban area of North Mountain and other residential areas near the facility. At that point, the applicant's public position on the issue was simply that the odors had not been proven to originate at the landfill. However, complaints from the Authority and citizens continued until the WV-DEP conducted an investigation that included off-hours monitoring of the air quality at several points around the facility. That investigation concluded that there were off site odors emanating from the landfill. At that time the applicant "volunteered" to install passive landfill gas equipment to address the odor problem. The Authority finds it disingenuous of the applicant to ignore the problem for about 18 months and then dismiss the odor problem by remarking that if just one person had advised them of the odors the applicant would have installed the flares long ago.
- 3) However, during recent off hour visits to the area, representatives of the Authority have still noted the presence of an off-site odor. Community complaints to the Authority of the landfill gas odors continue to be made. These odors are still primarily within or near the residential urban areas of North Mountain, Hedgesville and other points along Allensville Road including Allensville Cemetery. The Authority finds that the landfill continues to cause significant off-site noxious odors. Because this odor is directly related to the volume of solid waste being processed at the facility, the Authority concludes that increasing the landfill intake when the facility is already failing to manage its present intake is not appropriate or in the best interest of the public.

The Authority further notes the receipt of correspondence (June 24, 2004) received after the public hearing on the draft decision whereby the applicant states its intention to install an active landfill gas collection system to address the growing odor complaints. The Authority accepts this action as tacit admission the applicant finally accepts responsibility for the odors and can only hope that the design and operation of the active landfill gas collection system is sufficient to address the community concerns.

- 4) The Authority also notes public complaints and concerns about a disproportionate amount of roadside litter from the vehicles using the facility; most of which are the landfill's parent company's vehicles. This was also a documented concern in the Berkeley County Comprehensive Litter and Solid Waste Control Plan. During the course of the development of the Comprehensive Plan, the Authority conducted two public hearings and two associated public comment periods during which neither the applicant nor its parent company challenged the existence of excess roadside litter. The Authority concludes that roadside litter is volume - related and that the conversion to Class A status would result in a fundamentally unfair community burden to the residents of the Town of Hedgesville.
- 5) The Authority also notes the issue of mud on area roadways. Again, many of the past public complaints about the facility are about excess amounts of mud or mud/litter mix being discharged from landfill related vehicles onto yards, mailboxes, front porches and the area roads in general. These complaints included Allensville Road, Rt. 901 and Rt. 9 in Hedgesville. There were some instances where community complaints resulted in the local office of the WV-DOH requesting the applicant to utilize large volumes of gravel on the landfill premises to reduce the mud off the premises. To the applicant's credit it publicly admitted, after photographs of the mud and litter were made public, that the mud was at an intolerable level and replaced its "passive" tire wash with a pressurized wheel and undercarriage wash. However, even after the installation of the pressurized wheel and undercarriage wash, mud continues to be discharged from vehicles into the Town of Hedgesville. Therefore, the Authority again concludes that the mud conditions are volume - related and will clearly rise with increased vehicle traffic and is fundamentally unfair to the residents of the Hedgesville area.

Historic and Cultural Resources

- 1) As documented in the 1995 Siting Plan and the 2004 Siting Plan (as submitted to the WV-SWMB), Berkeley County contains a significant number (260) of properties listed in the National Register of Historic Places. Since 1995, this number of qualifying properties has increased. Based on the location of historic sites in the County, 17 Historic Districts were established by the County. Generally speaking, those districts were designated where historic buildings, properties and structures occur in greater concentration than other County areas or where there is a clear and definite historic relationship among groupings of structures or related features within a given district. Among the historic districts in the County, there are three historic villages (Bunker Hill, Darkesville, Hedgesville).
- 2) The Town of Hedgesville with 60 properties listed in the National Register of Historic Places represents the largest collection of historic properties in Berkeley County; whereby reportedly about 2/3rds of the town's structures have been recognized in the National Register of Historic Places. The Authority notes here that most of the commercial vehicle traffic associated with the landfill traveling to the site will approach from the east and will travel directly through this historic area and further notes that the proposed new private entrance area is about only .2 of a mile from the town's entrance sign.
- 3) The Authority agrees with the findings and conclusions as documented in the 1995 Berkeley County Commercial Solid Waste Facility Siting Plan and in the 1990 Berkeley County Comprehensive Development Plan, as approved by the Berkeley County Commission, that Berkeley County's rich cultural and historic heritage is worth preserving and concludes that large volumes of landfill - related commercial truck traffic is unquestionably incompatible with the historic value of the Town of Hedgesville and the applicant failed to sufficiently address the significant adverse impact of additional volumes on this historic resource. As noted in the 1995 Siting Plan, the Authority has determined that the siting of a solid waste facility or any associated activity (noise, vibration, traffic, excavation, odor) created by a solid waste facility in or near a historic district or any area of historic value is prohibited. The Authority maintained this type of prohibition in its 2004 Siting Plan (as submitted to the WV-SWMB).
- 4) In the 1995 Siting Plan and the 2004 Siting Plan (as submitted to the WV-SWMB), the Authority stated it will evaluate the impacts of a siting request to assure the request will not adversely impact cultural resources - including cemeteries. The Authority is aware that the present landfill is causing an adverse odor impact to nearby Allensville Cemetery and concludes such an impact to one's final resting place is disrespectful and inconsistent with the manner by which Berkeley County values its cultural resources.

- 5) Since the completion of the 1995 Siting Plan, the Authority found that additional recognition has been given to historic and cultural resources in the area of the applicant's facility. For example, the Washington Heritage Trail Association is a 112-mile nationally designated scenic byway that ties together historic properties in Morgan, Berkeley and Jefferson Counties and commemorates our nation's first president, George Washington, and his descendants. The Washington Heritage Trail has been designated a Federal byway and is only one of five in the State of West Virginia. The proposed access for the applicant, regardless of the development of a second private entrance access, includes the use of West Virginia State Route #9; several miles of which constitute a significant part of the scenic byway.

In fact, all vehicles accessing the facility will travel Route #9 regardless of the vehicle's origin and as a result those same large commercial solid waste carrying vehicles will be traveling down a nationally recognized scenic byway. The Authority notes the receipt of a letter from Kimberly Eichelberger, Executive Director of the Washington Heritage Trail Association stating their Board unanimously agreed that the conversion of the landfill to Class A status would increase the traffic volume along the WHT to the detriment of its various recognized historic, cultural, scenic, and natural attributes. Therefore, the Authority concludes that additional landfill-related commercial truck traffic is incompatible with this historic byway and the applicant failed to sufficiently address the adverse impact of additional volume on this cultural resource.

- 6) Based upon the aforementioned rationale, the Authority concludes that the operation of a Class A landfill at this location is inconsistent with the general culture of the area.

Present or potential land uses for residential, commercial, recreational, environmental conservation or industrial purposes.

- 1) The Applicant's facility has never enjoyed broad public support. The facility, as a Class B landfill, has been the subject of multiple public meetings and hearings - some of which would attract several hundred citizens expressing concern about the facility. Even after over ten years of operation, the community's concerns and fears in regard to the facility continue. The community concern recently caused the WV-DEP to perform the unusual step of conducting a public hearing in regard to the standard five-year operating permit renewal in the local community. This public hearing attracted about 40 concerned citizens, many of who spoke of concerns of litter, mud, odors, etc.
- 2) The Authority concludes that a significant part of the prolonged 18-year community opposition and concern with this facility lies within this siting criterion. For example, most of the landfill related truck traffic to the facility commingles with school buses and other school related traffic of five large publicly owned schools (i.e. Hedgesville High School, Hedgesville Middle School, Hedgesville Elementary School, James Rumsey Vocational Technical Center - Shepherd Community College, Tomahawk Elementary School). The combined student population is 3,578 students and the resultant school bus traffic is extreme. Based upon information and belief, these five schools represent the largest density of school students in the County and possibly in the entire State. It is further noted, that Berkeley County leads the state in school bus transportation miles even though Berkeley County is geographically small.
- 3) In addition, there exists (3) school zone designations on Route # 9 associated with these schools. There are also severe cultural and safety compatibility issues related to multiple public recreational fields and parks drawn close to Route #9. There is the cultural incompatibility with the developing tourism facilities such as the Norman L. Dillon Farm Museum, two historic districts, Sleepy Creek Wildlife Management Area and the privately owned Wood's Resort and Golf Community. Every one of these facilities are in the general Hedgesville area and will be negatively impacted by the increased large truck traffic. Some of these areas are presently adversely impacted with the associated litter, mud or odors.
- 4) The Authority notes that the 1995 Siting Plan and the 2004 Siting Plan (as submitted to the WV-SWMB) specifically prohibits the siting of a landfill or any activity associated with the landfill within or near the "major areas of urbanization". The Authority concludes the Town of Hedgesville and the area of North Mountain are urbanized and near the facility and will be significantly and negatively impacted by volumes associated with the reclassification to a Class A landfill and further notes that these areas were already urbanized before the landfill was constructed.
- 5) Other than the urbanized areas of Hedgesville, North Mountain and Allensville Road, the Berkeley County Commission, in its 1990 Berkeley County Comprehensive Development Plan, classified the area of the landfill's property and the surrounding area as a "rural countryside district". The Authority notes that the 1995 Siting Plan and the 2004 Siting Plan (as submitted to the WV-SWMB) state that solid waste facilities should not be located with certain types of land use districts - including "rural countryside districts" and finds that reclassifying the landfill to Class A is inconsistent with the general character of the area.

- 6) The Authority notes the majority of the proposed second access road, associated with this request for Class A status, will travel within an existing prohibited zone as defined in the 1995 Siting Plan. This zone was developed in 1995 based on information provided by the Berkeley County Planning Commission of a proposed conservation district around the lower 1/3 of Back Creek. This section of Back Creek contains the largest concentration of rare species in the County and has been designated by the US Department of the Interior as meeting the minimum criteria for potential inclusion into the National Wild and Scenic Rivers System. The National Park Service has recently conducted multiple public meetings in the Hedgesville and Martinsburg area on this very designation. To allow for the reclassification to a Class A landfill at this location, the Authority would be required to change this existing "prohibited" zone to "authorized." The impact on this proposed conservation district was not addressed by the Applicant.
- 7) Finally, the Authority concludes that the applicant failed to affirmatively and clearly demonstrate that the requested re-designation is appropriate and proper and that the proposed Class A solid waste facility could be appropriately operated in the public interest.

Public Health, Welfare and Convenience.

- 1) While the Authority clearly recognizes that the handling of solid waste will be a management problem with increasing urbanization and population density, we believe it does not always have to have the stigma which is presently associated with the applicant's facility. If the West Virginia waste management hierarchy were followed, the disposal principals of Waste Management in the handling of West Virginia waste could create a positive image by locating a facility which implements reuse, recycling and composting principals to the management of the commercial waste stream that it handles.
- 2) The Authority concludes the general welfare of the citizens can be best protected by developing commercial solid waste facilities in a manner upon which the facility does not negatively impact those places that are of greatest value to the citizens. The Authority concludes the conversion to Class A status will negatively impact several of those valued places (schools, residential areas, parks, cemeteries, historic areas, etc.). Because of the adverse impacts upon those valued places, the Authority concludes that the conversion to a Class A landfill at the proposed location would be a tremendous blow to the self esteem and community spirit of the citizens of the Hedgesville and North Mountain area and finds that their perceptions of their community and its future are critical factors in the decision of the Authority to deny the Applicant's request for Class A status.
- 3) The Fourth Circuit Court of Appeals, in reviewing the constitutionality of West Virginia's solid waste laws, held that limitations may legitimately be placed on landfills to protect communities from "the possibility of decreased community pride and fracturing of community spirit that may accompany large waste disposal operations." *Geotech Reclamation Industries Inc. v. Hamrick, et. al.*, 886F. 2d 662, 665 (4th Cir., 1989).

DISPOSITION

- 1) The Legislative Rule applicable to LCS's request contains the following language:

6.4. Upon application from any person or group, the authority may amend the siting plan by re-designating a zone or any portion of a zone.

6.4.a. In such case, the person seeking the change has the burden to affirmatively and clearly demonstrate, based on all of the criteria set forth in subsection 5.3 of this rule, that the requested re-designation is appropriate and proper, and that any solid waste facility sited at such location could be appropriately operated in the public interest.

6.4.b. In order to make such demonstration, the person seeking the change shall make whatever examination is necessary and submit specific detailed information to the authority relating to the criteria in subsection 5.3 of this rule.

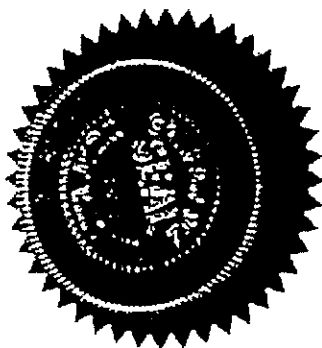
As set forth herein, it is the Authority's conclusion that LCS did not meet the burdens imposed upon it by the above-quoted language and that its formal request must be consequently be denied. However, the Authority wishes to make clear that its decision does not depend upon the high burden of proof imposed upon the Applicant ("affirmatively and clearly demonstrate") and would have been the same even if the available evidence were assessed using a less rigorous standard. The evidence clearly failed to support the Applicant's request regardless of the standard used.

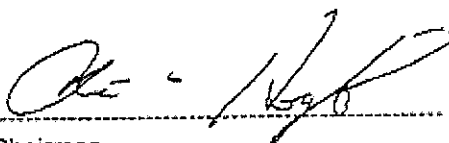
- 2) The Authority concludes that any additional transportation expense associated with the County's or the region's continuing reliance on more distant landfills or with the alternative possibility of constructing transfer stations in the region is regrettable. However, such additional expense or construction is preferable to the conversion of the North Mountain Sanitary Landfill to a Class A facility because the unquestionable weight of evidence shows that the local infrastructure, site suitability and environment (cultural, historic, and natural) are inappropriately suited for the conversion of the North Mountain Sanitary Landfill to a Class A landfill. In taking this action, the Authority is leaving intact the July 5, 1990 action of the Berkeley County Commission; the first governmental body which limited the facility to the 9,999 tons per month and the 1995 Berkeley County Commercial Solid Waste Facility Siting Plan, which did not authorize a Class A facility at the applicant's location.
- 3) The Authority concludes that the applicant failed to affirmatively and clearly demonstrate that the requested re-designation is appropriate and proper and that the solid waste facility could be appropriately operated in the public interest.

- 4) The Authority concludes that should the applicant or its parent company continue to seek the ability to landfill larger volumes of waste from the three noted W/V counties, one Maryland County and one Virginia County, such activity shall occur at a location other than the North Mountain Sanitary Landfill. However, the Authority also maintains that continued reliance by the Applicant on landfill disposal as its overwhelmingly predominant method of handling waste will not solve the solid waste management problem(s) of the county or region. The Authority concludes that, to the maximum extent possible, landfill disposal of the commercial waste stream should be reserved for non-recyclables and other materials that cannot be practically managed in any other way. West Virginia has clearly adopted a policy of recycling-over-landfill disposal through the West Virginia Recycling Act, (Code §20-11-2) by stating that many citizens desire recycling in order to conserve limited natural resources, reduce litter, recycle valuable materials, extend the useful life of landfills and to reduce the need for new landfills. The article of the West Virginia Code creating local solid waste authorities, including this Authority, requires said authorities to base their planning decisions on the nationally recognized hierarchy of waste management, which requires that reuse, recycling, and recovery take priority over landfill disposal. (W. Va. Code § 22C-4-1.)
- 5) The Authority concludes that it is fundamentally unjust to ask the citizens who live, raise families and travel the Hedgesville areas to tolerate the significant adverse and increased burdens associated with the operation of a Class A landfill at this location and further concludes that it is duty bound to deny LCS's request.

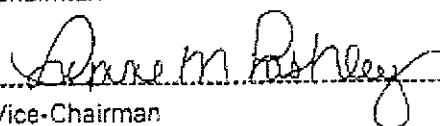
By order of the Berkeley County Solid Waste Authority, the request for an amendment to the Berkeley County Commercial Solid Waste Facility Siting Plan to authorize a Class A landfill at the North Mountain Sanitary Landfill in Berkeley County, West Virginia by Waste Management Inc / LCS Services is hereby denied.

This order is effective November 23, 2004.

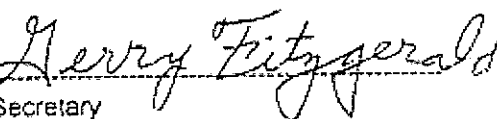




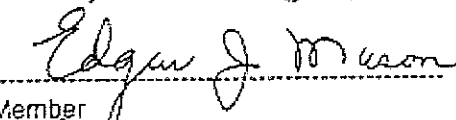
Chairman



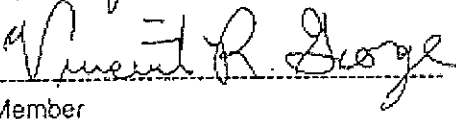
Vice-Chairman



Secretary



Member



Member

Severability Clause: If any provision or section of this decision shall for any reason be adjudged by any court of competent jurisdiction to be invalid or unconstitutional, such judgment shall not affect, impair or invalidate the remainder of the decision, but shall be confined in its operation to the provision thereof directly involved in the controversy in which such judgment, shall have been rendered, and the remainder of the provisions of this decision shall not be affected thereby.

APPENDIX

E

APPENDIX E

BEFORE THE BERKELEY COUNTY SOLID WASTE AUTHORITY

In the Matter of
ENTSORGA WEST VIRGINIA, LLC
Request for a Certificate of Site Approval

FINDINGS OF FACT AND CONCLUSIONS OF LAW

The purpose of this document is to set forth the findings of facts and conclusions of law of the Berkeley County Solid Waste Authority (hereinafter "Authority") in regard to the request by EntSORGA, West Virginia LLC (hereinafter "Applicant" or "EntSORGA") for a Certificate of Site Approval (hereinafter "CoSA") to locate a Class B commercial mixed waste resource recovery facility at 870 Grapevine Road, Martinsburg, Berkeley County, West Virginia. For the reasons hereafter set forth, the requested Certificate of Site Approval is granted.

Background

On December 13, 2010, the applicant applied to the WV-DEP, Division of Air Quality (DAQ) for a permit to construct a waste to alternative fuel facility located at 870 Grapevine Road, Martinsburg, Berkeley County WV. On July 12, 2011, the WV-DEP DAQ issued an air quality permit for the proposed facility.

On April 2, 2011, the applicant filed a Pre-Siting Notice with the WV-DEP Division of Water and Waste Management and the Authority.

On May 18, 2011, the applicant formally submitted a request for an amendment to the Berkeley County Commercial Solid Waste Facility Siting Plan to allow for its proposed facility. On November 15, 2011, the Authority approved an amendment in the Berkeley County Commercial Solid Waste Facility Siting Plan creating an authorized zone at 870 Grapevine Road, Martinsburg, WV for the proposed facility. The Siting Plan was subsequently approved on February 15, 2012 by the West Virginia Solid Waste Management Board.

On June 13, 2012, Entsorga filed an application to the WV-PSC for a Certificate of Need (CON) pursuant to WV Code §24-2-1(c) (b) for authority to construct and operate the aforementioned proposed solid waste facility. Said application is pending before the WV-PSC as Case Number 12-0803-SWF-CN.

On October 25, 2012, Entsorga, West Virginia submitted its original application requesting a "CoSA" be issued by the Authority.

All of the above applications, notices, requests and approvals pertained to the same proposed facility.

On November 21, 2012, the Authority conducted a legally advertised special meeting to take up the requested CoSA application. During the course of said meeting, the Authority decided to conduct a public hearing on the matter and determined that the original application contained certain omissions and, therefore, was incomplete.

On November 24, 2012, the Authority communicated in writing to Entsorga detailing the aforementioned omissions and notifying Entsorga of its decision to conduct a public hearing.

On November 26, 2012, the Authority published a Class I legal advertisement in The Martinsburg Journal, a daily newspaper of general circulation in Berkeley County, notifying the public of the purpose, time and place of the public hearing on the Entsorga CoSA application. On November 21, 2012, public notices were also placed on the bulletin board in the Berkeley County Courthouse, the Authority's office, and at the entrance of the County offices. As indicated in said notices, a copy of Entsorga's application and the additional information was placed in every branch of Berkeley County library, and the County Clerk's office and the BCSWA office, on November 15, 2012, and remained available thereafter at said locations for public review and inspection.

On November 28, 2012, Entsorga submitted a response to the Authority including its response to the stated omissions and its payment of the administrative fee required in WV Code §22-15-6.

On December 19, 2012, the Authority conducted the public hearing at the Chambers of the Berkeley County Council, 400 West Stephen Street, Martinsburg, WV 25401. Written comments were accepted until January 4, 2013.

On January 9, 2013, the Authority conducted a second legally advertised special meeting regarding the CoSA application. During the course of the said meeting, the Authority considered all public comments, concluded that the Entsorga CoSA application was complete as it relates to the ten CoSA criteria and directed its Chairman to prepare draft findings of facts and conclusions in the matter for Board consideration at the future Board meeting within the next 30 days.

Related Studies, Investigations and Proceedings

The property on which the applicant proposes to build its facility (the "Grapevine Road" property) is owned by the Authority and has been extensively studied as a potential location for a commercial solid waste facility. For instance, in 2007, the Authority commissioned an engineering consulting firm (GAI Consultants) to prepare a comprehensive assessment of the suitability of this property as the location of a commercial solid waste transfer station or commercial recycling facility. The study concluded that certain portions of the property were suitable in all respects, environmentally and legally, for either type of facility.

The Authority's most recent "Commercial Solid Waste Facility Siting Plan," completed in 2011, constituted an amendment to its prior Siting Plans in that it designated the Grapevine Road property as "authorized" for the placement of a resource recovery facility such as that proposed by Entsorga. In making that amendment, and in assessing Entsorga's CoSA application, the Authority has relied upon the results of the GAI study, finding that the conclusions of the study transpose well to the Entsorga facility. In the process of developing said Siting Plan, the Authority conducted a public hearing that included numerous public comments relating to the proposed Entsorga facility as an alternative to, or competitor of, existing landfills. In amending the Siting Plan to allow for a resource recovery facility at the Grapevine Road location, the Authority relied upon the State's articulated policy goal of reducing dependence on landfilling, and maximizing the reduction, reuse and recycling of solid waste.

The Authority has also investigated the technology proposed by Entsorga and the utility/marketability of its product "Solid Recovered Fuel" (SRF). Two members of the Board toured a manufacturing facility, the ESSROC: Italcementi Group Plant located in Martinsburg, WV, on June 24, 2011. This facility proposes to purchase the SRF to be produced by Entsorga for use in its cement kiln. The observations of the tour were shared with all Board members at subsequent meetings. During the tour, representatives of ESSROC: Italcementi Group described in detail the current cement manufacturing operation, from the quarry hole to the shipping department. They also described in detail where the SRF would be utilized in the operation, the modifications required at the plant to utilize the SRF, and the advantages of utilizing the SRF. ESSROC: Italcementi Group also provided letters supporting the Entsorga project and indicated its ability/desire to accept the SRF.

A tour of three Entsorga facilities in Europe that are similar to that proposed for Grapevine Road occurred during the week of September 12, 2011. It was attended by John Decker, CEO Apple Valley Waste and others. On November 09, 2011, Mr. Decker met in a public meeting with the BCSWA and described in details his observations of the three facilities. He also presented a slide show, video, pictures, etc., to Board members. He described the sights, sounds, smells and operation of the facilities. Mr. Decker answered numerous questions from Board members, four LCS/WMI representatives and two citizens.

The media was also present for that meeting. (At the time of Mr. Decker's tour, Apple Valley Waste Technologies, LLC, had not become an owner of the proposed facility.) The Authority found his presentation both useful and informative.

Findings of Fact

Many of the "Findings of Fact" below cite directly to information provided by the Entsorga to the Authority or to the Public Service Commission. However, the information gleaned independently by the Authority from the above-described activities and from its development of the Berkeley County Solid Waste Facility Siting Plan corroborates the applicant's submissions and assertions and leads the Authority to conclude that Entsorga's CoSA application and related submissions, insofar as they are hereafter cited, are credible and sufficiently accurate to be relied upon by the Authority. Notably, none of the public comments received at the public hearings regarding the Siting Plan (discussed above) or the CoSA application impeached or contradicted any of Entsorga's assertions or representations, nor has the Authority received any other information that contradicts the information hereafter summarized.

- 1) The applicant proposes to develop an estimated \$19M commercial mixed waste resource recovery facility. (CoSA App. Resp. #1; CON App. #5).
- 2) As proposed, the facility will process mixed solid waste utilizing a mechanical biological treatment technology. This technology, referred to as the High Efficiency Biological Treatment (HEBIOT), is designed to 1) reduce the overall weight of the mixed solid waste via forced air drying, and 2) separate certain metals for ultimate recycling via traditional recycling methods, and 3) separate certain high BTU, organic and combustible mixed solid waste for utilization as a product that can be marketed as fuel substitute for co-firing with coal; and 4) separate certain low BTU, inorganic and noncombustible mixed solid waste for ultimate landfilling. (CoSA App. Resp. #25; CON App. #3; CON #15; Siting Plan App #19).
- 3) If the proposed facility is built and performs as proposed by Entsorga, it will significantly reduce the amount of solid waste being placed into nearby landfills from some parts of Wasteshed E. (CoSA App. Resp. #29; CON App. #3).
- 4) The majority of the processed solid waste will be utilized to produce a saleable solid recovered fuel (SRF) for use at cement kilns; one of which is located in Berkeley County, WV. The emissions from the use of the saleable fuel have been evaluated by Entsorga, and determined to be lower or the equivalent to the use of coal. (CoSA App. Resp. #25; CON App. #3).

- 5) The applicant recognizes that this facility will be subject to regulation by the West Virginia Department of Environmental Protection and the Public Service Commission as a commercial Class B mixed waste resource recovery facility, which will be limited to accepting no more than 9,999 tons of waste per month. The facility is initially expected to accept an average of 7,333 tons per month of municipal solid waste, but will accept no more than 500 tons daily and 9,999 tons per month. (CoSA App. Resp. #13). The municipal solid waste will be delivered by Apple Valley Waste Services and other private vehicles. (CoSA App. Resp. #10; Siting Plan App. #15).
- 6) Initially, Apple Valley Waste Services has agreed to deliver a minimum annual commitment of 54,000 tons of municipal solid waste to the proposed facility. (App. Resp. #12). Entsorga anticipates that 80 -100% of the solid waste will originate from sources in West Virginia. (CON App. #6).
- 7) Apple Valley Waste Services presently owns four solid waste haulers, including two (AVW of West Virginia, Inc. and Morgan Sanitation Inc.) that holds a WV-PSC Motor Carrier Certificate. The two other haulers are doing business in Maryland (AVW of Maryland, Inc.) and Pennsylvania (Parks Garbage Service Inc.).
- 8) Apple Valley Waste Technologies, LLC; Chemtex International Inc. and Entsorgafin S.p.A are the equity owners on Entsorga West Virginia LLC. (CoSA App. Resp. #7; COA App #1; CON App #2).
- 9) Entsorga anticipates, on an annual basis, approximately 300 additional tons of solid waste will be delivered from the public during the proposed monthly "free day". (CoSA App. Resp. # 11).
- 10) The proposed facility does not involve incineration or combustion of solid waste at the proposed location. (CON App. #4).
- 11) The proposed facility's location has been designated as "approved" in the Berkeley County Commercial Solid Waste Facility Siting Plan (CoSa App. Resp. #19).
- 12) The proposed facility will not accept construction debris, demolition debris, hazardous waste, medical waste, electronic waste, liquid waste, used oil, clean source separated recyclables, clean source separated compostables or appliances (CON App. #3; Siting Plan App. #19).
- 13) The proposed facility will also produce residual waste that can neither be easily recycled nor used as a saleable fuel. This material is expected to be mostly rocks, dirt, glass and PVC plastic and is likely destined for landfill disposal. (Siting Plan App # 19).

- 14) Prior to its being acquired by WML, the LCS Services/ North Mountain Sanitary Landfill included a narrative in its original 1986 permit submission that "ultimately the landfill facility would include a resource recovery facility or recycling facility, or an industry based on recycling." Past and current owners have not implemented any of these alternatives. (Geo-Tech Reclamation Industries, Inc. Narrative Page 2).
- 15) The proposed location, on February 21, 1990 was previously granted a "Certificate of Site Approval" by the Authority for the expansion of the Berkeley County Sanitary Landfill. The aforementioned landfill expansion did not occur. (February 21, 1990 Letter, Clyde Spies, Chairman)
- 16) The proposed facility will have a positive impact on economic development via a small amount of job creation. (CoSA App. Resp. # 26). The Authority also notes that the availability of creative waste management alternatives has a positive impact on economic development due to businesses becoming increasingly sensitive to public awareness of the benefits of "green" technologies.
- 17) Route 9 and Grapevine Road will be the primary access roads utilized in the transportation of waste to the proposed facility. Route 9 is a modern, recently upgraded, four (4) lane limited access road. The use of Grapevine Road will be limited to 8/10th of a mile. The new entrance on Grapevine Road will be designed to prevent truck traffic from exiting the proposed facility and utilizing the northeast portions of Grapevine Road. The proposed facility will not result in any significant negative impacts on the local transportation infrastructure. (CoSA App. Resp. #27).
- 18) The proposed facility will have no impact upon railroad or water transportation. (CoSA App. Resp. #27).
- 19) The proposed facility will not be located within 10,000 feet of the West Virginia Eastern Regional Airport. (CoSA App. Resp. #29 Revised).
- 20) The larger 140 acre property owned by the Berkeley County Solid Waste Authority has been continuously used for solid waste management since 1970. The proposed facility will be consistent with the current land uses of the property and surrounding area. The proposed facility will manage all solid waste inside a closed building. The proposed facility will not have offsite odors, litter, gas or noise. The proposed facility will have paved roads. (CoSA App. Resp. #28).
- 21) The proposed facility will not place solid waste into or on the ground at the proposed location. (CoSA App. Resp. #29 & #30).

- 22) Leachate will be generated at the proposed location. The leachate will be collected and recycled through an internal closed loop water system. After processing, leachate will be discharged directly to the Berkeley County/City of Martinsburg POTW. There will be no septic systems or underground injection wells associated with the proposed facility. (CoSA App. Resp. #29).
- 23) Storm water will be discharged in accordance with WVDEP NPDES requirements via two onsite stormwater bio-retention facilities. (CoSA App. Resp. #29).
- 24) The proposed facility will not have any significant adverse impact on any natural wetlands. (CoSA App. Resp. #29 Revised).
- 25) The proposed facility will not impact perennial streams. (CoSA App. Resp. #29 Revised).
- 26) The proposed facility will have little to no negative impacts upon the groundwater or surface waters at the proposed site. (CoSA App. Resp. #29).
- 27) The proposed facility lies directly above the Martinsburg Shale Formation, thus karst and groundwater conduction concerns normally associated with limestone bedrock is not a concern. Even so, geological and hydrological concerns are not an issue because the facility will not place solid waste, leachate or processed water into or on the ground. (CoSA App. Resp. #30).
- 28) The proposed facility will have little to no negative impacts due to the geological and hydrological conditions. (CoSA App. Resp. #30).
- 29) The proposed facility will process all solid waste inside a closed building. The proposed facility will have no offsite odors, litter, gas or noise. The proposed facility's staff will pick up any roadside litter daily along Grapevine Road. The proposed facility will be landscaped and maintained as aesthetically pleasing. (CoSA App. Resp. #31).
- 30) The proposed facility will include an onsite educational center that will be used to conduct tours for visitors, school classes and officials to use as a classroom/ meeting room. (CoSA App. Resp. #31).
- 31) The proposed facility will have no negative impacts upon the aesthetic and environmental quality of the area. (CoSA App. Resp. #31).
- 32) The proposed facility is not in or near a recognized historic district, civil war site, or the George Washington Heritage Trail. Additionally, the traffic to the proposed site will not pass through any recognized historic districts, civil war sites, or the George Washington Heritage Trail. (CoSA App. Resp. #32).

- 33) The proposed facility will not result in any negative impacts upon the historic and cultural resources. (CoSA App. Resp. #32).
- 34) The proposed facility is consistent with the traditional land use as the property has been utilized for solid waste management since 1970. This property is owned by the BCSWA and has been reserved for solid waste management purposes. The neighboring land uses consist of a large regional jail, brick and steel can manufacturing, strip mining, automotive repair, commercial and residential establishments. (CoSA App. Resp. #33).
- 35) The proposed location is not within 1,000 feet of any cave preserves, wildlife management areas, nature walking trails, public parks, conservation areas, or other land preserves. There are no impacts on sensitive habitats, endangered or threatened habitats or wetlands. (CoSA App. Resp. #33 Revised).
- 36) The proposed facility will not be located within 1,000 feet of an existing property located into the Berkeley County Farmland Protection Program. (CoSA App. Resp. #33 Revised).
- 37) The proposed facility will have no significant negative impacts upon the present or future land uses for residential, commercial, recreational, environmental, conservation or industrial purposes. (CoSA App. Resp. #33).
- 38) The proposed facility will include a covered drop off area for residents to dispose of household solid waste at a convenient and clean location. (CoSA App. Resp. #34).
- 39) The proposed facility will be operated in a manner which will protect the public health, welfare and convenience. (CoSA App. Resp. #34).

Conclusions of Law

- 1) WV Code §22C-4-25 (b) states that "in consideration whether to issue or deny the certificate of site approval, as specified in sections twenty-six, twenty-seven and twenty-eight of this article, the county or regional solid waste authority shall base its determination upon the following criteria: The efficient disposal of solid waste anticipated to be received or processed at the facility, including solid waste generated within the county or region; economic development; transportation infrastructure; property values; groundwater and surface waters; geological and hydrological conditions; aesthetic and environmental quality; historic or cultural resources; the present or potential land uses for residential, commercial, recreational, industrial or environmental conservation purposes; and the public health, welfare and convenience."
- 2) WV Code §22C-4-25 (c) states "The County or regional solid waste authority shall complete findings of fact and conclusions relating to the criteria authorized in subsection (b) hereof which support its decision to issue or deny a certificate of site approval".
- 3) WV Code §22C-4-25 (d) states "The siting approval requirements for composting facilities, material recovery facilities and mixed waste processing facilities shall be the same as those for other solid waste facilities."
- 4) WV Code §22-15-6 states "The fee for the certificate of site approval is twenty-five dollars payable upon the filing of the application therefore with the county, county solid waste authority or regional solid waste authority, as the case may be."
- 5) WV Code §22-15-1 (c) states "The Legislature further finds that solid waste disposal has inherent risks and negative impacts on local communities and specifically finds "... (6) that resource recovery and recycling reduces the need for landfills and extends their life; and that (7) proper disposal, resource recovery or recycling of solid waste is for the general welfare of the citizens of this state."
- 6) WV Code §22C-4-1 states "The Legislature finds that the improper and uncontrolled collection, transportation, processing and disposal of domestic and commercial garbage, refuse and other solid wastes in the state of West Virginia results in: (1) A public nuisance and a clear and present danger to the citizens of West Virginia; (2) the degradation of the state's environmental quality including both surface and ground waters which provide essential and irreplaceable sources of domestic and industrial water supplies; (3) provides harborages and breeding places for disease-carrying, injurious insects, rodents and other pests injurious to the public health, safety and welfare; (4) decreases public and private property values and results in the blight and deterioration of the natural beauty of the state; (5) has adverse social and economic effects on the state and its citizens; and (6) results in the waste and squandering of valuable nonrenewable resources contained in such solid wastes which can be recovered through proper

recycling and resource-recovery techniques with great social and economic benefits for the state.

The Legislature further finds that the proper collection, transportation, processing, recycling and disposal of solid waste is for the general welfare of the citizens of the state and that the lack of proper and effective solid waste collection services and disposal facilities demands that the state of West Virginia and its political subdivisions act promptly to secure such services and facilities in both the public and private sectors.

The Legislature further finds that the process of developing rational and sound solid waste plans at the county or regional level is impeded by the proliferation of siting proposals for new solid waste facilities.

Therefore, it is the purpose of the Legislature to protect the public health and welfare by providing for a comprehensive program of solid waste collection, processing, recycling and disposal to be implemented by state and local government in cooperation with the private sector. The Legislature intends to accomplish this goal by establishing county and regional solid waste authorities throughout the state to develop and implement litter and solid waste control plans.

It is further the purpose of the Legislature to reduce our solid waste management problems and to meet the purposes of this article by requiring county and regional solid waste authorities to establish programs and plans based on an integrated waste management hierarchy. In order of preference, the hierarchy is as follows:

(1) *Source reduction.* -- This involves minimizing waste production and generation through product design, reduction of toxic constituents of solid waste and similar activities.

(2) *Recycling, reuse and materials recovery.* -- This involves separating and recovering valuable materials from the waste stream, composting food and yard waste and marketing of recyclables.

(3) *Landfilling.* -- To the maximum extent possible, this option should be reserved for nonrecyclables and other materials that cannot practically be managed in any other way. This is the lowest priority in the hierarchy and involves the waste management option of last resort."

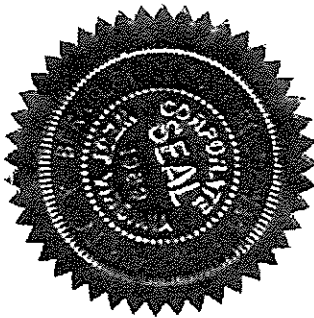
- 7) On March 9, 2012, the West Virginia Legislature adopted House Concurrent Resolution # 59, "expressing support for the improvement in the collection, processing and consumption of recyclable material throughout the State of West Virginia." Furthermore, the adopted resolution expressed support to the West Virginia Public Service Commission and the West Virginia Department of Environmental Protection to permit resource recovery facilities in the state as a means to increase the collection of recyclable materials and the utilization of solid waste as a resource rather than landfilling."
- 8) The Authority concludes that the county or region's continuing reliance on landfilling as its overwhelmingly predominant method of handling municipal solid waste is inconsistent with efficient disposal of solid waste in that it will not solve the long term solid waste management problem(s) of the county or region .

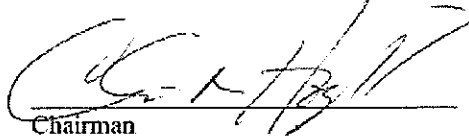
- 9) The Authority concludes that, in order to adhere to the State's solid waste management hierarchy as expressed in WV Code §22C-4-1, to the maximum extent possible, landfill disposal of the municipal waste stream should be reserved for non-recyclables and other materials that cannot be practically managed in any other way.
- 10) The Authority concludes that the proposed facility clearly supports the aforementioned policies through its utilization of resource recovery and recycling techniques.
- 11) The Authority further concludes that the applicant has met the burdens imposed upon it and the unquestionable weight of evidence shows that the local infrastructure, site suitability and environment (cultural, historic, and natural) are appropriately suited for the development of a 500 ton per day, Class B mixed waste resource recovery facility at 870 Grapevine Road, Martinsburg WV. Based on the ten criteria found in WV Code § 22C-4-25 (b), the Authority concludes that the applicant affirmatively and clearly demonstrated that the requested designation is appropriate and proper and that the solid waste facility could be appropriately operated in the public interest.

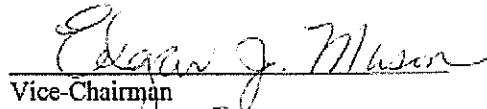
ORDER

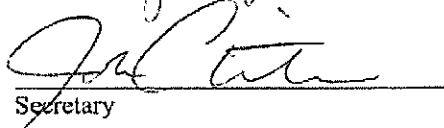
Upon motion duly made and passed at its public meeting of January 24th, 2013, the Berkeley County Solid Waste Authority does hereby ADOPT the above Findings of Fact and Conclusions of Law and does GRANT the requested Certificate of Site Approval to Entsorga, West Virginia LLC, to build and locate a facility at the Grapevine Road location that is consistent with the representations and assertions of Entsorga as recited in the Authority's Findings of Fact. The issuance of the Certificate of Site Approval is not transferable to any other entity without approval of this Authority.

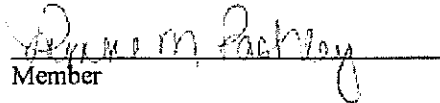
January 24th, 2013.

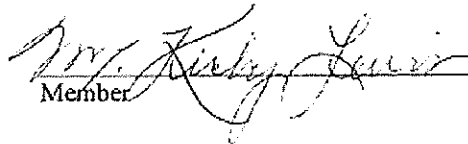



Chairman


Vice-Chairman


Secretary


Member


Member

APPENDIX

F

APPENDIX: F List of facilities generating more than 5 tons annually of solid waste within the County

Name	Tons
AMENTUM SAN ANTONIO TX	10.18
APPLE VALLEY WASTE SERVICES KEARNEYSVILLE WV	7,383.75
APPLEY VALLEY WASTE SERVICE HANOVER MD	19,188.62
ART JERINS WINDOWS AND SIDING FALLING WATERS WV	0.30
Ayers Builders Inc INWOOD WV	2.71
BASEMENT SYSTEMS OF WV CLARKSBURG WV	5.21
Berkeley County Commission MARTINSBURG WV	2.74
BERKELEY COUNTY PSD MARTINSBURG WV	30.87
BERKELEY COUNTY PSWD MARTINSBURG WV	482.69
Berkeley County Schools MARTINSBURG WV	0.70
BUTTS PROPERTIES MARTINSBURG WV	26.01
C D Builders MARTINSBURG WV	2.61
Cash Customer Martinsburg VA	13,006.56
City of Martinsburg MARTINSBURG WV	9,126.99
Colonial Village Industries BERKELEY SPRINGS WV	19.51
CORPORATION OF SHEPHERDSTOWN SHEPHERDSTOWN WV	122.01
Craftmaster Builders Inc MARTINSBURG WV	33.22
CSE ENTERPRISES FALLING WATERS WV	37.57
Custom Contracting Inc HEDGESVILLE WV	16.63
DAVID H MARTIN EXCAVATING INC CHAMBERBURG PA	9.52
Dulyea Construction MARTINSBURG WV	3.63
Dunn Seibert MARTINSBURG WV	3.98
EAST COAST REAL ESTATE GROUP HAGERSTOWN MD	3.31
EASTRIDGEHEALTHSYSTEMS MARTINSBURG WV	1.25
ENTSORGA APPLE VALLEY KEARNEYSVILLE WV	7,371.42
ERNIES AUTO ENTERPRISES MARTINSBURG WV	1.66
FOUR POINTS CONSTRUCTION INC MARTINSBURG WV	97.71
Free Day Customers Martinsburg WV	522.08
GHS EXCAVATING INC BERKELEY SPRINGS WV	110.03
H & W CONSTRUCTION CO INC WINCHESTER VA	0.37
H W Construction Co Inc WINCHESTER VA	44.83
HEPACO LLC 107796VA CHARLOTTE NC	4.02
HOBDAY CUSTOM HOMES LLC MARTINSBURG WV	16.15
John E Myers Construction Co MARTINSBURG WV	3.47
John Price Hauling * WV	128.76
KW REESE INC MERCERBURG PA	277.10
MILLER ENVIRONMENTAL 108956WV MORGANTOWN WV	67.71
MILLER ENVIRONMENTAL 109309WV MORGANTOWN WV	14.41
MILLER ENVIRONMENTAL 109310WV MORGANTOWN WV	48.90
MILLER ENVIRONMENTAL INCORPORATED 109026WV MORGANT	50.29
MILLER ENVIRONMENTAL INCORPORATED 109236WV MORGANT	25.78
MILLER ENVIRONMENTAL INCORPORATED 109339WV MORGANT	24.29
MILLER ENVIRONMENTAL INCORPORATED 109354WV MORGANT	34.71
MILLER ENVIRONMENTAL INCORPORATED 109395WV MORGANT	40.45
MILLER ENVIRONMENTAL LCS MORGANTOWN WV	620.07
Minchinis General Contractors MARTINSBURG WV	0.84
MODERN RENOVATIONS LLC MARTINSBURG WV	323.29
Morgan Cty Board of Education BERKELEY SPRINGS WV	5.50
Panhandle Builders MARTINSBURG WV	0.90
Panhandle Pumping Inc EMMITSBURG MD	5,833.29
PENTONEY BROTHERS CONTRACTING BERKELEY SPRINGS WV	139.19
Phil Cogar Excavating INWOOD WV	105.01

POTOMAC HOUSING DEVELOPERS MARTINSBURG WV	14.53
RCH CONSTRUCTION LLC HEDGESVILLE WV	13.89
REPUBLIC SERVICES HAGERSTOWN MD	5,796.86
Salvation Army MARTINSBURG VA	3.59
Schewels Furniture LYNCHBURG VA	2.71
Snyder Environmental Service KEARNEYSVILLE WV	7.43
SNYDER ENVIRONMENTAL SERVICES 108909WV Kearneysville WV	16.30
SUN SERVICES BELTSVILLE MD	25.93
TC ENERGY PIPELINE WMSS 109197WV STRASBURG VA	33.89
Tom Seely Furniture BERKELEY SPRINGS WV	62.40
TORAY PLASTICS INC Front Royal VA	2.23
TOWN OF BATH BERKELEY SPRINGS WV	763.95
TOWN OF HEDGESVILLE HEDGESVILLE WV	6.83
TOWN OF STEPHENS CITY STEPHENS CITY VA	16.40
TOWN OF STRASBURG STRASBURG VA	13.33
Tradewind Flooring CHARLES TOWN WV	3.33
United Wreckers and Excavating Martinsburg WV	469.04
US SILICA COMPANY BERKELEY SPRINGS WV	2.28
W H Miller Contractors Inc MARTINSBURG WV	16.53
WM Gaithersburg Hauling Gaithersburg MD	609.93
WM GREENCASTLE CORAOPOLIS PA	805.86
WM OX PAPER SHENANDOAH ROLLOFF HEDGESVILLE WV	2,592.15
WM Shenandoah CM MARTINSBURG WV	7,054.16
WM Shenandoah RO MARTINSBURG WV	20,958.19
WM Shenandoah RS MARTINSBURG WV	5.11
WMJCTS MARTINSBURG WV	13,799.86
WV DOH BURLINGTON BURLINGTON WV	5.92

APPENDIX

G

APPENDIX G

PUBLIC PARTICIPATION

- 1) Notice of First Public Hearing
- 2) Participation Register of First Public Hearing
- 3) Certification of Publication and Legal Advertisement for First Public Hearing
- 4) Minutes of First Public Hearing
- 5) Notice of Final Public Hearing
- 6) Certification of Publication and Legal Advertisement for Final Public Hearing
- 7) Minutes of Final Public Hearing
- 8) Agenda/ Minutes of Meeting of Final Approved Plan
- 9) WV-SWMB Approved Letter of Final Plan



BERKELEY COUNTY SOLID WASTE AUTHORITY
19 RECOVERY WAY
MARTINSBURG, WEST VIRGINIA 25405
304-267-9370



office@berkeleycountyrecycling.com
www.berkeleycountyrecycling.com

NOTICE OF PUBLIC HEARING

The Berkeley County Solid Waste Authority (BCSWA) will conduct a public hearing on May 12, 2021 at 6 pm at the Office of the Berkeley County Solid Waste Authority located at 19 Recovery Way, Martinsburg WV 25403.

The purpose of the public hearing is to solicit ideas, opinions and public comment to assist the BCSWA in the development of the five year update of the Berkeley County Comprehensive Litter and Solid Waste Control Plan. All comments received at the public hearing will be recorded and considered in the development of the updated Plan. The current Plan may be reviewed at the Berkeley County Clerk's Office, Region 9 Planning & Development Office, Berkeley County SWA office and all 4 branch locations of the Martinsburg- Berkeley County Libraries. An electronic copy is available at www.berkeleycountyrecycling.com

All interested parties are encouraged to attend and can submit both written and oral comments. The public comment period will extend until May 22, 10 days beyond the date of the public hearing for the continued submission of written comments. Participants may attend electronically by Zoom at:

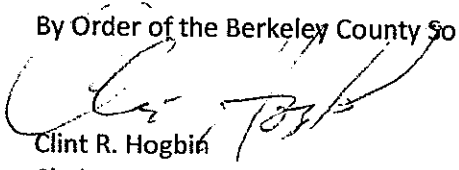
<https://us02web.zoom.us/j/83907695498>

Meeting ID: 839 0769 5498

Comments can be sent electronically to office@berkeleycountyrecycling.com or mailed to:

Berkeley County Solid Waste Authority
19 Recovery Way
Martinsburg WV 25405
Attn: Comp Plan

By Order of the Berkeley County Solid Waste Authority,


Clint R. Hogbin
Chairman

Class I Legal Advertisement

Posted MARCH 23, 2021 AT 12:19 PM

DO NOT REMOVE

**NOTICE OF PUBLIC
HEARING**

The Berkeley County Solid Waste Authority (BCSWA) will conduct a public hearing on May 12, 2021 at 6 pm at the Office of the Berkeley County Solid Waste Authority located at 19 Recovery Way, Martinsburg WV 25403.

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19 Recovery Way
Martinsburg WV 25405
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By Order of the Berkeley County Solid Waste Authority,
Clint R. Hogbin
Chairman

3:24 (11)

Certificate of Publication

This is to certify the annexed advertisement

Public Hearing - SWA

appeared for one consecutive days/weeks
in The Journal Publishing Company, a newspaper
published in the City of Martinsburg, WV
in its issue beginning:

24 March 2021

and ending:

24 March 2021

**The Journal
207 W. King Street
Martinsburg, WV 25401**

Fee \$ 47.24

**THE STATE OF WEST VIRGINIA
COUNTY OF BERKELEY**

The foregoing instrument was acknowledged

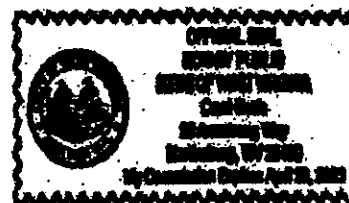
before me this 30 March 2021

James Phillips by

My commission expires Apr 19 2023

Carol Bush

Notary Public



BEFORE THE BERKELEY COUNTY SOLID WASTE AUTHORITY
TRANSCRIPT OF THE RECORDING OF PUBLIC HEARING HELD ON MAY 12, 2021

BERKELEY COUNTY, WEST VIRGINIA

RE: PUBLIC COMMENTS ON THE BERKELEY COUNTY COMPREHENSIVE LITTER AND SOLID WASTE
CONTROL PLAN

PREPARED BY THE BERKELEY COUNTY SOLID WASTE AUTHORITY

HELD AT THE OFFICE OF THE

BERKELEY COUNTY SOLID WASTE AUTHORITY, 19 RECOVERY WAY, MARTINSBURG WV 25405

AND VIRTUALLY BY ZOOM

AT [HTTPS://US02WEB.ZOOM.US/J/839076954498](https://us02web.zoom.us/j/839076954498)

APPEARANCES: SOLID WASTE AUTHORITY

CLINT HOGGIN: CHAIRMAN

MIKE ROBERTS: VICE CHAIRMAN

SECRETARY: JOHN CHRISTENSEN

PROCEEDINGS:

Whereupon,

Mr. Hogbin: Okay I'm going to go ahead and call the hearing to order, because I have 6:01pm and I have the record button pressed.

I'm going to go through some formalities, even though our participation is low. We had a last minute development here that I learned about five minutes ago that our transcriptionists was in a car wreck a few days ago.

Mr. Christensen: Oh no.

Mr. Hogbin: And so he won't be attending so we'll be using the record button...

Mr. Christensen: Sure.

Mr. Hogbin:to transcribe from. But I'm going to go ahead and do some formalities here. Obviously I'm Clint Hogbin, I'm the Chairman of the Solid Waste Authority. I'm here in the office with Vice Chairman Mike Roberts and attending virtually is John Christensen. We were notified earlier today by Board member Matthew Grove that he would not be attending and Mark Barney, Board Member Mark Barney said that he was possibility but wasn't certain.

Mr. Hogbin: The purpose of tonight's public hearing is to solicit ideas, opinions, and comments to assist us in the updating of the Berkeley County Comprehensive Litter and Solid Waste Control Plan. The current document was last approved in 2016, and our hope is to have a final updated document by the end of the year. The current document is available for viewing at many locations, including all four Berkeley County libraries, Berkeley County Clerk's Office, Region Nine Planning and Development Council, and the Solid Waste Authority Office. It is also available for viewing from our website.

Mr. Hogbin: There's fourteen mandatory provisions in the plan, and you must have all fourteen addressed in order for the plan to pass approval by the Solid Waste Management board. They are:

- 1) Assessment of litter and solid waste problems in the county;
- 2) The establishment of solid waste collection and disposal services for all county residents;
- 3) Evaluation of the feasibility of requiring or encouraging the separation of solid waste at its source prior to the collection for the purpose of facilitating the efficient and effective recycling of waste.
- 4) The establishment of mandatory garbage disposal program.
- 5) A recommendation for the siting of one or more properly permitted public or private solid waste facilities.
- 6) Timetable for the implementation of the plan.
- 7) Program for the cleanup, reclamation, and stabilization of any open and un-permitted dumps.
- 8) Coordination of the plan with related solid waste collection and disposal services of municipalities and counties.
- 9) A program to enlist the voluntary assistance of private industry, civic groups, and volunteers for cleanup efforts.
- 10) Incentives to promote recycling.

11) A program to identify the anticipated quantities of solid waste, which are disposed of but not generated by sources situated within the boundaries of the county.

12) Coordination with the division of highways and other local, state, and federal agencies in the control and removal of litter.

13) Establishment of a program to encourage and utilize those individuals incarcerated, and use those individuals in the regional jail.

10) And the final fourteenth mandatory requirement is for the safe and sanitary disposal of all refuse from commercial and industrial sources within the county.

Mr. Hogbin: I have 6:05pm, I have no public speakers physically in the office. There are no public speakers that have contacted through Zoom, so I'm going to pause the recording and wait for about twenty minutes, to roughly 6:25 and see if any one shows up, and then we'll take it from there.

.....paused recording.....

Mr. Hogbin: Let me try that again, there it is. I'm going to repeat that again. It's 6:26pm and no one has appeared virtually or in the office, so I'm going to go ahead and close the meeting. We will continue to accept writing comments for the next ten days. They can be submitted by email or by snail mail at the appropriate address. And I'm going to thank Mike and John for attending tonight and have a good evening.

(Whereupon, the hearing was concluded at approximately 6:26pm)

PROOF OF PUBLICATION

The Journal
RFP Public Hearing
Notices & Legals

I, CAROL BUSH, certify that the attachment hereto contains a true and accurate copy of what was published in The Journal in consecutive issues on the following dates:

3/10/2022

Affiant further says that said newspaper was regularly issued and circulated on those dates.

SIGNED:

Sarah Phillips

Printed: Sarah Phillips

Signed and sworn to me this 8/24/2022, by legal clerk who is personally known to me.

Carol Bush

Carol Bush, Notary Public State of West Virginia, County of Berkeley

My commission expires: April 29, 2023

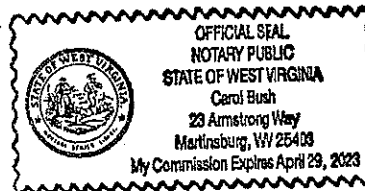
Customer No: 135109

Affidavit Contact Name: Lynne Lashley

Affidavit Contact Address: 870 Grapevine Rd. Martinsburg, WV 25401

Affidavit Batch ID: 604

Affidavit ID: 1406



COPY OF ADVERTISEMENT

Public Hearing Notice
The Berkeley County Solid Waste Authority (BCSWA) will conduct a public hearing on April 20, 2022 at 6 pm at the Office of the Berkeley County Solid Waste Authority located at 19 Recovery Way, Martinsburg WV 25403.

The purpose of the public hearing is to solicit written and oral comment from the general public concerning the draft five year update of the Berkeley County Comprehensive Litter and Solid Waste Control Plan. This is the second and final public hearing regarding the updating of the Plan. All comments received at the public hearing will be recorded and considered in the development of the final Plan. Copies of the draft Plan can be viewed during normal business hours at the Berkeley County Clerk's Office, Region 9 Planning & Development Office, Berkeley County SSWA office and all branch locations of the Martinsburg-Berkeley County Libraries. An electronic copy is available at www.berkeleycountyrecycling.com

All interested parties are encouraged to attend and can submit both written and oral comments. The public comment period will extend 10 days beyond the date of the public hearing for the continued submission of written comments. Participants may attend electronically by zoom at: <https://us02web.zoom.us/j/83772355902> Meeting ID: 83772355902
Comments can be sent electronically to office@berkeleycountyrecycling.com or mailed to:

Berkeley County Solid Waste Authority
19 Recovery Way
Martinsburg WV 25405
Attn: Comp Plan
By Order of the Berkeley County Solid Waste Authority,
Clint R. Hoyle, Chairman



BERKELEY COUNTY SOLID WASTE AUTHORITY
19 RECOVERY WAY
MARTINSBURG, WEST VIRGINIA 25405
304-267-9370



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Berkeley County Solid Waste Authority
19 Recovery Way
Martinsburg WV 25405
Attn: Comp Plan

By Order of the Berkeley County Solid Waste Authority,

Clint R. Hogbin
Chairman

Class I Legal Advertisement

Posted 3/7/22 @ 12:04 PM

DO NOT REMOVE

BEFORE THE BERKELEY COUNTY SOLID WASTE AUTHORITY
TRANSCRIPT OF THE RECORDING OF PUBLIC HEARING HELD ON APRIL 20, 2022

BERKELEY COUNTY, WEST VIRGINIA

RE: PUBLIC COMMENTS ON THE BERKELEY COUNTY COMPREHENSIVE LITTER AND SOLID WASTE
CONTROL PLAN

PREPARED BY THE BERKELEY COUNTY SOLID WASTE AUTHORITY

HELD AT THE OFFICE OF THE

BERKELEY COUNTY SOLID WASTE AUTHORITY, 19 RECOVERY WAY, MARTINSBURG WV 25405

AND VIRTUALLY BY ZOOM

AT [HTTPS://US02WEB.ZOOM.US/J/83772355902](https://us02web.zoom.us/j/83772355902)

APPEARANCES: SOLID WASTE AUTHORITY

CLINT HOGBIN: CHAIRMAN

SECRETARY: JOHN CHRISTENSEN

BOARD MEMBER: MARK BARNEY (Zoom)

BOARD MEMBER: MATTHEW GROVE (Zoom)

BOARD MEMBER: MICHELE GULA-ATHA (Zoom)

STAFF: LYNNE LASHLEY

PROCEEDINGS:

Whereupon,

Mr. Hogbin: I'm going to call the hearing to order as I have 6:00pm.

Mr. Hogbin: I'm going to note that there are no visitors present in the room or by zoom.

Mr. Hogbin: I'm going to do some formalities. I'm the Chairman of the Solid Waste Authority. I'm here in the office with Secretary John Christensen and attending virtually is Board members Mark Barney, Matthew Grove and Michele Gula-Atha.

Mr. Hogbin: The purpose of tonight's public hearing is to solicit ideas, opinions, and comments in regard of the draft updated the Berkeley County Comprehensive Litter and Solid Waste Control Plan. The draft document is available for viewing at many locations, including all four Berkeley County libraries, Berkeley County Clerk's Office, Region Nine Planning and Development Council, and the Solid Waste Authority Office. It is also available for viewing from our website.

Mr. Hogbin: There's fourteen mandatory provisions in the plan. However, due to the lack of public attendance, I'll defer reading those 14 provisions.

Mr. Hogbin: I have 6:04pm, I have no public speakers physically in the office. There are no public speakers that have contacted through Zoom, so I'm going to wait to see if any one shows up.

Mr. Hogbin. It's 6:50pm and no one has appeared virtually or in the office. I'm going to go ahead and close the hearing. We will continue to accept writing comments for the next ten days. They can be submitted by email or by snail mail at the appropriate address.

(Whereupon, the hearing was concluded at approximately 6:50pm)



BERKELEY COUNTY SOLID WASTE AUTHORITY
19 RECOVERY WAY
MARTINSBURG, WEST VIRGINIA 25405
304-267-9370



office@berkeleycountyrecycling.com
www.berkeleycountyrecycling.com

AGENDA
REGULAR MEETING
WEDNESDAY, JUNE 15, 2022
6:00 PM

- 1) CALL TO ORDER: (Discussion/ Action)
- 2) ROLL CALL: (Discussion/ Action)
- 3) MEETING NOTICE/ AGENDA APPROVAL: (Discussion/ Action)
- 4) CONSIDERATION OF THE MINUTES OF THE REGULAR MEETING OF MAY 18, 2022 (Discussion/ Action)
- 5) REPORTS: (Discussion/ Action on all reports listed below)
 - A) LITTER CONTROL PROGRAM REPORT AND ANY ACTION THEREON:
 - B) RECYCLING PROGRAM AND RESOURCE RECOVERY REPORT AND ANY ACTION THEREON:
 - C) TREASURER'S REPORT: CONSIDERATION OF ALL BUDGET REPORTS FOR THE MONTH OF APRIL AND ANY ACTION THEREON:
 - D) TREASURER'S REPORT: CONSIDERATION OF JUNE BILLS TO BE PAID AND ANY ACTION THEREON:
 - E) 250TH COMMEMORATION CLEANUP/BEAUTIFICATION PROJECT TEAM AND ANY ACTION THEREON:
- 6) BUSINESS ITEMS: (Discussion/ Action of all items listed below)
 - A) CONSIDERATION OF THE FY23 RECYCLING ASSISTANCE GRANT APPLICATION AND ANY ACTION THEREON:
 - B) CONSIDERATION OF THE FY23 GENERAL, LITTER CONTROL AND RECYCLING BUDGET ADOPTION AND ANY ACTION THEREON:
 - C) CONSIDERATION OF THE FY23 WVCORP INSURANCE PROPOSAL AND ANY ACTION THEREON:
 - D) CONSIDERATION OF THE ADOPTION OF THE UPDATED BERKELEY COUNTY COMPREHENSIVE LITTER AND SOLID WASTE CONTROL PLAN AND ANY ACTION THEREON:
 - E) NOMINATION OF OFFICERS AND ANY ACTION THEREON:
- 7) OTHER BUSINESS ITEMS: (Discussion Only)
- 8) PUBLIC COMMENT: (Discussion Only)
- 9) ADJOURNMENT:

THIS MEETING WILL BE HELD IN THE OFFICE OF THE BERKELEY COUNTY SOLID WASTE AUTHORITY AT 19 RECOVERY WAY, MARTINSBURG, WV 25405 OR VIA THE ZOOM MEETING OPTION: <https://us02web.zoom.us/j/89235945758>

THE BCSWA RESERVES THE RIGHT TO ADJUST THE ORDER OF THE AGENDA AS DEEMED APPROPRIATE BY THE CHAIRMAN

Posted 6/9/22 @ 1525

BERKELEY COUNTY SOLID WASTE AUTHORITY
19 RECOVERY WAY
MARTINSBURG, WEST VIRGINIA 25405
304-267-9370

office@berkeleycountyrecycling.com
www.berkeleycountyrecycling.com

Minutes of Regular Monthly Public Meeting

Wednesday, June 15, 2022

1) Call To Order:

The June 15, 2022 regular monthly meeting of the Berkeley County Solid Waste Authority (BCSWA) was called to order at 6:00 pm by Chairman, Clint Hogbin at the 19 Recovery Way Office, Martinsburg, WV.

2) Roll Call:

Board members in attendance: Clint Hogbin, John Christensen, Matthew Grove (Zoom), Michele Gula Atha (Arrived at 6:20pm by Zoom) and Mark Barney (Zoom).

Board members absent: None

Visitors: None

Staff present: Lynne Lashley, Programs Administrator

The Chairman noted that Matthew Grove has been reappointed by the Berkeley County Council.

3) Meeting Notice/ Agenda Approval:

Mark Barney motioned to accept the agenda as posted. Seconded by Matthew Grove. Vote: Unanimous approval. Motion passed.

4) Consideration of the Minutes of the Regular Meeting of May 18, 2022:

Matthew Grove motioned to accept the minutes of May 18, 2022 as written. Seconded by Mark Barney. Vote: Unanimous approval. Motion passed.

5) Reports:

A) Litter Control Program Report and Any Action Thereon:

The Chairman stated that there were two stream cleanup activities for May 2022. The stream cleanup team completed 2.5 miles of stream collecting 11 bags, 5 tires and 5 bulky items. The Chairman stated that no report has been received for the roadside litter program for May. However, in April, the roadside program collected 243 bags and 112 bulky items from 17 miles of roads.

Lynne Lashley reported that the May report for the litter enforcement program showed 3 total enforcement complaints with one site being cleaned within 30 days.

B) Recycling Program and Resource Recovery Report And Any Action Thereon:

The Chairman stated the circumstances involving the Entsorga facility has not changed substantially in the past month. The WVDEP has notified Entsorga they have until October 4, 2022 to return the facility to an operational state or submit a closure plan. He stated this is a very active topic and information may change frequently.

The Chairman stated that he has contacted the WVDEP in regard to some type of nomination for Cam Tabb. He is hoping the agency will recognize his work in composting.

The Chairman stated that the plastic 1-7 continues to be marketed to the AVW MRF in Hagerstown. However, the program is now aligned with the AVW MRF. New signage has been put into place and video has been posted to the Facebook site.

The Chairman stated that he and John Christensen attended a meeting hosted by the EPCD regarding their long range plan. There was substantial discussion about the need to fund conservation efforts across the Eastern Panhandle.

Matthew Grove updated the Board on the SBRC project with Penrose. He stated other than the discussions of the need to address an abandoned section of Pilgrim Street, there is little activity to report to the Board.

C) Treasurer's Report: Consideration of All Budget Reports for the month of April, 2022 And Any Action Thereon:

The Treasurer presented and explained the March P-Card transactions.

The Treasurer presented and explained the "Summary of Accounts" for April.

The Treasurer presented, explained and answered questions regarding the various April Reconciliation Detail and Deposit Detail Reports.

The Treasurer presented, explained and answered questions regarding the various April Budget Reports.

John Christensen motioned to accept the April, 2022 Treasurer Reports as presented. Seconded by Michele Gula Atha. Vote: Unanimous approval. Motion passed.

D) Treasurer's Report: Consideration of May Bills To Be Paid and Any Action Thereon:

The Chairman presented the June unpaid bills for the following accounts:

CED GRANT UNPAID BILLS

AVW	\$1,200.00	Electronics Transportation
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Total	\$1,200.00	
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WV-SWMB GRANT UNPAID BILLS

CWP	\$235.90	Paper Transportation
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Total	\$235.90	
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LITTER CONTROL GRANT UNPAID BILLS

The Journal	\$199.00	Educational/Promo
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Total	\$199.00	
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GENERAL ACCOUNT UNPAID BILLS

BCPSSD	\$22.90	Office Water
Fifth Third Bank	\$469.90	Office Supplies
Lynne Lashley	\$82.22	Mileage Reimbursement
Potomac Edison	\$144.21	Office Electric
US Cellular	\$177.03	Phones and Internet

Total	\$896.26	
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RECYCLING ACCOUNT UNPAID BILLS

Abshire Enterprises	\$191.25	H'ville Transportation
AVW	\$220.00	SS Transportation
BCPSSD	\$22.90	Water/Single Stream
BCSWA	\$16,000.00	Transfer to Payroll
BNSF Logistics	\$2,830.00	Electronics Transportation
Bousum Transfer	\$300.00	Trailer Transportation
CWP	\$240.00	Paper Transportation
EDT	\$124.55	Trailer Inspection & Repair
Fifth Third Bank	\$2,082.06	Recycling Supplies
Zach Frye	\$20.30	Supply Reimbursement
Gladhill Tractor	\$1,825.14	SBRC

Greenway Lab	\$525.00	GVRC Testing
Potomac Edison	\$14.42	GVRC
Potomac Edison	\$41.65	SBRC
Pine Knoll	\$1,219.80	Glass Transportation
Roach Energy	\$930.26	Diesel Fuel
Lyle Tabb & Sons	\$3,484.00	Grinding/GVRC Final Invoice
Valicor	\$334.93	Motor Oil & Antifreeze
TOTAL	\$31,042.38	

John Christensen motioned to authorize the Treasurer to make payment of the June unpaid bills as presented, except for the invoice from the Association of WV Solid Waste Authorities. Seconded by: Matthew Grove. Vote: Unanimous approval. Motion passed.

E) 250th Commemoration Cleanup/Beautification Project Team Report and Any Action Thereon:

The Chairman stated that the commemoration cleanup activities are complete. There was a total of 568 vehicles that participated in the events. The tire event had 348 participants collecting an estimated 4, 746 tires. The Chairman reported these totals for the special events:

May 18 GVRC bulky good day: 75 participants bringing an estimated 150 items.

May 19: SBRC Bulky Good Day: 45 participants bringing an estimated 90 items

May 21: GVRC Sensitive Paper Shred Day: 100 participants bringing an estimated 6325 pounds.

The Chairman reported that the activities for the 119 volunteers for the community wide litter pickup was completed as well. There were cleanups completed by AFJROTC, Boy Scouts, Martinsburg South Middle School and other individuals, civic group and organizations.

The Chairman asked the Board to consider making the community wide litter pickup event and the bulky good collection a part of the BCSWA programs in the future. Otherwise, he intended to remove this item from future agendas.

6) Business Items:

A) Consideration of the FY23 Recycling Assistance Grant Application and Any Action Thereon:

The Chairman presented a proposed FY23 Recycling Assistance Grant application. He outlined that the grant was for \$162,400 but the maximum amount that could be awarded was \$150,000. The focus of the grant was to fund the day to day costs of the recycling program that would have been funded by the Entsorga revenue. The highest priority of the application was brushing grinding, equipment replacement and various methods to reduce day to day costs.

Matthew Grove asked that the application be amended to include signage for the new SBRC. John Christensen asked that the application be amended to include the costs of bags for the plastic 1-7 program. Lynne Lashley asked if the application could be amended to purchase office computers since so many are old and cannot be used.

Matthew Grove motioned to authorize the Chairman, Secretary and Program Manager to sign and submit the FY23 Recycling Assistance Grant as amended. Seconded by: John Christensen. Vote: Unanimous approval. Motion passed.

B) Consideration of the FY23 General, Recycling, Litter Control Budget Adoption Any Action Thereon:

In the interest of time, the Chairman stated that the budget discussion will be moved to the July meeting.

C) Consideration of the FY23 WVCORP Insurance Proposal and Any Action Thereon:

The Chairman presented a proposed FY23 insurance renewal document. He stated that the costs for liability is \$7,896.00, while the costs for workers compensation was \$4,211.00. He added that the equipment list has been updated to reflect new equipment.

Mark Barney motioned to authorize the Chairman to sign and submit the FY23 WVCORP renewal. Seconded by: John Christensen. Vote: Unanimous approval. Motion passed.

The Chairman also stated that a claim was filed in an accident at the SBRC where the recycling attendant hit a truck with the skidloader and dented the bumper. The driver of the truck was also claiming neck injury.

D) Consideration of the Adoption of the Updated Berkeley County Comprehensive Litter and Solid Waste Control Plan and Any Action Thereon:

The Chairman reminded the Board that the final hearing for the updated Comprehensive Litter and Solid Waste Control Plan was held on April 20, 2022. There was no comments submitted at the hearing or within the ten day period following the hearing.

The Chairman stated that on May 12, 2022, the WV-SWMB submitted their comments. They noted that the Plan was technically complete but submitted 11 comments that were grammatical in nature. The Chairman recommended the Board adopt the Plan with the WV-SWMB suggestions and other similar amendments.

Mark Barney motioned to authorize the Chairman to make amendments to the Plan and submit to the WV-SWMB for consideration. Seconded by: Michele Gula Atha. Vote: Unanimous approval. Motion passed.

E) Nomination of Officers and Any Action Thereon:

The Chairman stated that the Board's bylaws call for election of officers each year. Therefore, he placed nomination of officers on the June agenda with the intention of have the election in July. He reminded Board members that the positions available are Chairman, Vice Chairman, Secretary and Treasurer. The bylaws allow for the positions of Secretary and Treasurer be held by non-Board members.

Michele Gula Atha motioned to nominate Clint Hogbin for Chair, Mark Barney for Vice Chair, John Christensen for Secretary and Lynne Lashley for Treasurer. Seconded by: John Christensen. Vote: Unanimous approval. Motion passed.

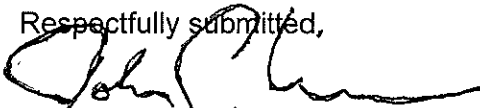
8) Other Business Items: None

9) Public Comment: None

10) Adjournment:

John Christensen motioned for adjournment at 7:38 pm. Seconded by Mark Marney. Vote: Unanimous approval. Motion passed.

Respectfully submitted,



John Christensen
Secretary



WEST VIRGINIA SOLID WASTE MANAGEMENT BOARD

601 57th St. SE
Charleston, WV 25304
Phone: (304)926-0448

Mark D. Holstine, PE, Executive Director
www.state.wv.us/swmb

September 26, 2022

Clint Hogbin, Chairman
Berkeley County Solid Waste Authority
19 Recovery Way
Martinsburg, WV 25405

Mr. Hogbin,

The Berkeley County Comprehensive Litter and Solid Waste Control Plan update was approved at the September 21, 2022, meeting of the Solid Waste Management Board (SWMB). In accordance with §54-3-3.4.b your Authority must now submit four copies of your final plan, including one copy in an electronic format, to the SWMB no later than sixty (60) days after approval. A copy of this letter should be included in all copies of the final plan.

In addition, each authority must transmit one copy of the plan to each appropriate regional planning and development council, county commission and to the office of each appropriate county clerk, who shall file the plan in the appropriate manner and make it available for public inspection.

If you have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script, reading "Carol Ann Throckmorton".

Carol Ann Throckmorton
Environmental Resource Specialist III

APPENDIX

H

APPENDIX H

AMENDMENT PROCESS

Title 54 Series 3 Rule for developing, updating, and amending county Comprehensive Litter and Solid Waste Control Plans requires every Authority to update the Plan at least every five years. At the time of the update, the Authority is required, in addition to any other amendments considered necessary, to extend the period of time covered by the Plan to include the next 20 years following the update.

This Plan may be amended at any time by the Authority. However, amendments must meet all the requirements of the original Plan, including that of giving notice and holding of public hearings as defined below. No amendment can become effective until approved by the WV-SWMB in the same manner as the original Plan.

Prior to the submission of a draft plan to the WV-SWMB, the Authority is required to hold at least one public hearing to solicit ideas, opinions and comments from the general public on the development of the draft plan.

The Authority is required to publish notice of the hearing at least 30 days prior to the hearing as a Class I legal advertisement in a qualified newspaper serving the county and required to consider all comments received at the hearing and shall record the hearing and prepare a written summary of the proceedings.

Once the draft Plan is created, the Authority submits the draft Plan to the WV-SWMB. Then, again, the Authority is required to publish notice of hearing in the same manner as described earlier. The Authority is required to conduct at least one more public hearing to solicit ideas, opinions and comments from the general public concerning the draft Plan.

If comments, written or oral, are received, the Authority is required to consider the comments in the development of the final Plan. The Authority is required to prepare a written summary of the comments received and a statement explaining how it responded to the public comments. The final Plan and any such summary and statements are submitted to the WV-SWMB for approval of the final Plan.

APPENDIX

I

Appendix I

REFERENCES

- 1) Berkeley County Comprehensive Plan.
- 2) West Virginia Solid Waste Management Plan, 2021
- 3) Data found at <https://dep.wv.gov/environmental-advocate/reap/Pages/default.aspx>
- 4) Title 54 Series 3 - WV SWMB Legislative Rule for developing, updating, and amending Comprehensive Litter and Solid Waste Control Plan
- 5) WV-PSC Case No: 07-0782-SWF-PC
LCS Services Inc. Petition for Approval of Landfill Capacity Contracts
- 6) Decision In The Matter Of The Formal Request By WMI/LCS Services For An Amendment To The Berkeley County Commercial Solid Waste Facility Siting Plan, November 23, 2004
- 7) Berkeley County Comprehensive Recycling Plan, November 15, 2006
- 8) Mountain View Agreement with Antrim Township, March 29, 2001
- 9) Data from the WV-Geological and Economic Survey
- 10) WV-Department of Transportation General Highway Map
- 11) 2020 Annual Report, North Mountain Sanitary Landfill
Data Prepared for LCS Services Landfill Permit #1020/WV0109479
- 12) Geological Considerations of Sanitary Landfill Site Evaluations
West Virginia Geological and Economic Survey, 1971
By Peter Lessing and Robert S. Reppert

REFERENCES

- 13) Email Correspondence from Jeff Wilkerson, Public Works Director, City of Martinsburg dated September 30, 2021.
- 14) Email Correspondence from Brad Dennen, Apple Valley Waste. Dated October 13, 2021.
- 15) Email Correspondence from Panhandle Dumpsters.
- 16) Email Correspondence from Richard Bapst, CWP dated September 30, 2021.
- 17) Data from the Franklin County, Pa Municipal Solid Waste Plan, September 2013.
- 18) US Census Data found at: <https://data.census.gov/cedsci/profile?g=0500000US54003>
- 19) US Census Data found at: <https://data.census.gov/cedsci/profile?g=0500000US54003>
- 20) Data from West Virginia Bureau of Business and Economic Research, College of Business and Economics, West Virginia University found at: [County Table Final Jan2017.xlsx \(wvu.edu\)](#)
- 21) Data from HEMPO Direction 2040 Long Range Transportation Plan Update.
- 22) Data collected from U.S. Environmental Protection Agency in its “National Overview: Facts and Figures on Material, Waste and Recycling”
<https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials>
- 23) Email Correspondence from Jefferson County Solid Waste Authority.
- 24) Data found at the PA-DEP website at: [Solid Waste Disposal Information - Power BI Report Server \(pa.gov\)](#)
- 25) Data found at the website: <https://ehsdailyadvisor.blr.com/2021/03/tire-recycling-and-the-environment-benefits-and-challenges/>
- 26) Data found within monthly tonnage reports provided by LCS Services Landfill and Entsorga, WV.