

**BERKELEY COUNTY  
COMMERCIAL SOLID WASTE FACILITY SITING PLAN**

PREPARED BY  
THE BERKELEY COUNTY SOLID WASTE AUTHORITY

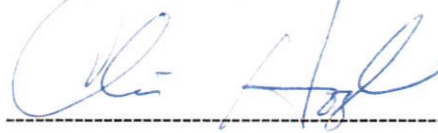
Approved by the West Virginia Solid Waste Management Board  
October 29, 2024

CHAIRMAN Clint R. Haglin

## PREFACE

It is the purpose of this, the Berkeley County Commercial Solid Waste Facility Siting Plan, to specify what types of solid waste facilities and under what restrictions and conditions a person may establish, expand, convert, operate or construct any given solid waste facility in Berkeley County for the next 20 years; as required by West Virginia Code §22C-4-24.

To protect the public health and safety of all citizens of Berkeley County and to protect the environment from harm, this siting plan will act as a guide to the continued development of appropriate commercial solid waste facilities for all citizens of Berkeley County.



Chairman



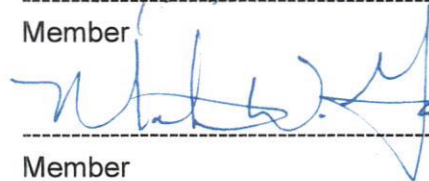
Vice-Chair



Secretary



Member



Member

Severability Clause: If any provision or section of this Plan 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 Plan, 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 Plan shall not be affected thereby.



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\* The maps are only intended to show general locations. Due to limited resources, all prohibited or tentatively prohibited zones are not shown. Site specific information will be evaluated, based on the ten siting criteria before designating a zone as permitted.

#### APPENDIX B

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

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West Virginia Solid Waste Management Board Approval Letter

#### APPENDIX H

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## SUMMARY

West Virginia Code §22C-4-24 addresses the process of preparing, updating and amending a Siting Plan and states, in part:

- (a) *Each county or regional solid waste authority shall prepare and complete a commercial solid waste facilities siting plan for the county or counties within its jurisdiction. The siting plan shall identify zones within each county where siting of the following facilities is authorized or prohibited:*
  - (1) *Commercial solid waste facilities which may accept an aggregate of more than ten thousand tons of solid waste per month.*
  - (2) *Commercial solid waste facilities which shall accept only less than an aggregate of ten thousand tons of solid waste per month.*
  - (3) *Commercial solid waste transfer stations or commercial facilities for the processing or recycling of solid waste. The siting plan shall include an explanation of the rationale for the zones established therein based on the criteria established in subsection (b) of this section.*
- (b) *The county or regional solid waste authority shall develop the siting plan authorized by this section based upon the consideration of one or more of the following criteria: 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 waters, 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. Unless the information readily available clearly establishes that an area is suitable for the location of a commercial solid waste facility or not suitable for such a facility, the area shall be designated as an area in which the location of a commercial solid waste facility is tentatively prohibited. Any person making an application for the re-designation of a tentatively prohibited area shall make whatever examination is necessary and submit specific detailed information in order to meet the provision established in subsection (g) of this section.*
- (d) *The siting plan takes effect upon approval by the WV -Solid Waste Management Board pursuant to the rules promulgated for this purpose.*
- (e) *Effective upon approval of the siting plan by the WV-Solid Waste Management Board, it is unlawful for any person to establish, construct, install or operate a commercial solid waste facility at a site not authorized by the siting plan: Provided, That an existing commercial solid waste facility which, on the eighth day of April, one thousand nine hundred eighty-nine, held a valid solid waste permit or compliance order issued by the division of natural resources pursuant to the former provisions of article five-f, chapter twenty of this code may continue to operate but may not expand the spatial land area of the said facility beyond that authorized by said solid waste permit or compliance order, and may not increase the aggregate monthly solid waste capacity in excess of ten thousand tons monthly unless such a facility is authorized by the siting plan.*

- (g) *Notwithstanding any provision of this code to the contrary, upon application from a person who has filed a pre-siting notice pursuant to section thirteen, article fifteen, chapter twenty-two of this code, the county or regional solid waste authority or county commission, as appropriate, may amend the siting plan by re-designating a zone that has been designated as an area where a commercial solid waste facility is tentatively prohibited to an area where one is authorized. In such case, the person seeking the change has the burden to affirmatively and clearly demonstrate, based on the criteria set forth in subsection (b) of this section, that a solid waste facility could be appropriately operated in the public interest at such location.*

The Berkeley County Solid Waste Authority, hereinafter, (Authority) has reviewed the available pertinent information from various sources in the completion of this Plan, which sources are listed in Appendix H. The various sources included, but were not limited to, industry articles, reference manuals and discussions with experts. However, the Authority recognizes that additional information will be needed to complete the Siting Approval process for any specific commercial solid waste facility.

Nothing stated in this document is to be interpreted as implying that any specific commercial solid waste facility has received, is entitled to, or is not entitled to, siting approval as provided for in West Virginia Code § 22C-4-25 through §22C-4-29. The lone exception is the Entsorga, West Virginia facility which has completed all processes of siting for a mixed waste resource recovery facility at 119 Recovery Way, Martinsburg WV. The Authority has designated zones based on the requirements of West Virginia Code § 22C-4-24(b) and in a manner which "tentatively prohibits" or "prohibits" the development of solid waste facilities throughout Berkeley County. The Authority finds that the suitability of any particular area, currently designated as "tentatively prohibited," for any particular solid waste facility, cannot and should not be finally determined except in conjunction with the siting approval process or the redesignation and amendment process provided for in § 22C-4-24(b) and § 22C-4-24(g), for it is only in those contexts that comprehensive and current information can efficiently be developed. Consequently, no area within the county will be designated as "Authorized" until such time as one of these processes has been conducted by the Authority at the request of a proposed solid waste facility. The Authority will maintain one or more application forms which must be submitted to request a redesignation of a "tentatively prohibited" area to one where solid waste facilities is authorized.

Should the Siting Plan be amended to redesignate a tentatively prohibited area to an area where a particular type (or types) of solid waste facilities is (are) "authorized," a person proposing to locate such a facility in that area may thereafter apply for a "Certificate of Site Approval," which will be evaluated at that time and in the manner provided by law.

The maps located in this Plan are not to be interpreted nor are they intended to show exact locations. They merely show general areas where certain conditions exist within the County.

## PROVISIONS OF THE BERKELEY COUNTY COMPREHENSIVE LITTER & SOLID WASTE CONTROL PLAN

The Berkeley County Comprehensive Litter and Solid Waste Control Plan was approved by the West Virginia Solid Waste Management Board on September 21, 2022. This Plan was developed after two public hearings (May 21, 2021 and April 20, 2022) were conducted concerning the Plan. Conclusions of the Berkeley County Comprehensive Litter and Solid Waste Control Plan are as follows:

### PLAN CONCLUSIONS

*"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.*

*Berkeley County has seen a tremendous growth in public recycling and composting programs. A higher recycling goal may be achievable with resource recovery or a similar technology once 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.*

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. See update on page 24.

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.

*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.*

*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."*

## **MINIMUM STANDARDS AND REQUIREMENTS**

West Virginia Code §22C-4-24 requires the WV Solid Waste Management Board to establish minimum standards and requirements for the content, format, amendment review, updating, approval and public participation process involved in county solid waste facility siting plans. The West Virginia Solid Waste Management Board regulations allow for delineation of three different zones for commercial solid waste facilities.

The three types of zones, which may be designated are:

1. Authorized
2. Tentatively Prohibited
3. Prohibited

**TITLE 54 SERIES 4 DEFINITIONS**

1. **Class A Facility:** A commercial solid waste facility which handles an aggregate of between ten and thirty thousand (10,000-30,000) tons of solid waste per month. "Class A facility" includes two or more Class B solid waste landfills owned or operated by the same person in the same county, if the aggregate tons of solid waste handled per month by such landfills exceeds nine thousand nine hundred ninety-nine (9,999) tons of solid waste per month.
2. **Class B Facility:** A commercial solid waste facility which receives, or is expected to receive, an average daily quantity of mixed solid waste equal to or exceeding one hundred (100) tons each working day; or serves, or is expected to serve, a population equal to or exceeding forty thousand (40,000) persons, but which does not receive solid waste exceeding an aggregate of ten thousand (10,000) tons per month. Class B facilities do not include construction/demolition facilities: Provided, that the definition of Class B facility may include such reasonable subdivisions or subclassifications as the director may establish by legislative rule proposed in accordance with the provisions of W. Va. Code § 29A-1-1 et seq.
3. **Class C Solid Waste Facility:** A commercial solid waste facility which receives, or is expected to receive, an average daily quantity of mixed solid waste of less than one hundred (100) tons each working day; and serves, or is expected to serve, a population of less than forty thousand (40,000) persons. Class C facilities do not include construction/demolition facilities.
4. **Class D Solid Waste Facility:** Any commercial solid waste facility for the disposal of only construction/demolition waste, and does not include the legitimate beneficial reuse of clean waste concrete/masonry substances for the purpose of structural fill or road base material.
5. **Transfer Station:** A combination of structures, machinery, or devices at a place, or facility where solid waste is taken from collection vehicles and placed in other transportation units (such as a "walking floor," or other method of transfer as determined by the director) for movement to another solid waste management facility. Provided, when the initial generator of solid waste disposes of said waste into a container such as a roll-off, green box or bin which is temporarily positioned (not more than five days) at a specific location for transport by a transportation unit, such container shall not be considered a transfer station. Under any circumstances, leachate, litter and windblown materials must be properly managed.
6. **Recycling Facility:** Any solid waste facility for the purpose of recycling at which neither land disposal nor biological, chemical or thermal transformation of solid waste occurs; Provided, that mixed waste recovery facilities, sludge processing facilities and composting facilities are not considered to be reusing or recycling solid waste within the meaning of W. Va. Code §20-11-1 et seq., 22-15-1 et seq and 22C-4-1 et seq.
7. **Energy Recovery Incinerator:** Any solid waste facility at which solid wastes are incinerated with the intention of using the resulting energy for the generation of steam, electricity, or any other use not specified herein.

8. **Materials Recovery Facility:** Any solid waste facility at which source-separated materials or materials recovered through a mixed waste processing facility are manually or mechanically shredded or separated for purposes of reuse and recycling, but does not include a composting facility.
9. **Commercial Composting Facility:** Any solid waste facility processing solid waste by composting, including sludge composting, organic waste or yard waste composting, but does not include a composting facility owned and operated by a person for the sole purpose of composting waste created by that person or such person and other persons on a cost-sharing or non-profit basis and shall not include land upon which finished or matured compost is applied for use as a soil amendment or conditioner.
10. **Incinerator:** An enclosed device using controlled flame combustion to thermally break down solid waste, including refuse-derived fuel, to an ash residue that contains little or no combustible materials.
11. **Landfill:** Any solid waste facility for the disposal of solid waste on or in the land for the purpose of permanent disposal. Such facility is situated, for the purpose of this rule, in the county where the majority of the spatial area of such facility is located.
12. **Resource Recovery Facility:** Any solid waste facility at which solid wastes are mechanically, biologically, chemically, or thermally transformed for the purpose of separating, removing, or creating any material or energy for reuse or sale, and at which land disposal of solid waste does not occur. "Resource recovery facility" includes composting facilities, environmentally acceptable incinerators, materials recovery facilities, energy recovery facilities and other such solid waste facilities not herein specified.

## POTENTIAL SOURCES OF INFORMATION

This section lists potential sources of information that are being made available to solid waste facility developers as potential locations to obtain data when considering a request to amend the plan for specific location within the county.

### 1. 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.

#### Recommended Sources:

- a. The most recent Berkeley County Commercial Solid Waste Facility Siting Plan, prepared by the Berkeley County Solid Waste Authority
- b. The most recent Berkeley County Comprehensive Litter and Solid Waste Control Plan, prepared by the Berkeley County Solid Waste Authority
- c. The most recent West Virginia Solid Waste Management Plan, prepared by the WV Solid Waste Management Board
- d. Data available related to capacity of multi State regional commercial and non-commercial solid waste facilities.
- e. Public comments
- f. Any other sources available during the Siting Process

The Authority anticipates that it may utilize one or more of the aforementioned sources to evaluate the impact of a proposed commercial solid waste facility or proposed expansion of a commercial solid waste facility or the proposed conversion from "Class B" to a "Class A" solid waste facility upon 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.



## 2. ECONOMIC DEVELOPMENT.

### Recommended Sources:

- a. The most recent Berkeley County Comprehensive Development Plan, prepared by the Berkeley County Planning Commission.
- b. Written opinion and/ or data from the Berkeley County Development Authority.
- c. Written opinion and/or data from the Berkeley County Convention & Visitors Bureau.
- d. Data related to the impact on the economic benefits of achieving "zero waste".
- e. Public Comment
- f. Any other sources available during the Siting Process.

The Authority anticipates that it may utilize one or more of the aforementioned sources to evaluate the impact of a proposed commercial solid waste facility or proposed expansion of a commercial solid waste facility or the proposed conversion from "Class B" to a "Class A" solid waste facility upon the economic development, job opportunities, infrastructure (water, sewer, road, etc.), present or planned economic development, local economy, impact upon agricultural and tourism industries located or proposed for the county or region.

### 3. TRANSPORTATION FACILITIES.

#### Recommended Sources:

- a. Written opinion and/or data from the Berkeley County Engineer.
- b. Written opinion and/or data from the Berkeley County Sheriff's Department.
- c. Written opinion and/or data from the West Virginia State Police.
- d. Written opinion and/or data from the West Virginia Division of Highways.
- e. Written opinion and/or data from the Berkeley County Schools.
- f. Written opinion and/or data from the West Virginia Public Service Commission.
- g. Public Comments
- h. Any other sources available during the Siting Process.

The Authority anticipates that it may utilize one or more of the aforementioned sources to evaluate the impact of a proposed commercial solid waste facility or proposed expansion of a commercial solid waste facility or the proposed conversion from "Class B" to a "Class A" solid waste facility upon transportation facilities, in determining whether the roads leading to the proposed facility are suitable, to determine whether the traffic created by the proposed facility, will impact the present utilization of the roads by county school buses, to determine whether the associated traffic of the proposed facility, is compatible with the present traffic utilizing the roads to the proposed facility, to determine if the proposed facility will likely lead to significantly increased vehicle accidents or incidents and other areas involving general transportation safety.

#### 4. PROPERTY VALUES.

##### Recommended Sources:

- a. Written opinion and/or data from the Berkeley County Assessor.
- b. Written opinions and/or data from various certified real estate agencies.
- c. Written opinion and/or data from various certified real estate appraisers.
- d. Data from real estate manuals, books, etc.
- e. The proposed facility's property description and plat.
- f. Public comment.
- g. Any other sources available during the Siting Process.

The Authority anticipates that it may utilize one or more of the aforementioned sources to evaluate the impact of a proposed commercial solid waste facility or proposed expansion of a commercial solid waste facility or the proposed conversion from "Class B" to a "Class A" solid waste facility upon Berkeley County property values, to determine if the proposed facility will significantly increase the risk of lowering or enhancing nearby property values, to determine whether the proposed facility will lead to "perceived" changes (lower or higher) in property values of nearby properties.

## 5. GROUNDWATER AND SURFACE WATER.

### Recommended Sources:

- a. The proposed facility's technical "footprint".
- b. Written opinions and/or data from the West Virginia Geological and Economic Survey; Department of Environmental Geology.
- c. Written opinions and/or data from various certified and/or retired hydrologists and geologists.
- d. Water Resources of the Potomac River Basin, W. A. Hobba, Jr., E. A. Friel, J. L. Chisholm.
- e. The Ground-Water Hydrology of Berkeley County, prepared by William Hobba, Jr.
- f. The West Virginia Geological Survey of Jefferson, Berkeley, and Morgan Counties (1916 survey), prepared by G. P. Grimsley.
- g. Groundwater Features of Jefferson and Berkeley Counties West Virginia (1964 survey).
- h. West Virginia Geological Survey Maps: Map WV31 (1987) and Map WV35 (1990), prepared by Peter Leasing.
- i. Title 33 Series 1 Solid Waste Management Regulations West Virginia Code of State Regulations, prepared by the West Virginia Department of Environmental Protection.
- j. Title 54 Series 4 Commercial Solid Waste Facility Siting Plans West Virginia Code of State Rules, prepared by the West Virginia Solid Waste Management Board.
- k. Written opinions and/or data from the Eastern Panhandle Conservation District.
- l. Flood Insurance Rate Maps, prepared by the Federal Emergency Management Agency.
- m. Written opinion and/ or data from an independent assessment team or agency.
- n. Geohydrology, Groundwater Availability, and Groundwater Quality of Berkeley County, West Virginia, prepared by the US Geological Survey, Report 93-4073, 1995.
- o. Written opinion and/ or data from watershed protection organizations.
- p. National Wetland Inventory Maps.

- q. The Berkeley County Commercial Solid Waste Facility Siting Plan, prepared by the Berkeley County Solid Waste Authority.
- r. Public comments.
- s. Any other sources available during the Siting Process.

The Authority anticipates that it may utilize one or more of the aforementioned sources to evaluate the impact of a proposed commercial solid waste facility or proposed expansion of a commercial solid waste facility or the proposed conversion from "Class B" to a "Class A" solid waste facility upon groundwater and surface water, to determine whether the proposed solid waste facility or expansion is situated in such a manner that surface or groundwater contamination could occur, to determine, utilizing current available information, the presence of springs, wells, perennial streams, natural wetlands, surface water, water basins, flood plains, aquifers, or any other area of geological or hydrological instability and the potential impact of the proposed facility or expansion on these areas, to determine whether the proposed solid waste facility or expansion is located above deep mine workings or within past or present surface mined areas.

## 6. GEOLOGICAL AND HYDROLOGICAL CONDITIONS.

### Recommended Sources:

- a. The proposed facility's technical "footprint".
- b. Written opinion and/or data from the West Virginia Geological and Economic Survey.
- c. Written opinion and/or data from various certified/retired hydrologists and geologists.
- d. The Berkeley County Commercial Solid Waste Facility Siting Plan, prepared by the Berkeley County Solid Waste Authority.
- e. The Ground-Water Hydrology of Berkeley County, prepared by William Hobba, Jr.
- f. The West Virginia Geological Survey of Jefferson, Berkeley, and Morgan Counties (1916 survey), prepared by G. P. Grimsley.
- g. Groundwater Features of Jefferson and Berkeley Counties West Virginia (1964 survey).
- h. West Virginia Geological Survey Maps: Map WV31 (1987) and Map WV35 (1990), prepared by Peter Leasing.
- i. Title 33 Series 1 Solid Waste Management Rule, West Virginia Code of State Regulations, prepared by the West Virginia Department of Environmental Protection.
- j. Title 54 Series 4 Commercial Solid Waste Facility Siting Plans West Virginia Code of State Regulations, prepared by the West Virginia Solid Waste Management Board.
- k. Written opinion and/or data from an independent assessment team or agency.
- l. Sub-Title D Regulations, prepared by the United States Environmental Protection Agency.
- m. The Berkeley County Salvage Yard Ordinance, prepared by the Berkeley County Planning Commission.
- n. Public Comment.
- o. Any other Sources Available During Siting Process

The Authority anticipates that it may utilize one or more of the aforementioned sources to evaluate whether a proposed commercial solid waste facility or proposed expansion of a commercial solid waste facility or the proposed conversion from "Class B" to a "Class A" solid waste facility is situated in a acceptable hydro-geological setting, to determine whether the proposed solid waste facility or expansion is situated in such a manner that surface or groundwater contamination could occur due to basic geology and hydrology of the general area, to determine the presence of springs, wells, caverns, perennial streams, natural wetlands, surface water, shales, consolidated formations, karstic regions, solution cavities, carbonate rock, flood plains, faults (regardless of displacement age), aquifers, or any other area of geological or hydrological instability and the potential impact of the proposed facility on these areas, facility to determine whether it is within areas which contain steep slopes (exceeding 25%) and whether this will increase the risk relating to the lack of daily cover, drainage and runoff, the impact on leachate collection, leachate treatment, and increased landfill construction and operation cost. In addition, the Authority may evaluate the potential impact, past or present, of surface blasting in areas located near faults (regardless of displacement age), fractures or other areas of geological or hydrological instability.



## 7. AESTHETIC AND ENVIRONMENTAL QUALITY.

### Recommended Source:

- a. Written opinions and/or data from an independent assessment team or agency.
- b. Written opinions and/or data from the West Virginia Geological and Economic Survey.
- c. Public Comment.
- d. Any other sources available during the Siting Process.

The Authority anticipates that it may utilize one or more of the aforementioned sources to evaluate the impact of a proposed commercial solid waste facility or proposed expansion of a commercial solid waste facility or the proposed conversion from "Class B" to a "Class A" solid waste facility upon aesthetics and environmental quality, to determine whether the operations or other associated equipment of the proposed facility will create excessive noise, odors, or dust, to determine whether the proposed facility, expansion or conversion is located within areas of environmental significance such as caves, limestone cliffs, forests, shale barrens, perennial streams, natural wetlands, bird migrations, floodplain, black ponds, or other areas suspected of having significant plant or animal habitat (rare, threatened, or endangered), to evaluate the impact of the proposed facility, expansion or conversion on general wildlife habitat (areas utilized for fishing and hunting or non-game functions).

## 8. HISTORIC AND CULTURAL RESOURCES.

### Recommended Sources:

- a. The Berkeley County Commercial Solid Waste Facility Siting Plan, prepared by the Berkeley County Solid Waste Authority.
- b. The proposed facility's property description and plat.
- c. Written opinions and/or data from the Berkeley County Historical Society.
- d. Written opinions and/or data from the West Virginia Division of Culture and History.
- e. Written opinions and/or data from The National Park Service.
- f. The Civil War Day by Day: An Almanac, prepared by E. B. Long.
- g. The Official Military Atlas of the Civil War, prepared by Major George B. Davis and others.
- h. Historic West Virginia: The National Register of Historic Places, prepared by the State Historic Preservation Office, West Virginia Division of Culture and History.
- i. Public comment.
- j. Any other sources available during the Siting Process.

The Authority anticipates that it may utilize one or more of the aforementioned sources to evaluate the impact of a proposed commercial solid waste facility or proposed expansion of a commercial solid waste facility or the proposed conversion from "Class B" to a "Class A" solid waste facility upon historic and/or cultural resources, to evaluate the proposed facility or any associated activity of the proposed facility, or expansion or conversion to assure that it will not adversely impact historical sites within the County. These sites may include such areas as Indian burial sites, civil war battle and camp sites, historic districts, historic buildings, historic structures, historic sites, historic factories, cemeteries, and other sites of local interest.

9. PRESENT OR POTENTIAL LAND USES FOR RESIDENTIAL, COMMERCIAL, RECREATIONAL, INDUSTRIAL, OR ENVIRONMENTAL, CONSERVATION PURPOSES.

Recommended Sources:

- a. The Berkeley County Commercial Solid Waste Facility Siting Plan, prepared by the Berkeley County Solid Waste Authority.
- b. The proposed facility's property description and plat.
- c. The Berkeley County Comprehensive Development Plan, prepared by the Berkeley County Planning Commission.
- d. Written opinion and/or data from the Berkeley County Planning Commission.
- e. The Berkeley County Subdivision Regulations, prepared by the Berkeley County Planning Commission.
- f. Written opinion and/ or data from the Berkeley County Farmland Protection Board.
- g. The Berkeley County Stormwater Ordinance, prepared by the Berkeley County Planning Commission.
- h. Written opinion and/ or data from the WV- Division of Natural Resources.
- i. Public comment.
- j. Any other sources available during the Siting Process

The Authority anticipates that it may utilize one or more of the aforementioned sources to evaluate the impact of a proposed commercial solid waste facility or proposed expansion of a commercial solid waste facility or the proposed conversion from "Class B" to a "Class A" solid waste facility upon the present or potential land uses for residential, commercials, recreational, industrial, or environmental conservation purposes, to determine if the proposed facility will utilize the land or surrounding properties in a manner that is consistent with the development patterns, to evaluate whether the proposed facility or any activity associated (e.g. traffic) with the proposed facility expansion or conversion is consistent with the present or proposed surrounding properties, to evaluate the impact of the proposed facility expansion or conversion on present or proposed airport and other transportation facilities, to evaluate the impact of the proposed facility expansion or conversion on present or potential areas utilized for recreational purposes or environmental conservation.

## 10. THE PUBLIC HEALTH, WELFARE AND CONVENIENCE.

### Recommended Sources:

- a. Written opinions and/or data from the Berkeley County Sanitarian.
- b. Written opinions and/or data from the Berkeley County Department of Health.
- c. Public Comment.
- d. Any other Sources Available During Siting Process.

The Authority anticipates that it may utilize one or more of the aforementioned sources to evaluate the impact of a proposed commercial solid waste facility or proposed expansion of a commercial solid waste facility or the proposed conversion from "Class B" to a "Class A" solid waste facility upon the public health, welfare, and convenience, to evaluate whether the developers, owners, and operator of the proposed facility are financially stable, to evaluate whether the developers, owners, and operator of the proposed facility expansion or conversion have developed facilities in other areas that have a high quality, environmentally safe, and secure track record.

## PRESENT CONDITIONS AND RATIONALE OF ZONES:

1. 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.

Berkeley County is located approximately 75 miles from Washington DC and 80 miles from Baltimore, Md. More significantly, Berkeley County is located within 500 miles of one-half of the entire United States population and one-third of Canada's population. This places Berkeley County within access to enormous amounts of solid waste. This underlines the importance of the per month and/or the per day tonnage cap system at solid waste facilities to ensure that no community is inundated with large volumes of solid waste without the proper infrastructure and appropriate environmental conditions to manage such volumes without regard to the origin of the waste.

According to the 2020 US Census\*, in 2020, Berkeley County has a population of density of 380 persons per square mile. This trend toward urbanization is worth remembering, especially when considering that the siting of new solid waste facilities and the expansions of existing ones will remain very difficult to accomplish.

\*U.S. Census Bureau QuickFacts: United States

The LCS Services Landfill is in Berkeley County, WV and is currently owned and operated by Waste Management Inc. Since 1991, it has served as one primary disposal area for Berkeley County waste. The landfill owns approximately 500 acres and originally was permitted for an 82 acre facility with an estimated capacity of approximately 7.5 million tons. In 1999, the landfill's footprint was reduced to a 67-acre approved footprint as a result of a US Federal Court Agreed Order.

Since operations began at the LCS Services Landfill, tonnage reports show that an estimated 3,337,750 tons of municipal solid waste have been deposited in the landfill from 1991 - 2022. The 2020 Annual Report for the LCS Services Landfill reports that the approximate remaining permitted gross airspace as of December 2020 is 5,753,600 cubic yards (29.5 years). This means the facility is expected to reach capacity in the year 2050. This approximation assumes a consumption rate of 14,000 cubic yards per month and a waste density of .64 tons per cubic yard. Furthermore, the Authority notes that the projected capacity for the landfill has varied as much as 25+ years in various prior reports. When considering the available capacity and the permitted disposal limitations and the projected disposal requirements, there is sufficient capacity at this and other landfills and transfer stations to satisfy the disposal needs of Berkeley County for more than 20 years.

According to tonnage reports supplied by the owners of the LCS Services Landfill, there was a monthly average of 6,662 tons of Berkeley County waste disposed at their facility in 2022. Similarly, there was a monthly average of 1,914 tons of Jefferson County waste disposed at their facility in 2022 and there was a monthly average of 925 tons of Morgan County waste disposed at their facility in 2022. The WV-PSC has approved capacity contracts (07-0782-SWF-PC) that reserved specific tonnage levels for the City of Martinsburg, Corporation of Shepherdstown, Corporation of Ranson and four waste haulers (Morgan Sanitation, Apple Valley Waste, Panhandle Pumping and Waste Management). For detailed historical data of the waste disposed at LCS Services/ North Mountain Sanitary Landfill, refer to the Berkeley County Comprehensive Litter and Solid Waste Control Plan.



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. The facility is permitted for a maximum of 2,000 tons per day with an average daily limit of 1,800 tons/day. Regional waste haulers Waste Management, Republic Services, Panhandle Dumpsters 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. Tonnage reports\* supplied by the PA-DEP show that 80,845 tons of solid waste was landfilled at Mountain View from West Virginia (Berkeley, Jefferson, Morgan Counties) for 2022. For detailed historical data of the West Virginia waste disposed at Mountain View Reclamation Landfill, refer to the Berkeley County Comprehensive Litter and Solid Waste Control Plan.

[\\*Solid Waste Disposal Information - Power BI Report Server \(pa.gov\)](#)

Since 2001, municipal solid waste from Berkeley County is also landfilled at the PA Blue Ridge Landfill near Chambersburg PA. Commercial waste haulers Apple Valley Waste, CWP and IESI utilize this facility for municipal waste that originates in Berkeley County. This facility is owned and operated by IESI. 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, New York, DC, Delaware, and Virginia. Tonnage reports\* supplied by the PA-DEP shows that 651 tons of solid waste was landfilled at the PA Blue Ridge Landfill from West Virginia (Berkeley, Jefferson and Morgan Counties) in 2022. For detailed historical data of the West Virginia waste disposed at Mountain View Reclamation Landfill, refer to the Berkeley County Comprehensive Litter and Solid Waste Control Plan. For detailed historical data of the West Virginia waste disposed at PA Blue Ridge Landfill, refer to the Berkeley County Comprehensive Litter and Solid Waste Control Plan.

[\\*Solid Waste Disposal Information - Power BI Report Server \(pa.gov\)](#)

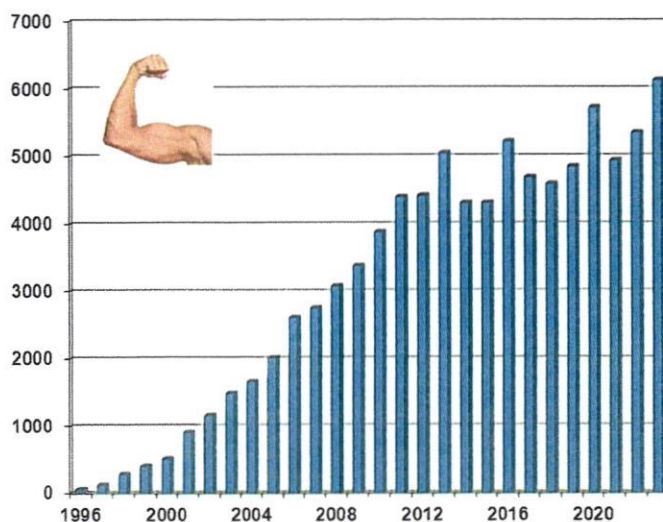
In January 2007, the Jefferson County Solid Waste Authority opened an upgraded Jefferson County Transfer Station (Permit # SWA7046WV0109584). The transfer station upgrades were completed in cooperation with Waste Management. The transfer station is permitted to accept 9,999 tons per month. Once the upgrades were completed, the historical amounts processed through the transfer station significantly increased. Many waste haulers, such as Apple Valley Waste Services and Waste Management of West Virginia, began to utilize the facility. Data from the Jefferson County SWA shows in 2020 the transfer station intake was 50,822 tons; with 13,827 tons being transferred to the LCS Landfill and 36,995 tons being transferred to the Mountain View Landfill. According to representatives of Waste Management, the transfer station was specifically designed to transfer waste to a WMI owned landfill in Virginia. However, data from Jefferson County SWA shows that little waste was ever transferred to Virginia. For detailed historical data of the West Virginia waste transferred from the Jefferson County Transfer Station, refer to the Berkeley County Comprehensive Litter and Solid Waste Control Plan.



Entsorga, West Virginia was the owner of a Class B commercial mixed waste resource recovery facility at 119 Recovery Way, Martinsburg. This facility opened in March, 2019 and operated through March, 2022. Tonnage reports provided by Entsorga show the facility accepted 63,490 tons of municipal solid waste from all sources in this period. However, the facility temporarily closed in April, 2022 and was later abandoned by Entsorga, West Virginia. By exercising various termination provisions of the property lease, the Berkeley County Solid Waste Authority (BCSWA) is now the owner of the buildings. Today, the facility remains fully permitted to accept 500 tons per day and 9,999 tons per month. In 2023, Apple Valley Waste was awarded a short-term competitive contract to provide waste consolidation activities of Apple Valley owned municipal solid waste within the facility. Substantial efforts are underway to restore the operation and the BCSWA is expected to award a long-term contract in 2024 with the full intention to return the facility to a commercial solid waste facility capable of making solid recovered fuel. For detailed historical data of the waste processed at the former Entsorga facility, refer to the Berkeley County Comprehensive Litter and Solid Waste Control Plan.

The Authority operates a three-location non-commercial drop off recycling program. This program also contains a cooperative with Apple Valley Waste for the acceptance of recyclables picked up curbside in Berkeley and Jefferson Counties. This program enjoys broad support, strong public utilization and represents the only legal means of disposal for items banned from landfilling. Unlike many recycling programs, the Berkeley County Recycling Program is a vital component of the solid waste infrastructure in the region. Data provided by the Authority shows continued successful growth in the tonnage collected and processed by the recycling program. Based on information and belief, the Authority's recycling program now collects more tonnage than any other public recycling program in West Virginia. For detailed historical data of the waste processed at the Berkeley County Recycling Program, refer to the Berkeley County Comprehensive Litter and Solid Waste Control Plan.

## Overall Program Tonnage



Graph Courtesy of the Berkeley County Solid Waste Authority.

An additional non-commercial but vital operation in the region is the Tabb & Son Composting Facility. In 1990, Tabb & Son Composting expanded his family farm agriculture operation to include the acceptance of organics with the goal of producing fertilizer. The organic fertilizer reduces the amount of commercial fertilizer utilized on the farm. In support of his efforts, in 1994, Mr. Tabb became West Virginia's first "Certified Yard Waste Compost Operator" as recognized by the West Virginia Division of Environmental Protection. The Tabb's established an area where the public can drop leaves and yard waste — as is or in biodegradable bags — for free. This area is open 7 days per week, 24 hours per day. Additionally, the company supports private partnerships for the backbone of the management of brush, leaves and grass for the regional municipalities and county solid waste authorities. This support enables the municipalities and counties agencies to offer affordable collections to the public for food waste, lumber waste, yard waste and brush. Additionally, the company offers 70+ rolloff containers spread across hundreds of businesses in Berkeley and Jefferson County for the acceptance of lumber and other organics. Tabb and Son's established a FREE drop-off location on his family farm for the public to drop off grass clippings and leaves. Once processed, these items are sold as compost or added to the topsoil mix and utilized in the farming operation. Additionally, a fee-based roll off container service was established which supported the disposal needs of other farms, construction sites and storm debris recycling. Customers such as Federal agencies, construction companies, solid waste authorities and horse farms fill the containers with manure, pallets, scrap lumber, tree stumps, food waste, limbs, and other organics. They offer their service in Jefferson and Berkeley County. Once the material is back at the Tabb farm, company owned equipment is utilized to process the material, including the traditional compost windrows. End products such as firewood, animal bedding, compost, topsoil blend and mulch are manufactured with the family farm utilizing about 95% of what is produced for crop production, in lieu of commercial fertilizer. Today, Lyle C. Tabb & Sons remains a family farming business with farm composting and recycling operations that have undoubtedly saved hundreds of thousands of tons of material from regional landfills. For detailed historical data of the waste processed at the Tabb & Son Composting Facility, refer to the Berkeley County Comprehensive Litter and Solid Waste Control Plan.

The U.S. Environmental Protection Agency\* pegs the U. S. municipal waste stream (MSW) in 2018 at 292 million tons generated per year or 4.9 pounds per person per day. Over 94 million tons of MSW were recycled or composted, equivalent to a 32.1% recycling and composting rate. An additional 17.7 million tons of food waste were managed as animal feed, bio-based processing and digestion. In addition, over 35 million tons of MSW were combusted with energy recovery and 146 million tons (50%) were landfilled. Over the last few decades, the generation, recycling, composting, combustion with energy recovery and landfilling of MSW changed substantially. The recycling and composting rate has increased from less than 10 percent of generated MSW in 1980 to over 32 percent in 2018. Combustion with energy recovery increased from less than two percent of generation in 1980 to 11.8 percent in 2018. Landfilling of waste decreased from 89 percent in 1980 to 50 percent in 2018. While the number of US landfills has steadily declined over the years, the average landfill size has increased.

\*National Overview: Facts and Figures on Materials, Wastes and Recycling | US EPA



According to the US Census Bureau\*, the most recent population estimate of Berkeley County is 129,490 residents in 2022. Therefore, it can be estimated that Berkeley County citizens generate 317 tons per day before recycling, composting or resource recovery. For the purposes of calculations, the US-EPA included those materials that historically have been handled in the MSW waste stream. This included wastes such as product packaging, newspapers, office and classroom paper, tableware, paperboard, trash bags, bottles and cans, boxes, wood pallets, food scraps and packaging, yard trimmings, corrugated boxes, plastic film, clothing, furniture, appliances, automobile tires, consumer electronics and automotive batteries from residential, commercial, institutional, and industrial sources. While it is common practice to landfill wastes such as municipal sludges, nonhazardous industrial wastes, agriculture waste, oil and gas waste, mining wastes and automobile salvage operations residue, these kinds of waste are not included in the US-EPA MSW estimates.

[U.S. Census Bureau QuickFacts: United States](#)

Much of West Virginia continues to experience a population decline. However, Berkeley County is not projected to do so. From 2020-2022, the US Census Bureau\* also reports a population growth of 6.1%. The US Census Bureau estimates that there are 53,794 households in the County with a median household income of \$68,101.00. The West Virginia Regional Research Institute (RRI) was also utilized for population data. RRI estimates that the County's population will continue to grow reaching 136,015 residents in the year 2030.

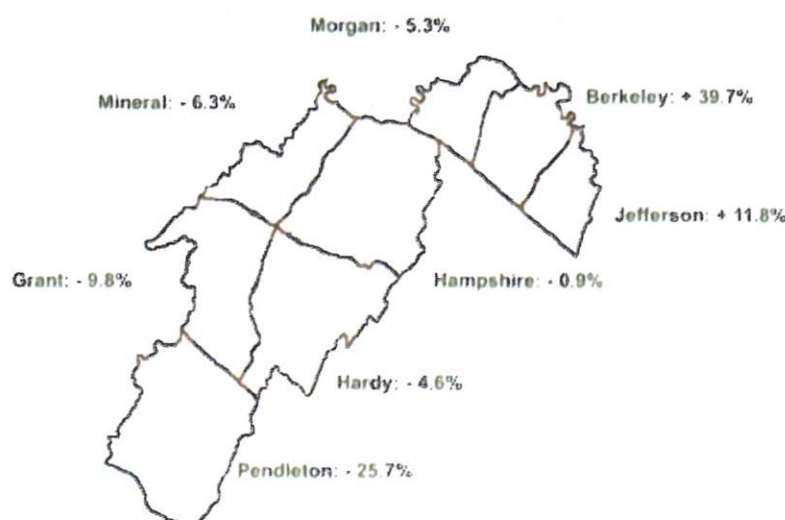
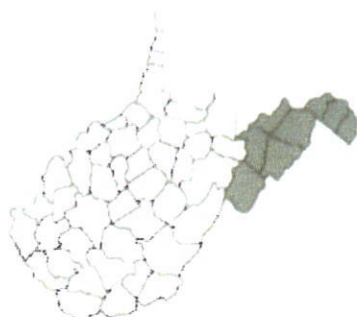
[U.S. Census Bureau QuickFacts: United States](#)

Also duplicated in this Plan are graphics from the West Virginia 2023 Solid Waste Management Plan\*, prepared by the WV Solid Waste Management Board which shows projected population and monthly tonnage calculations for each county in Wasteshed E. Based on this data, the per-month generation of waste (before recycling, composting and resource recovery) for Berkeley County in 2040 is projected to be 12,732 tons per month.

#### Population Projections 2020 through 2040 for Wasteshed E

## Wasteshed E

Population Projections  
2020 - 2040



### Projected Monthly Municipal Solid Waste Tonnage for Wasteshed E

|                  | 2020          | 2025          | 2030          | 2035          | 2040          |
|------------------|---------------|---------------|---------------|---------------|---------------|
| <b>Berkeley</b>  | 9,116         | 10,197        | 10,864        | 11,823        | 12,732        |
| <b>Grant</b>     | 820           | 800           | 780           | 759           | 739           |
| <b>Hampshire</b> | 1,724         | 1,712         | 1,719         | 1,710         | 1,710         |
| <b>Hardy</b>     | 1,068         | 1,054         | 1,045         | 1,030         | 1,019         |
| <b>Jefferson</b> | 4,309         | 4,446         | 4,569         | 4,689         | 4,815         |
| <b>Mineral</b>   | 2,012         | 1,975         | 1,950         | 1,914         | 1,884         |
| <b>Morgan</b>    | 1,274         | 1,257         | 1,242         | 1,223         | 1,206         |
| <b>Pendleton</b> | 459           | 426           | 396           | 367           | 341           |
| <b>Totals</b>    | <b>20,782</b> | <b>21,867</b> | <b>22,565</b> | <b>23,515</b> | <b>24,446</b> |

\*From the 2023 West Virginia Solid Waste Management Plan, Projected Population and Monthly Municipal Solid Waste Tonnage for Wasteshed E. [2023 Cover 4.docx \(wv.gov\)](#)

When considering the available capacity and the permitted disposal limitations and the projected disposal requirements, the Authority concludes there is sufficient combined capacity at the aforementioned three (3) landfills (LCS Services, Mountain View Landfill, Blue Ridge Landfill), the Entsorga resource recovery facility, the Jefferson County Transfer Station and the regional non-commercial recycling and composting operations to satisfy the disposal needs of Berkeley County for more than 20 years.

To address expected growth in the waste stream, there remains a need to continue the efforts to develop the solid waste infrastructure by siting, permitting, and constructing commercial and non-commercial solid waste facilities that are solid waste processing and management alternatives to landfilling.



## 2. Economic Development

Berkeley County is fortunate to have a mix of economic development. Agriculture was once the primary economic activity of Berkeley County. According to the 2017 Census of Agriculture\*, today, there is 946 farms in Berkeley County, representing 73,134 acres in agriculture and represents over \$25.9M of economic activity in the County. Berkeley County continues to rank 8<sup>th</sup> in West Virginia for agriculture activity. Berkeley County has created a farmland protection program utilizing perpetual conservation easements as allowed by the Voluntary Farmland Protection Act (§8A-12-1). This program is the most aggressive farmland protection program in West Virginia and has protected 8,556 acres\*\*. While agriculture continues to be a significant industry within the County, it is clearly giving away to commercial and residential development. The challenge of the future will be focused on the distribution of land to meet the conflicting demands of development.

\* [cp54003.pdf \(usda.gov\)](#)

\*\* [Berkeley County Farmland Protection Board - Land Trust Alliance](#)

Berkeley County is just over an hour's drive from the Baltimore- Washington DC metropolitan area, which is among the nation's fastest growing and most affluent. The county's location places it within 500 miles of two-thirds of all the industrial activity and retail consumers in the United States. As a result, when compared to most of West Virginia, Berkeley County's economy is strong.

Economically, Berkeley County has experienced a steady growth in residential, commercial 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 more of a diversified economic structure than typical of the rest of the State.

According to the 2023 WV Solid Waste Management Plan, "Wasteshed E has the most robust economy in the state. Most counties are expected to demonstrate a slight population decline from 2020 through 2040, with the exception of Berkeley and Jefferson counties who are expected to increase by 39.7% and 11.8%, respectively. Pendleton County is expected to decline by 25.7%, Hampshire .9%, Mineral by 6.3%, Grant by 9.8%, Hardy by 4.6% and Morgan by 5.3%. Wasteshed E's population, according to the 2010 US Census, was 278,289." [2023 Cover 4.docx \(wv.gov\)](#)

The Authority recognizes that business, industry and County residents need adequate services to dispose and recycle solid waste in order to function successfully. To that end, the "2023-2027 Eastern Panhandle Regional Planning and Development Council 5-year Regional Development Plan /Comprehensive Economic Development Strategy (CEDS)\*\*" was consulted in the updating of the Siting Plan. This 5-year plan states "current growth trends and future land use patterns have been making it more difficult to site new landfills or expand existing ones. With the recent closure of the Entsorga Mixed Waste Processing Resource Recovery Facility in 2022, there is an opportunity for local authorities to reuse the site to reduce the amount of trash going to landfills, which emit major greenhouse gases and can pollute waterways". [CEDS \(region9wv.com\)](#)



However, the “2023-2027 Eastern Panhandle Regional Planning and Development Council 5-year RDP/CEDS Plan” does indicate that air quality issues remain a problem for the region. The plan notes that a regional air quality “Strategy 1.E.3 Promote programs which maintain or improve the regions current National Ambient Air Quality Stands (NAAQS).”

[Comprehensive Economic Development Strategy \(CEDS\) \(wsimg.com\)](https://www.wsimg.com/Comprehensive-Economic-Development-Strategy-(CEDS)-wsimg.com)

In October, 2019, Dean Runyan Associates published a report for the West Virginia Tourism Office titled “West Virginia Travel Impacts” 2000-2018\*. Data in the report shows that Berkeley County continues to enjoy significant economic impact from tourism and travelers. Data from the report shows that in 2018, Berkeley County enjoyed \$155.7M of total direct spending and 1,530 jobs from tourism. The report shows that tourism in Berkeley County generated \$1.6M in revenue for the local government and \$1.96M in revenue for the State of West Virginia. Tourists are attracted to the County due to its rich history, beauty, cultural resources, natural resources and the recreational activities found in the area.

[2019.10.15-Travel-Impacts Final Web.pdf \(wvtourism.com\)](https://www.wvtourism.com/2019.10.15-Travel-Impacts-Final-Web.pdf)

Most believe that the full potential of the tourist trade in the County and the region is far from realized. Berkeley County has only recently begun to reap the benefits of thousands of travelers passing throughout the County each day via Interstate 81. Therefore, the Authority through the Siting Plan, must take care when establishing zones for solid waste facilities or evaluating the siting of or expansion of existing solid waste facilities so that one does not create an environment or atmosphere which will curtail the expansion or development of the tourism business or industry.

According to the Eastern Panhandle Region Outlook Forecast 2023 – 2027\* as prepared by the Bureau of Business and Economic Research at West Virginia University, the Eastern Panhandle economy has held the distinction of West Virginia’s strongest economy for much of the last decade or so. The three-county area did experience a significant drop-off in economic activity during the COVID19 recession, losing nearly 14 percent of total employment (or 7,400 jobs) between February and April 2020; however, the Eastern Panhandle was the first region in the state to recover fully from the recession as it surpassed its pre-pandemic level of employment by mid-2022. In addition, the region has remained on a positive trajectory for growth during the second half of 2022 as preliminary data ending in the third quarter show further quarter-to-quarter gains in payrolls. Overall, total employment in the three-county area has surged by 8,000 since mid-2020, accounting for nearly 9 percent of statewide payroll growth during that period. The concentration of Federal jobs in the Eastern Panhandle reflects the presence of the Veterans Administration Center, the US Department of Treasury, the US Coast Guard, the Department of Defense and the Department of the Interior. Other non-farm major employers in the region include Hollywood Casino, Quad Graphics, WVU East – Berkeley Medical Center, P&G and Clorox. Despite the economic development in the county and region, there is no forecast for additional landfill development capacity in the region.

[eastern-panhandle-economic-outlook-2023-2027.pdf \(wvu.edu\)](https://www.wvu.edu/eastern-panhandle-economic-outlook-2023-2027.pdf)

Additionally, the operation of commercial solid waste facilities provides very few job opportunities or job potential in Berkeley County. Past surveys conducted by the Authority show 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. In 2023, Commercial Metals Company\* has started construction of metal recycling plant in Berkeley County focused on rebar manufacturing. This state-of-the-art steel micro mill project has a targeted commissioning date in 2025. This company is expected to create 230 jobs. This is a local example that supports the observation that recycling, and reuse creates more jobs per ton than landfilling that same amount. Eco-Cycle\*\* notes that recycling creates an average of nine time more jobs than the management of trash while composting creates at least twice as many jobs as landfills and four times as many jobs as incineration and reuse creates as many as 30 times more jobs that landfills.

\*[Commercial Metals breaks ground on metals recycling plant in Eastern Panhandle - WV MetroNews](#)

\*\*[Jobs & Economic Benefits of Zero Waste - Eco-Cycle \(ecocycle.org\)](#)

This Plan, by establishing zones where commercial solid waste facilities are permitted, prohibited or tentatively prohibited, will enable logical planning of solid waste facilities to address the future economic growth while attempting to minimize the land use conflicts traditionally associated with solid waste facilities.



### 3. Transportation Facilities

Berkeley County's transportation system consists of roads, bridges, rails, public transportation, airports, bicycle and pedestrian facilities. Much of the system is comprised of roadways, which are the responsibility of the WV-DOH. One of the most notable impacts of the county's residential and economical growth has been an increase in traffic congestion along the roadway system. As population, housing and businesses have grown substantially in Berkeley County over the years, 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.

According to the 2016 Berkeley County Comprehensive Plan\*, 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 automobiles are by far the dominant mode of travel for county residents. With the current and projected population growth, management of Berkeley County's transportation network is critical.

[Comprehensive Plan | Berkeley County, WV \(berkeleywv.org\)](http://berkeleywv.org/ComprehensivePlan)

The County is served by Interstate 81, US Route 11, State Routes 7, 9, 45, 51, 115, 901 and various secondary roads. There are currently about 530 miles of roads in the County. They are further defined as 26 miles of Interstate, 91 miles of primary roads and 413 miles of secondary roads.

As a rule, traffic congestion is a major issue in some parts of Berkeley County. Growth, strip development, sprawl and congestion have caused the flow of traffic across the County to become unstable and guarantees many unplanned stops. Some roads often operate with restrictions, which affect safety, speed, maneuverability and comfort. Perhaps the most noticeable impact of the county's rapid growth has been traffic congestion. The existing road system provides very limited choices for resident mobility. In addition to congested conditions, many of the local roads are not designed to handle current volumes and are physically deteriorating. Therefore, the Authority concludes that the potential impact on transportation facilities of any type of solid waste facility will be immediate and potentially have a significant adverse impact on an already questionable transportation system.

Interstate 81 (I-81) is the central artery of the Berkeley County Road system. According to the Berkeley County Comprehensive Plan\*, I-81 is a fully controlled highway with twenty-six miles and seven interchanges in Berkeley County. Also known as the West Virginia Veterans Memorial Freeway, I-81 runs through the eastern part of Berkeley County and provides connections to major cities to the north and south. 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, according to 2015 state transportation agency traffic data. There are two welcome centers on I-81 within Berkeley County. The I-81 interchange areas present many challenges with regard to access management. Expanding commercial land uses in these areas causes access management to be very important. I-81 has the highest truck traffic of any interstate highway in West Virginia. The WV-DOT reported that I-81 has the greatest ratio of car to truck traffic of any interstate in West Virginia.

\*[Berkeley County Comprehensive Plan Update June 2016 \(berkeleywv.org\)](http://berkeleywv.org/ComprehensivePlanUpdateJune2016)

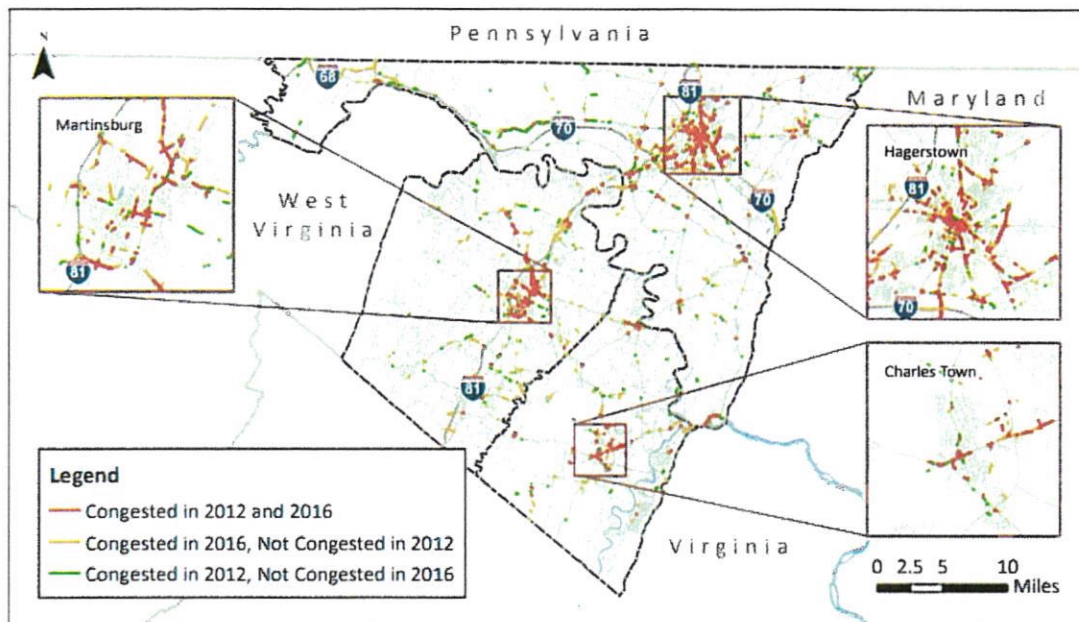


To accommodate the increasing number of residents, trucks and visitors using I-81, the West Virginia Division of Highways has recently completed increasing from four to six lanes for travel from the Maryland state line to the Table Station Exit. However, the WV Division of Highways (WVDOH) has notified Berkeley County that it will be many years before I-81 is upgraded south of Exit #8 to the Virginia State Line.

Another transportation planning effort is underway by the Hagerstown/Eastern Panhandle Metropolitan Planning Organization (HEPMPO). HEPMPO is the federally-designated metropolitan planning organization that includes Berkeley County. The mission of the HEPMPO is to provide a forum to facilitate a cooperative decision-making process for transportation planning and programming for the region and acts as the pass-through agency for Federal transportation funds. HEPMPO comprises representatives from the West Virginia and Maryland counties, West Virginia DOT, Maryland DOT, and the US-DOT's Federal Highway Administration and Federal Transit Administration. HEPMPO evaluates and plans for short term and long term improvements for the entire transportation system. HEPMPO is responsible for the development and updating of the Transportation Improvement Plan (TIP) and the Long-Range Transportation Plan (LRTP). This region includes Berkeley County, WV, Jefferson County, WV, Washington County, MD and a small portion of Franklin County, PA. Transportation planning for Morgan County is carried out by the West Virginia Department of Transportation. More information about the HEPMPO can be found on their website: [www.hepmo.net](http://www.hepmo.net).

Improvements along State Route 9 from I-81 in Martinsburg to Charles Town into Jefferson County are complete. Completion of this 10-mile segment of roadway reduced traffic congestion and travel time between the two cities and served to increase the safety of those who travel this roadway. This segment also provides an essential transportation corridor for several waste haulers (Waste Management, Apple Valley) and solid waste facilities (Jefferson County Transfer Station and Entsorga) and may continue to provide the best opportunity for the safe comingling of residential traffic and traffic associated with a solid waste facility in the entire County.

Strip development, large schools, heavy traffic volume, and congestion along Route 9 west of Martinsburg toward Hedgesville have resulted in hazardous driving conditions throughout almost the entire route. The inability of Route 9 west to support local and through traffic at an efficient level, is a major impediment to access throughout the County. From the I81 at Exit 16 to the Morgan County line, Route 9 is a continuous series of curves and passes through mountainous terrain. The topography in this section is rolling and there are few passing opportunities. Route 9 west to the Morgan County line also has an added concern of traffic associated with high school students and post secondary vocational vehicle training facilities. A clustered segment of schools on Route 9 west, near the Town of Hedgesville, has one of the largest student populations in the County. In addition, according to data from Berkeley County Central Dispatch, Hedgesville Road is a top crash area in Berkeley County. To address these concerns, the West Virginia Division of Highways has proposed a four-lane limited access road west toward Berkeley Springs. A route for the proposed bypass was previously selected and is being reevaluated. However, little planning and no construction has occurred. Provided below is a graph showing traffic congestion as determined by the Hagerstown/Eastern Panhandle Metropolitan Planning Organization in the 2045 Long Range Transportation Plan.



[HEPMPO LRP Final-1.pdf](#)

Many secondary roads suffer from flooding that affects road safety even during mild rain conditions. Route 9 west toward Hedgesville, Route 11 south and 51 west in Inwood, Route 11 north of Martinsburg, Route 45 east towards Shepherdstown, as well as numerous secondary roadways, all suffer from standing water conditions during storm events. This creates hazardous driving conditions, resulting in loss or damage to personal property and poses a high risk to human health.

Designated “feeders” in Berkeley County include Route 45 from Martinsburg to Glengary, Route 51 from the Jefferson County line to its intersection with Route 45, and Route 7, Route 115, Route 901 and Route 11. All of these routes are important commuter transportation links that have not enjoyed major road improvements. As a result, the use of truck traffic, like that associated with a solid waste facility, should be avoided. Shown below are key locations of existing traffic congestion in the region as determined by the Hagerstown/Eastern Panhandle Metropolitan Planning Organization\* in the 2045 Long Range Transportation Plan.



| County     | Facility                 | From                 | To                  |
|------------|--------------------------|----------------------|---------------------|
| Washington | I-70                     | Exit 32 (US 40)      | I-81                |
|            | I-81                     | Exit 9               | I-70                |
|            | Eastern Boulevard        | US 40                | North of MD 64      |
|            | US 11                    | Prospect Street      | Maugans Avenue      |
|            | Maugans Avenue           | I-81                 | US 11               |
|            | Northern Avenue          | US 11                | MD 60               |
|            | Edgewood/Robinwood Drive | US 40                | MD 64               |
|            | MD 65                    | Oak Ridge Drive      | Poffenberger Road   |
| Berkeley   | I-81                     | Exit 8               | Exit 12             |
|            | WV 45 (Apple Harvest)    | I-81                 | Queen Street        |
|            | WV 9                     | Hedgesville          | WV 45               |
|            | Spring Mills Road        | I-81                 | US 11               |
|            | US 11                    | South of Inwood      | North of WV 51      |
| Jefferson  | US 340                   | Harpers Ferry Bridge | WV 9                |
|            | WV 45                    | Mill Street          | Potomac Farms Drive |
|            | WV 51                    | Co Route 13          | WV 9                |

[HEPMPO LRP Final-1.pdf](#)

The Tabler Station Connector Road has been completed at I81 Exit 8. This four-lane road was built to primarily serve the Tabler Station Industrial Park, Eastern Regional Airport and the new Proctor and Gamble Facility. This road is ideal for large volumes of traffic. However, its location near the airport may lead to conflicts caused by solid waste facilities and air traffic safety.

The remaining local and secondary roads serve an important function of providing access to farmland 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 two railway companies operating in the County.

- 1) The CSX Transportation System traverses the County East to West. This double track line is a Category A mainline carrying millions of tons of freight per year. This line also provides passenger service to hundreds of passengers daily to Washington D.C. Passenger service is also available from Amtrak to Washington D.C., to the East, and Chicago, to the West.
- 2) The Winchester and Western Railroad operates a short line 54-mile railroad, which parallels I-81, from Hagerstown M.D. through Berkeley County to Gore VA. The rail line provides connections to CSX and Norfolk Southern and serves the Procter & Gamble Facility at Tabler Station Business Park in Berkeley County and will serve CMC Metal Steel Micro Mill recycling facility.

A major transportation/economic development/historic preservation project was initiated in 1998 involving the preservation and restoration of the Baltimore and Ohio Roundhouse and Railway Complex in Martinsburg. This facility has nearly completed extensive restoration. Presently, no solid waste facility in Berkeley County receives or exports waste by rail. Across the nation, there is a growing use of railroad for the transportation of solid waste. For example, Waste Management Inc., has several significant waste-by-rail facilities in use in Seattle, New York, Texas, Maryland, and other cities. The transportation of mixed municipal solid waste by rail is likely to impact the Baltimore and Ohio Roundhouse and Railway Complex in Martinsburg with odors caused by large volumes of waste. Rail cars often are located within rail yards and most of Berkeley County's rail yards are located near or within developed or urbanizing areas.

In the past, there have been efforts to serve the LCS Services Landfill near Hedgesville via railroad. However, that proposal was very controversial and never developed. The owners of the LCS Services Landfill donated the property, approximately 78 acres, to Berkeley County Parks and Recreation Board to convert the property once proposed for the railroad spur to become a public recreational facility. However, no development of a recreational facility has yet to develop due to funding while lingering concerns over conflicts between the park and a neighboring landfill.

The Authority has additional concerns relating to the transportation of solid waste by rail. In consideration that rail lines, in many areas, follow the path of floodplains such as the Potomac River and cross some major streams and creeks. Any derailments, or load leakage of solid waste along this route, could result in environmental degradation. Since many railroads follow a major water source, a derailment would directly threaten water safety. Such a situation may be of heightened concern for Berkeley County, as the Berkeley County Public Service District, in its operation of the public water system, utilizes water from the Potomac River and other sources. Due to the recent networking of the County public service districts water lines, contamination of one intake source could result in the contamination of a considerable portion of the County's water system.

The Potomac River is not utilized for water transportation. This is due largely to shallow water conditions, presence of dams, and a lack of adequate flow to support water transportation of goods and materials.

The Eastern West Virginia Regional Airport is in Berkeley County and consists of 205 acres and 34 buildings. While the airport is not currently served by commercial passenger air service, the airport serves as the base for a variety of general commercial services, including a flight school, maintenance facility, and charter flight services. The Eastern West Virginia Regional Airport also serves as the home for the 167th Airlift Wing of the West Virginia Air National Guard unit, which uses the hangar facilities to store aircraft and provides global strategic air cargo capability with their fleet of eight C-17 Globemaster III aircraft. The Eastern West Virginia Airport has one runway that is 8,815 feet long, with a full parallel taxiway available. This airport is considered to have long-term strategic value as part of a reliever airport system for the greater Washington, D.C. region. The Airport is equipped with an Instrument Landing System, has tower service during daylight hours and is fully lit. The siting of many solid waste management facilities near airports is a concern. Solid waste facilities and the associated odors can attract birds. Even lighting or the glare from metal roofs used at some solid waste facilities can present safety problems for airport activities.

As a result of the aforementioned rationale, the Authority has prohibited the siting of any commercial solid waste landfill or any associated activity of the proposed landfill within the following zones:

- a. Within 1,000 feet of the nearest edge of the right of way of any state trunk highway, interstate or federal aid primary or secondary highway, unless the developer obtains a waiver, in writing, from the Berkeley County Solid Waste Authority. The waiver shall state that the facility is satisfactorily screened by natural objects, plantings, fences, or other appropriate means so that it is not readily heard or visible from the highway. Note: Entrance roads are exempt from this prohibition.
- b. Within 6 miles of the property boundary of the West Virginia Eastern Regional Airport.
- c. Within 1,000 feet of the nearest edge of the right of way of any railroad whose use includes passenger service or tourism purposes.

As a result of the aforementioned rationale, the Authority has prohibited the siting of any commercial transfer station, energy recovery facility, resource recovery facility or mixed waste processing facility or any associated activity of such proposed facilities within the following zone:

- a. Within 10,000 feet of the West Virginia Eastern Regional Airport.
- b. Within 1,000 feet of the nearest edge of the right of way of any railroad whose use includes passenger service or tourism purposes.

Note: All distance measurements prescribed in this section of these regulations refer to distances as measured from the edge of the proposed boundary of a facility at the end of its active life.



#### 4. Property Values

According to the US Census Bureau\*, in 2020, Berkeley County has a population density of 380.1 people per square mile. In West Virginia, only Ohio County has a denser population in the State. Trends in population density parallel population change. In 1970, Berkeley County had a population density of 113.2 persons per square mile. By 2010, it had increased to 324.3 persons per square mile. This continues to be much higher than West Virginia as a whole, where population density in 2020 was 74.6 persons per square mile. Berkeley County has highest population density among the surrounding counties in Virginia and Maryland.

Berkeley's population is growing rapidly with an estimate of 129,490 persons in 2022, compared to 104,169 residents in 2010. Washington County, MD to the north, Frederick County, VA to the south and Jefferson County, WV to the east have also experienced similar growth rates during this period. However, Morgan County, WV to the west lost population in the most recent census.

Berkeley County currently has the second largest population in the state of West Virginia. Kanawha County has the largest population estimated at 175,515 and Monongalia County has the third largest population estimated at 106,869. While the population of Kanawha County steadily declines, Berkeley County's population continues to increase. Regional counties such as Washington County, MD, Frederick County, VA and Jefferson County, WV populations are growing steadily as well. The total number of households in Berkeley County increased to 53,794 households with a medium value of owner-occupied housing units at \$196,700.

\*[U.S. Census Bureau QuickFacts: Berkeley County, West Virginia, United States](#)

The delineation of zones for commercial solid waste facilities will likely strengthen the residential housing market by providing potential home buyers a sense of knowledge that such a facility is or is not likely to be located in the area. It is important to remember that with a medium value of at \$196,700, citizens can spend a lifetime paying for their home. The adoption of this Plan is likely to impact property values in a positive manner because this Plan places strict limits on the potential location and classification of solid waste facilities. Unfortunately, many solid waste landfill facilities are often considered by the public in general to be unpopular projects which can cause a significant adverse impact upon property values. Usually smaller non-landfill facilities, such as transfer stations, resource recovery and recycling facilities are usually more acceptable to the public.

There is some evidence that larger landfills may lead to marketplace stigma and may have a negative impact on property values and that much of its impact depends on its operation, the public fear and anticipation of contamination. The Court of Appeals of Louisiana, ruled on February 1, 1984 that the stigma created by the fear of possible contamination of properties surrounding a landfill has been ruled a valid reason for compensation from the landfill owner for devaluation of market value.

According to the book, *Modern Real Estate Practice*, environmental issues have a significant impact on the real estate industry. In 1995, a jury awarded \$6.7 million to homeowners whose property values had been lowered because of the defendant tire company's negligent operation and maintenance of a dump site. The 1,713 plaintiffs relied on testimony from economists and a real estate appraiser to demonstrate how news stories about the site had lowered the market values of their homes. Nationwide, some landfill owners offer or are required to offer price guarantees to owners of real estate near disposal sites.

As a result of the aforementioned rational, the Authority prohibits the siting of any commercial solid waste landfill, commercial composting facility or any associated activity of the proposed facilities within the following zone:

- a) Within 500 feet of any dwelling that exists at the time of the siting application to the Authority, unless written permission is obtained from the owner of the dwelling.

## 5. Groundwater or Surface Water

Groundwater is derived from infiltration of precipitation, surface water, and overland runoff. When percolating water reaches the water table it moves down gradient through joints, fractures, caverns, and porous spaces to a point of discharge. The point of discharge may be springs, seeps, streams or at pumped wells, quarries, or mines. Because much of the County is underlain by fractured and cavernous aquifers that are susceptible to contamination, locating landfills sites within the County will be a difficult process.

Permeable rock, sandstone, or gravel in which water is stored and transmitted is known as an "aquifer". The ability of an aquifer to transmit water depends on its porosity and permeability. In Berkeley County, the primary openings in the rock are quite small, but, the secondary openings, consisting of fractures in limestone, shale and solution openings in limestone, allow much greater movement of groundwater. The limestone areas are the best source of groundwater in Berkeley County.

Federal and state regulations were implemented in the 1980s and 1990s to better manage solid waste disposal. Those regulations require that most landfills use liners and leachate collection systems to minimize the seepage of leachate to ground water. Although liners and leachate collection systems minimize leakage, liners can fail and leachate collection systems may not collect all the leachate that escapes from a landfill. Landfill leachate in itself is a notoriously complex substance, primarily because of its ever-changing composition. Leachate collection systems require maintenance of pipes, and pipes can fail because they crack, collapse, or fill with sediment. There have been many articles and studies, old and new, describing the groundwater impacts from solid waste facilities, particularly landfills. Some of those articles and studies are:

- 1) The US-EPA has concluded that all landfills eventually will leak into the environment ([U.S. Environmental Protection Agency, 1988](#)). Thus, the fate and transport of leachate in the environment, from both old and modern landfills, is a potentially serious environmental problem.
- 2) A 1990 study, *Field Behavior of Double Liner System*, concludes that "the permeation of a compacted clay liner by chemicals of many types 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 (HDPE) 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.

- 3) Dr. Fred Lee and Dr. Anne Jones authored a 1992 study titled *Municipal Solid Waste Management in Lined "Dry-Tomb" Landfills: A Technologically Flawed Approach for Groundwater Quality*. This report reviews evidence that landfill liners leak for a variety of reasons, all of which will not be discussed in this report. Lee and Jones conclude "while the long-term stability of geomembranes in landfills cannot be defined, there is no doubt they will eventually fail to function as an impermeable barrier to leachate transport from a landfill to groundwater." Dr. Lee, over several decades, has been involved in reviewing the impacts that existing and proposed landfills have had and will have on the groundwater. He has documented his observations that the assessments made of the potential groundwater problems associated with the proposed landfill are often incomplete or not technically valid. It is common that the issues of groundwater protection are addressed in consultants' reports with technically unfounded statements, such as, "this landfill will protect groundwater quality", or "the landfill will be lined and therefore not pollute groundwater", or "no hazardous waste will be accepted at the landfill and therefore no ground water pollution will occur". Dr. Lee has documented in a variety of reports that the treatment of this topic superficially with statements such as those mislead public review boards, and the public into believing that the new landfill will provide groundwater protection.
- 4) In 1990, The State of Virginia decided to invite commercial private landfills into the state to enhance state revenues. In 1997, two of their seven new "state-of-the-art" landfills were found to have developed environmental concerns, according to *The Washington Post*: "In Amelia County, groundwater tests last year found elevated levels of lead, chromium and other substances, while another contaminant, antimony, showed up in groundwater near the Charles City landfill."
- 5) In May, 2011, the Journal of Environmental Protection published "Landfill Liner Failure: An Open Question for Landfill Risk Analysis". This paper documented various European methods for the calculation of landfill liner leakage and probable timelines. This paper documented a increase of leachate leakage due to liner failure starting after 30 years.
- 6) The March 18, 2013 Waste and Recycling News reports the State of Pennsylvania fined the owner of Lancaster Landfill for leachate discharges into nearby waterways.
- 7) On August 15, 2014, Waste Advantage Magazine published an article titled "How Much Does My Landfill Leak?" This article states the obvious solution (to landfills) "is to build landfill liners that don't leak, but the simple laws of chemistry, and physics, not to mention Murphy's Law, preclude this possibility".
- 8) In 2017, Northwest Indiana Sustainable Regional Development concludes that "there is no debate that all debates that all landfills eventually contaminate our environment and pose a serious health threat to our health". The article continues "In a recent study of 163 municipal solid waste landfills, there was evidence of groundwater contamination or adverse trends in groundwater quality at 146 of them."
- 9) A February 14, 2017 news article by Stacy Lange outlined where the Keystone Sanitary Landfill in Lackawanna County, PA was twice cited by the PA-DEP for leachate from the landfill leaked into a nearby creek. More information is available at <http://wnep.com/2017/02/14/landfill-cited-for-leachate-leak/>



- 10) An April 15, 2021 posting by the University of Colorado Boulder titled "The Hidden Damage of Landfills" states that "Landfills are necessary for the proper disposal of solid waste." However, the document continues to say that "landfills still have significant environmental and social impact". The posting continues to say that "While landfills are required to have plastic or clay lining by federal regulation, these liners tend to have leaks. This can result in leachate, a liquid produced by landfill sites, contaminating nearby water sources, further damaging ecosystems. More information is available at: <https://www.colorado.edu/ecenter/2021/04/15/hidden-damage-landfills>

The Authority has concluded that clean water is one of the most important natural resources to consider in planning for the future development of Berkeley County. The Authority has determined that the modern state of the art composite lined facilities provide no guarantee against groundwater or surface water pollution.

As a result, the Authority has prohibited the placement or expansion of landfills or any associated activity of the proposed landfill within the following zone:

- a) On or near aquifers or other areas of hydrological sensitivity.

The following is a list of significant streams, water containing rare or endangered species in Berkeley County.

**Trout Streams:** Opequon Creek, Tuscarora Creek- above Martinsburg, Middle Creek- above Route 30 bridge, Mill Creek, Harlan Run, Mill Run and Tilhance Creek.

**Water Supply Streams:** Kilmer Spring, Big Spring, LeFevre Spring, Ben Speck Spring and the Potomac River.

**Water Contact Recreation:** Potomac River, Sleepy Creek Lake, Meadow Branch, Back Creek and Opequon Creek.

**Water Containing Rare/Endangered Species:** Tilhance Creek, Back Creek, Harlan Run- Georgetown to Cumbo Yard, Potomac River- Cherry Run to McCoy's Ferry and Big Spring.

**Water Containing Significant Plant/Animal Habitat:** Middle Creek, Harlan Run, Opequon Creek, Rocky Marsh Run, Spring Mills Creek and Tomahawk Creek.

Those bodies of water noted as "water contact recreation" could be utilized for water skiing, jet skiing, fishing, camping, hiking, swimming, historical site viewing, hunting, and boating activities. Some of these water bodies are utilized by public and private campgrounds.

The Authority has determined that these streams are unique and valuable for water source and economic development and is placing a special emphasis on their protection. Therefore, the Authority prohibits the placement or expansion of any solid waste facility or any associated activity of the solid waste facility within the following zone:

- a) In any manner that would significantly adversely impact the aforementioned streams or creeks.

The Division of Natural Resources has located several stream access sites in Berkeley County. There are six (6) public access facilities along Back Creek (Hedgesville, Allensville Road, Swinging Bridge Road, Shanghai, East Ganotown Road, McCubin's Hollow) and six (6) are located on the Opequon Creek (Martin Payne, Priest Springs, Stonebridge, Blairton, Route 9 East, Strowebridge).

There are several rare species known to occur in the area of Back Creek, including the federally endangered harperella, which grows in the riparian area along Back Creek. Other species that have been documented in the area include: River Cooters, Green Floater Mussel, Harperella, Eastern Cricket Frog, Red Bellied Turtle, Spiny Cheek Crayfish, Running Buffalo Clover, Sweet Scented Indian Plantain, Tessellated Darter and Wood Turtle.

Berkeley County has been blessed with abundant potable water, but there is clearly a limit to this resource. There are two parts to the water availability equation. One part is the quantity of water and the second part is the water quality.

According to data at the Berkeley County Public Service Water District website [www.berkeleywater.org](http://www.berkeleywater.org), Berkeley County gets its water supply from a variety of groundwater and surface water sources. The largest source is the Potomac River. The Potomac River Water Filtration Plant produces about 2.5 million gallons each day and serves customers in the northern half of Berkeley County. North Berkeley County is also served by the Ben Speck Spring near Hedgesville.

In the southern part of Berkeley County, the primary water source is LeFever Spring, located near Bunker Hill. Public water from the Bunker Hill Plant serves customers from the Virginia line north to Martinsburg and east to Baker Heights. When necessary, the LeFever Spring is augmented by water from the Baker Lakes Quarry near Inwood.

West of Inwood, the source of water is the wells at the Springdale Farm. These wells provide water in the Gerrardstown area. Glenwood Forest has a separate system of six groundwater wells. Water can be purchased from the City Of Martinsburg and from Frederick County, Va.

The City of Martinsburg has two sources: one is Kilmer Springs near War Memorial Park and the other is Big Springs near Pikeside. Berkeley County also has an interconnection with the City of Martinsburg. This interconnection supplies water to our customers at Fairfield, Porterfield's Addition, Ridgefield, Welltown School Road, and Stribling Road. The interconnection also supplies water to our customers at northern Pikeside, Paynes Ford Road and part of Route 9.

The Berkeley County Public Service Water District has documented source water protection plans. These plans can be found at <https://berkeleywater.org/source-water-protection>. In part, the plans show that the Potomac intake that supplies drinking water to the Berkeley County Public Service Water District has a higher susceptibility to contamination, due to the sensitive nature of surface water supplies and the potential contaminant sources identified within the area. This does not mean that the water source will become contaminated only that conditions are such that the surface water could be impacted by a potential contaminant source. Future contamination may be avoided by implementing protective measures.



The springs that supply drinking water to the Berkeley County Public Service Water District have a higher susceptibility to contamination, due to the sensitive nature of the aquifer in which the drinking water springs are located and the existing potential contaminant sources identified within the area. This does not mean that the well field will become contaminated; only that conditions are such that the ground water could be impacted by a potential contaminant source.

Future contamination may be avoided by implementing protective measures. Maps showing Source Water Protection Plans for the Bunker Hill Water Treatment Plant and the Potomac River Plant are included in this Siting Plan. Many of the residents living outside the City of Martinsburg currently get their water from private residential wells. It must be remembered that aquifers serving these wells are affected by the same conditions as the springs and quarries in Berkeley County.

Therefore, the Authority prohibits the siting of any solid waste facility in any manner that may adversely impact any public or private water source.

The lowlands along many of the streams in the County are subject to flooding and the adjacent areas, though not subject to flooding, have high water tables that restrict landfill development. Some of these low areas support natural wetland vegetation. The remaining natural wetlands in Berkeley County are estimated to be less than 10% of the original natural wetland acreage in the County. The natural wetlands within the County are very important in maintaining wildlife populations and water quality, reducing flood damage, and providing recreational and aesthetic experiences. Berkeley County wetlands are used by migratory ducks; and geese including the gadwall, pintail, scaup, widgeon, mergansers, mallards, black, wood, and ruddy ducks, canvasback, oldsquaw, Canada geese and tundra swan. Other birds that frequent the County's wetlands include heron, terns, and gulls. Therefore, the Authority prohibits the siting of any commercial solid waste landfill within 300 feet of any natural wetlands.

The Federal Emergency Management Agency (FEMA) has published Flood Insurance Rate Maps for Berkeley County, West Virginia Community No. 540282. The 100-year flood boundary is delineated for Meadow Branch, Tilhance Creek, Harlan Run, Potomac River, Opequon Creek, Back Creek, Mill Creek, Middle Creek, Evans Run, Dry Run, Tuscarora Creek and several unnamed tributaries. There is also available a online map showing Flood boundaries at [www.mapwv.gov](http://www.mapwv.gov) Flood Tool (mapwv.gov). The Authority has determined that the siting of a solid waste facility or any activity associated with the facility within a 100-year flood plain is PROHIBITED.

In addition, Berkeley County and several other Eastern Panhandle counties of West Virginia have joined several other States as part of the Chesapeake Bay Watershed Pact. The requirements of this pact imposes strict requirements upon the county to take aggressive action to reduce the level of nitrogen and other contributors to the elevated nutrient levels found in the Chesapeake Bay and its tributaries.

As a result of the aforementioned rationale, the Authority has PROHIBITED the siting of any solid waste facility or any activity associated with the facility, without exception, within the following zones:

- a. Where a significant adverse impact upon any natural wetlands may likely occur.

- b. Within a perennial stream.
- c. Within a 100-year flood plain.
- d. Where a significant adverse impact upon groundwater quality or a violation of surface water quality standards found in 46CSR1 will likely occur.
- e. Where a significant adverse impact upon down gradient surface water may occur as a result of proposed construction associated with a commercial solid waste facility within non-perennial streams (i.e. ephemeral, intermittent, or storm related).
- f. In a manner which may significantly adversely impact trout streams, water supply streams, recreational streams, streams containing significant or valuable plant or animal habitat.
- g. Where there may be a significant adverse impact upon any private or public water source.

In addition, the Authority has PROHIBITED the siting of any landfill or any activity associated with the facility, without exception, within the following zones:

- a. Within 300 feet of any surface water.
- b. Within 300 feet of any natural wetlands.
- c. Within 1,200 feet of any public or private water supply well or wellhead protection area.
- d. Within 200 feet of any area considered to be unmonitorable due to extreme geologic and hydrologic conditions (e.g., immature to maturely developed karst terrain, solution cavities, sandstone aquifers, shales, aquitards, etc).
- e. Within 500 feet of known faults (regardless of displacement age).
- f. On or near aquifers or other areas of hydrological sensitivity

Note: All distance measurements prescribed in this section of these regulations refer to distances as measured from the edge of the proposed boundary of a facility at the end of its active life.

## 6. Geological and Hydrological Conditions

Berkeley County encompasses 325 square miles of the Eastern Panhandle of West Virginia and the surface water drains entirely to the Potomac River. Generally speaking, the western half of the County is underlain by shale and sandstone, but limestone and sandstone formations also exist in this part of the County. For example, the western half of the County contains the longest and most complex cave systems in the County and at one time supported small limestone quarry operations.

The eastern half of the County lies within the Shenandoah Valley and is generally characterized by gently rolling topography with altitudes ranging from 310 to 800 feet above sea level. This part of the County is underlain predominately by major limestone formations and other carbonate rocks such as dolomite and calcareous shale, but also includes significant outcrops of sandstone and shale.

The County's karst limestone and dolomite aquifer are major source for Berkeley County's public water supply. Therefore, the public water supplies are considered highly susceptible to contamination and any such contamination from a solid waste facility could pose significant threats to the quality of the water within the aquifer. Certain areas of the aquifer are more susceptible to contamination than others due to the higher proportion of solution enlarged fractures or faults in the more conduit dominated portions.

Groundwater flow in the County can be diffuse flow or conduit flow. Diffuse flow occurs where significant solution enlargements of fractures or faults have not occurred and the flow is slow and laminar. Conduit flow usually occurs in faults, beneath losing streams, in cavernous areas and where fractures have been enlarged by dissolution. Conduits can range from less than one inch to tens of feet in width and height and are generally the main flow paths from groundwater wherever present. Groundwater in conduits can move rapidly and sometimes is turbulent. It is reported that groundwater flow velocities in Berkeley County range from 32 to 1,879 feet per day. These higher velocities will likely facilitate the transmission of pollution from its origin to both private and public drinking water sources. Two studies performed by GeoConcept Engineering found that some of the county's streams contain "losing stretches" within a section of the stream. A "losing stretch" is where surface water flow is noticeably diminished as it percolates through the stream bed into the subsurface. The two streams identified were in the Gerrardstown (Mill Creek Watershed) and Hedgesville areas (Harlan Run Watershed).

Continuing economic expansion in the County has led to increased population and ever increasing demands on the aquifer for water. The areas of the County that are generally highly susceptible to contamination are the same areas where large quantities of potable water are likely to be available or recharged.

The geological and hydrological conditions of Berkeley County are extremely complex and are not fully understood. The overwhelming majority of bedrock formations in the County are limestones, dolomite or permeable shales. Therefore, the siting or expansion of any commercial solid waste landfill could easily pose a threat or hazard to the area's groundwater. This has raised the need to establish a comprehensive system of recycling facilities, transfer stations, resource recovery facilities and composting facilities and other alternatives to landfills.



The West Virginia Geological and Economic Survey provided the following siting criteria as a first step approach to determining where solid waste facilities should be sited or prohibited. However, it should be noted that some of the prohibited or potential sites listed on the following page and provided by the above source are not totally dependent on-site geology or hydrology. For example, the development of a solid waste facility within a highway was recommended as "prohibited sites" for obvious reasons. However, these reasons have nothing to do with geology or hydrology.

Recommended Prohibited Sites:

1. Highways and roads
2. Towns and developed areas
3. Airports
4. Public and private water supplies
5. All limestones
6. Sinkholes and caves
7. Creeks
8. High Water table
9. Flood prone areas
10. Groundwater recharge areas
11. Faults
12. Fractured bedrock
13. Permeable formations
14. Mining areas

Recommended Potential Sites:

1. Shale bedrock
2. Low population
3. County-owned land
4. Available cover material

Mandatory Factors to Determine:

1. Groundwater flow directions
2. Seismic history

There are approximately 23 types of bedrock formations in Berkeley County. Nearly all the formations are limestone, dolomite or permeable shales. As a result, Berkeley County is the location of the one of the largest limestone mining operations in West Virginia. The high calcium carbonate content and the low silica content make this limestone very valuable in the steel manufacturing process.

Of the 23 possible types of bedrock formations within the County only two (2) exhibit the characteristics necessary for the siting of a landfill. These areas were identified by the West Virginia Geological and Economic Survey as the "least objectionable areas". However, a significant possibility exists that within these "least objectionable areas" are smaller areas unsuitable for landfill development. It is the responsibility of the developer to demonstrate with site-specific information that ensures proper geological setting within the two (2) areas.

Areas also exist within the County containing major and minor faults and fractures that exhibit high permeability. There exist areas where overlying soils are thin, and limestone aquifers with fractures or conduits allow rapid infiltration and lateral movement of groundwater that increases the risk of contamination of water. Therefore, the siting of a landfill within or near an area of high permeability is PROHIBITED.

The following data details which geological areas within the County where the siting of a landfill is PROHIBITED. The other geological areas will be designated as TENTATIVELY PROHIBITED.

Prohibited Bedrock Formations:

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

Least Objectionable Formations: Tentatively Prohibited

1. Mahantango Formation (DMT)
2. Martinsburg Formation (OM)

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."

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."

Federal and state regulations were implemented in the 1980s and 1990s to better manage solid waste disposal. Those regulations require that most landfills use liners and leachate collection systems to minimize the seepage of leachate to ground water. Although liners and leachate collection systems minimize leakage, liners can fail and leachate collection systems may not collect all the leachate that escapes from a landfill. Landfill leachate in itself is a notoriously complex substance, primarily because of its ever-changing composition. Leachate collection systems require maintenance of pipes, and pipes can fail because they crack, collapse, or fill with sediment. There have been many articles and studies, old and new, describing the groundwater impacts from solid waste facilities, particularly landfills. Some of those articles and studies are:

1) The US-EPA has concluded that all landfills eventually will leak into the environment (U.S. Environmental Protection Agency, 1988). Thus, the fate and transport of leachate in the environment, from both old and modern landfills, is a potentially serious environmental problem.

2) A 1990 study, *Field Behavior of Double Liner System*, concludes that "the permeation of a compacted clay liner by chemicals of many types 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 (HDPE) 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.

3) Dr. Fred Lee and Dr. Anne Jones authored a 1992 study titled *Municipal Solid Waste Management in Lined "Dry-Tomb" Landfills: A Technologically Flawed Approach for Groundwater Quality*. This report reviews evidence that landfill liners leak for a variety of reasons, all of which will not be discussed in this report. Lee and Jones conclude "while the long term stability of geomembranes in landfills cannot be defined, there is no doubt they will eventually fail to function as an impermeable barrier to leachate transport from a landfill to groundwater." Dr. Lee, over several decades, has been involved in reviewing the impacts that existing and proposed landfills have had and will have on the groundwater. He has documented his observations that the assessments made of the potential groundwater problems associated with the proposed landfill are often incomplete or not technically valid. It is common that the issues of groundwater protection are addressed in consultants' reports with technically unfounded statements, such as, "this landfill will protect groundwater quality", or "the landfill will be lined and therefore not pollute groundwater", or "no hazardous waste will be accepted at the landfill and therefore no ground water pollution will occur". Dr. Lee has documented in a variety of reports that the treatment of this topic superficially with statements such as those mislead public review boards, and the public into believing that the new landfill will provide groundwater protection.

4) In 1990, The State of Virginia decided to invite commercial private landfills into the state to enhance state revenues. In 1997, two of their seven new "state-of-the-art" landfills were found to have developed environmental concerns, according to *The Washington Post*: "In Amelia County, groundwater tests last year found elevated levels of lead, chromium and other substances, while another contaminant, antimony, showed up in groundwater near the Charles City landfill."

5) In May, 2011, the Journal of Environmental Protection published "Landfill Liner Failure: An Open Question for Landfill Risk Analysis". This paper documented various European methods for the calculation of landfill liner leakage and probable timelines. This paper documented an increase of leachate leakage due to liner failure starting after 30 years.

6) The March 18, 2013 Waste and Recycling News reports the State of Pennsylvania fined the owner of Lancaster Landfill for leachate discharges into nearby waterways.

7) On August 15, 2014, Waste Advantage Magazine published an article titled "How Much Does My Landfill Leak?" This article states the obvious solution (to landfills) "is to build landfill liners that don't leak, but the simple laws of chemistry, and physics, not to mention Murphy's Law, preclude this possibility".

8) In 2017, Northwest Indiana Sustainable Regional Development concludes that "there is no debate that all landfills eventually contaminate our environment and pose a serious health threat to our health". The article continues "In a recent study of 163 municipal solid waste landfills, there was evidence of groundwater contamination or adverse trends in groundwater quality at 146 of them."

9) A February 14, 2017 news article by Stacy Lange outlined where the Keystone Sanitary Landfill in Lackawanna County, PA was twice cited by the PA-DEP for leachate from the landfill leaked into a nearby creek. More information is available at <http://wnep.com/2017/02/14/landfill-cited-for-leachate-leak/>

10) An April 15, 2021 posting by the University of Colorado Boulder titled "The Hidden Damage of Landfills" states that "Landfills are necessary for the proper disposal of solid waste." However, the document continues to say that "landfills still have significant environmental and social impact". The posting continues to say that "While landfills are required to have plastic or clay lining by federal regulation, these liners tend to have leaks. This can result in leachate, a liquid produced by landfill sites, contaminating nearby water sources, further damaging ecosystems. More information is available at: <https://www.colorado.edu/center/2021/04/15/hidden-damage-landfills>

As a result, the Authority has concluded that regardless of the technology used to develop a landfill, eventually, it will fail to protect the environment and such a failure could be harmful to the county's health, welfare and its economy. Therefore, the Authority has concluded that the geology and hydrology surrounding the facility must be sound and well suited, without a doubt, for a solid waste landfill.

Section 258.13, Title 40 of the Code of Federal Regulations, promulgated by the US-EPA, have implemented location standards for new solid waste landfills and lateral expansions involving seismic impact zones. Those regulations stated essentially that new facilities or horizontal expansions of existing landfills cannot be located in a seismic impact zone unless the facility is designed to withstand earthquake shaking without compromising the integrity of the landfill's clay or geomembrane liner, leachate collection system and landfill cover cap.



According to the USGS, the central Appalachian Region, which includes Maryland, Virginia and West Virginia, is characterized by a moderate amount of low-level earthquake activity. Four earthquakes of intensity V or greater on the Modified Mercalli Scale (MM) have centered within the borders of West Virginia. For example, a strong MM V-VI earthquake in the Charles Town (Jefferson County) to Martinsburg (Berkeley County) area occurred on April 2, 1909. The total felt area covered approximately 6,500 square kilometers, including places in West Virginia, Virginia, Maryland, and Pennsylvania. The epicenter was near the convergent boundaries of the four states. On January 17, 2016, a mild earthquake was recorded in Jefferson County. The earthquake had a 3.0 magnitude on the Richter Scale and its epicenter was about two miles south-southeast of the Towns of Boliver/Harpers Ferry.

A seismic impact zone is defined as an area where there is a 10% or greater probability that the maximum horizontal acceleration in bedrock will exceed 10% of the earth's gravitational pull (.10g) in 250 years. Based on information obtained from the West Virginia Geological and Economic Survey, the "National Earthquake Hazard Reduction Program Maps" (1991 edition), displays the entire area of Berkeley County within a seismic impact zone. Berkeley County displays a range of 30-40% probability that the maximum horizontal acceleration in lithified earth material will exceed .10g in a 250-year period.

This geological setback adds yet another serious concern to an already growing list of geological and hydrological issues regarding the future of landfilling in Berkeley County. In consideration of the geology of Berkeley County, slope is an important factor of landfill development. There are 105,211 acres of land (52% of the county) with a slope of 0-8%. This area is suitable for nearly all development, including solid waste facilities. There are 46,445 acres of land (23% of the county) with a slope of 9-16%. This area is best suited for residential and recreational use. However, the development of a solid waste facility might be permissible. There are 31,356 acres of land (15.5% of the County) with a slope of 17-24%. The best use for this land is as a conservation resource or a recreational facility. There exists 19,228 acres of land (9.5% of the County) with a slope greater than 25%. The best uses for these areas are as a conservation resource or a recreational facility. Slope conditions are generally more severe in the western third of the County. Slopes are steep along North Mountain and Third Hill Mountain. In the eastern two thirds of the County steep slopes are primarily along Opequon Creek and the Potomac River. Based on this information, the Authority will tentatively prohibit landfill development on slopes greater than 15% and less than 25%. However, the Authority PROHIBITS the development of all solid waste facilities on slopes greater than 25%.

As a result of the aforementioned rationale, the Authority has PROHIBITED the siting or expansion of any landfill or any activity associated with the facility, without exception, within the following areas.

- a. Within 500 feet of any area considered to be unmonitorable due to extreme geologic and hydrologic conditions (e.g., immaturely to maturely developed karst terrain, solution cavities, sandstone aquifers, shales, aquitards, etc.).
- b. Above deep-mine workings or within the critical angle of draw of such workings.
- c. Within previously surface mined areas, unless approved by the Authority in writing.
- d. Within 500 feet of any known fault (regardless of displacement age).

- e. Within 500 feet of any area of high permeability.
- f. Within a seismic impact zone, unless approved by the Authority in writing.
- g. On slopes greater than 25%.
- h. On all bedrock formations except Mahantango Formation (DMT) and Martinsburg Formation (OM).
- i. Where treated stormwater or treated leachate will be discharged within any surface water containing 'losing stretches' of surface water.

Note: All distance measurements prescribed in this section of these regulations refer to distances as measured from the edge of the proposed boundary of a facility at the end of its active life.

## 7. Aesthetic and Environmental Quality

Solid waste facilities, in particular landfills are often viewed as aesthetically unpleasing and harmful to the environment. This perception often has sound basis. Odors, dirt, noise, ground water contamination, mud, litter and heavy truck traffic are examples of significant adverse impacts from an improperly sited or operated facility. However, a properly sited and operated solid waste facility should be visually unobtrusive, allow no offsite odors or mud and provide protection to human health and the environment. Frequently in surveys, Americans show their continued overwhelming opposition to landfills. For example, a survey of land use preferences by the Saint Consulting Group, Inc. shows that 78% of those asked opposed landfill development in their hometowns. That opposition is 1% higher than opposition to casinos and 16% higher than opposition to aggregate quarries. The survey from around the country showed that even nuclear power plants are preferable to landfills.

Berkeley County is an urbanizing county. The residents who live or move here do so because they treasure the natural beauty, relative serenity, low unemployment, low taxes, and the accompanying sense of community spirit that the County provides. Activities such as hunting, biking, hiking, fishing and water recreation play a large role in resident activities and in attracting non-residents to the area. Less tangible, but of equal importance, is the value and comfort gained knowing that a relatively clean environment exists. As a result, landfill development in Berkeley County has been unpopular since the mid -1980's. When an activity such as a large solid waste landfill poses a risk to the natural beauty, serenity, and clean environment, the primary reason for living in the area is threatened. The resulting public outcry is profound, real and measurable.

According to the April, 2012 Waste Advantage Magazine, landfills provide an anaerobic environment for wastes to decay that causes the release of landfill gas, odors, and a host of other potential air, water, and soil pollutants. The methane produced by landfills is of environmental significance because methane is a potent greenhouse gas. Globally, landfills are the third largest anthropogenic source of methane. Industry surveys reveal that such smells continue to trouble the solid waste industry. According to industry reports, odor problems at landfills have become a critical issue for landfill operators. Odors are difficult for operators to manage and make the relationship with the community difficult. Some industry experts believe that odors are the number one Achilles heel at any landfill. Obvious sources of odors are workplace activities, landfill gas, condensation systems and leachate collection and handling systems. According to an article titled "Don't be a Nasty Neighbor" published in the September/October 2016 MSW Management Magazine "...people who work at the landfill become accustomed to the odor. After five years, you can't detect a lower level of the odor".

The March 7, 2013 Waste and Recycling News documents an article where a landfill in Ohio agreed to pay the State of Ohio a half a million dollars regarding odor issues at the Lorain County Landfill. Similarly, the March 15, 2013 Waste and Recycling News reported the State of Vermont order a landfill closed for failure to control odors and landfill gas emissions at the Moretown Landfill.

The Authority notes that air quality issues (ground level ozone and particulate matter) have become a problem for Berkeley County and other Eastern Panhandle counties. As a result, a regional air quality program has been developed by the Region 9 Regional Planning and Development Council to address ground level ozone pollution. The program has implemented various control measures to reduce ozone pollution in the Region. On April 15, 2008, the program was validated when the US-EPA designated the region an "attainment area". As a result, the region is no longer in violation of ground level ozone standards. The program continues working to reduce ozone pollution to assure the Region remains compliant. Since the program began, the US-EPA has implemented new and tougher standards for ozone pollution. Particulate matter pollution is also an issue for Berkeley County. The air quality program is prepared to work toward reducing this pollutant in accordance with the State Implementation Plan (SIP).

As a result of the aforementioned rationale, the Authority has PROHIBITED the siting of any solid waste facility or any activity associated with the facility, without exception, within the following areas:

- a. Within 1,000 feet of the nearest edge of the boundary of any proposed or existing publicly owned and/or funded park or open space facility that existed prior to the proposed facility or prior to the proposed facility expansion.
- b. Within 1,000 feet of the nearest edge of the boundary of any proposed or existing conservation area.
- c. Within 1,000-feet of the nearest edge of the boundary of any property which has been accepted into the Berkeley County Farmland Protection Program.
- d. Within 1,000-feet of the nearest edge of the boundary of any property with a conservation easement held by a land trust or similar organization.

In addition, the Authority has PROHIBITED the siting of any landfill, without exception, within the following area:

- a. Within 500 feet of a dwelling occupied at the time of initial facility siting, unless written permission is received from the owner of the dwelling.

Note: All distance measurements prescribed in this section of these regulations refer to distances as measured from the edge of the proposed boundary of a facility at the end of its active life.



## 8. Historic and Cultural Resources

The Berkeley County Historical Society has conducted a number of surveys of the County's older pre-1880 buildings, structures and related sites. Additionally, the combined efforts of representatives of the National Register of Historic Places, the West Virginia State Preservation Office and the County's Historical Society resulted in the identification of the historic sites within Berkeley County.

In addition, the "Civil War Almanac" and other sources list several sites in Berkeley County where significant Civil War activities occurred. The sites are listed as follows:

1. The Battle(s) of Hainsville/ Hoke Run/ Falling Waters.

A monument to the battle has been placed along Route 11 about one-half mile south of the intersection of US 11 and Spring Mills Road. Roadside signage has also been placed at "Stumpy's Hollow" ½ mile west of this same intersection. Currently, the National Park Service is considering the placement of conservation easements on land within the Battle(s) of Hainsville/ Hoke Run/ Falling Waters.

2. The Battle of North Mountain Depot.

A monument to the battle has been placed at Hedgesville Middle School.

3. The Battle(s) of Bunker Hill.

4. A significant troop movement occurred at McCoy's Ferry. Jeb Stuart crossed the Potomac at McCoy's Ferry during a campaign to burn Chambersburg, PA. A monument and an associated state park mark the crossing on the Maryland side of the Potomac.

5. Camp Hopkins – a 1.19 acre property located on Allensville Road has been preserved and marks the exact site where Union soldiers camped while guarding the B&O Railroad. This property is privately owned and is near the site of the Battle of North Mountain Depot.

According to the WV Division of Culture and History, there are 160 known archeological sites recorded in the County as of January 2001. Based on the current rate of growth of the County when combined with its history laden past, it is highly possible that other archeological sites will become known in the near future. It is possible that many of these unknown sites will be adversely impacted and/or destroyed (unknowingly) as the County continues to grow. The Division has noted that there exist many historical and archaeological areas of value in Berkeley County.

The Washington Heritage Trail (WHT) also passes through Berkeley County. This trail is a nationally designated scenic by-way which ties together historic properties in Morgan, Berkeley and Jefferson Counties that bear a direct association with our nation's first president, George Washington. The 112-mile WHT passes through dozens of historic districts. The structures and landmarks provide great insight into the lives and times of past inhabitants. Over 50 sites have been highlighted as part of the WHT. However, the trail goes beyond the scenic by-way designation and represents significant historic, cultural, natural, recreational, scenic and archeological qualities within the by-way corridor.

One of West Virginia's four National Scenic Byways, the WHT loops around the Eastern Panhandle following existing county, state and federal roads. Each route is marked by scenic byway signs. The WHT is a mix of agrarian landscape, picturesque towns, and remnants of bygone industries interspersed with contemporary development.

All along its length, the trail interweaves beautiful scenery and recreational opportunity with small towns that beckon the visitor to take the time to explore historic sites and cultural activities. The WHT is dedicated to the preservation and conservation of the historic villages, scenic vistas, and rural lifestyle found along the way.

Among the areas marked at the WHT in the counties are as follows:

Morgan County: Paw Paw Tunnel, Panorama Overlook, Cacapon State Park, Berkeley Castle, Berkeley Springs State Park, and others.

Berkeley County: B & O Roundhouse, Snodgrass Tavern, Belle Boyd House, Adam Stephen House, Bunker Hill, Gerrardstown, and others.

Jefferson County: Charles Town, Harpers Ferry National Historical Park, Claymont Court, Cedar Lawn, Harewood, Travelers Rest, Middleway, and others.

There are several historic monuments or markers located in Berkeley County:

Major General Adam Stephen – 600 block of South Queen Street

Boyd House – Bunker Hill, west side of Rt11.

Doughboy – War Memorial Park

John H. Bishop – Intersection of West Stephen Street, Faulkner Avenue and Virginia Avenue.

Red House – US11 near Edwin Miller Blvd. Intersection.

Stonewall Jackson – US 11 North, Falling Waters

Arden – Arden Knollville Road

The Authority has determined the traffic volumes associated with certain solid waste facilities is incompatible with the cultural integrity of any route utilized by the WHT. Therefore, all Class A and Class B solid waste landfills which propose to utilize any WHT route are strictly PROHIBITED.

There are a total of 23 Historic Districts on the National Register listings within the County. These districts do not include all supporting structures, buildings, properties, or objects associated with the National Register listings. There are over two thousand (2,000) total items currently inventoried for the County according to the Berkeley County Historical Society. Based on the location of historic sites in the County, 23 Historic Districts have been established. Generally speaking, the districts were designated because historic buildings and structures occur in greater concentration than other County areas or where there is a clear and definite historic relationship among groups of structures or related features within a given district.

## **List of Historic Districts in Berkeley County:**

### **Baltimore and Ohio and Related Industries Historic District**

(added 1980 - Berkeley County - #80004415 470 acres, 27 buildings, 8 structures)

### **Boomtown Historic District**

(added 1980 - Berkeley County - #80004414, 1,420 acres, 153 buildings)

### **Boydville Historic District**

(added 1980 - Berkeley County- #80004413, 390 acres, 20 buildings, 1 structure).

### **Bunker Hill Historic District**

(added 1980 - Berkeley County - #80004412, 140 acres, 15 buildings, 3 structures).

### **Darkesville Historic District**

(added 1980 - Berkeley County- #80004410, 1,120 acres, 45 buildings, 2 structures).

### **Downtown Martinsburg Historic District**

(added 1980 - Berkeley County- #80004416, 1,390 acres, 281 buildings).

### **East Martinsburg Historic District**

(Added 1980- Berkeley County - #80004417, 1,530 acres, 172 buildings).

### **Gerrardstown Historic District**

(Added 1991 - Berkeley County - #91001008, 1,020 acres, 92 buildings, 2 structures).

### **Green Hill Cemetery Historic District**

(Added 1980 - Berkeley County - #80004433, 190 acres, 2 buildings, 22 objects).

### **Harlan Spring Historic District**

(Added 1980 - Berkeley County - #80004435)  
180 acres, 7 buildings.

### **Hedgesville Historic District**

(Added 1980 - Berkeley County - #80004419, 290 acres, 55 buildings.)

### **Jones Mill Run Historic District**

(added 1980 - Berkeley County - #80004421, 90 acres, 1 building, 2 structures).

### **Maidstone Manor Farm**

(added 1980 - Berkeley County - #80004408, 2,670 acres, 3 buildings).

### **Martinsburg Mining, Manufacturing and Improvement Company Historic District (MMMI)**

(added 2002 - Berkeley County, 64 acres, 289 buildings).

### **Mill Creek Historic District**

(added 1980 - Berkeley County - #80004420, 1,000 acres, 9 buildings, 3 structures).

**Ridge Road Historic District**

(added 1980 - Berkeley County - #80004429, 100 acres, 6 buildings).

**Rosemont Historic District**

(added 2002 - Berkeley County, 24.46 acres, 167 buildings).

**South Water Street Historic District**

(added 1980 - Berkeley County - #80004430, 210 acres, 30 buildings).

**Swan Pond Manor Historic District**

(added 1980 - Berkeley County - #80004425, 24,650 acres, 21 buildings, 1 structure).

**Tuscarora Creek Historic District**

(added 1980 - Berkeley County - #80004426, 2,900 acres, 31 buildings).

**Clary's Mountain Historic District**

(added 2008 – Berkeley County, 5 houses near Hedgesville along Rt. 901)

**Tabler Station Historic District**

(added 2008 – Berkeley County, Tabler Station Road Area)

**Spring Mills Historic District**

(added 2008 – Berkeley County, Rt. 901/Hammond Mill Road)

**List of Historic Buildings, Structures and Sites Listed in the National Register of Historic Places in Berkeley County**

Bunker Hill Mill & Miller House  
 Stephenson Tavern  
 Morgan Park  
 Henry Sherrard Hill  
 Spring Hill  
 Joel Ward House  
 John Gray House (site)  
 Holliday Mill (site)  
 Cumberland Valley Railroad Bridge  
 John Gray House (site)  
 Elisha Boyd Mill (site)  
 Joel Ward Mill (site)  
 William Henshaw House Springfield  
 Henshaw House  
 Robert Daniel, Jr. House  
 Pony Truss Bridge  
 Gold-Miller Road Bridge  
 Henshaw Miller House (site)  
 Henshaw Mill site  
 Gerrard House  
 John Boyd House  
 Morgan Chapel and Cemetery  
 Rees-Simmons House



**List of Historic Buildings, Structures and Sites Listed in the National Register of Historic Places in Berkeley County (continued):**

Morgan Acres  
Golden Meadows (David Morgan-Samual Gold House)  
Marshy Dell (Gilbert McKnown House)  
Washington Gold House  
Elizabeth Drinker House  
Carter Willis House  
Dr. Edward O. Williams House  
Fairview School  
Jacob A. Small House  
Capt. James Mason House  
Log House (Mason)  
Doctor Williams Stone House  
Log-Bricked Over House  
Rawleigh Morgan House  
Hollidale House  
Williamson House  
Wood House (House and Barn)  
John Hollida House Site  
Staley House  
George Folk House  
Hudgel House  
Henry Kroh House  
Sprinkle Cemetery  
Hedgel Welch Cemetery  
Hedgel Welch House site  
Thomas Swearingen House  
Dam 4 and Power Plant  
Stone Toll House (Ruins-burned)  
Archibald Shearer House  
Mt. Zion Baptist Church  
Jacob Van Doren House - Allendale  
Vanmeter Ford Stone Bridge  
Rush Miller Home  
Continental Clay Products Co.  
Kearfoot-Bane House  
Campbellton House and Store  
Smith Miller House  
Harriet Lyle House  
Philip Pendleton House  
Noll Rentch House  
Noll House  
Isabella Lyle House  
Thomas Thornborough House - Arqua Springs  
Red Bud Hollow (Dougal Campbell House)  
Thomas Brown House  
Seibert Villa  
Wilson, Mary Park, House  
William Wilson House ("Prospect Hill")

**List of Historic Buildings, Structures and Sites Listed in the National Register of Historic Places in Berkeley County (continued):**

Samuel Hedges House  
Samuel Cunningham House  
Peter Hedges House  
Dam 5 and Power Plant  
John Myers House  
Snodgrass Tavern  
Rural Hill (Edward Tabb House)  
Kerney Kilmer House  
Aaron Hibberd House and Mill  
Miller House (Patterson-Hibberd)  
Patterson Mill and Miller House  
Suber Walter House  
Richard Beeson House and Barn Site  
Tuscarora School  
Patterson Hibberd Mill Site  
Robert Lyle House  
Poor House Farm  
Fred Seibert House-Distillery & Tavern  
Stuckey House Site  
Daniel Stuckey House  
Lyle House  
Concrete Block House  
Providence Quaker Cemetery  
Boydbrook  
Presbyterian Church and Cemetery  
John Mong House  
Wendle Seibert House  
Johnathan Cushwa House  
Barnet Cushwa House  
Edward Ramsey Mill Site  
Edward Rumsey Log House  
Michael K. Seibert House  
Miller Loghouse  
Henry Bowers House  
Burkhart House  
Lick Plantation Mill, Barn, Log House and Stone Mansion House  
Teter Myers French House  
Maidstone Manor House (William Robinson Leigh House)  
Harmony Cemetery  
Spring Hill (Harlan House-log)  
Harlan Cottage  
John Sybert House (The Willows)  
Lingamfelter House  
Daniel Ropp House  
Hughes-Cunningham House  
Decatur Hedges House

The Authority concludes that Berkeley County's rich cultural and historic heritage is worth preserving. Therefore, the Authority has determined that the siting of any solid waste facility within any of the 23 Historic Districts is incompatible with the general culture of the District. Additionally, due to associated activities (noise, traffic, odor, etc.) often created by a commercial solid waste facility, the Authority has determined that the siting or classification conversion of a solid waste facility in, near or by any means which adversely impacts any area of historical value is PROHIBITED.

9. The present or potential land uses for residential, commercial, recreational, industrial, environmental or conservation purposes.

Currently, two incorporated municipalities exist within the County; the City of Martinsburg and the Town of Hedgesville. There are several "developed or urban areas" within the County. These urban areas are areas of high residential use.

Berkeley County continues to contain important plant and animal life. The County's vegetative resources are a vital part of its history, its character, and its ecological health. Vegetation, particularly forests, performs several wildlife functions for the local ecology. It provides habitat, both food and shelter, for local wildlife. It circulates nutrients between soil and the atmosphere. It stabilizes soil prone to erosion and filters nutrients, pollutants, and sedimentation from runoff, particularly along stream banks. Furthermore, forests are productive sources of timber. Many of these plants, animals, and ecosystems are rare or unique in the State and even the Nation. Most of the unique species and ecosystems exist within one or more of the "key habitats" found in the County. A number of these habitats have already suffered adversely due to development, open dumping, drainage, and other activities. The Authority has determined that the siting of a solid waste facility in a manner that will significantly adversely impact any unique and rare species or ecosystems is PROHIBITED. It is the responsibility of the developer to prove to the satisfaction of the Authority that the proposed facility or expansion will not adversely impact the key habitats.

The following are the types of key habitats which are found in the County:

Wetlands, Marl Wetlands, Floodplain Wetlands, Bogs, Black Ponds, Caves, Cliffs, Sinkholes, Mesic Limestone Forest and Shale Barrens.

West Virginia Division of Natural Resources (WVDNR), Natural Heritage Program has conducted investigations for significant habitats in Berkeley County. Most of their findings are outlined in this plan. However, further detail may be found in the "Guidelines for the Conservation of Significant Natural Features in Berkeley County, West Virginia." Coordination with knowledgeable individuals, state and federal agencies, and conservation organizations will be a standard practice by the Authority during the siting process.

As mentioned, there are several areas in the County that contain rare and/or threatened endangered species. The siting of any solid waste facility within or near these areas, or in any manner that may impact these species, is strictly PROHIBITED.

There are several public, non-profit, and private land preserves in Berkeley County. These land preserves are generally being maintained to protect rare, endangered species or unique habitat. In addition, the Berkeley County Commission has created a Berkeley County Farmland Protection Board and has adopted a Berkeley County Farmland Protection Program. This program's purpose is to accept conservation easements on private property in an effort to offer incentives to landowners to prevent the conversion to non-agricultural uses. Many of these protected farms contain important agricultural soils. The Authority PROHIBITS the development of all solid waste facilities in a manner that will adversely impact these properties.



The preserves are as follows:

1. The 4-H Association Camp Frame Preserve.
2. The Nature Conservancy's Yankauer Preserve.
3. Donaldson's Cave Preserve.
4. The Izaak Walton League Camping Ground.
5. Cricket Maze Cave Association Preserve.
6. Sleepy Creek Wildlife Management Area.
7. The Potomac Appalachian Trail Club.
8. The Stauffer's Marsh Nature Preserve.

#### Regional Recreational Facilities

- a. Sleepy Creek Wildlife Management Area (WMA), the largest regional facility in the County, covers approximately 23,000 acres. Three-quarters of this area is in Berkeley County, the remainder is in Morgan County. Sleepy Creek WMA is operated by the WV DNR as a semi-wilderness hunting and fishing area. It has camping areas, a 200-acre lake on Meadow Branch, and an extensive system of trails. State policy is to preserve this area in a wilderness condition and to discourage intensive recreation development.
- b. Camp Frame, a 45-acre 4-H camp northwest of Hedgesville, has sleeping, swimming, and eating facilities. It serves Morgan, Berkeley, and Jefferson Counties.

### Berkeley County Park and Recreation Facilities:

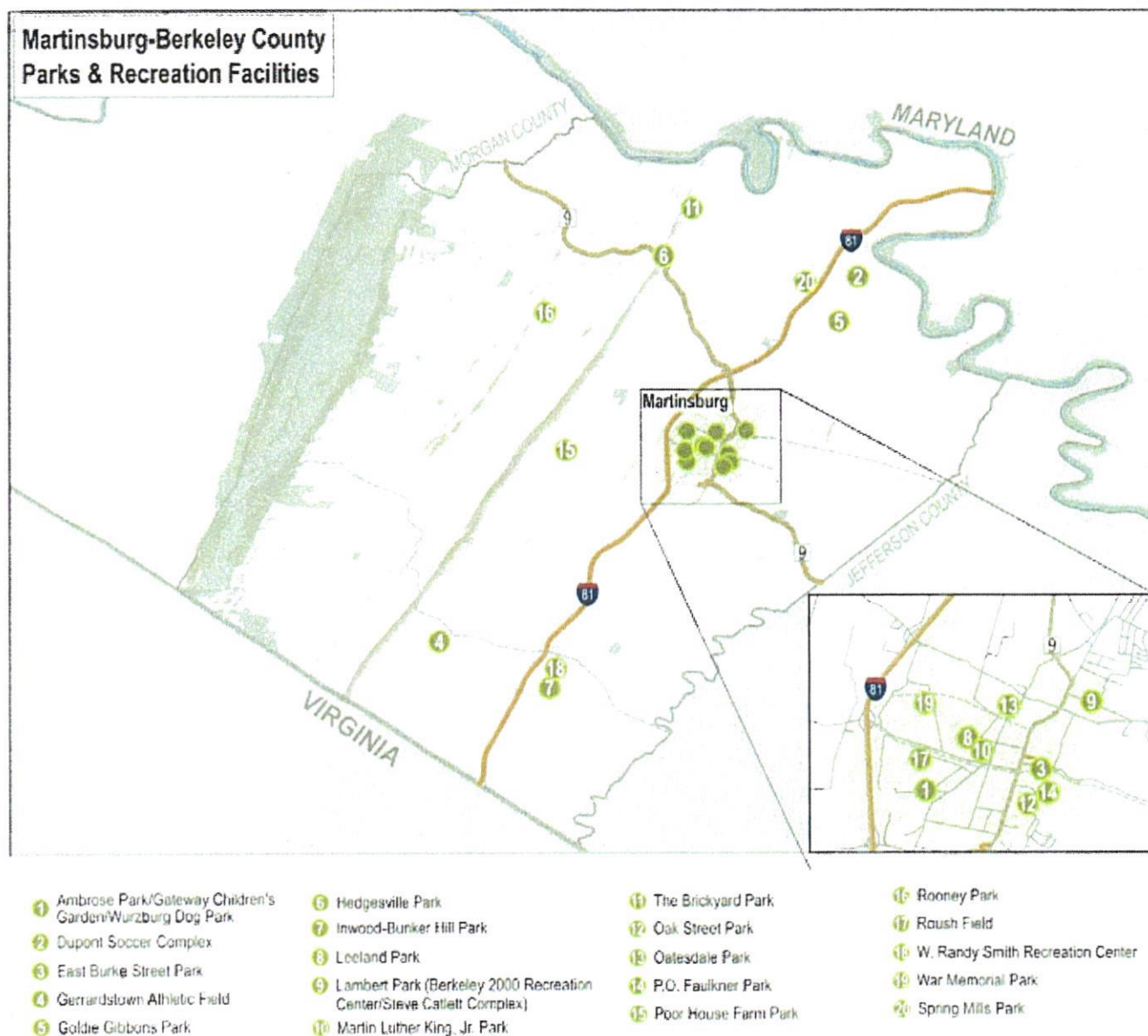
The 2023 Martinsburg -Berkeley County Parks and Recreation Master Program contains a wealth of information about the county's public and private parks and cultural areas. Berkeley County currently contains 20 county or city owned park and recreational facilities. In addition, the Plan documents valuable cultural and recreational outlets in the area that are not owned by the County or the City of Martinsburg.

|               | Park Facility                                                                       | Location                                                | Acres         | Indoor Facility<br>(Sq. Ft.) |
|---------------|-------------------------------------------------------------------------------------|---------------------------------------------------------|---------------|------------------------------|
| 1             | Ambrose Park/Gateway Children's Garden/Wurzburg Dog Park                            | Mall Drive, Martinsburg, WV                             | 3.95          | –                            |
| 2             | DuPont Soccer Complex                                                               | U.S. Route 11 North Martinsburg, WV                     | 27.6          | –                            |
| 3             | East Burke Street Park                                                              | 248 E. Burke St., Martinsburg, WV                       | 1.0           | –                            |
| 4             | Gerrardstown Athletic Field                                                         | Dominion Road, Gerrardstown, WV                         | 2.0           | –                            |
| 5             | Goldie Gibbons Park                                                                 | 782 Bedington Rd., Martinsburg, WV                      | 1.2           | –                            |
| 6             | Hedgesville Park                                                                    | 226 School House Dr.<br>Hedgesville, WV                 | 19.4          | –                            |
| 7             | Inwood-Bunker Hill Park                                                             | 8785 Winchester Ave., Bunker Hill, WV                   | 22.8          | –                            |
| 8             | Leeland Park                                                                        | 706 West Martin Street, Martinsburg, WV                 | 1.1           | –                            |
| 9             | Lambert Park (Berkeley 2000 Recreation Center / Steve Catlett Recreational Complex) | 273 Woodbury Ave., Martinsburg, WV                      | 12.0          | 43,550                       |
| 10            | Martin Luther King, Jr. Park                                                        | 601 Martin St., Martinsburg, WV                         | .49           | –                            |
| 11            | The Brickyard*                                                                      | Allensville Rd., Hedgesville, WV                        | 78.45         | –                            |
| 12            | Oak Street Park                                                                     | 325-361 Oak Street, Martinsburg, WV                     | 1.5           | –                            |
| 13            | Oatesdale Park                                                                      | Baltimore St. & William St.<br>Martinsburg, WV          | 28.5          | –                            |
| 14            | P.O. Faulkner Park                                                                  | 154 Sycamore St., Martinsburg, WV                       | 17.0          | –                            |
| 15            | Poor House Farm Park                                                                | Almshouse Rd., Martinsburg, WV                          | 224           | 2,400±                       |
| 16            | Rooney Park                                                                         | 12612 Back Creek Valley Road,<br>Hedgesville, WV        | 18.51         | –                            |
| 17            | Roush Field                                                                         | W. Stephen St., Martinsburg, WV                         | 1.8           | –                            |
| 18            | W. Randy Smith Recreation Center                                                    | 40 Excellence Way, Inwood, WV                           | 3.0           | 37,450                       |
| 19            | War Memorial Park                                                                   | 500 N. Tennessee Ave.<br>Martinsburg, WV                | 19.6          | –                            |
| 20            | Spring Mills Park*                                                                  | Hammonds Mill Rd./St. Andrews Dr.<br>Falling Waters, WV | 10.02         | –                            |
| <b>TOTALS</b> |                                                                                     |                                                         | <b>493.92</b> | <b>83,400±</b>               |

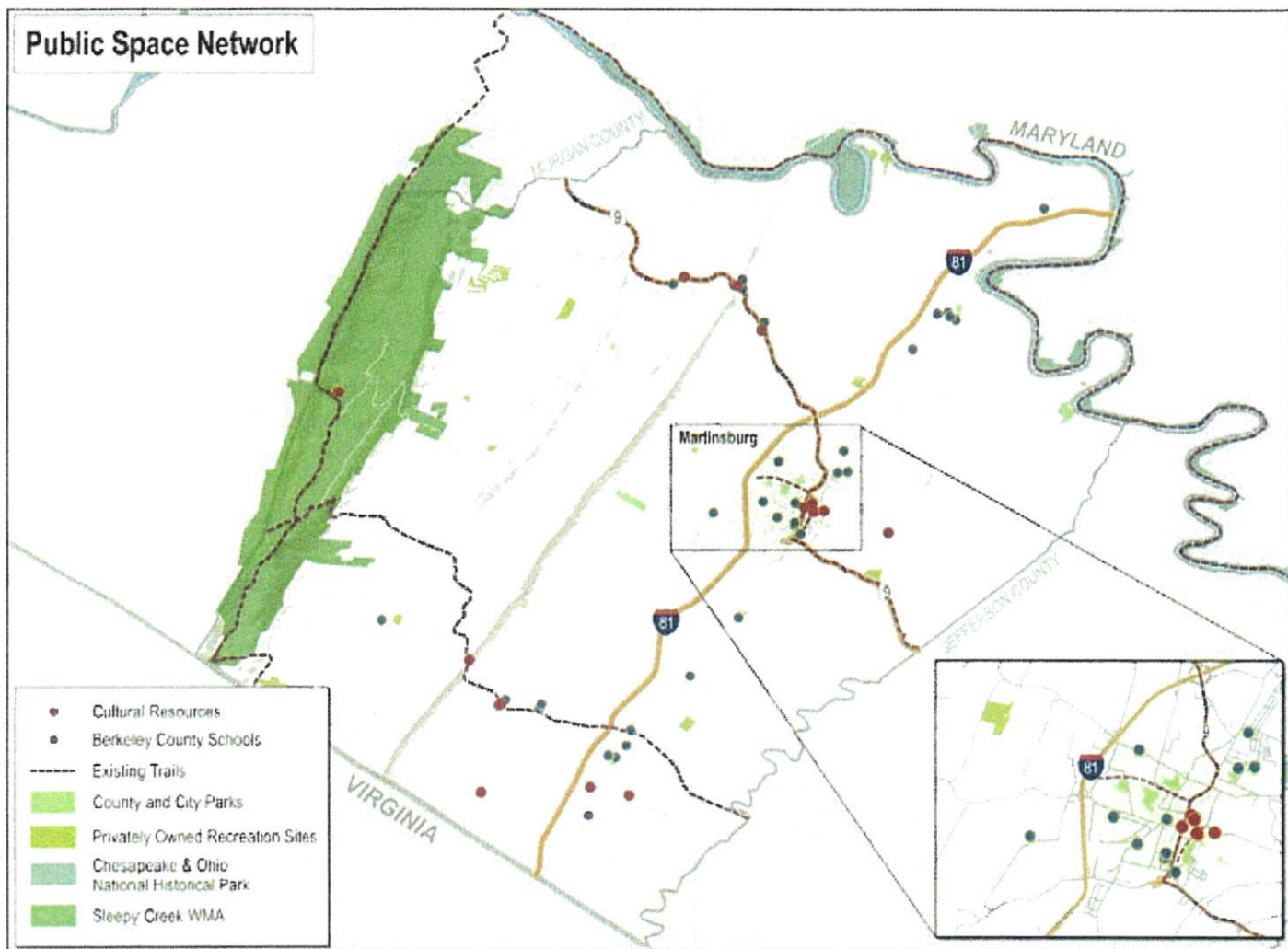
Source: M-BCP&R, 2021

\*As of the date of this plan, The Brickyard and Spring Mills Park are undeveloped and currently not accessible for public use.

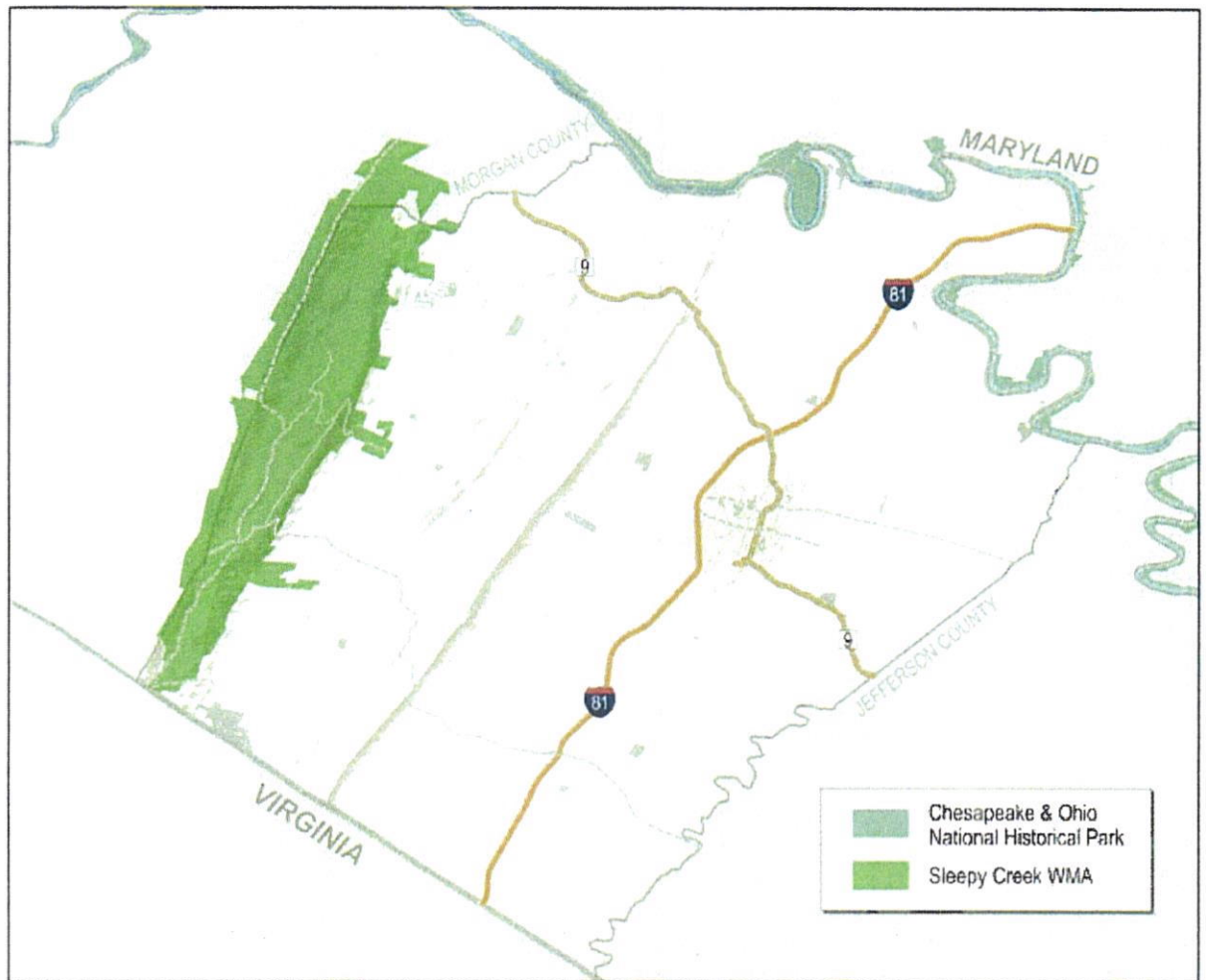
# Map of Berkeley County Parks



# Map of Berkeley County Public Space Network

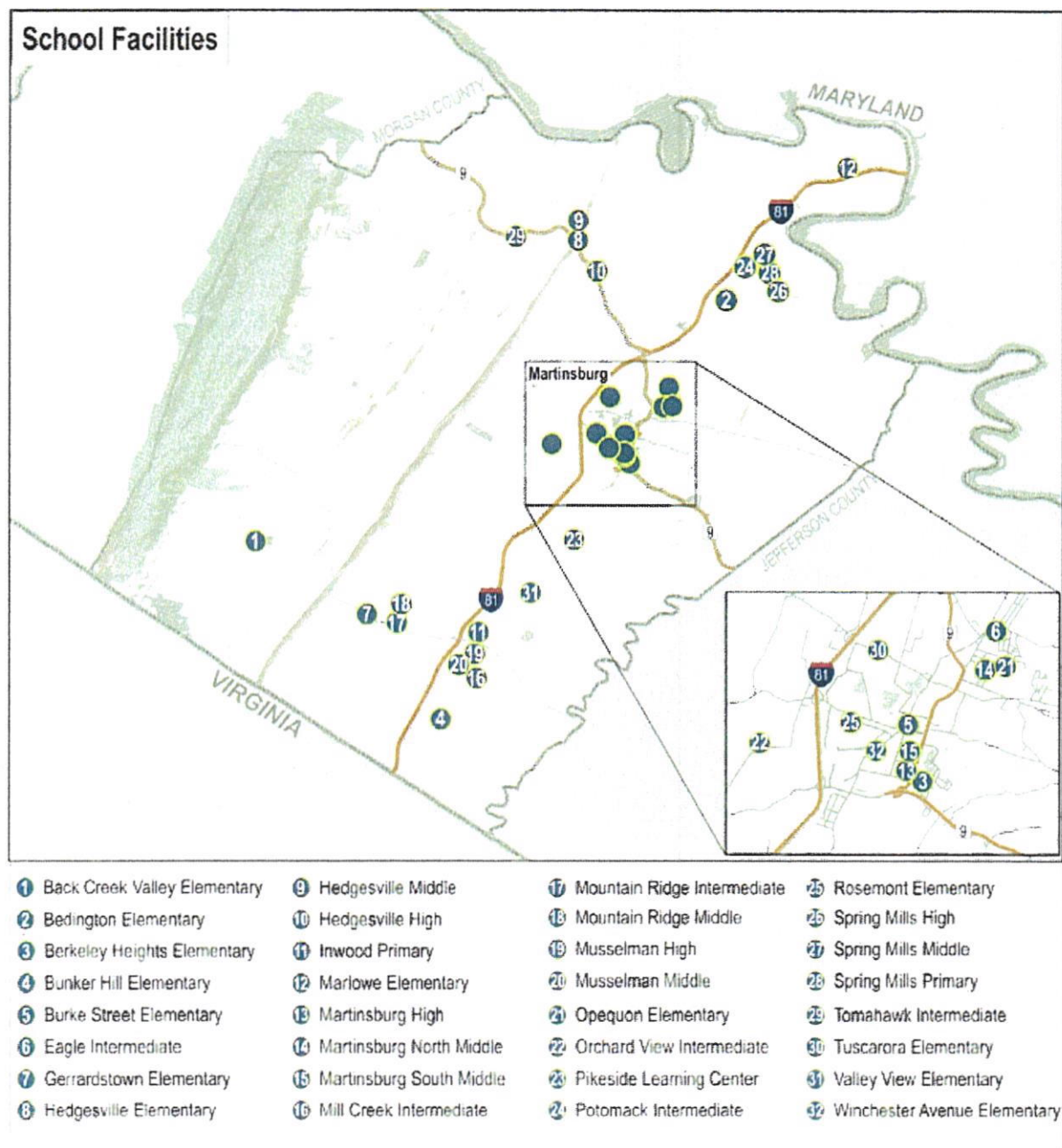




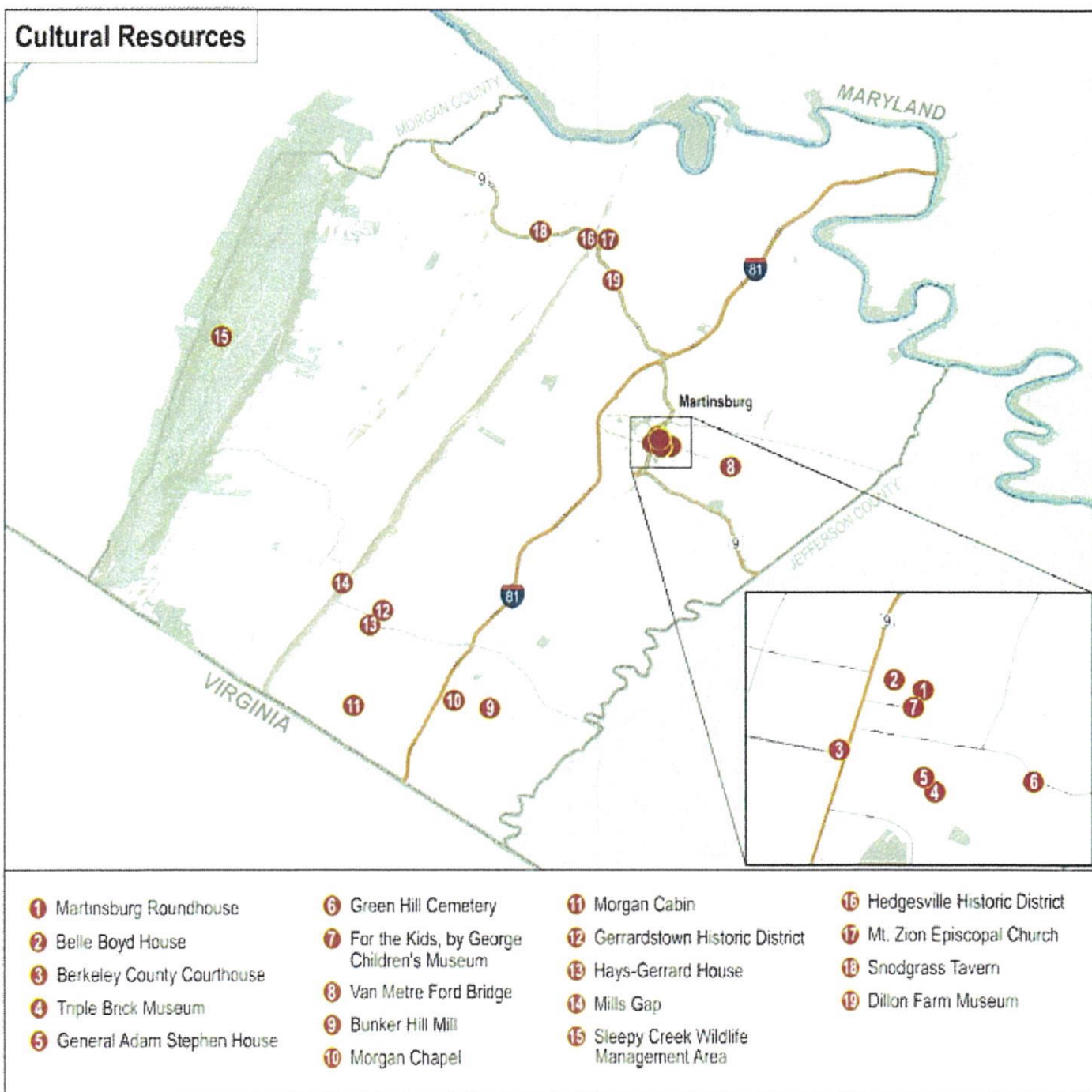
Map of Federal and State Owned Parks



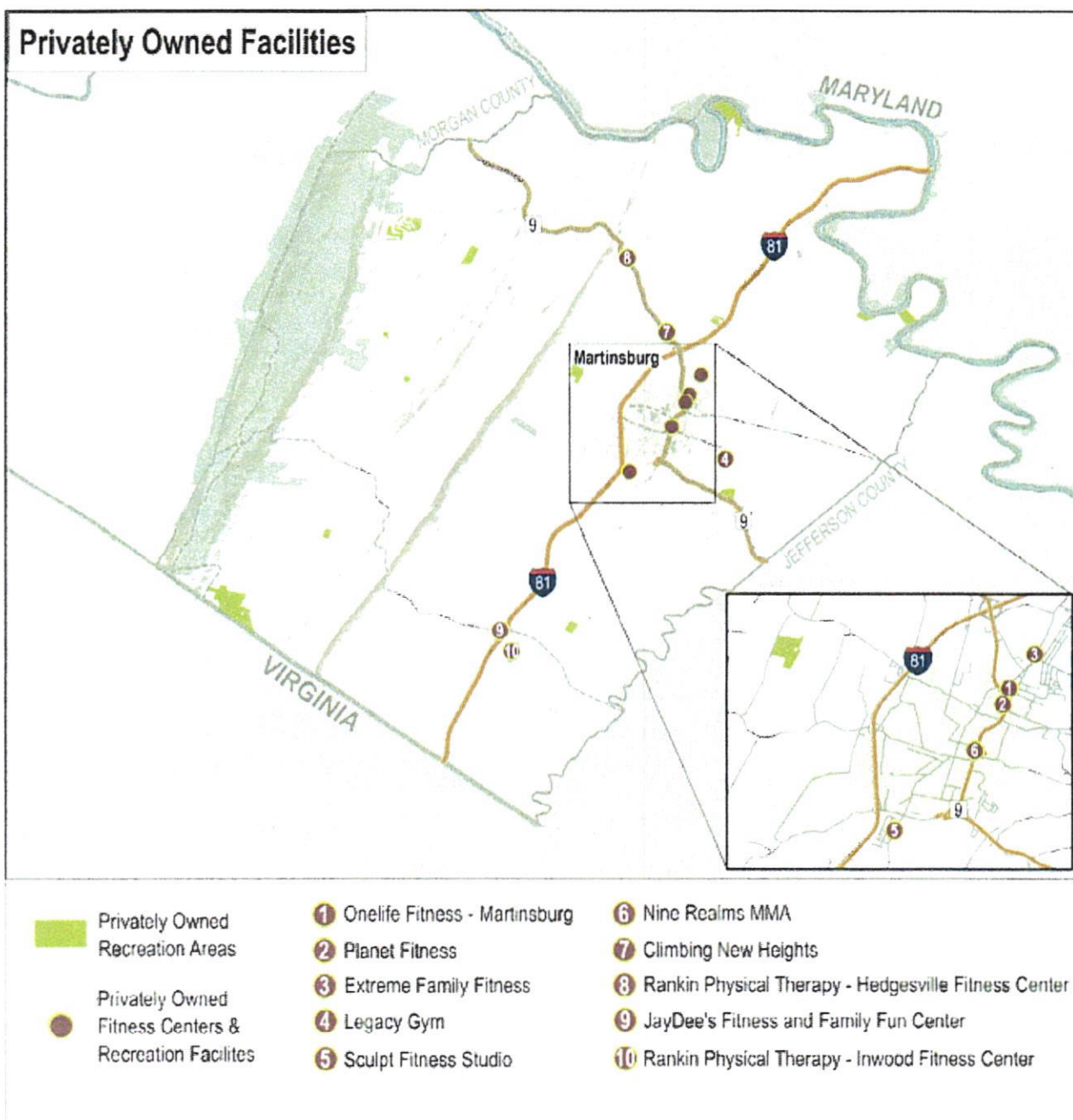
# Map of School Facilities



# Map of Cultural Resources



# Map of Privately Owned Recreational Areas





List of Resource Areas:

| Resource                                           | Federal | State | Berkeley County Board of Education | Natural / Cultural | Private |
|----------------------------------------------------|---------|-------|------------------------------------|--------------------|---------|
| B&O Roundhouse & Station Complex                   |         |       |                                    | X                  |         |
| Back Creek Fishing                                 |         |       |                                    |                    | X       |
| Back Creek Valley (K - 2)                          |         |       | X                                  |                    |         |
| Back Creek Valley Bow and Gun Club                 |         |       |                                    |                    | X       |
| Bedington Elementary (K - 2)                       |         |       | X                                  |                    |         |
| Belle Boyd House                                   |         |       |                                    | X                  |         |
| Berkeley County Courthouse                         |         |       |                                    | X                  |         |
| Berkeley Heights Elem. (K - 2)                     |         |       | X                                  |                    |         |
| Bunker Hill Elem. (K - 3)                          |         |       | X                                  |                    |         |
| Bunker Hill Mill                                   |         |       |                                    | X                  |         |
| Burke Street Elem. (K - 3)                         |         |       | X                                  |                    |         |
| Chesapeake and Ohio Canal National Historical Park | X       |       |                                    |                    |         |
| Climbing New Heights                               |         |       |                                    |                    | X       |
| Double A's Fierce Heart Horse Training             |         |       |                                    |                    | X       |
| Eagle School Intermediate (3 - 5)                  |         |       | X                                  |                    |         |
| Eagles Wings Horseback Riding                      |         |       |                                    |                    | X       |
| Evergreen Driving Range                            |         |       |                                    |                    | X       |
| Extreme Family Fitness                             |         |       |                                    |                    | X       |
| Falling Waters Springs & Falls                     |         |       |                                    |                    |         |
| General Adam Stephen House                         |         |       |                                    | X                  |         |
| Gerrardstown Elem. (K - 2)                         |         |       | X                                  |                    |         |
| Gerrardstown Historic District                     |         |       |                                    | X                  |         |
| Green Hill Cemetery                                |         |       |                                    | X                  |         |
| Hafer's Guns                                       |         |       |                                    |                    |         |
| Hays Gerrard House                                 |         |       |                                    | X                  |         |
| Hedgesville Elem. (K - 2)                          |         |       | X                                  |                    |         |
| Hedgesville High (9 - 12)                          |         |       | X                                  |                    |         |
| Hedgesville Historic District                      |         |       |                                    | X                  |         |

List of Resource Areas (Continued):

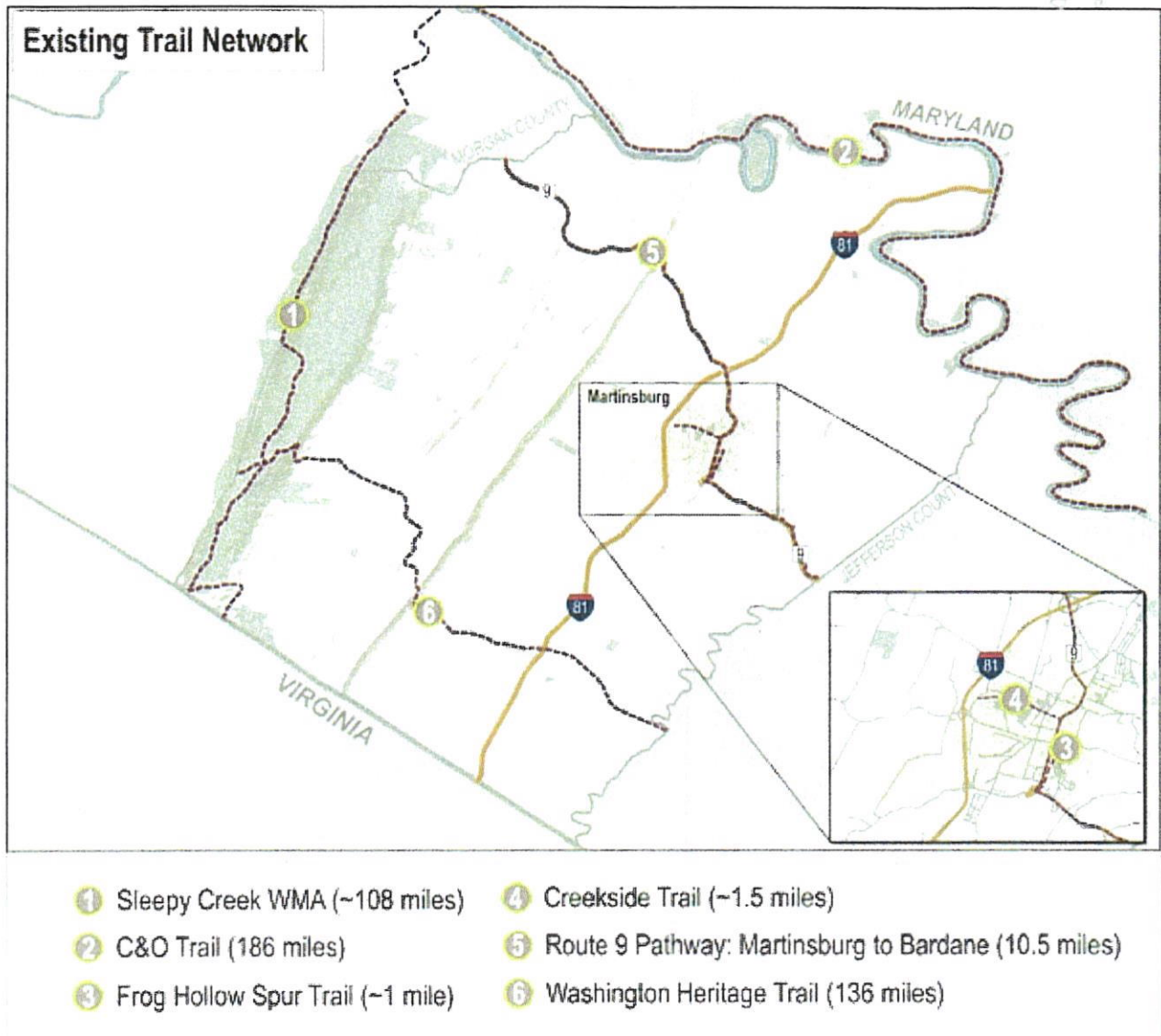
| Resource                               | Federal | State | Berkeley<br>County<br>Board of<br>Education | Natural /<br>Cultural | Private |
|----------------------------------------|---------|-------|---------------------------------------------|-----------------------|---------|
| Hedgesville Middle (6 - 8)             |         |       | X                                           |                       |         |
| Inwood Primary (K - 2)                 |         |       | X                                           |                       |         |
| Izaak Walton League                    |         |       |                                             |                       | X       |
| JayDee's Fitness and Family Fun Center |         |       |                                             |                       | X       |
| Lazy-A Campground                      |         |       |                                             |                       | X       |
| Leatherman's Campsite                  |         |       |                                             |                       | X       |
| Legacy Gym                             |         |       |                                             |                       | X       |
| Marlowe Elementary (K - 2)             |         |       | X                                           |                       |         |
| Martinsburg High (9 - 12)              |         |       | X                                           |                       |         |
| Martinsburg historic districts         |         |       |                                             | X                     |         |
| Martinsburg North Middle (6 - 8)       |         |       | X                                           |                       |         |
| Martinsburg South Middle (6 - 8)       |         |       | X                                           |                       |         |
| Mill Creek Intermediate (3 - 5)        |         |       | X                                           |                       |         |
| Mill's Gap                             |         |       |                                             | X                     |         |
| Morgan Cabin                           |         |       |                                             | X                     |         |
| Morgan Chapel                          |         |       |                                             | X                     |         |
| Mountain Ridge Intermediate (3 - 5)    |         |       | X                                           |                       |         |
| Mountain Ridge Middle (6 - 8)          |         |       | X                                           |                       |         |
| Mt. Zion Episcopal Church              |         |       |                                             | X                     |         |
| Musselman High (9 - 12)                |         |       | X                                           |                       |         |
| Musselman Middle (6 - 8)               |         |       | X                                           |                       |         |
| Nahkeeta Campsite                      |         |       |                                             |                       | X       |
| Nine Realms MMA                        |         |       |                                             |                       | X       |
| North Mountain Paintball               |         |       |                                             |                       | X       |
| Old Forge Hill Farm                    |         |       |                                             |                       | X       |
| Onelife Fitness                        |         |       |                                             |                       | X       |
| Opequon Elementary (K - 2)             |         |       | X                                           |                       |         |
| Orchard View Intermediate (3 - 5)      |         |       | X                                           |                       |         |



List of Resource Areas (Continued):

| Resource                                             | Federal | State | Berkeley County Board of Education | Natural / Cultural | Private |
|------------------------------------------------------|---------|-------|------------------------------------|--------------------|---------|
| Peacemaker National Training Center                  |         |       |                                    |                    | X       |
| Pikeside Learning Center                             |         |       | X                                  |                    |         |
| Planet Fitness                                       |         |       |                                    |                    | X       |
| Potomac Intermediate (3 - 5)                         |         |       | X                                  |                    |         |
| Rankin Physical Therapy - Hedgesville Fitness Center |         |       |                                    |                    | X       |
| Rankin Physical Therapy - Inwood Fitness Center      |         |       |                                    |                    | X       |
| River Bend RV Park                                   |         |       |                                    |                    | X       |
| Rosemont Elementary (K - 3)                          |         |       | X                                  |                    |         |
| Sculpt Fitness Studio                                |         |       |                                    |                    | X       |
| Shadow Hawk Defense                                  |         |       |                                    |                    | X       |
| Sleepy Creek Wildlife Management Area (WMA)          |         | X     |                                    |                    |         |
| Snodgrass Tavern                                     |         |       |                                    | X                  |         |
| Spring Mills High (9 - 12)                           |         |       | X                                  |                    |         |
| Spring Mills Middle (6 - 8)                          |         |       | X                                  |                    |         |
| Spring Mills Primary (K - 2)                         |         |       | X                                  |                    |         |
| Stauffer's Marsh Nature Preserve                     |         |       |                                    |                    | X       |
| SwingFit                                             |         |       |                                    |                    | X       |
| Tomahawk Intermediate (3 - 5)                        |         |       | X                                  |                    |         |
| Tomahawk MX                                          |         |       |                                    |                    | X       |
| Triple Brick Museum                                  |         |       |                                    | X                  |         |
| Tuscarora Elem. (K - 2)                              |         |       | X                                  |                    |         |
| Valley View Elem. (K - 2)                            |         |       | X                                  |                    |         |
| Whiting's Neck Equestrian Center                     |         |       |                                    |                    | X       |
| Winchester Avenue Elem. (K - 3)                      |         |       | X                                  |                    |         |
| Woodbrier Golf Course                                |         |       |                                    |                    | X       |
| Woods Golf Course                                    |         |       |                                    |                    | X       |
| Yankauer Nature Preserve                             |         |       |                                    | X                  |         |
| Zett's Tri-State Fish Farm & Hatchery                |         |       |                                    |                    | X       |

### Map of Existing Trail Networks



### **Known Environmentally Sensitive Areas**

- a. Tilhance Creek/Back Creek, This area has the largest concentration of rare species known in the county. It includes a population of: chuck-will's widow, eastern kingsnake, wood and red-bellied turtles, northern cricket frog, Kates Mountain clover, everlasting groundsel, shale barren, harperella, evening-primrose, shale barren goldenrod and dwarf wintergreen. It also contains the county's only population of mountain maple.
- b. North Mountain, The sensitivity of this area is due to steep slopes which preclude development activity. This is also the location of annual Hawk migrations. Development on slopes greater than 25% should be restricted.
- c. Potomac River-Cherry Run to McCoys Ferry, Largest intact floodplain forest left in the county. Occurrence of Steel's Meadow Rue, Snowy Campion, and Native Cane.
- d. Tuscarora Creek-Georgetown to Cumbo Yard, Loggerhead Shrike breeding in agricultural pastures.
- e. Shenandoah Valley, Middle Creek, Harlan Run, Opequon Creek, Rocky Marsh, Spring Mills, and Tomahawk Creek, These areas are suspected of having significant plant and animal habitat, however, more investigation is needed. Development should however be restricted to locations 50' distant from centerlines of these streams and creeks.
- f. Back Creek - 8 miles, From West Virginia State Route #9 to the mouth (near McCoys Ferry) was designated by the US Department of the Interior as meeting the minimum criteria for potential inclusion into the National Wild and Scenic Rivers System. Known Ecosystems Of Biological Significance

**Floodplain Ecosystem**: Floodplains provide valuable riparian habitat. These areas maintain water flood control, maintain water quality and reduce erosion.

Back Creek - Shanghai to Potomac River: Wood turtle, Red-bellied turtle, *Sparganium angrocladium* -Staminate Bur-reed, and Northern Lance (mussel).

Tilhance Creek - Butts Mill Road to Back Creek: Wood Turtle

**Limestone Cliffs Ecosystems**: This habitat supports organisms seldom found elsewhere in the state, e.g.: *Arabis pycnocarpon* - Hairy Rock Cress, *Thuja occidentalis*-Atlantic White Cedar, possibly *Trillium nivale* - Snow Trillium, *Oryzopsis racemosa* - Blackseed Mountain Rice, and *Galium boreale* - Northern Bedstraw.

Potomac River-Little Georgetown and Whittings Neck.

**Mesic Limestone Forests Ecosystems**: These areas are known for their rich wildflower displays. Two rare orchids are known to occur in mesic limestone forests, they are: *Corallorhiza winterana* and *Spiranthes ovals*.

North Mountain-Ferrel Ridge Anti-cline and Wilson's Ridge.

### **Shale Barrens Ecosystems:**

Back Creek: Tomahawk, Allensville, Camp Frame, Glengary and Ganotown. Some twenty plants are known to be shale barren endemics. These are some known to occur in Berkeley: *Trifolium virginicum* - Kate's Mountain Clover.

Opequon Creek: Full length of Creek: *Oenothera argillicola* - Shale barren Goldenrod, *Senecio ntenariifolius* - Everlasting Groundsel, *Woodsia ilvensis* - Rusty Woodsia, and poss. *Calystegia purshianus* - Shale barren Bindweed, and *Taenidia montana* - Mountain Pimpernel.

Potomac River: Cherry Run to McCoys Ferry: Largest intact floodplain forest left in the county; *Thalictrum steeleanum* - Steele's Meadow Rue.

Marl Wetlands: Swan Pond, Big Springs, Rocky Marsh: Marl wetlands of Berkeley County are rich in diversity of plant and animal habitat. All have been disturbed and some have been completely destroyed. Those remaining are likely to have populations of the following rare plants and animals: *Scirpus acutus* - Hard Bulrush, *Polygonum amphibian* - Swamp Water-pepper, *Equisetum fluviatile* - Marsh Horsetail, *Zannichellia palustris* - Horned Pondweed, *Peltandra virginica* - Arrow-arrum, and *Clemmys guttata* - Spotted Turtle

Black Ponds: Near Tomahawk: *Potamogeton pulcher* - Spotted pondweed, and possibly *Scirpus ancistrochaetus* - a rare bulrush.

### **Berkeley County Zoning Regulations:**

There are 4 areas of Berkeley County with approved zoning regulations in place:

- a) The Tuscarora Community Zoning Ordinance – was prepared by the Tuscarora Community Citizens Advisory Committee and was adopted in September, 1975. This is an area west of I-81 at Exit 13 and extends north and south of Tuscarora Pike.
- b) The Windewald Neighborhood Zoning Ordinance - was prepared in cooperation with the Windewald Neighborhood Citizens Advisory Committee and was adopted in 1975. This is an area immediately south of the City of Martinsburg and north to Apple Harvest Drive
- c) City of Martinsburg – administered by the City of Martinsburg.
- d) Town of Hedgesville – administered by the Hedgesville Town Council.



The West Virginia Geological and Economic Survey documented 14 recommended "prohibited" sites. Recommended prohibited site #2 is "towns and developed areas." The Authority has determined that the siting of some types of commercial solid waste facilities within or near an urban area may be very difficult. Because the development and operation of a landfill creates special concerns. Additionally, since municipalities have significant areas of historical value the Authority therefore PROHIBITS the siting of a landfill or any activity associated with the proposed landfill within or near any municipality or "developed or urban area" as determined by the Authority at the time of site application.

Since there is a finite amount of land available for sound economic development within the county, the Authority concludes that solid waste facilities, particularly landfills could become an inappropriate use of a scarce resource. The Authority concludes that Class A landfills are inconsistent with this theme.

The Authority concludes that recreation planning is vital and concerns itself with the stewardship of land for active and passive social enjoyment. Therefore, the Authority will prohibit the siting of any solid waste facility or any associated activity of the proposed facility with the following zones:

- a. Within 1,000 feet of the nearest edge of the boundary of any proposed or existing publicly or privately owned and/or publicly funded park, open space facility or cultural area that existed prior to the proposed facility or prior to the proposed facility expansion.
- b. Within 1,000-feet of the nearest edge of the boundary of any property which has been accepted into the Berkeley County Farmland Protection Program.

#### 10. The public health, welfare, and convenience.

Solid waste facilities present many potential nuisance and public health factors to a community, such as noise, garbage blowing off of trucks, landfill gas odors, mud on the road, air and water contamination, leakage of unidentified liquids from trucks, rodents, accelerated deterioration of the roads, and traffic safety hazards. Most roads in Berkeley County, except for roads with 4 lanes, are narrow and winding and contain various grades. Solid waste trucks would be extremely slow up grades and as a result are likely to create or contribute to a safety hazard.

The general welfare of the citizens can best be protected by development of commercial solid waste facilities that are located in a manner so that they do not adversely impact those places that are of greatest value to our citizens. Examples of such places are long established residential areas, schools, hospitals, cemeteries, churches, day care centers, community centers, parks, museums, open space areas, conservation areas, tourist areas, historic areas, scenic areas, cultural area and natural wetlands.

The prohibited zones for landfills and other solid waste facilities protect the public health by denying siting approval in areas of maximum vulnerability to potential adverse impacts upon the public health and welfare.

**CLASS A LANDFILLS**  
**(Including lateral expansions and conversion from Class B to Class A)**

There are currently no county or state permitted Class A commercial solid waste landfills in Berkeley County.

Landfills can play an important role in solid waste management. They can provide a short-term low-cost disposal method that is generally recognized as a common disposal method in the United States. The Authority concludes that landfilling is necessary for solid waste that cannot practically be managed in any other way. Those in the position of planning for solid waste management should minimize landfilling, seek out and develop alternative solutions to land disposal and pursue strategies that encourage solid waste that is presently landfilled to be reintroduced into the resource stream.

However, landfilling is extremely capital intensive, creating few jobs per dollars spent and competes with reduction, reuse, recycling and resource recovery efforts. Landfilling wastes energy, wastes economic opportunities, valuable nonrenewable and nonreplenishable resources are squandered, environmental and cultural liabilities are incurred and the land (and possibly neighboring land) impacted by the landfill is permanently scarred.

The siting of large landfills can be subjected to significant public opposition. For example, the Geotech/ LCS Services Landfill operating in Berkeley County experienced nearly ten years of significant public opposition. At the core of the opposition was the establishment of daily and monthly tonnage caps. The daily and monthly tonnage caps have been fully conceded by LCS Services before the West Virginia Supreme Court of Appeals (State ex rel. Hamrick v. LCS Services, 193 W. Va. 111, 116 n.7, 454 S.E.2d 405, 410 n.7 (1994)). LCS asserted in that case that "every party in this case would prefer that this court resolve the critical issues raised in this appeal once and for all."

In a Federal case coming directly from Berkeley County, the United States Court of Appeals for the Fourth Circuit Court, in reviewing West Virginia solid waste laws, said the psychological and community spirit of citizens are values and were constitutionally protectable interests by limitations on landfills (Geotech Reclamation Industries v. Hamrick, et al., 886 F. 2d 662 (4th Cir. 1989)). The Authority notes that Geotech Reclamation Industries was attempting to site a landfill at the current location of the LCS Services Landfill. The Authority remains concerned that the handling of large volumes like those associated with large scale facilities may lead to the destruction of the community spirit and pride within Berkeley County.

Despite conceding before the WV Supreme Court, in 2004, a Siting Plan amendment was requested by WMI/ LCS Services for consideration of converting the North Mountain Sanitary Landfill from Class B status to Class A status. The Authority issued a decision to deny this request. The decision is detailed in a document titled: "Decision In The Matter Of The Request By WMI / LCS Services For Conversion To Class A Status At The North Mountain Sanitary Landfill".

In 2012, a Siting Plan amendment was again requested by WMI/LCS Services for consideration of converting the North Mountain Sanitary Landfill from Class B status to Class A status. The Authority issued a decision to deny this request. The decision is detailed in the minutes of the November 21, 2012 Board meeting of the Berkeley County Solid Waste Authority.

The Authority agrees with the findings of WV Code §22C-4A-1 and concludes that the potential impacts of commercial solid waste disposal facilities have a deleterious and debilitating effect upon the transportation network, property values, economic growth, environmental quality, other land uses and the public health and welfare. These adverse impacts are borne predominantly by the local residents in the communities where the facilities are located. The largest of these facilities authorized to operate in West Virginia are Class A landfills. Class A landfills inevitably cause the most severe adverse impacts to the local area and Berkeley County citizens are dependent upon the Authority to assure and verify that a Class A landfill will be sited in a manner that assures the local infrastructure and environment are appropriately suited for a Class A landfill.

In addition to groundwater and surface water concerns, landfills produce methane, creating odors, health threats, explosion and fire risks. Industry magazine WasteAge reported in September, 2010 that in an average year, more than 8,300 fires break out in US landfills – reportedly many of them burning out of control underground - often releasing toxic gases into the atmosphere. Industry magazine Waste & Recycling News in August, 2009 published an article titled “Where There’s Smoke” regarding the subject of fires at landfills. The article quotes a landfill industry expert: *“It’s [fire at landfills] a big issue. It’s not a national crisis by any means, but almost every landfill has fires periodically. Sometimes it can be a big deal. On average, a landfill will have a fire once, twice, or maybe three times per year, something like that. It’s about that common of an issue. I think a lot of fires are not reported because they are just very small and they are handled as part of the normal day to day operations.”* In December, 2023, Climate & Environment Magazine authored an article titled “Uncontrolled chemical reactions fuel crisis at LA County’s two largest landfills”. The article documents high temperatures and smoldering for months due to an enigmatic chemical reaction hundreds of feet underground in the Chiquita Canyon and Castaic Landfills. Additionally, the article documents putrid odors that has nauseated students and staff at a local elementary school coming from the Sunshine Canyon Landfill. These landfills have reportedly triggered thousands of odor complaints, dozens of environmental penalties and renewed calls to shutter the landfills.

On October 28, 2012, the Hedgesville Fire Department reported a 3 ½ hour fire at the LCS Services Landfill that consumed garbage and onsite supplies across a 100’ by 50’ section of the landfill. Similarly, on August 8, 2013, firefighters needed several hours to extinguish a landfill fire in Smith Creek, Michigan. The fire covered an area of 100 feet by 250 feet before being put out. In 2017, a fire at the Rolling Hills Landfill in Escambia County, FL. burned through 5 acres before firefighters were able to bring it under control. On July 10, 2013, another fire burned for several hours at a landfill in Durant, Oklahoma; while on July 8, 2013, firefighters battled a nine-hour fire at the Sarpy County Landfill in Omaha, Nebraska.

In addition to fire threats, landfill gas odors are a significant concern. In May, 2013, Waste & Recycling News reported that 270 households near the Bridgeton Landfill in Missouri were offered free temporary lodging while work to mitigate odors was underway. The landfill was sued by the Missouri Attorney General’s Office for the ongoing landfill odors that impacted the ability of the local residents to go about normal activities. Eventually, 40 new gas collection wells were installed to compliment 160 existing wells to help remove odor causing gas and the landfill was closed. Waste & Recycling News also reported in April, 2013 that a Pennsylvania landfill near Pittsburgh is installing wells to collect and flare methane gas at the facility after a previous plan to deodorizer did not work.



In 2016, WV-DEP officials reported that the LCS Services Landfill was installing additional landfill gas wells in an effort to collect and flare landfill gas after objectionable odor complaints were received from neighbors. In June, 2013, the Fenimore Landfill in Roxbury, New Jersey was taken over by State officials because landfill gas odors made local residents sick. In March, 2013, the Lorain County Landfill in Ohio agreed to pay a \$500,000 fine and make site improvements due to ongoing landfill gas odor issues.

Landfills are also a risk for gas explosion. For example, Waste & Recycling News reported on July 18, 2013 that the landfill gas system at the Central Landfill in Johnston RI exploded, ripping apart pipes and steel coupling and touching off a brush fire.

The October 3, 2011 Waste and Recycling News reports that Saint Consulting Group surveys Americans each year about their property development preference. Frequently, landfills come out at the top of the unwanted projects. The survey shows a 76% general opposition rate to landfill development. Landfills are frequently ranked first in general opposition. It is believed the opposition is derived by the perception and the realities of issues impact the neighborhood.

Finally, there is a perception that large landfills are associated with organized crime causing a fear of corruption. For example, Waste & Recycling News reported in January, 2013 that mobsters were exerting greater control over a portion of the New York City trash industry for years, according to Federal authorities. Charges were brought against 32 people by the FBI and the Westchester County, NY Police Department. Law enforcement stated that "organized crime insinuated itself into the waste disposal industry throughout a vast swath of counties in New York and New Jersey".

Much of the water utilized by the citizens and businesses of Berkeley County comes directly or indirectly from groundwater. These private and public water sources rely on uncontaminated water within the county's aquifers. The Authority concludes that because a landfill utilizes clay and/or synthetic liners there is still a real risk of groundwater contamination. This conclusion is of sound basis because multiple private, state and federal studies have concluded that eventually these composite liner systems will fail to protect the environment and the extent of the pollution will become dependent upon the geology of the area. Such risks in Berkeley County are further compounded by the county geology as defined earlier in the geology section.

In addition, after a review of the transportation network, the Authority has concluded that uses for large volumes of truck traffic, similar to that associated with a Class A commercial solid waste facility, cannot occur without impacting the quality of lives of those that utilize such roads.

The siting of new landfills and the expansion of existing ones will be extremely difficult due to public concerns over noise, odors, traffic, litter, mud, property values and the greater concern over damage to the environment surrounding the immediate community. The increasing population of the county guarantees heavier burdens on all solid waste facilities. Landfill space will be consumed at a higher rate thereby certainly increasing the need for higher priorities for reuse techniques, source reduction, commercial and non-commercial recycling, resource recovery and composting activities.

Therefore, the Authority concludes that landfilling is placed at the bottom of the integrated waste management hierarchy with sound reason and concludes that those in the position of planning for solid waste management should minimize their intake, seek out and develop alternative solutions to land disposal and pursue strategies that encourage solid waste that is presently being landfilled to be reintroduced into the resource stream. The Authority agrees with the findings of the WV Legislature and concludes that Class A facilities create special environmental problems and concludes that a landfill siting must be based upon sound considerations.

For Berkeley County, the siting of a Class A landfill includes prohibiting Class A landfills within the following zones:

1. Within 1,000 feet of any state highway trunk, interstate, federal aid highway, secondary highway;
2. Within six (6) miles of the property line of the WV Eastern Regional Airport;
3. Within 1,000 feet of any railroad which is utilized for passenger service or tourism;
4. Within 500 feet of a dwelling;
5. Within 300 feet of a natural wetland;
6. Where a significant adverse impact upon any natural wetland may likely occur;
7. Within a perennial stream;
8. Within 1,200 feet of any public or private water source;
9. Within 300 feet of any surface water;
10. Where a significant adverse impact upon surface water may likely occur;
11. Within a 100-year floodplain;
12. Within 200 feet of any area considered unmonitorable;
13. Within 500 feet of known faults (regardless of displacement age);
14. Where a significant adverse impact upon a public or private water source may occur;
15. Within an area of high permeability;
16. Within slopes greater than 25 percent;
17. Above deep mine workings or critical angles;
18. Within previously surface mined areas;
19. Within 1,000 feet of a public or private park or open space facility;
20. Within 1,000 feet of a existing or proposed conservation district/area;

21. Within 1,000 feet of an existing property accepted into the Berkeley County Farmland Protection Program;
22. Within 1,000 feet of a property with a conservation easement;
23. Which may significantly adversely impact unique, threatened and/or rare species or ecosystems;
24. Within the prohibited bedrock formations;
25. In or near historic districts or other areas of historic value;
26. In or near the City of Martinsburg, Town of Hedgesville and any other area of urbanization in the county;
27. In a manner that may significantly adversely impact the George Washington Heritage Trail;
28. On or near aquifers or other areas of hydrological sensitivity;
29. In a manner that would significantly adversely impact the county's trout streams, water supply streams, recreational streams, streams containing rare/ endangered species or significant plant/animal habitat;
30. Where a significant adverse impact upon groundwater will likely occur;
31. In a manner that would adversely impact land preserves or land with a conservation easement.
32. Where stormwater or treated leachate will be discharged within any surface water containing 'losing stretches' of surface water.

In addition, the Berkeley County Planning Commission has implemented design standards and operating requirements for "salvage yards" through the Berkeley County Salvage Yard Ordinance (Adopted June 4, 1984). As defined in the ordinance\*, a "salvage yard" includes garbage dumps and sanitary landfills and the ordinance sets forth setbacks and other criteria for the siting and operation of a landfill.

Examples of such criteria include, but are not limited to, a community impact statement, public hearings, physical impacts, social impacts, fencing and screening requirements, parking, size and economic impacts. Some examples of location standards and setbacks include prohibitions:

1. Within 1,000 feet of an existing residence.
2. Within 1,000 feet of any existing public or private school.
3. Within 1,000 feet of any existing public or private playground, park, recreation area or church.

4. Within 200 feet of any year round stream, run, river, pond or other water body.
5. Within a flood prone area.
6. Within 100 feet of a property line.
7. Within 1,000 feet of a State road right of way
8. Within 1,000 feet of a private road right of way
9. Storage within 20 feet from the perimeter fence or screening

The Authority notes that the present and expected residential growth in the County has eliminated many large contiguous tracts of land typically necessary for the siting of a Class A landfill. Any remaining large tracts exist in rural areas where the transportation infrastructures tend not to support the volume of trucks associated with a Class A landfill. Additionally, in consideration of the aforementioned rational, setbacks and zones, the Authority has concluded there exists no opportunity for a Class A landfill to operate within Berkeley County without creating significant or further compounding adverse impacts upon the local community, environment and infrastructure.

Therefore, the Authority concludes that Class A landfills shall remain prohibited in Berkeley County.



### **CLASS B LANDFILLS (Including lateral expansions)**

There is one existing Class B landfill in Berkeley County. The North Mountain Sanitary Landfill, owned by LCS Services, a wholly owned subsidiary of Waste Management, Inc. was originally proposed in 1986 and after many years of public concern and associated litigation began accepting solid waste in January, 1991. The landfill has undergone several ownership changes (i.e. Geotech Reclamation, LCS Services, Chambers Development Company, USA Waste, Waste Management Inc.).

The LCS Landfill originally was an 82-acre facility and had a reported capacity of approximately 7.5 million tons. In 1999, its footprint was reduced to 67 acres. It is a Class B facility operating with a permit tonnage restriction of 500 tons per day and 9,999 tons per month. According to 2020 Annual Report prepared for the LCS Landfill, 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 5,753,600 cubic yards. In addition, documents show that over 6 million gallons of landfill leachate is piped to the Berkeley County Public Service Sewer District from the landfill site on an annual basis.

On December 16, 1994, the West Virginia Supreme Court of Appeals ruled that LCS was operating a Class B solid waste facility and that WV Code §20-9-12b, which was effective in April of 1989 does not apply to LCS. Therefore, LCS had a valid permit and was, consequently, exempt from having to obtain site approval from the solid waste authority as a Class B landfill. However, local site approval by the Berkeley County Solid Waste Authority does apply to the LCS Landfill for requests for lateral expansions from the existing 67 acre footprint or requests for classification changes or requests for new solid waste facilities on the property.

The siting of large landfills can be subjected to significant public opposition. For example, the Geotech/ LCS Services Landfill operating in Berkeley County experienced nearly ten years of significant public opposition. At the core of the opposition was the establishment of daily and monthly tonnage caps. The daily and monthly tonnage caps have been fully conceded by LCS Services before the West Virginia Supreme County of Appeals (State ex rel. Hamrick v. LCS Services., 193 W. Va. 111, 116 n.7, 454 S.E.2d 405, 410 n.7 (1994)). LCS asserted in that case that "every party in this case would prefer that this court resolve the critical issues raise in this appeal once and for all."

Despite conceding before the WV Supreme Court, in 2004, a Siting Plan amendment was requested by WMI/ LCS Services for consideration of converting the North Mountain Sanitary Landfill from Class B status to Class A status. The Authority issued a decision to deny this request. The decision is detailed in a document titled: "Decision In The Matter Of The Request By WMI / LCS Services For Conversion To Class A Status At The North Mountain Sanitary Landfill".

In 2012, a Siting Plan amendment was again requested by WMI/LCS Services for consideration of converting the North Mountain Sanitary Landfill from Class B status to Class A status. The Authority issued a decision to deny this request. The decision is detailed in the minutes of the November 21, 2012 Board meeting of the Berkeley County Solid Waste Authority.

In a Federal case coming directly from Berkeley County, the United States Court of Appeals for the Fourth Circuit Court, in reviewing West Virginia solid waste laws, said the psychological and community spirit of citizens are values and were constitutionally protectable interests by limitations on landfills (*Geotech Reclamation Industries v. Hamrick, et al.*, 886 F. 2d 662 (4th Cir. 1989)). The Authority notes that Geotech Reclamation Industries was attempting to site a landfill at the current location of the LCS Services Landfill. The Authority remains concerned that the handling of large volumes like those associated with large scale facilities may lead to the destruction of the community spirit and pride within Berkeley County.

The Authority concludes that many of the concerns documented earlier concerning Class A landfills also apply to Class B landfills. Therefore, some repetition of that rationale is warranted.

The Authority agrees with the findings of WV Code §22C-4A-1 and concludes that the potential impacts of commercial solid waste disposal facilities have a deleterious and debilitating effect upon the transportation network, property values, economic growth, environmental quality, other land uses and the public health and welfare. These adverse impacts are borne predominantly by the local residents in the communities where the facilities are located. While not the largest of facilities authorized to operate in West Virginia, Class B landfills inevitably cause some adverse impacts to the local area. Berkeley County citizens are dependent upon the solid waste authority to assure and verify that a Class B landfill will be sited in a manner that assures the local infrastructure and environment are appropriately suited for the landfill.

Landfilling is extremely capital intensive, creating few jobs per dollars spent and competes with reduction, reuse, recycling and resource recovery efforts. Landfilling wastes energy, wastes economic opportunities, valuable nonrenewable and non-replenishable resources are squandered, environmental and cultural liabilities are incurred and the land (and possibly neighboring land) impacted by the landfill is permanently scarred. Therefore, the Authority concludes that landfilling is placed at the bottom of the integrated waste management hierarchy with sound reason and concludes that those in the position of planning for solid waste management should minimize their intake, seek out and develop alternative solutions to land disposal and pursue strategies that encourage solid waste that is presently being landfilled to be reintroduced into the resource stream.

In addition to groundwater and surface water concerns, landfills produce methane, creating odors, health threats, explosion, and fire risks. Industry magazine *WasteAge* reported in September, 2010 that in an average year, more than 8,300 fires break out in US landfills – reportedly many of them burning out of control underground - often releasing toxic gases into the atmosphere. Industry magazine *Waste & Recycling News* in August, 2009 published an article titled “Where There’s Smoke” regarding the subject of fires at landfills. The article quotes a landfill industry expert: *“It’s [fire at landfills] a big issue. It’s not a national crisis by any means, but almost every landfill has fires periodically. Sometimes it can be a big deal. On average, a landfill will have a fire once, twice, or maybe three times per year, something like that. It’s about that common of an issue. I think a lot of fires are not reported because they are just very small and they are handled as part of the normal day to day operations.”* In December, 2023, *Climate & Environment Magazine* authored an article titled “Uncontrolled chemical reactions fuel crisis at LA County’s two largest landfills”.

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In 2016, WV-DEP officials reported that the LCS Services Landfill was installing additional landfill gas wells in an effort to collect and flare landfill gas after objectionable odor complaints were received from neighbors. In June, 2013, the Fenimore Landfill in Roxbury, New Jersey was taken over by State officials because landfill gas odors made local residents sick. In March, 2013, the Lorain County Landfill in Ohio agreed to pay a \$500,000 fine and make site improvements due to ongoing landfill gas odor issues.

Landfills are also a risk for gas explosion. For example, Waste & Recycling News reported on July 18, 2013 that the landfill gas system at the Central Landfill in Johnston RI exploded, ripping apart pipes and steel coupling and touching off a brush fire.

The October 3, 2011 Waste and Recycling News reports that Saint Consulting Group surveys Americans each year about their property development preference. Frequently, landfills come out at the top of the unwanted projects. The survey shows a 76% general opposition rate to landfill development. Landfills are frequently ranked first in general opposition. It is believed the opposition is derived by the perception and the realities of issues impact the neighborhood.

Finally, there is a perception that landfills are associated with organized crime causing a fear of corruption. For example, Waste & Recycling News reported in January, 2013 that mobsters were exerting greater control over a portion of the New York City trash industry for years, according to Federal authorities. Charges were brought against 32 people by the FBI and the Westchester County, NY Police Department. Law enforcement stated that "organized crime insinuated itself into the waste disposal industry throughout a vast swath of counties in New York and New Jersey".

Much of the water utilized by the citizens and businesses of Berkeley County comes directly or indirectly from groundwater. These private and public water sources rely on uncontaminated water within the county's aquifers. The Authority concludes that because a landfill utilizes clay and/or synthetic liners there is still a real risk of groundwater contamination. This conclusion is of sound basis because multiple private, state and federal studies have concluded that eventually these composite liner systems will fail to protect the environment and the extent of the pollution will become dependent upon the geology of the area. Such risks in Berkeley County are further compounded by the county geology as defined earlier in the geology section.

The siting of new landfills and the expansion of existing ones will be extremely difficult due to public concerns over noise, odors, traffic, litter, mud, property values and the greater concern over damage to the environment surrounding the immediate community. The increasing population of the county guarantees heavier burdens on all solid waste facilities. Landfill space will be consumed at a higher rate thereby certainly increasing the need for higher priorities for reuse techniques, source reduction, commercial and non-commercial recycling, resource recovery and composting activities.

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Finally, there is a perception that landfills are associated with organized crime causing a fear of corruption. For example, Waste & Recycling News reported in January, 2013 that mobsters were exerting greater control over a portion of the New York City trash industry for years, according to Federal authorities. Charges were brought against 32 people by the FBI and the Westchester County, NY Police Department. Law enforcement stated that "organized crime insinuated itself into the waste disposal industry throughout a vast swath of counties in New York and New Jersey".

Therefore, the Authority concludes that the legislature places landfilling at the bottom of the integrated waste management hierarchy with sound reason. The Authority concludes that those in the position of planning for solid waste management should minimize the landfill's intake, seek out and develop alternative solutions to land disposal and pursue strategies that encourage solid waste that is presently being landfilled to be reintroduced into the resource stream.

The siting of new Class B landfills or even the expansion of existing ones will be extremely difficult due to public concerns over noise, odors, traffic, litter, mud, property values and the greater concern over damage to the environment surrounding the immediate community. The increasing population of the county guarantees heavier burdens on all solid waste facilities. Landfill space will be consumed at a higher rate thereby certainly increasing the need for higher priorities for reuse techniques, source reduction, resource recovery, commercial and non-commercial recycling and composting activities.

However, the Authority also concludes that landfills are necessary for materials that cannot practically be managed in any other way. Those in the position of planning for solid waste management should minimize their intake, seek out and develop alternative solutions to land disposal and pursue strategies that encourage solid waste that is presently landfilled to be reintroduced into the resource stream.



As detailed in this Plan, the water utilized by the citizens of Berkeley County comes directly or indirectly from groundwater. These private and public water sources rely on uncontaminated water within the county's aquifers. The Authority concludes that because a landfill utilizes clay and/or synthetic liners there is still a real risk of groundwater contamination. This conclusion is of sound basis because multiple private, state and federal studies have concluded that eventually these composite liners systems will fail to protect the environment and the extent of the pollution will become dependent upon the geology of the area. Such risks in Berkeley County are further compounded by the county geology as defined earlier in the geology section.

The Authority concludes that landfill siting must be based upon sound considerations. Since the WV legislature concluded that solid waste landfills create special environmental problems, the Authority has concluded that it reserves the right to require an applicant to perform special community impact studies to ensure the protection of groundwater, surface water, property values, transportation integrity, historic resources, cultural values, etc.

The Authority notes that the past levels of high residential growth in the County may have eliminated many large contiguous tracts of land typically necessary for the siting of a Class B landfill. Any remaining large tracts that may exist are likely in rural areas where the transportation infrastructure likely does not support the volume of trucks associated with a Class B landfill.

In addition, after a review of the transportation network, the Authority has concluded that uses for large volumes of truck traffic, like that associated with a Class B commercial solid waste facility, cannot occur without impacting the quality of lives of those that utilize such roads.

For Berkeley County, the siting of a Class B landfill includes prohibiting Class B landfills within the following zones:

1. Within 1,000 feet of any state highway trunk, interstate, federal aid highway, secondary highway;
2. Within six (6) miles of the property line of the WV Eastern Regional Airport;
3. Within 1,000 feet of any railroad which is utilized for passenger service or tourism;
4. Within 500 feet of a dwelling;
5. Within 300 feet of a natural wetland;
6. Where a significant adverse impact upon any natural wetland may likely occur;
7. Within a perennial stream;
8. Within 1,200 feet of any public or private water source;
9. Within 300 feet of any surface water;
10. Where a significant adverse impact upon surface water may likely occur;
11. Within a 100-year floodplain;



12. Within 200 feet of any area considered unmonitorable;
13. Within 500 feet of known faults (regardless of displacement age);
14. Where a significant adverse impact upon a public or private water source may occur;
15. Within an area of high permeability;
16. Within slopes greater than 25 percent;
17. Above deep mine workings or critical angles;
18. Within previously surface mined areas;
19. Within 1,000 feet of a public or private park or open space facility;
20. Within 1,000 feet of a existing or proposed conservation district/area;
21. Within 1,000 feet of an existing property accepted into the Berkeley County Farmland Protection Program;
22. Within 1,000 feet of a property with a conservation easement;
23. Which may significantly adversely impact unique, threatened and/or rare species or ecosystems;
24. Within the prohibited bedrock formations;
25. In or near historic districts or other areas of historic value;
26. In or near the City of Martinsburg, Town of Hedgesville and any other area of urbanization in the county;
27. In a manner that may significantly adversely impact the George Washington Heritage Trail;
28. On or near aquifers or other areas of hydrological sensitivity;
29. In a manner that would significantly adversely impact the county's trout streams, water supply streams, recreational streams, streams containing rare/ endangered species or significant plant/animal habitat;
30. Where a significant adverse impact upon groundwater will likely occur;
31. In a manner that would adversely impact land preserves or land with a conservation easement.
32. Where stormwater or treated leachate will be discharged within any surface water containing 'losing stretches' of surface water.

In addition, the Berkeley County Planning Commission has implemented design standards and operating requirements for "salvage yards" through the Berkeley County Salvage Yard Ordinance (Adopted June 4, 1984). As defined in the ordinance\*, a "salvage yard" includes garbage dumps and sanitary landfills and the ordinance sets forth setbacks and other criteria for the siting and operation of a landfill.

Examples of such criteria include, but are not limited to, a community impact statement, public hearings, physical impacts, social impacts, fencing and screening requirements, parking, size and economic impacts. Some examples of location standards and setbacks include prohibitions:

1. Within 1,000 feet of an existing residence.
2. Within 1,000 feet of any existing public or private school.
3. Within 1,000 feet of any existing public or private playground, park, recreation area or church.
4. Within 200 feet of any year round stream, run, river, pond or other water body.
5. Within a flood prone area.
6. Within 100 feet of a property line.
7. Within 1,000 feet of a State road right of way
8. Within 1,000 feet of a private road right of way
9. Storage within 20 feet from the perimeter fence or screening

Therefore, in consideration of the aforementioned Siting Plan Rationale and Zones and the Planning Commission setbacks, the Authority concludes that the suitability of any particular area, currently designated as "tentatively prohibited," for any particular solid waste facility, cannot and should not be finally determined except in conjunction with the siting approval process or the redesignation and amendment process provided for in §22C-4-24(b) and §22C-4-24(g), for it is only in those contexts that comprehensive and current information can efficiently be developed.

Consequently, no area within the county will be designated as "Authorized" for a commercial Class B landfill until such time as one of these processes has been conducted by the Authority. The Authority will maintain one or more applications which must be submitted to request a redesignation of a "tentatively prohibited" area to one where solid waste facilities are "authorized". Therefore, until a thorough and complete siting approval process has been completed for a specific location, the Authority prohibits Class B landfills in the zones noted and tentatively prohibits them in all other areas of the county.

## CLASS C LANDFILLS

There are currently no county or state permitted Class C commercial solid waste landfills in Berkeley County.

The Authority agrees with the findings of WV Code §22C-4A-1 and concludes that the potential impacts of commercial solid waste disposal facilities have a deleterious and debilitating effect upon the transportation network, property values, economic growth, environmental quality, other land uses and the public health and welfare. These adverse impacts are borne predominantly by the local residents in the communities where the facilities are located. While the largest of these facilities authorized to operate in West Virginia are not Class C landfills, landfills inevitably cause severe adverse impacts to the local area and Berkeley County citizens are dependent upon the solid waste authority to assure and verify that a Class C landfill will be sited in a manner that assures the local infrastructure and environment are appropriately suited for the landfill.

Landfilling is extremely capital intensive, creating few jobs per dollars spent and competes with reduction, reuse and local recycling efforts. It also wastes energy, wastes economic opportunities, valuable nonrenewable and nonreplenishable resources are squandered, environmental and cultural liabilities are incurred and the land (and possibly neighboring land) impacted by the landfill is permanently scarred. Therefore, the Authority concludes that landfilling is placed at the bottom of the integrated waste management hierarchy with sound reason and concludes that those in the position of planning for solid waste management should minimize their intake, seek out and develop alternative solutions to land disposal and pursue strategies that encourage solid waste that is presently being landfilled to be reintroduced into the resource stream.

The siting of new landfills and the expansion of existing ones will be extremely difficult due to public concerns over noise, odors, traffic, litter, mud, property values and the greater concern over damage to the environment surrounding the immediate community. The increasing population of the county guarantees heavier burdens on all solid waste facilities. Landfill space will be consumed at a higher rate thereby certainly increasing the need for higher priorities for reuse techniques, source reduction, resource recovery, commercial and non commercial recycling and composting activities.

However, the Authority also concludes that landfills are necessary for materials that cannot practically be managed in any other way. Those in the position of planning for solid waste management should minimize their intake, seek out and develop alternative solutions to land disposal and pursue strategies that encourage solid waste that is presently landfilled to be reintroduced into the resource stream.

As detailed in this Plan, much of the water utilized by the citizens of Berkeley County comes directly or indirectly from groundwater. These private and public water sources rely on uncontaminated water within the county's aquifers. The Authority concludes that because a landfill utilizes clay and/or synthetic liners there is still a real risk of groundwater contamination. This conclusion is of sound basis because multiple private, state and federal studies have concluded that eventually these composite liners systems will fail to protect the environment and the extent of the pollution will become dependent upon the geology of the area. Such risks in Berkeley County are further compounded by the county geology as defined earlier in the geology section.

The Authority finds that, while all landfills create adverse impacts upon the environment and the immediate community, Class C landfills will inevitably present the least adverse impact of the three (A, B, C) classes of commercial solid waste landfills for the municipal waste stream. This conclusion is an issue of volume because Class C landfills handle smaller volumes than those associated with Class A or B.

Therefore, in consideration of the aforementioned Siting Plan Rationale and Zones and the Planning Commission setbacks, the Authority concludes that the suitability of any particular area, currently designated as "tentatively prohibited," for any particular solid waste facility, cannot and should not be finally determined except in conjunction with the siting approval process or the redesignation and amendment process provided for in §22C-4-24(b) and §22C-4-24(g), for it is only in those contexts that comprehensive and current information can efficiently be developed.

Consequently, no area within the county will be designated as "Authorized" for a commercial Class C landfill until such time as one of these processes has been conducted by the Authority. The Authority will maintain one or more applications which must be submitted to request a redesignation of a "tentatively prohibited" area to one where solid waste facilities are "authorized". Therefore, until a thorough and complete siting approval process has been completed for a specific location, the Authority will prohibit Class C landfills in the zones noted and tentatively prohibits them in all other areas of the county.

For Berkeley County, the siting of a Class C landfill includes prohibiting Class C landfills within the following zones:

1. Within 1,000 feet of any state highway trunk, interstate, federal aid highway, secondary highway;
2. Within six (6) miles of the property line of the WV Eastern Regional Airport;
3. Within 1,000 feet of any railroad which is utilized for passenger service or tourism;
4. Within 500 feet of a dwelling;
5. Within 300 feet of a natural wetland;
6. Where a significant adverse impact upon any natural wetland may likely occur;
7. Within a perennial stream;
8. Within 1,200 feet of any public or private water source or wellhead protection area;
9. Within 300 feet of any surface water;
10. Where a significant adverse impact upon surface water may likely occur;
11. Within a 100-year floodplain;
12. Within 200 feet of any area considered unmonitorable;
13. Within 500 feet of known faults (regardless of displacement age);

14. Where a significant adverse impact upon a public or private water source may occur;
15. Within an area of high permeability;
16. Within slopes greater than 25 percent;
17. Above deep mine workings or critical angles;
18. Within previously surface mined areas;
19. Within 1,000 feet of a public or private park or open space facility;
20. Within 1,000 feet of an existing or proposed conservation district/area;
21. Within 1,000 feet of an existing property accepted into the Berkeley County Farmland Protection Program;
22. Within 1,000 feet of a property with a conservation easement;
23. Which may significantly adversely impact unique, threatened and/or rare species or ecosystems;
24. Within the prohibited bedrock formations;
25. In or near historic districts or other areas of historic value;
26. In or near the City of Martinsburg, Town of Hedgesville and any other area of urbanization in the county;
27. In a manner that may adversely impact the George Washington Heritage Trail;
28. On or near aquifers or other areas of hydrological sensitivity;
29. In a manner that would significantly adversely impact the county's trout streams, water supply streams, recreational streams, streams containing rare/ endangered species or significant plant/animal habitat;
30. Where a significant adverse impact upon groundwater will likely occur;
31. In a manner that would adversely impact land preserves, or land with a conservation easement.
32. Where stormwater or treated leachate will be discharged within any surface water containing 'losing stretches' of surface water.



In addition, the Berkeley County Planning Commission has implemented design standards and operating requirements for "salvage yards" through the Berkeley County Salvage Yard Ordinance (Adopted June 4, 1984). As defined in the ordinance\*, a "salvage yard" includes garbage dumps and sanitary landfills and the ordinance sets forth setbacks and other criteria for the siting and operation of a landfill.

Examples of such criteria include, but are not limited to, a community impact statement, public hearings, physical impacts, social impacts, fencing and screening requirements, parking, size and economic impacts. Some examples of location standards and setbacks include prohibitions:

1. Within 1,000 feet of an existing residence.
2. Within 1,000 feet of any existing public or private school.
3. Within 1,000 feet of any existing public or private playground, park, recreation area or church.
4. Within 200 feet of any year round stream, run, river, pond or other water body.
5. Within a flood prone area.
6. Within 100 feet of a property line.
7. Within 1,000 feet from a State road right of way.
8. Within 1,000 feet of a private road right of way.
9. Storage within 20 feet from the perimeter fence or screening.

## CLASS D LANDFILLS

There are currently no county or state permitted Class D commercial solid waste landfills in Berkeley County.

Should a Class D landfill be considered for a location in the County, the Authority will require the applicant to address specific issues to the disposal of construction and demolition waste. For example, landfills for construction and demolition waste have the potential of fire hazards due to uncontrolled deposition and poor compaction typically associated with demolition waste. The Authority also notes that spontaneous combustion presents the most likely triggering mechanism for fires at Class D landfills.

Landfilling is extremely capital intensive, creating few jobs per dollars spent and competes with reduction, reuse, recycling and resource recovery efforts. It also wastes energy, wastes economic opportunities, valuable nonrenewable and nonreplenishable resources are squandered, environmental and cultural liabilities are incurred and the land (and possibly neighboring land) impacted by the landfill is permanently scarred. Therefore, the Authority concludes that landfilling is placed at the bottom of the integrated waste management hierarchy with sound reason and concludes that those in the position of planning for solid waste management should minimize their intake, seek out and develop alternative solutions to land disposal and pursue strategies that encourage solid waste that is presently being landfilled to be reintroduced into the resource stream.

Because approximately 50% of construction and demolition material (concrete, cinder blocks, dirt, asphalt, bricks) is traditionally considered crushable into a rubble which has better uses than just to be landfilled, the Authority concludes that an applicant of a Class D landfill that proposes to accept Berkeley County waste will need to justify why the reuse and recycling of construction or demolition waste materials is not feasible as an alternative to the landfilling of the material.

The Authority notes that there are sound alternative methods for handling construction and demolition waste. For example, in neighboring Washington County, MD there exists a privately owned asphalt and aggregate manufacturing closed loop recycling facility for the collection and recycling of concrete, re-bar, asphalt, bricks and other aggregates. These types of concepts are becoming commonplace in local road construction, site demolition, etc. However, the Authority also concludes that landfills may be necessary for materials that cannot be practically managed in any other way. Because of the growth in the construction industry in the County, there is an understandable need for the ability to manage the construction and demolition waste.

The siting of new landfills, even ones dedicated for construction and demolition wastes, will be extremely difficult due to public concerns over noise, odors, traffic, litter, mud, property values and the greater concern over damage to the environment surrounding the immediate community. While the increasing population of the county guarantees heavier burdens on all solid waste facilities, the construction from the new housing could lead to increased gypsum disposal from drywall. Drywall is notorious for creating odors at landfills. This is because wet gypsum drywall under anaerobic conditions can emit hydrogen sulfide gas. The gas has a "rotten egg" smell and can cause problems ranging from annoyances to health hazards.

With the increasing populations, landfill space will be consumed at a higher rate thereby certainly increasing the need for higher priorities for reuse techniques, source reduction, resource recovery, commercial and non commercial recycling and composting activities.

The Authority agrees with the findings of WV Code §22C-4A-1 and concludes that the potential impacts of commercial solid waste disposal facilities have a deleterious and debilitating effect upon the transportation network, property values, economic growth, environmental quality, other land uses and the public health and welfare. These impacts are borne predominantly by the local residents in the communities where the facilities are located and larger volume facilities inevitably cause the most severe adverse impacts to the local area. Berkeley County citizens are dependent upon the solid waste authority to assure and verify that a Class D landfill will be sited in a manner that assures the local infrastructure and environment are appropriately suited for the landfill.

Therefore, in consideration of the aforementioned Siting Plan Rational and Zones and the Planning Commission setbacks, the Authority concludes that the suitability of any particular area, currently designated as "tentatively prohibited," for any particular solid waste facility, cannot and should not be finally determined except in conjunction with the siting approval process or the redesignation and amendment process provided for in §22C-4-24(b) and §22C-4-24(g), for it is only in those contexts that comprehensive and current information can efficiently be developed.

Consequently, no area within the county will be designated as "Authorized" for a commercial Class D landfill until such time as one of these processes have been conducted by the Authority. The Authority will maintain one or more applications which must be submitted to request a redesignation of a "tentatively prohibited" area to one where solid waste facilities are "authorized". Therefore, until a thorough and complete siting approval process has been completed for a specific location, the Authority will prohibit Class D landfills in the zones noted and tentatively prohibits them in all other areas of the county.

For Berkeley County, the siting of a Class D landfill includes prohibiting Class D landfills within the following zones:

1. Within 1,000 feet of any state highway trunk, interstate, federal aid highway, secondary highway;
2. Within six (6) miles of the property line of the WV Eastern Regional Airport;
3. Within 1,000 feet of any railroad which is utilized for passenger service or tourism;
4. Within 500 feet of a dwelling;
5. Within 300 feet of a natural wetland;
6. Where a significant adverse impact upon any natural wetland may likely occur;
7. Within a perennial stream;
8. Within 1,200 feet of any public or private water source or wellhead protection area;
9. Within 300 feet of any surface water;

10. Where a significant adverse impact upon surface water may likely occur;
11. Within a 100-year floodplain;
12. Within 200 feet of any area considered unmonitorable;
13. Within 500 feet of known faults (regardless of displacement age);
14. Where a significant adverse impact upon a public or private water source may occur;
15. Within an area of high permeability;
16. Within slopes greater than 25 percent;
17. Above deep mine workings or critical angles;
18. Within previously surface mined areas;
19. Within 1,000 feet of a public or private park or open space facility;
20. Within 1,000 feet of a existing or proposed conservation district/area;
21. Within 1,000 feet of an existing property accepted into the Berkeley County Farmland Protection Program;
22. Within 1,000 feet of a property with a conservation easement;
23. Which may significantly adversely impact unique, threatened and/or rare species or ecosystems;
24. Within the prohibited bedrock formations;
25. In or near historic districts or other areas of historic value;
26. In or near the City of Martinsburg, Town of Hedgesville and any other area of urbanization in the county;\*
27. In a manner that may adversely impact the George Washington Heritage Trail;
28. On or near aquifers or other areas of hydrological sensitivity;
29. In a manner that would significantly adversely impact the county's trout streams, water supply streams, recreational streams, streams containing rare/ endangered species or significant plant/animal habitat;
30. Where a significant adverse impact upon groundwater will likely occur;
31. In a manner that would adversely impact land preserves, or land with a conservation easement;

In addition, the Berkeley County Planning Commission has implemented design standards and operating requirements for "salvage yards" through the Berkeley County Salvage Yard Ordinance (Adopted June 4, 1984). As defined in the ordinance\*, a "salvage yard" includes garbage dumps and sanitary landfills and the ordinance sets forth setbacks and other criteria for the siting and operation of a landfill.

Examples of such criteria include, but are not limited to, a community impact statement, public hearings, physical impacts, social impacts, fencing and screening requirements, parking, size and economic impacts. Some examples of location standards and setbacks include prohibitions:

1. Within 1,000 feet of an existing residence.
2. Within 1,000 feet of any existing public or private school.
3. Within 1,000 feet of any existing public or private playground, park, recreation area or church.
4. Within 200 feet of any year round stream, run, river, pond or other water body.
5. Within a flood prone area.
6. Within 100 feet of a property line.
7. Within 1,000 feet of a State road right of way.
8. Within 1,000 feet of a private road right of way.
9. Storage within 20 feet from the perimeter fence or screening.



## RECYCLING FACILITY

There are currently no county or state permitted commercial recycling facilities in Berkeley County.

There presently exist three (3) non-commercial drop-off recycling facilities operated by the Authority and one (1) drop-off recycling facility operated by the City of Martinsburg. For a detailed description of these facilities, refer to the Berkeley County Comprehensive Litter and Solid Waste Control Plan. The Authority has expended millions of dollars of public resources in the establishment and operations of its facilities. They represent the core infrastructure of the largest recycling program in West Virginia. The Authority notes that these facilities are well utilized, including by WV-PSC authorized waste hauler, and offer an example of how recycling facilities can be an effective means of the management of the county's solid waste. The Authority further notes that these facilities enjoy broad public support, while landfilling does not. These facilities do not meet the definition of a "commercial solid waste facility" and therefore are exempt from the provisions of this Plan. The Authority notes that the non-commercial recycling facilities in the County have become an important part of the long-term solid waste management solution for Berkeley County. Consequently, the siting evaluation of a future commercial facility will include the potential impact on the existing recycling infrastructure.

The Authority finds that commercial recycling facilities are more likely to become an important part of the long-term solid waste management for Berkeley County. Therefore, the Authority, in conjunction with other persons as defined in WV Code §22-15-2(35), may find it necessary to site a commercial recycling facility in Berkeley County. However, the siting consideration

The Authority concludes that the promotion, encouragement and participation in the recycling of solid waste from the waste stream and returning it back into the resource stream is an effective manner by which the Authority, in conjunction with other persons as defined in WV Code § 22-15-2(35), can significantly and positively change Berkeley County's present solid waste conditions. The Authority concluded in the 2018 updating of the Berkeley County Comprehensive Litter and Solid Waste Control Plan that the County's dependence on landfilling can be significantly reduced through reduction techniques, reuse, resource recovery, and recycling of materials. The Authority believes that this approach is consistent with the WV Legislatively devised reduction goals and concludes that the proper siting of recycling facilities is essential to a positive change in the management of Berkeley County's solid waste. The 2011 report "More Jobs, Less Pollution": Growing the Recycling Economy in the US, prepared by Tellus Institute and Sound Resources Management has concluded that a higher recycling rate would mean reduced pollution and improved public health, along with stable employment bases. Additionally, according to figures released in December, 2023 by the US Department of Energy, landfills in the United States represents \$4 billion in lost economic value (January, 2024 Recycling Today).

Therefore, the Authority concludes that the siting of a commercial solid waste recycling facility can significantly and positively change Berkeley County's present solid waste conditions. In addition, the Authority also concludes that the suitability of any particular area, currently designated as "tentatively prohibited," for any particular solid waste facility, cannot and should not be determined except in conjunction with the siting approval process or the redesignation and amendment process provided for in §22C-4-24(b) and §22C-4-24(g), for it is only in those contexts that comprehensive and current information can efficiently be developed.

Consequently, no area within the county will be designated as "Authorized" for a commercial recycling facility until such time as one of these processes have been conducted by the Authority. The Authority will maintain one or more applications which must be submitted to request a redesignation of a "tentatively prohibited" area to one where solid waste facilities are "authorized". Therefore, until a thorough and complete siting approval process has been completed for a specific location, the Authority will prohibit recycling facilities in the zones noted and tentatively prohibits them in all other areas of the county.

For Berkeley County, the siting of a commercial recycling facility includes prohibiting the facilities within the following zones:

1. Where a significant adverse impact upon any natural wetland may likely occur;
2. Within a perennial stream;
3. Where a significant adverse impact upon surface water may likely occur;
4. Within a 100-year floodplain;
5. Where a significant adverse impact upon a public or private water source may occur;
6. Within slopes greater than 25 percent;
7. Within 1,000 feet of a public or private park or open space facility;
8. Within 1,000 feet of a existing or proposed conservation district/area;
9. Within 1,000 feet of an existing property accepted into the Berkeley County Farmland Protection Program;
10. Within 1,000 feet of a property with a conservation easement;
11. In any manner that may significantly adversely impact a private or public water source;
12. Which may significantly adversely impact unique, threatened and/or rare species or ecosystems;
13. In or near historic districts or other areas of significant historic value;
14. In a manner that may adversely impact the George Washington Heritage Trail;
15. In a manner that would significantly adversely impact the county's trout streams, water supply streams, recreational streams, streams containing rare/ endangered species or significant plant/animal habitat;
16. Where a significant adverse impact upon groundwater will likely occur;
17. In a manner that would adversely impact land preserves, or land with a conservation easement.

## COMPOSTING FACILITIES

There are currently no county or state permitted commercial composting facilities in Berkeley County. However, one privately owned composting facility does exist nearby in Jefferson County, WV.

The Authority notes there is one non-commercial composting facility operated by the West Virginia Division of Highways at their Rock Cliff Drive facility for the acceptance of roadside animal carcasses. This facility does not meet the definition of a commercial solid waste facility and is therefore exempt from the provisions of this Plan. There presently exists a non-commercial composting facility in Jefferson County. For a detailed description of this facility, refer to the Berkeley County Comprehensive Litter and Solid Waste Control Plan. The Authority notes that the operator of the Tabb & Son Composting Facility has expended millions of dollars of resources in the establishment and operations of its facility. Tabb & Son Composting represents the core infrastructure of the non-landfill management of organics in Waste Shed E. The Authority notes that this facility is well utilized and offers an example of how composting facilities can be an effective means of the management of the county's solid waste. The Authority further notes that this facility enjoys broad public support, while landfilling does not. This facility does not meet the definition of a "commercial solid waste facility". The Authority notes Tabb & Son Composting Facility has become an important part of the long-term solid waste management solution for Berkeley County. Consequently, the siting evaluation of a future commercial facility will include the potential impact on the existing composting infrastructure.

The Authority concluded in the 2018 updating of the Berkeley County Comprehensive Litter and Solid Waste Control Plan that the County's dependence on landfilling can be significantly reduced through reduction techniques, reuse and recycling of materials. The Berkeley County Comprehensive Litter and Solid Waste Control Plan further identifies that the lack of a composting facility in the County has made it difficult for the expansion of yard waste recycling programs and is reducing the potential recycling capability of the County. In January, 2024, Biocycle Magazine explained an US-EPA October 2023 report called "Quantifying Methane Emissions from Landfill Food Waste" demonstrates that landfilling food scraps generates huge amounts of methane, a majority of which is released to the atmosphere. The report stated that 58% of methane from landfill comes from food waste.

Commercial composting facilities are a supporting facility to food and yard waste recycling collection programs. The Authority concludes that the promotion, encouragement and participation in the composting of clean organic material from the waste stream and returning it back into the resource stream is an effective manner by which the Authority in conjunction with other persons as defined in WV Code §22-15-2(35) can significantly and positively change Berkeley County's present solid waste conditions. Traditionally, commercial composting facilities play an important role in a successful yard waste recycling effort. The Authority believes that supporting a commercial composting facility is consistent with the WV Legislatively devised reduction goals and concludes that the proper siting of these facilities is essential to a positive change in the management of Berkeley County's solid waste.

The Authority notes the definition of a composting facility does not identify the type material allowed to be accepted at a composting facility. Composting facilities, that accept mixed solid waste (i.e.: C&D debris, industrial, hazardous and municipal waste) within sewage sludge often produce contaminated compost and as a result the material only has a fraction of the market value of clean compost.

However, the Authority concludes that the siting of a commercial solid waste composting facility which accepts clean organic source separated materials can significantly and positively change Berkeley County's present solid waste conditions, the Authority also concludes that the suitability of any particular area, currently designated as "tentatively prohibited," for any particular solid waste facility, cannot and should not be finally determined except in conjunction with the siting approval process or the redesignation and amendment process provided for in §22C-4-24(b) and § 22C-4-24(g), for it is only in those contexts that comprehensive and current information can efficiently be developed.

Consequently, no area within the county will be designated as "Authorized" for a commercial composting facility until such time as one of these processes have been conducted by the Authority. The Authority will maintain one or more applications which must be submitted to request a redesignation of a "tentatively prohibited" area to one where solid waste facilities are "authorized". Therefore, until a thorough and complete siting approval process has been completed for a specific location, the Authority will prohibit composting facilities which accept clean organic source separated materials in the zones noted and tentatively prohibits them in all other areas of the county.

For Berkeley County, the siting of a commercial composting facility includes prohibiting the facilities within the following zones:

1. Within 300 feet of a natural wetland;
2. Where a significant adverse impact upon any natural wetland may likely occur;
3. Within a perennial stream;
4. Within 300 feet of any surface water unless demonstrated to the Authority that the proposed facility can operate without causing a significant adverse impact upon the surface water.
5. Where a significant adverse impact upon surface water may likely occur;
6. Within a 100-year floodplain;
7. Where a significant adverse impact upon a public or private water source may occur;
8. Within slopes greater than 25 percent;
9. Within 1,000 feet of a public or private park or open space facility;
10. Within 1,000 feet of an existing or proposed conservation district/area;
11. Within 1,000 feet of an existing property accepted into the Berkeley County Farmland Protection Program;
12. Within 1,000 feet of a property with a conservation easement;
13. Which may significantly adversely impact unique, threatened and/or rare species or ecosystems;

14. In or near historic districts or other areas of significant historic value;
15. In a manner that may adversely impact the George Washington Heritage Trail;
16. In a manner that would significantly adversely impact the county's trout streams, water supply streams, recreational streams, streams containing rare/ endangered species or significant plant/animal habitat;
17. Where a significant adverse impact upon groundwater may likely occur;
18. In a manner that would adversely impact land preserves, or land with a conservation easement;
19. Within 2,000 feet of a school, church, hospital or cemetery;
20. Within 500 feet of another private property boundary;
21. Within 1,000 feet of a state, secondary or federal highway;
22. Within 1,200 feet of a private or public water supply;
23. Within 500 feet of a dwelling;
24. Within 5 feet of seasonal high groundwater table;
25. Within 10,000 feet of the WV Eastern Regional Airport;
26. Within 1,000 feet of a sink or sinkhole;
27. In any manner that may significantly adversely impact a city or municipality within the county.



## ENERGY RECOVERY FACILITIES

There are currently no county or state permitted commercial energy recovery facility in Berkeley County.

Commercial energy recovery facilities are playing a larger and more important role in the handling of solid waste in the United States. The Authority believes that such facilities could eventually play a positive role in the long-term solid waste management in Berkeley County.

An August, 2011 Columbia University Earth Engineering Center Study of non-recycled plastics titled "Energy and Economic Value of Non-Recycled Plastics and Municipal Solid Wastes That Are Currently Landfilled In The Fifty States" concludes that there exists multiple economic and environmental reasons for the development of facilities to utilize solid waste for energy.

The Authority believes that as environmental technologies improve energy recovery facilities may become more main stream. However, all energy recovery facilities handle mixed solid waste. Therefore, factors such as noise, odors, traffic, aesthetics, roads, property values, etc., need to be considered. The Authority concludes that issues such as these shall be addressed for any given location during the siting process.

Commercial energy recovery facility could be very large in size and tonnages or relatively small and the associated adverse impacts upon a community could vary greatly depending upon the proposal and many other factors.

Therefore, in consideration of the aforementioned Siting Plan rationale, the Authority concludes that the suitability of any particular area, currently designated as "tentatively prohibited," for any particular solid waste facility, cannot and should not be finally determined except in conjunction with the siting approval process or the redesignation and amendment process provided for in §22C-4-24(b) and § 22C-4-24(g), for it is only in those contexts that comprehensive and current information can efficiently be developed.

Consequently, no area within the county will be designated as "Authorized" for a commercial energy recovery facility until such time as one of these processes has been conducted by the Authority. The Authority will maintain one or more applications which must be submitted to request a redesignation of a "tentatively prohibited" area to one where solid waste facilities are "authorized". Therefore, until a thorough and complete siting approval process has been completed for a specific location, the Authority will prohibit energy recovery facilities in the zones noted and tentatively prohibits them in all other areas of the county.

For Berkeley County, the siting of a commercial energy recovery facility includes prohibiting the facilities within the following zones:

1. Where a significant adverse impact upon any natural wetland may likely occur;
2. Within a perennial stream;
3. Where a significant adverse impact upon surface water may likely occur;
4. Within a 100-year floodplain;

5. Where a significant adverse impact upon a public or private water source may occur;
6. Within slopes greater than 25 percent;
7. Within 1,000 feet of a public or private park or open space facility;
8. Within 1,000 feet of an existing or proposed conservation district/area;
9. Within 1,000 feet of an existing property accepted into the Berkeley County Farmland Protection Program;
10. Within 1,000 feet of a property with a conservation easement;
11. Which may significantly adversely impact unique, threatened and/or rare species or ecosystems;
12. In or near historic districts or other areas of significant historic value;
13. In a manner that may adversely impact the George Washington Heritage Trail;
14. In a manner that would significantly adversely impact the county's trout streams, water supply streams, recreational streams, streams containing rare/ endangered species or significant plant/animal habitat;
15. Where a significant adverse impact upon groundwater will likely occur;
16. In a manner that would adversely impact land preserves, or land with a conservation easement.
17. Within 10,000 feet of the West Virginia Eastern Regional Airport.

## INCINERATORS

There are currently no county or state permitted commercial solid waste incinerators in Berkeley County.

On April 10, 1993 the WV Legislature passed WV Code §22-15-19, which states, in part, it is unlawful to install, establish or construct a new municipal or commercial solid waste facility utilizing incineration technology for the purpose of solid waste incineration in the State. With this action, the legislature specifically concluded "that incineration technologies present significant health and environmental problems".

Therefore, the Authority concludes that the West Virginia Legislature exercised sound logic in its banning of commercial solid waste incinerators in the State. Furthermore, the Authority also PROHIBITS the siting of commercial solid waste incinerators in Berkeley County.

However, it will be noted that the State and County prohibition does not include the development of tire or tire material incineration pilot projects designed to analyze the efficiency and environmental impact of tire material incineration technologies.

Due to the aforementioned tire exemption, it is noted that commercial incinerators for this sole purpose alone could be developed. Therefore, the Authority prohibits the siting of a commercial incinerator facilities within the following zones:

1. Where a significant adverse impact upon any natural wetland may likely occur;
2. Within a perennial stream;
3. Where a significant adverse impact upon surface water may likely occur;
4. Within a 100-year floodplain;
5. Where an significant adverse impact upon a public or private water source may occur;
6. Within slopes greater than 25 percent;
7. Within 1,000 feet of a public or private park or open space facility;
8. Within 1,000 feet of a existing or proposed conservation district/area;
9. Within 1,000 feet of an existing property accepted into the Berkeley County Farmland Protection Program;
10. Within 1,000 feet of a property with a conservation easement;
11. Which may significantly adversely impact unique, threatened and/or rare species or ecosystems;
12. In or near historic districts or other areas of significant historic value;
13. In a manner that may adversely impact the George Washington Heritage Trail;

14. In a manner that would significantly adversely impact the county's trout streams, water supply streams, recreational streams, streams containing rare/ endangered species or significant plant/animal habitat;
15. Where a significant adverse impact upon groundwater will likely occur;
16. In a manner that would adversely impact land preserves, or land with a conservation easement.

## **MATERIAL RECOVERY FACILITY (MRF)**

There are currently no county or state permitted commercial material recovery facilities in Berkeley County. However, two privately owned material recovery facilities do exist nearby in Washington County, Md. and Franklin County, Pa.

The Authority notes that the definition of a MRF requires the facility to accept "source separated" materials. Consequently, commercial material recovery facilities (MRF) are a supporting facility to recycling collection programs. Because the siting of new landfills and the expansion of existing ones will be extremely difficult due to public concerns over noise, odors, traffic, litter, mud, property values and the greater concern over damage to the environment surrounding the immediate community, the Authority concludes that the promotion, encouragement and participation in the recycling of solid waste from the waste stream and returning it back into the resource stream is an effective manner by which the Authority can significantly and positively change Berkeley County's present solid waste conditions. Traditionally, commercial material recovery facilities play an important role in a successful recycling effort.

MRF's have become a permanent part of the recycling landscape in every region of the country. Single stream collection of recyclables has spurred a greater need for MRF's. Studies show there are 736 MRF's operating in the United States, with 248 MRF's being implemented to support single stream collections. The average throughput for MRF's built after 2007 is 214 tons per day or nearly 45% of the daily allowable intake of nearby landfills.

The Authority finds that material recovery is likely to become an important part of the long-term solid waste management for Berkeley County to support desired improvements to the local recycling, composting and resource recovery efforts. Therefore, the Authority, in conjunction with other persons as defined in WV Code §22-15-2(35), may find it beneficial to site a commercial material recovery facility in Berkeley County.

The Authority concluded in the recent updating of the Berkeley County Comprehensive Litter and Solid Waste Control Plan that the County's dependence on landfilling can be significantly reduced through reduction techniques, reuse and recycling of materials. The Authority believes that a supporting commercial material recovery facility is consistent with the WV Legislatively devised reduction goals and concludes that the proper siting of these facilities is essential to a positive change in the management of Berkeley County's solid waste.

While the Authority concludes that the siting of a commercial solid waste material recovery facility that accepts clean source separated materials can significantly and positively change Berkeley County's present solid waste conditions. The Authority also concludes that the suitability of any particular area, currently designated as "tentatively prohibited," for any particular solid waste facility, cannot and should not be finally determined except in conjunction with the siting approval process or the redesignation and amendment process provided for in §22C-4-24(b) and §22C-4-24(g), for it is only in those contexts that comprehensive and current information can efficiently be developed.



Consequently, no area within the county will be designated as "Authorized" for a commercial material recovery facility until such time as one of these processes has been conducted by the Authority. The Authority will maintain one or more applications which must be submitted to request a redesignation of a "tentatively prohibited" area to one where solid waste facilities are "authorized". Therefore, until a thorough and complete siting approval process has been completed for a specific location, the Authority will prohibit material recovery facilities which accept clean source separated materials in the zones noted and tentatively prohibits them in all other areas of the county.

For Berkeley County, the siting of a commercial material recovery facility that accepts source separated materials includes prohibiting MRF's within the following zones:

1. Where a significant adverse impact upon any natural wetland may likely occur;
2. Within a perennial stream;
3. Where a significant adverse impact upon surface water may likely occur;
4. Within a 100-year floodplain;
5. Where a significant adverse impact upon a public or private water source may occur;
6. Within slopes greater than 25 percent;
7. Within 1,000 feet of a public or private park or open space facility;
8. Within 1,000 feet of an existing or proposed conservation district/area;
9. Within 1,000 feet of an existing property accepted into the Berkeley County Farmland Protection Program;
10. Within 1,000 feet of a property with a conservation easement;
11. Which may significantly adversely impact unique, threatened and/or rare species or ecosystems;
12. In or near historic districts or other areas of significant historic value;
13. In a manner that may adversely impact the George Washington Heritage Trail;
14. In a manner that would significantly adversely impact the county's trout streams, water supply streams, recreational streams, streams containing rare/ endangered species or significant plant/animal habitat;
15. Where a significant adverse impact upon groundwater will likely occur;
16. In a manner that would adversely impact land preserves, or land with a conservation easement.
17. Within 10,000 feet of any runway of the WV Eastern Regional Airport.

## TRANSFER STATIONS

There are currently no county or state permitted commercial transfer stations in Berkeley County.

Transfer stations are playing a larger and more important role in the handling of solid waste in West Virginia. Commercial transfer stations are becoming more commonplace and exist in nearby Jefferson, Hampshire and Grant Counties.

The Authority finds that transfer stations could become an important part of the long-term solid waste management for Berkeley County. Therefore, the Authority, in conjunction with other persons as defined in WV Code §22-15-2(35), may find it beneficial to site a commercial transfer station in Berkeley County.

By definition, transfer stations handle mixed solid waste. Any facility that handles mixed solid waste is always of concern to area residents. Factors such as noise, odors, traffic, aesthetics, roads, property values, etc., need to be considered and the Authority concludes that issues such as these shall be addressed for any given location during the siting process.

While the Authority concludes that the siting of a commercial solid waste transfer station may become necessary for Berkeley County, the Authority also concludes that the suitability of any particular area, currently designated as "tentatively prohibited," for any particular solid waste facility, cannot and should not be finally determined except in conjunction with the siting approval process or the redesignation and amendment process provided for in §22C-4-24(b) and §22C-4-24(g), for it is only in those contexts that comprehensive and current information can efficiently be developed.

Consequently, no area within the county will be designated as "Authorized" for a commercial transfer station until such time as one of these processes has been conducted by the Authority. The Authority will maintain one or more applications which must be submitted to request a redesignation of a "tentatively prohibited" area to one where solid waste facilities are "authorized". Therefore, until a thorough and complete siting approval process has been completed for a specific location, the Authority will prohibit transfer stations in the zones noted and tentatively prohibits them in all other areas of the county.

For Berkeley County, the siting of a commercial transfer station includes prohibiting the facilities within the following zones:

1. Where a significant adverse impact upon any natural wetland may likely occur;
2. Within a perennial stream;
3. Where a significant adverse impact upon surface water may likely occur;
4. Within a 100-year floodplain;
5. Where a significant adverse impact upon a public or private water source may occur;
6. Within slopes greater than 25 percent;

7. Within 1,000 feet of a public or private park or open space facility;
8. Within 1,000 feet of an existing or proposed conservation district/area;
9. Within 1,000 feet of an existing property accepted into the Berkeley County Farmland Protection Program;
10. Within 1,000 feet of a property with a conservation easement;
11. In any manner that may significantly adversely impact unique, threatened and/or rare species or ecosystems;
12. In or near historic districts or other areas of significant historic value;
13. In a manner that may adversely impact the George Washington Heritage Trail;
14. In a manner that would significantly adversely impact the county's trout streams, water supply streams, recreational streams, streams containing rare/ endangered species or significant plant/animal habitat;
15. Where a significant adverse impact upon groundwater will likely occur;
16. In a manner that would adversely impact land preserves, or land with a conservation easement;
17. Within 10,000 feet of any runway of the WV Eastern Regional Airport.

## RESOURCE RECOVERY FACILITY

There is currently one county and state permitted commercial resource recovery facility in Berkeley County.

Entsorga, West Virginia permitted and constructed a 500 ton per day, Class B Resource Recovery Facility on 12 acres leased from the Berkeley County Solid Waste Authority at 870 Grapevine Road, Martinsburg WV. Furthermore, the Authority issued a Certified of Ste Approval to Entsorga for the permitting of the project. This facility opened in 2019 and produced a marketable solid recovered fuel for nearly three years. On March 24, 2022, the Authority issued a "Notice of Default" to notify Entsorga WV that it had 90 days to take measures to initiate compliance of certain defaulted areas of the property lease. On March 22, 2023, the Authority sent a "Notification of Termination of Lease and Notification of Forfeiture of Bond" to Entsorga WV. As a result, the Authority now owns the former Entsorga facility. On July 26, 2023, the Authority accepted a proposal for a month-to-month utilization of the former Entsorga facility by Apple Valley Waste for waste consolidation as a first step to returning the facility to fuel manufacturing. On February 28, 2024, the Authority accepted a proposal from a partnership of Apple Valley Waste and Covanta to return the facility to the manufacture of solid recovered fuel.

The Authority notes that Title 54, Series 4 Code of State Rules titled Commercial Solid Waste Facility Siting Plan states a "resource recovery facility means any solid waste facility at which solid waste are mechanically, biologically, chemically, or thermally transformed for the purpose of separating, removing, or creating any material or energy for reuse or sale, and at which land disposal of solid waste does not occur. Resource Recovery Facility includes composting facilities, environmentally acceptable incinerators, material recovery facilities, energy recovery facilities, and other solid waste facilities not herein specified."

As stated previously throughout many parts of this Plan, the siting of new landfills and the expansion of existing ones will be extremely difficult in Berkeley County due to many siting factors, historical public concerns and community impacts of noise, odors, traffic, litter, mud, property values and the greater concern over damage to the environment surrounding the immediate community.

An August, 2011 Columbia University Earth Engineering Center Study of non-recycled plastics titled "Energy and Economic Value of Non-Recycled Plastics and Municipal Solid Wastes That Are Currently Landfilled In The Fifty States" concludes that there exists multiple economic and environmental reasons for the development of facilities to utilize solid waste for energy.

The Authority concludes that the promotion, encouragement and participation of the recovery of resources from solid waste can significantly and positively change Berkeley County's present and future management of solid waste. Therefore, the Authority concludes the siting of a commercial resource recovery facility is a means by which the Authority could significantly improve the solid waste management practices in Berkeley County.

The Authority also notes that WV Code §22-15-1 states, in part, that "the Legislature further finds that solid waste disposal has inherent risks and negative impact on local communities and specifically finds the following:

(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".

These statements give a clear indication that resource recovery facilities are a concept that the legislature has encouraged throughout its solid waste policies. In addition, resource recovery facilities are a supporting facility for the renewal of solid waste into a useful product. These facilities create recycling opportunities and reduce the need to utilize dwindling landfill space.

However, by definition, resource recovery facilities may process mixed solid waste. Any facility that handles mixed solid waste is a siting concern to be taken seriously. Factors such as noise, odors, traffic, aesthetics, roads, property values, etc., need to be considered. The Authority concludes that such issues are best addressed for any given location during the siting process.

The Authority also concludes that the suitability of any other particular location within the County will be designated as "tentatively prohibited". Therefore, other than the 12 acres leased at the former Entsorga location, no other area within the county will be designated as "Authorized" until such time as a thorough siting review process has been conducted by the Authority.

The Authority will maintain one or more applications which must be submitted to request a redesignation of a "tentatively prohibited" area to one where solid waste facilities are "authorized".

Therefore, the Authority will "prohibit" resource recovery facilities in the zones noted below and "tentatively prohibits" them in all other areas of the county.

For Berkeley County, the siting of a commercial resource recovery facility includes prohibiting the facilities within the following zones:

1. Where a significant adverse impact upon any natural wetland may likely occur;
2. Within a perennial stream;
3. Where a significant adverse impact upon surface water may likely occur;
4. Within a 100-year floodplain;
5. Where a significant adverse impact upon a public or private water source may occur;
6. Within slopes greater than 25 percent;
7. Within 1,000 feet of a public or private park or open space facility;
8. Within 1,000 feet of an existing or proposed conservation district/area;
9. Within 1,000 feet of an existing property accepted into the Berkeley County Farmland Protection Program;
10. Within 1,000 feet of a property with a conservation easement;



11. In any manner that may significantly adversely impact unique, threatened and/or rare species or ecosystems;
12. In or near historic districts or other areas of significant historic value;
13. In a manner that may adversely impact the George Washington Heritage Trail;
14. In a manner that would significantly adversely impact the county's trout streams, water supply streams, recreational streams, streams containing rare/ endangered species or significant plant/animal habitat;
15. Where a significant adverse impact upon groundwater will likely occur;
16. In a manner that would adversely impact land preserves, or land with a conservation easement;
17. Within 10,000 feet of any runway of the WV Eastern Regional Airport.

## MIXED WASTE PROCESSING FACILITY

There is currently one county and state permitted commercial resource recovery facility in Berkeley County.

Entsorga, West Virginia permitted and constructed a 500 ton per day, Class B Resource Recovery Facility on 12 acres leased from the Berkeley County Solid Waste Authority at 870 Grapevine Road, Martinsburg WV. Furthermore, the Authority issued a Certified of Ste Approval to Entsorga for the permitting of the project. This facility opened in 2019 and produced a marketable solid recovered fuel for nearly three years. On March 24, 2022, the Authority issued a "Notice of Default" to notify Entsorga WV that it had 90 days to take measures to initiate compliance of certain defaulted areas of the property lease. On March 22, 2023, the Authority sent a "Notification of Termination of Lease and Notification of Forfeiture of Bond" to Entsorga WV. As a result, the Authority now owns the former Entsorga facility. On July 26, 2023, the Authority accepted a proposal for a month-to-month utilization of the former Entsorga facility by Apple Valley Waste for waste consolidation as a first step to returning the facility to fuel manufacturing. On February 28, 2024, the Authority accepted a proposal from a partnership of Apple Valley Waste and Covanta to return the facility to the manufacture of solid recovered fuel.

A mixed waste processing facility is defined by WV Code §22-15-2(21) as meaning: any solid waste facility at which materials are recovered from mixed solid waste through manual or mechanical means for purposes of reuse, recycling or composting.

As stated previously throughout many parts of this Plan, the siting of new landfills and the expansion of existing ones will be extremely difficult in Berkeley County due to many siting factors and the public concerns and community impacts of noise, odors, traffic, litter, mud, property values and the greater concern over damage to the environment surrounding the immediate community. The Authority notes that mixed waste processing facilities could be utilized to reduce, reuse, recycle, or otherwise recover resources from the waste stream.

Such facilities could significantly and positively change Berkeley County's present and future solid waste management practices. The siting of a commercial mixed waste processing facility that performs such functions is a means by which the Authority could significantly improve the management of solid waste in Berkeley County.

However, mixed waste processing facilities will handle mixed solid waste. Any facility that handles mixed solid waste is always of concern to area residents. Factors such as noise, odors, traffic, aesthetics, roads, property values, etc., need to be considered and the Authority concludes that issues such as these shall be addressed for any given location during the siting process.

Therefore, no area, except for the 12 acre portion of the 870 Grapevine Road location, will be designated as "Authorized" until such time as a thorough siting review process has been conducted by the Authority. The Authority will maintain one or more applications which must be submitted to request a redesignation of a "tentatively prohibited" area to one where solid waste facilities are "authorized".

The Authority will "prohibit" mixed waste processing facilities in the zones noted below and "tentatively prohibits" them in all other areas of the county except for the 12 acre portion of the 870 Grapevine Road location (which is authorized).

For Berkeley County, the siting of a commercial mixed waste processing facility includes prohibiting the facilities within the following zones:

1. Where a significant adverse impact upon any natural wetland may likely occur;
2. Within a perennial stream;
3. Where a significant adverse impact upon surface water may likely occur;
4. Within a 100-year floodplain;
5. Where a significant adverse impact upon a public or private water source may occur;
6. Within slopes greater than 25 percent;
7. Within 1,000 feet of a public or private park or open space facility;
8. Within 1,000 feet of a existing or proposed conservation district/area;
9. Within 1,000 feet of an existing property accepted into the Berkeley County Farmland Protection Program;
10. Within 1,000 feet of a property with a conservation easement;
11. In any manner that may significantly adversely impact unique, threatened and/or rare species or ecosystems;
12. In or near historic districts or other areas of significant historic value;
13. In a manner that may adversely impact the George Washington Heritage Trail;
14. In a manner that would significantly adversely impact the county's trout streams, water supply streams, recreational streams, streams containing rare/ endangered species or significant plant/animal habitat;
15. Where a significant adverse impact upon groundwater will likely occur;
16. In a manner that would adversely impact land preserves, or land with a conservation easement;
17. Within 10,000 feet of any runway of the WV Eastern Regional Airport.

## REVIEW AND AMENDMENT PROCESS

The Authority shall review the Berkeley County Commercial Solid Waste Facility Siting Plan every five (5) years. A public hearing on any amendments must be held in the same manner as outlined Legislative Rule 54 CSR 4. Any changes or amendments necessary shall be submitted to the WV-Solid Waste Management Board for approval.

At the time of the five-year updating, the Authority shall, in addition to any other amendments considered necessary, extend the period of time covered by the plan to include the next twenty (20) years following the five-year review date.

The plan may be amended at any time by the Authority in the same manner that originated the plan. Amendments must meet all requirements of the original plan, including that of holding a public hearing as detailed in this rule. No amendments may become effective until approved by the WV-Solid Waste Management Board in the same manner as the original plan.

Upon application from any person or group, the Authority may amend the siting plan by redesignating a tentatively prohibited zone or any portion of a zone.

In such case, the person seeking the change has the burden to affirmatively and clearly demonstrate, based on all ten of the siting criteria, that the requested redesignation is appropriate and proper, and that any solid waste facility sited at such location could be appropriately operated in the public interest.

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.

### Public Participation Process.

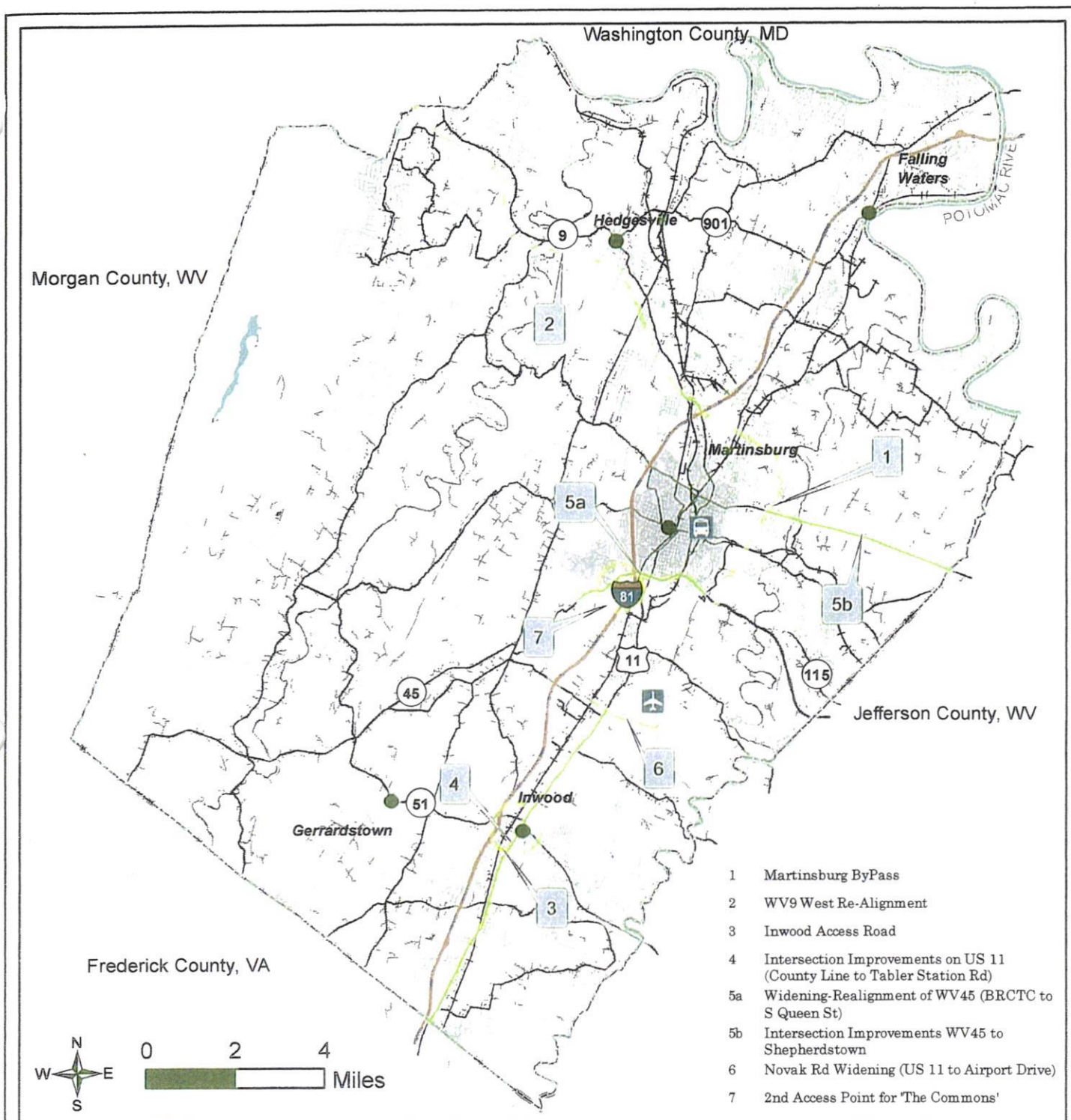
After submission of the draft plan to the WV-Solid Waste Management Board, the Authority will publish appropriate notices of and conduct a public hearing to solicit ideas, opinions, and comments concerning the draft plan from the general public. More than thirty (30) days prior to the public hearing on the plan, the Authority placed a copy of the draft plan for public review at the county clerk's office, solid waste authority office, and at all public libraries and branch libraries in the county. A notice of the hearing was published and mailed to those persons so requesting, and written comments were accepted before, during, and for at least 10 days following the hearing. (See Appendices B, C, and D).

The Authority will consider all public comments received at the public hearing and those received by other means and record the proceedings of the hearing by stenographic means. A copy of such recording (Appendix E) and of all written comments received and the written summary of the proceedings (Appendix F) will be retained by the authority for a period of at least three (3) years from the date of the public hearing.

Consideration of Public Comments.

The Authority will consider all public comments received, written and oral, in the development of the final plan, prepare a written summary of the public comments received, and a statement explaining how it responded to the public comments in the development of the final plan. Such written summary and statement will be attached as Appendix G and submitted to the WV-Solid Waste Management Board with the final plan. If requested by the WV-Solid Waste Management Board, the Authority will submit all or any part of the public comment record to the Board for its review.





Data Source:  
Berkeley County  
GIS

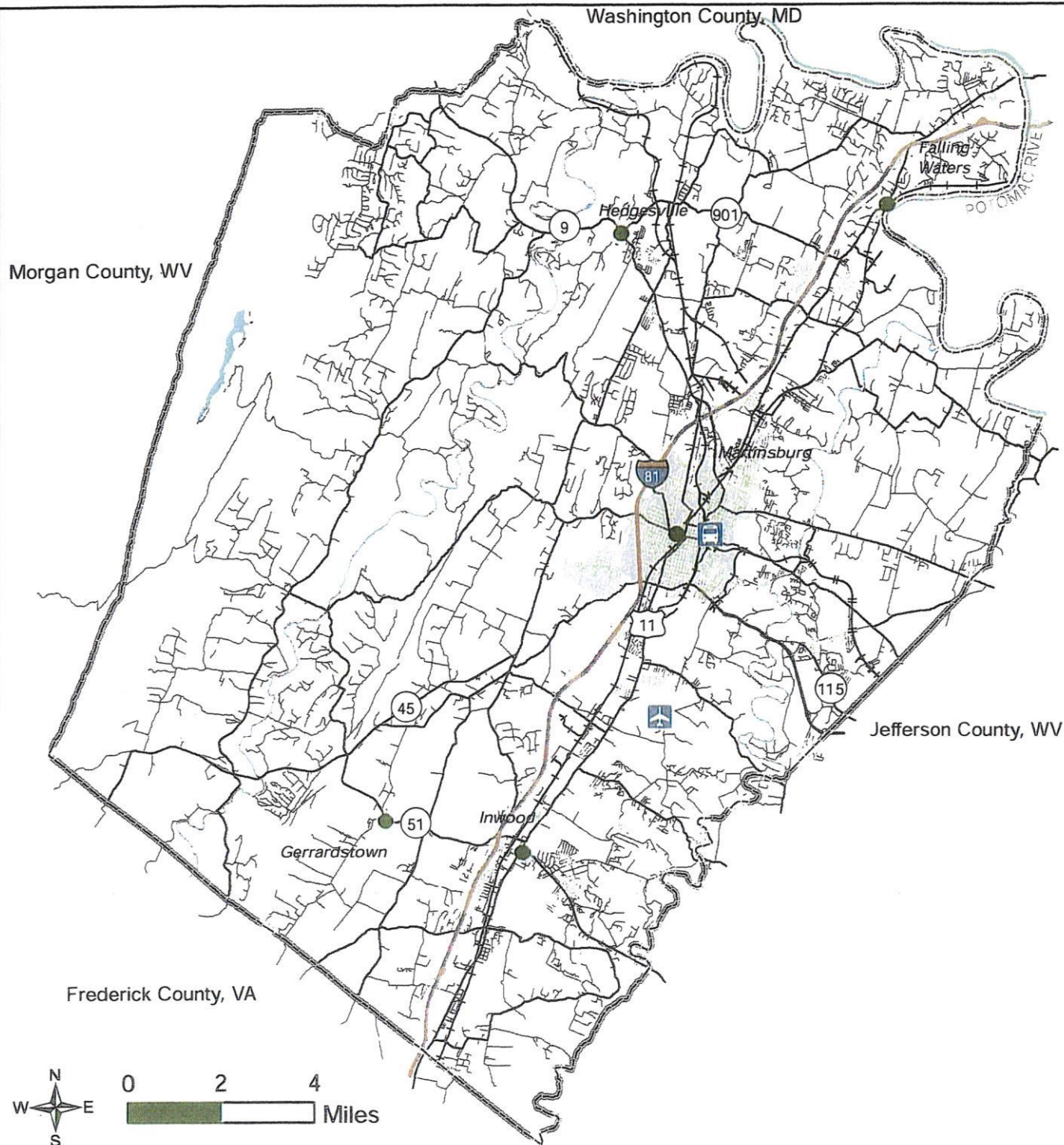
#### Transportation Projects

#### Legend

- Airport Terminal
- Bus Station / Railroad Terminal
- Town Center
- Railroad

## Berkeley County Priority Transportation Network

Berkeley County Comprehensive Plan Update 2016



Data Source:  
Berkeley County  
GIS

### Legend

-  Airport Terminal
-  Bus Station / Railroad Terminal
-  Town Center
-  Railroad

## Berkeley County Map 17 - Transportation Systems

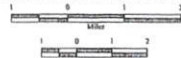
Berkeley County Comprehensive Plan Update 2016



# 2017 GENERAL HIGHWAY MAP BERKELEY COUNTY WEST VIRGINIA

PREPARED BY  
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
PLANNING DIVISION

IN COOPERATION WITH  
US DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION



1 inch = 1 mile

## ROADS AND ROADWAY FEATURES

### ROAD TYPES

- Paved Road
- Gravel Road - Low Type
- Gravel Road - Stone Road
- Gravel and Gravel Road
- Gravel Road - Dirt
- Gravel Road - Gravel
- Gravel Road - Gravel
- Gravel Road - Gravel

### STRUCTURES

- Tunnel

### BOUNDARIES

- County Boundary
- State Line
- Urban Area
- County Seat
- Precinct Line
- Precinct Line
- Precinct Line

## LEGEND

### ROADWAY DIVISIONS

- Interstate Route
- US Numbered Highway
- WV Numbered Highway
- WV County Road
- WV State Route (Priority)
- Federal Aid State Road (FASRD)
- WV State Park and Forest Route
- City Street
- Highway Mile
- Functional System
- Functional System
- Functional System

### EDUCATIONAL AND PUBLIC SERVICES

- School
- High School
- Small V - H
- County Courthouse

### FUNCTIONAL SYSTEMS

- Expressway
- Interstate
- Freeway

## AIRPORTS AND RAILROADS

### AIRPORTS

- Airport
- Airport
- Airport
- Airport
- Airport
- Airport
- Airport
- Airport

### RAILROADS

- Railroad
- Railroad
- Railroad
- Railroad
- Railroad
- Railroad
- Railroad
- Railroad

## WATER FACILITIES

### WATER FACILITIES

- Water
- Water
- Water
- Water
- Water
- Water
- Water
- Water

### CONSERVATION AND RECREATION

- National Wildlife Refuge
- U.S. Fish and Wildlife Service
- Wildlife Management Area
- City or County Park
- National Forest
- State Park or Forest
- National Park
- Park or Trail

## KEY MAP OF SHEETS

### KEY MAP OF SHEETS

- All maps are prepared by West Virginia Department of Transportation, Urban Area, Transportation, and population data are from the U.S. Census Bureau for census years 2000 and 2010. Cartographic sources include United States (US) National Park Service, U.S. Forest Service, U.S. Geological Survey, WV Department of Environmental Protection, WV Division of Forestry, WV Division of Natural Resources, WV State Technical College, WV Health Care Authority, WV Legislative Service, and WV State Health Care Authority.
- For further details please contact:  
West Virginia Department of Transportation  
Planning Division  
Geospatial Information Services Section  
1000 Kanawha Blvd. East  
Martinsburg, WV 26001  
Charleston, WV 25309  
(304) 526-0225

### KEY MAP OF COUNTIES

- This map is an illustration and is not intended for use in official proceedings or for legal purposes. The use of this map in any other engineering design, or as evidence in any court of law, is the responsibility of the user. This map does not contain all or even most of the features found on the face of the earth in any given location. It only depicts those features found in the digital data used in the map. The map is not intended to be used for navigation or for any other purpose. The map is not intended to be used for navigation or for any other purpose. The map is not intended to be used for navigation or for any other purpose.

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## SCALE OF INSETS

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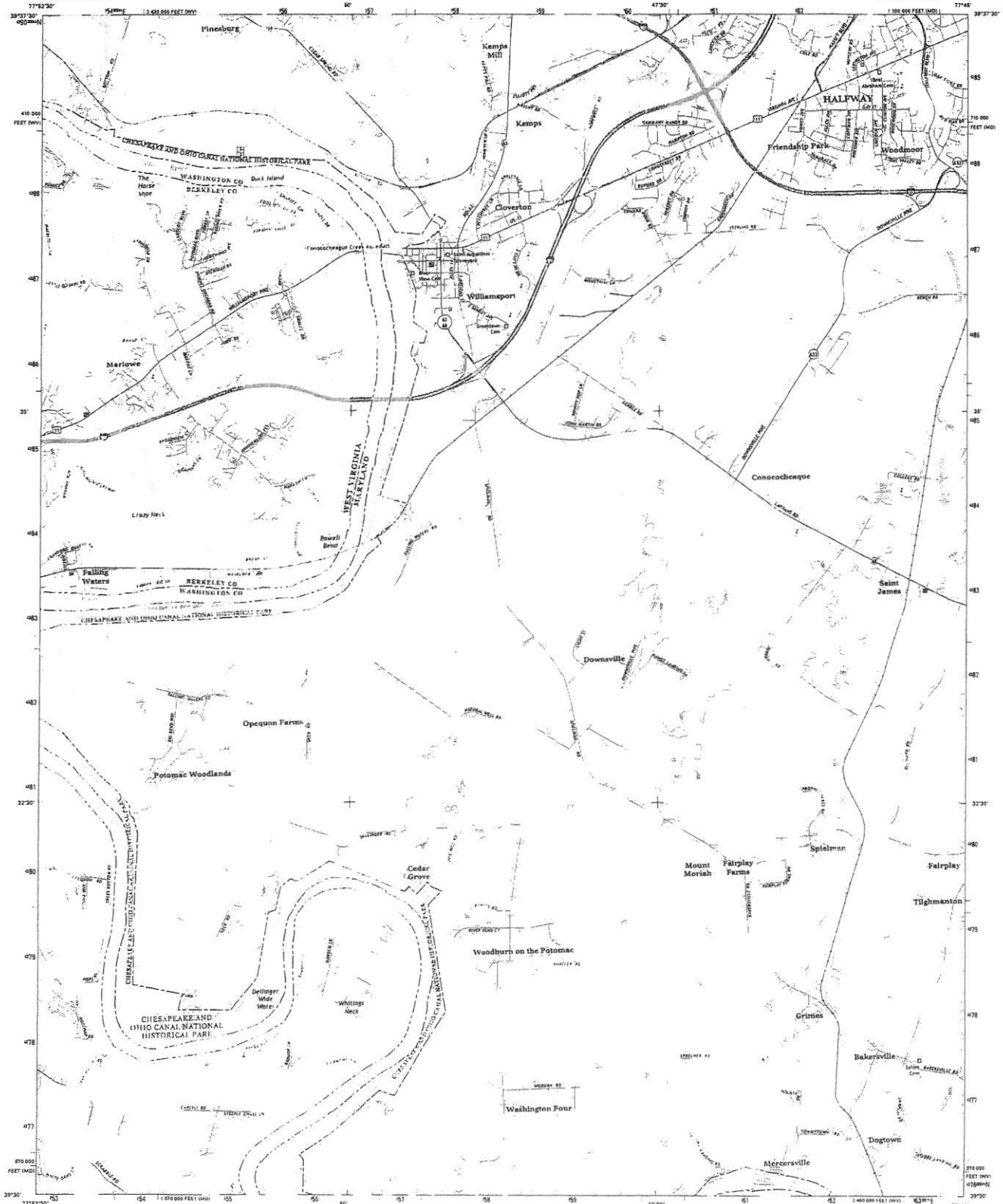




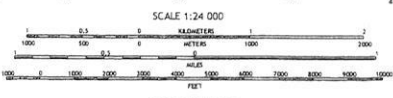
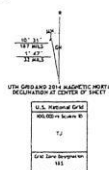
U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY

The National Map  
US Topo

WILLIAMSPORT QUADRANGLE  
MARYLAND-WEST VIRGINIA  
7.5-MINUTE SERIES



Produced by the United States Geological Survey  
Map of American Datum of 1983 (NAD83)  
World Geodetic System of 1984 (WGS84) Projection and  
1:250,000 scale. Contour interval 20 feet. Date 08/11/2011.  
Vertical datum: Mean Sea Level (MSL) of 1983.  
Vertical coordinate system: NAD83.  
This map is not a legal document. Boundary lines may be  
generalized for map scale. Private lands within government  
jurisdiction may not be shown. Obtain permission before  
entering private lands.



ROAD CLASSIFICATION  
Expressway  
Secondary Highway  
Ramp  
Local Road  
US Road  
State Road

|   |   |   |   |   |   |   |   |   |    |
|---|---|---|---|---|---|---|---|---|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

WILLIAMSPORT, MD-WV  
2014

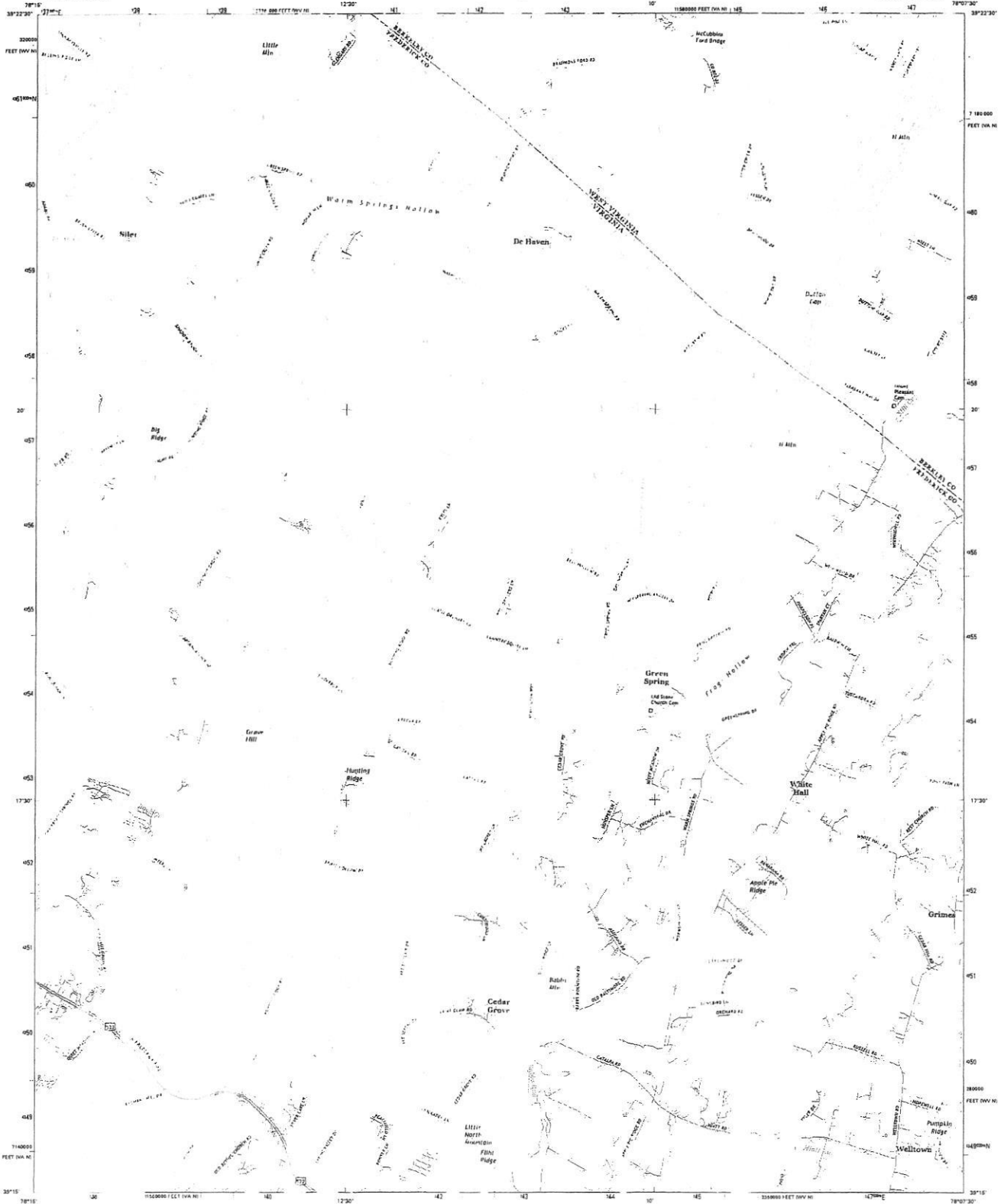




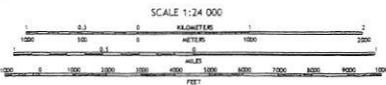
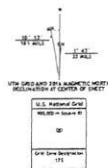
U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY

The National Map  
US Topo

WHITE HALL QUADRANGLE  
VIRGINIA-WEST VIRGINIA  
7.5-MINUTE SERIES



Produced by the United States Geological Survey  
National Geospatial Program US Topo Project Standard, 2011  
This map is not a legal document. Boundaries may be  
generalized for this map scale. Private lands within government  
information may not be shown. Obtain permission before  
entering private lands.  
Metadata: MAP, August 2014  
Scale: U.S. Census Bureau, 2010, 2014  
Hydrography: National Hydrography Dataset, 2014  
Centroids: National Geospatial Dataset, 2013  
Boundaries: Multiple sources; see metadata file 1972-2014  
Wellheads: JPRS National Wellhead Inventory 1977-2014



SCALE 1:24,000  
CONTINUOUS INTERVAL 20 FEET  
NORTH AMERICAN VERTICAL DATUM OF 1988  
This map was produced to conform with the  
National Geospatial Program US Topo Project Standard, 2011.  
A metadata file associated with this product is draft version 0.1.1.

| ROAD CLASSIFICATION |                 |
|---------------------|-----------------|
| Continuity          | Local Connector |
| Secondary Road      | Local Road      |
| Minor Road          | US Road         |
| Major Road          | State Road      |

|   |   |   |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

Legend: 1 Ridge, 2 Contour, 3 Station Station, 4 Lake, 5 Wetland, 6 Hayfield, 7 Wetland, 8 Wetland

WHITE HALL, VA-WV  
2016



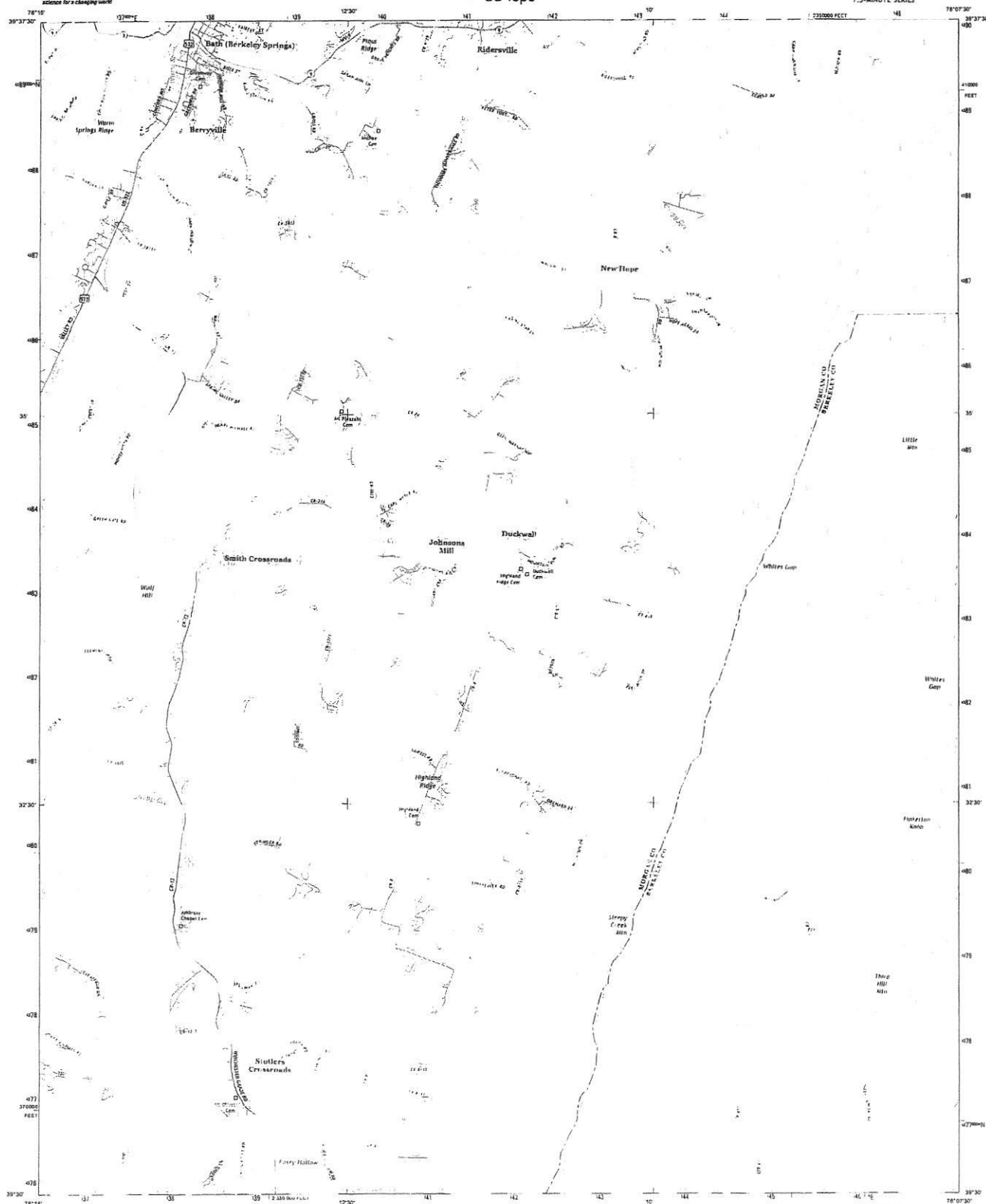
TABLERS STATION, WV  
2014



U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY

The National Map  
US Topo

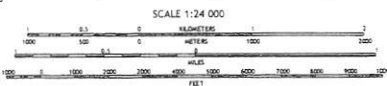
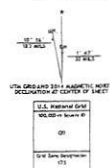
STOTLERS CROSSROADS QUADRANGLE  
WEST VIRGINIA  
7.5-MINUTE SERIES



Produced by the United States Geological Survey  
North American Datum of 1983 (NAD83)  
World Geodetic System of 1984 (WGS84) Projection and  
100-meter grid Universal Transverse Mercator, Zone 17  
10,000-foot Index West Virginia Coordinate System of 1983  
(WVCS 1983)

This map is not a legal document. Boundaries may be  
generalized for this map scale. Private lands within government  
jurisdiction may not be shown. State jurisdiction letters  
entering private lands.

Map Date: July 2011  
Base: 02011  
Hydrography: 02011  
Cultural: 02011  
Boundaries: 02011



CONTOUR INTERVAL: 20 FEET  
NORTH AMERICAN VERTICAL DATUM OF 1983  
This map was produced to conform with the  
National Geospatial Program US Topo Product Standard, 2011.  
A metadata file associated with this product is gpo-topo-us-11



ROAD CLASSIFICATION  
Countryway: Local Connector  
Secondary Road: Local Road  
Ramp: RAMP  
Interstate Route: US Route  
Main Road: Main Road

|   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

STOTLERS CROSSROADS, WV  
2014

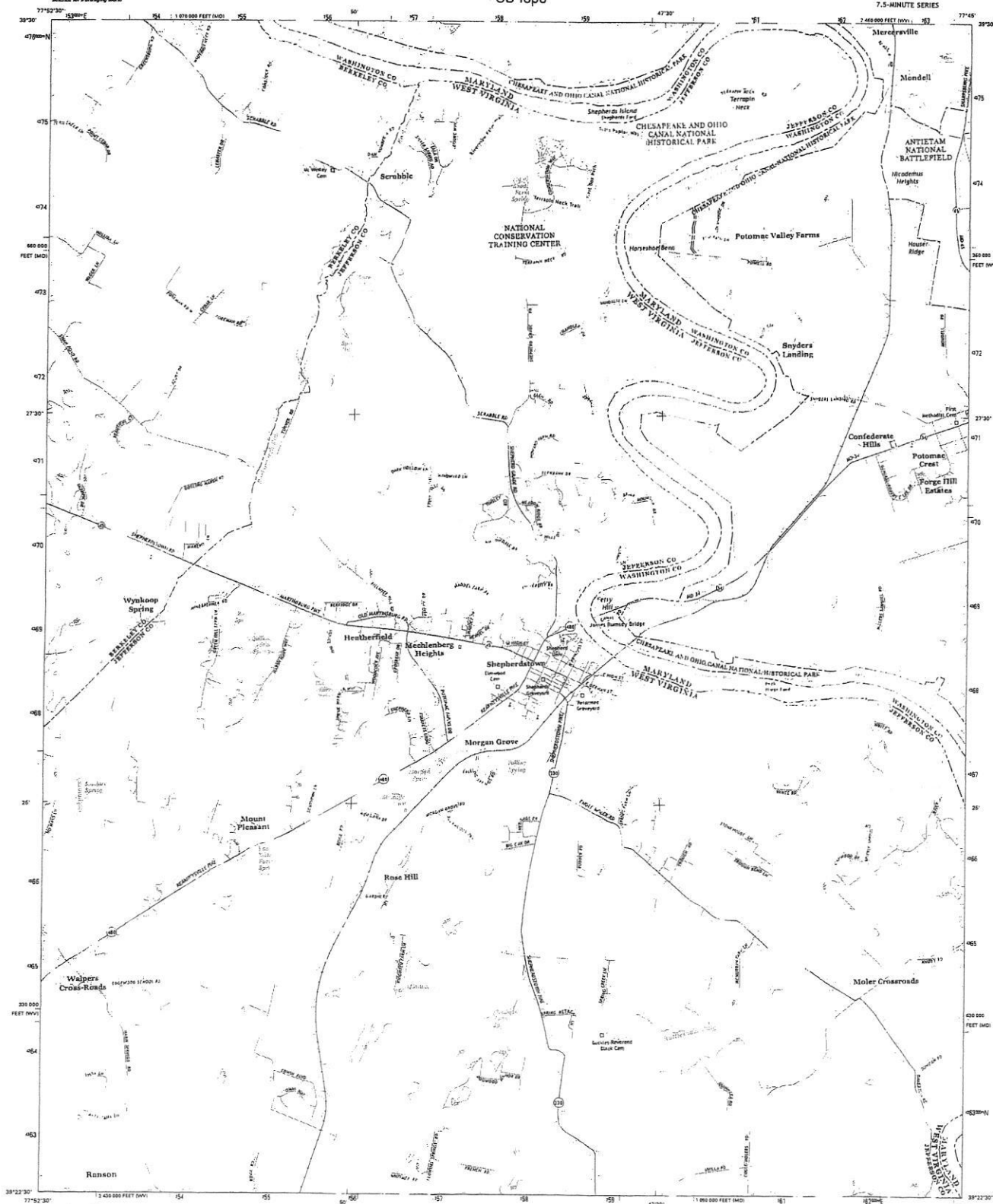




U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY

The National Map  
US Topo

SHEPHERDSTOWN QUADRANGLE  
WEST VIRGINIA-MARYLAND  
7.5-MINUTE SERIES



Produced by the United States Geological Survey

Map is American Datum of 1983 (NAD83)

World Geodetic System of 1984 (WGS84) Projection and

1000-foot grid Universal Transverse Mercator (Zone 18)

1000-foot grid with Virginia Coordinate System of 1982

(NAD83) State Plane, National Coordinate System of 1983

This map is not a legal document. Boundaries may be

different from those shown. Please check with government

agencies for legal purposes. Other permission holders

may apply.

Metadata: 10/12/2011

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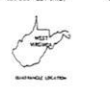
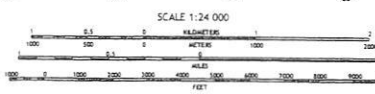
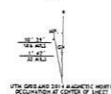
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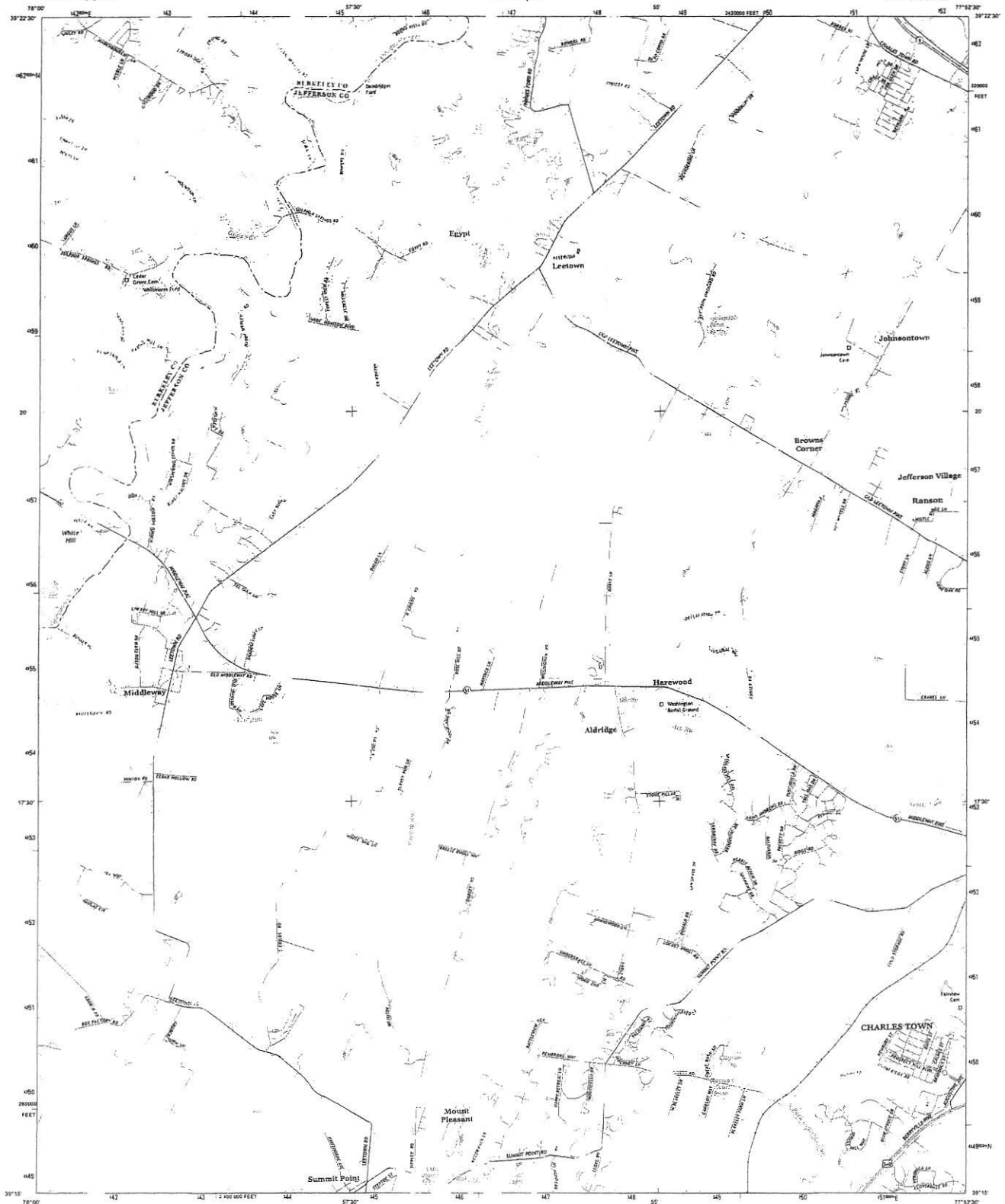
Metadata: 10/12/2011



U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY

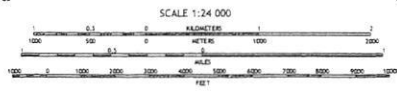
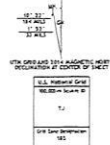
The National Map  
US Topo

MIDDLEWAY QUADRANGLE  
WEST VIRGINIA  
7.5-MINUTE SERIES



Produced by the United States Geological Survey  
North American Datum of 1983 (NAD83)  
World Geodetic System of 1984 (WGS84) Projection and  
1:50,000-meter grid Universal Transverse Mercator, Zone 18S  
15 000-foot (4.572-meter) UTM grid  
This map is not a legal document. Boundaries may be  
generalized for this map scale. Private lands within government  
jurisdiction may not be shown. State commission before  
entering private lands.

Map data: July 2011  
Base: 2011  
Hydrography: 2011  
Cultural: 2011  
Boundaries: 2011  
Map data sources: see metadata file 1071 2011



CONTOUR INTERVAL: 20 FEET  
NORTH AMERICAN VERTICAL DATUM OF 1983  
This map was produced in conformance with the  
National Geospatial Program US Topo Product Standard, 2011.  
A metadata file associated with this product is also available.



ROAD CLASSIFICATION  
Expressway  
Secondary Road  
Ramp  
Local Connector  
Local Road  
Ramp  
State Route  
US Route  
State Route

|   |   |   |   |   |   |   |   |   |    |
|---|---|---|---|---|---|---|---|---|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

MIDDLEWAY, WV  
2014

USGS  
U.S. GEOLOGICAL SURVEY  
U.S. DEPARTMENT OF THE INTERIOR





U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY

The National Map  
US Topo

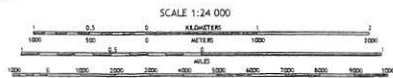
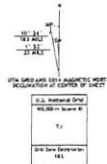
MARTINSBURG QUADRANGLE  
WEST VIRGINIA  
7.5-MINUTE SERIES



Produced by the United States Geological Survey  
North American Datum of 1983 (NAD83)  
World Geodetic System of 1984 (WGS84) Projection and  
1,000-meter grid. Universal Transverse Mercator, Zone 18S  
10,000-meter (100,000-foot) UTM grid. UTM grid zone number is 18S  
(north pole).

This map is not a legal document. Boundaries may be  
generalized for this map scale. Private land within government  
expressions may not be shown. Obtain permission before  
reproducing private land.

Map Date: July 2011  
Base: NAD83, July 2011  
Map: NAD83, July 2011  
Hydrography: National Hydrography Dataset, 2011  
Contours: National Contour Dataset, 2011  
Boundaries: Multiple sources; see metadata file 1977-2011



CONTour INTERVAL 20 FEET  
NORTH AMERICAN DATUM OF 1983  
This map was produced in conformance with the  
National Geographic Institute's Topographic Standard, 2011.  
A metadata file associated with this product is available at  
http://www.usgs.gov/metadata/



ROAD CLASSIFICATION  
Expressway  
Secondary Hwy  
Ramp  
Local Connector  
Local Road  
US Road  
State Road

|   |   |   |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

1 Big Pond  
2 Wetland  
3 Waterway  
4 Filled Area  
5 Shaded Area  
6 Filled Area  
7 Filled Area  
8 Filled Area  
9 Filled Area

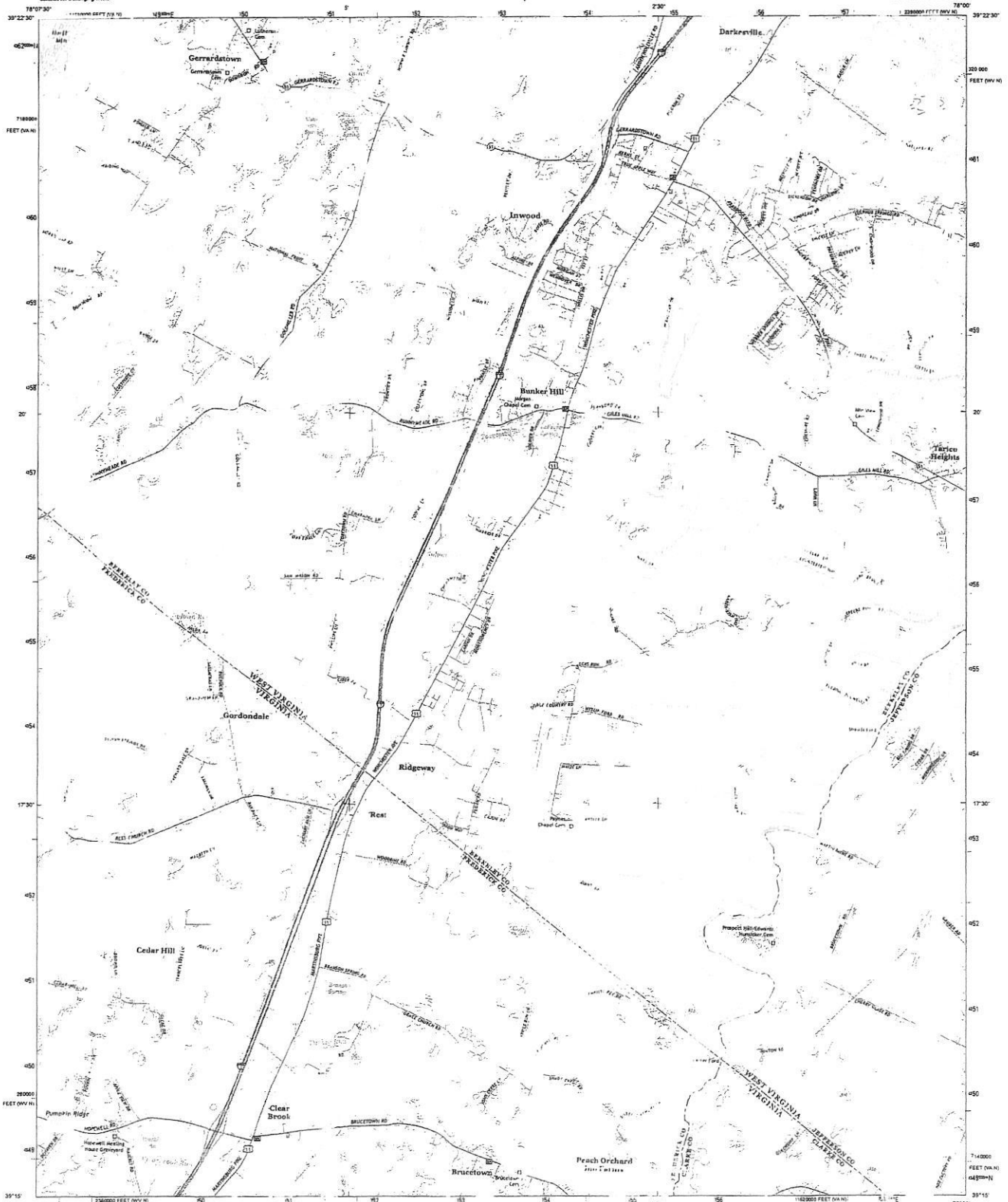
MARTINSBURG, WV  
2014



U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY

The National Map  
US Topo

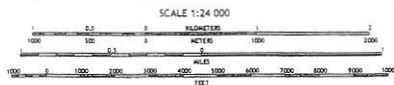
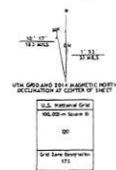
INWOOD QUADRANGLE  
WEST VIRGINIA-VIRGINIA  
7.5-MINUTE SERIES



Produced by the United States Geological Survey  
National Map Accuracy Act of 1982 (NMAA)  
Horizontal Control System of 1983 (NAD83)  
Vertical Control System of 1983 (NGVD 83)  
1:50,000 scale (see map for details)  
1:50,000 scale (see map for details)  
1:50,000 scale (see map for details)

This map is not a legal document. Boundaries may be  
generalized for this map scale. Please check with government  
agencies for legal boundaries. Obtain permission before  
reproducing or distributing.

Source: NAD83, July 2011  
Scale: 1:50,000  
Projection: UTM  
Datum: NAD83  
Units: Meters  
Elevation: Meters  
Boundaries: Multiple sources; see metadata for 1972-2011



ROAD CLASSIFICATION  
Legend:  
Expressway  
Secondary Hwy  
Rural  
Local Connector  
Local Road  
Rural  
State Road

|   |   |   |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

INWOOD, WV-VA  
2014

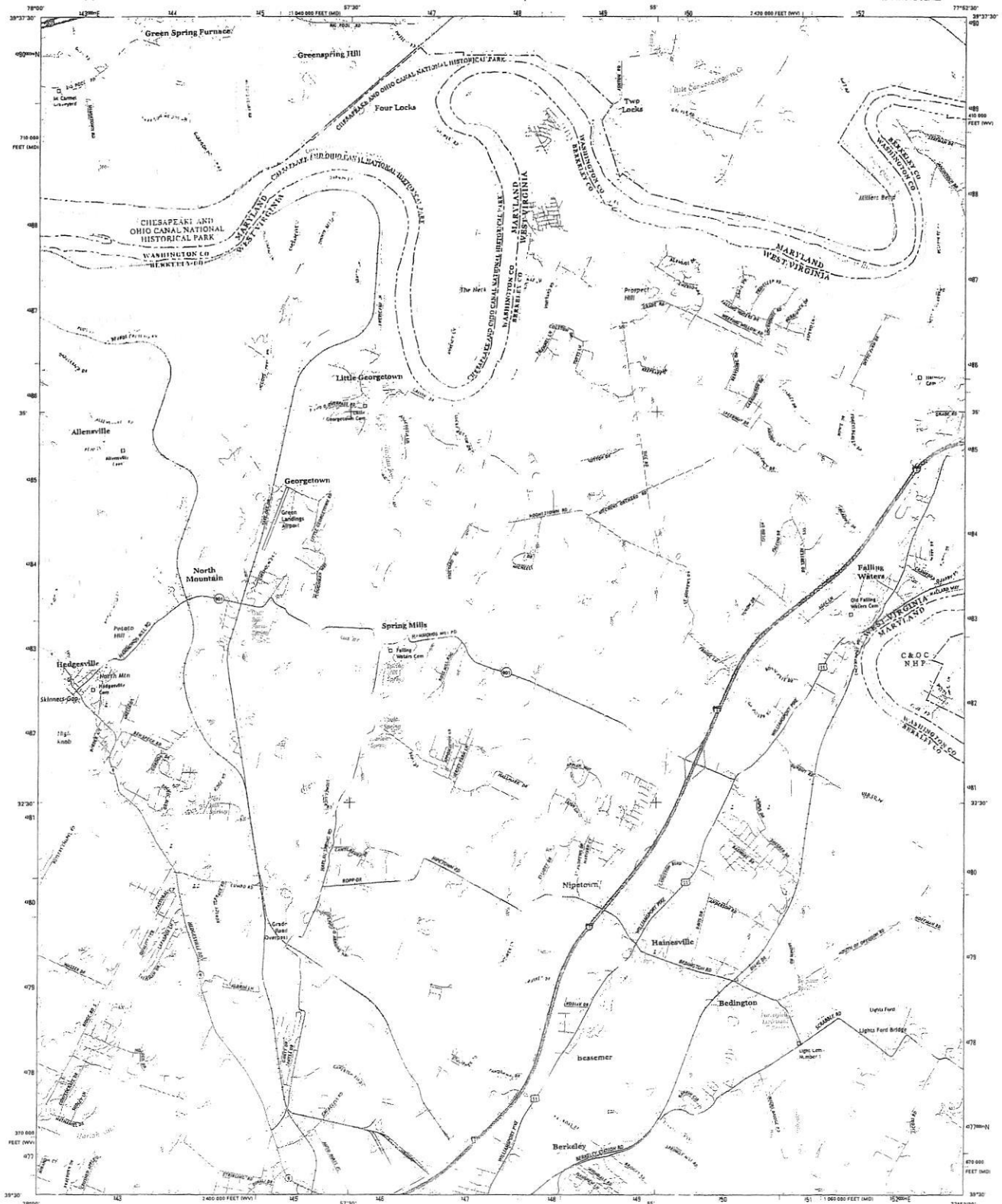




U.S. DEPARTMENT OF THE INTERIOR  
U. S. GEOLOGICAL SURVEY

The National Map  
US Topo

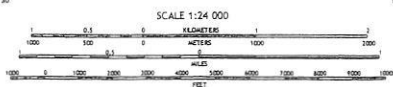
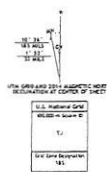
HEDGESVILLE QUADRANGLE  
WEST VIRGINIA-MARYLAND  
7.5-MINUTE SERIES



Produced by the United States Geological Survey  
with American Datum of 1983 (NAD83)  
World Geodetic System of 1984 (WGS84) Projection and  
1:50,000 scale (National Hydrographic Survey, Zone 18)  
1:50,000 scale (West Virginia Coordinate System of 1983)  
(with slight adjustment to datum of 1983)

This map is not a legal document. Boundaries may be  
generalized for this map scale. Private lands within government  
jurisdiction may not be shown. Obtain permission before  
entering private land.

Source: NADP, July 2011  
Base: 1:50,000 scale, 1983  
Hydrography: 1:50,000 scale, 2011  
Cultural: 1:50,000 scale, 2011  
Boundaries: 1:50,000 scale, 1983



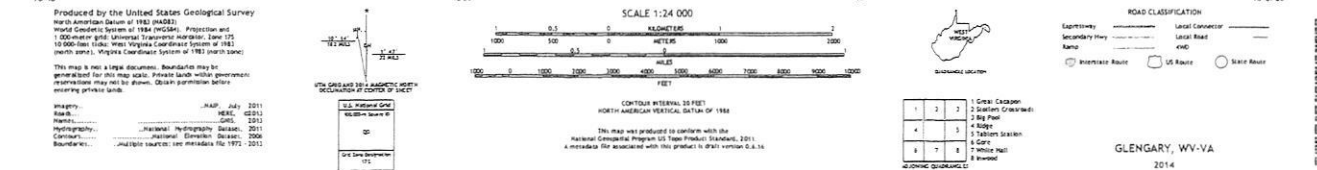
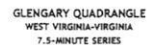
CONTINUOUS VERTICAL SCALE  
NORTH AMERICAN VERTICAL DATUM OF 1983

This map was produced in accordance with the  
National Geographic Program US Topo Product Standard, 2011.  
A metadata file associated with this product is available at [www.usgs.gov](http://www.usgs.gov).

| ROAD CLASSIFICATION |                 |
|---------------------|-----------------|
| Expressway          | Local Connector |
| Secondary Road      | Local Road      |
| Interstate Route    | US Route        |
|                     | State Route     |

HEDGESVILLE, WV-MD  
2014

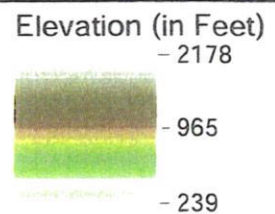
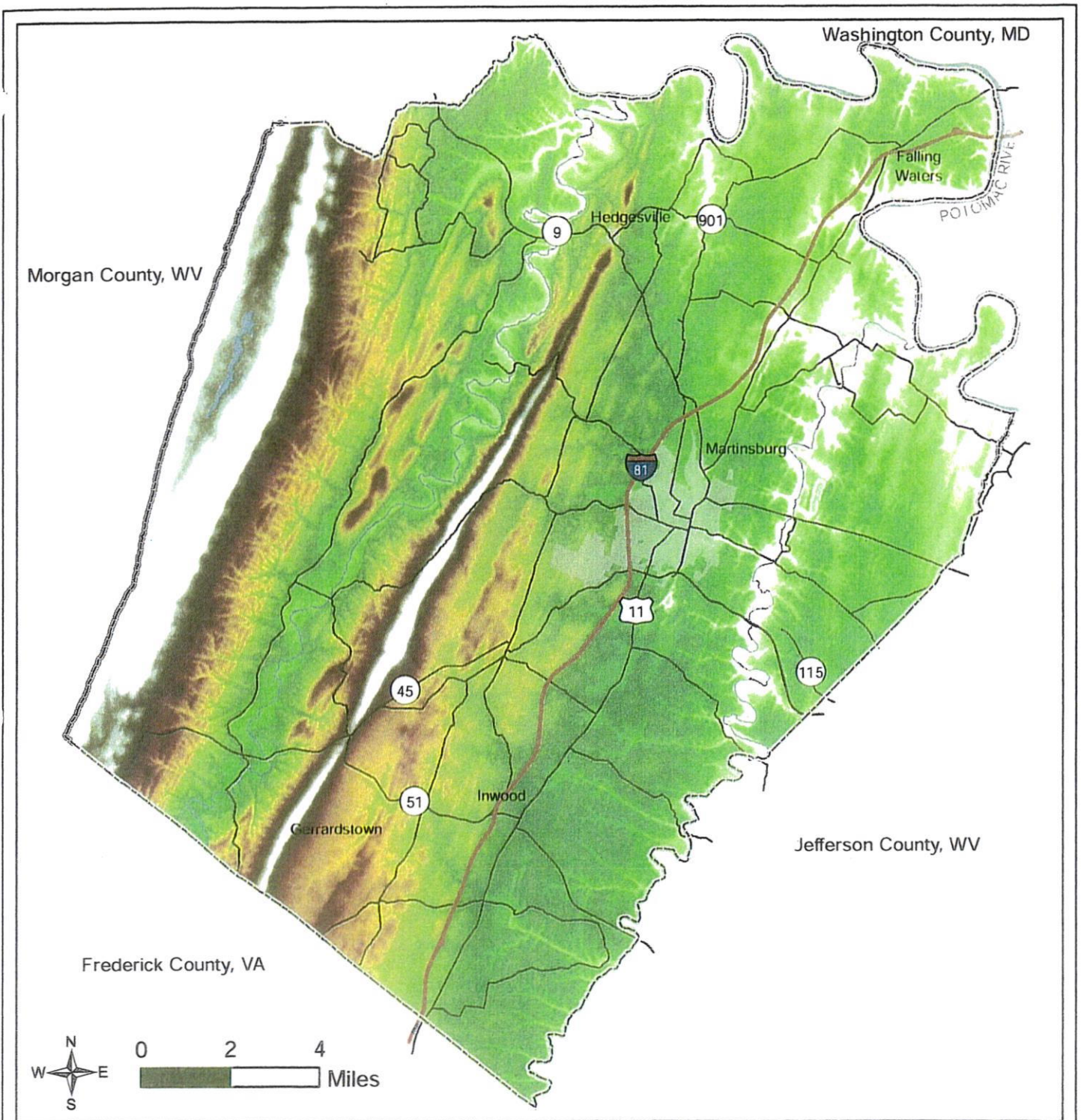
USGS  
U.S. GEOLOGICAL SURVEY  
NATIONAL MAP  
US TOPO  
HEDGESVILLE, WV-MD  
2014



GLENGARY, WV-VA  
2014





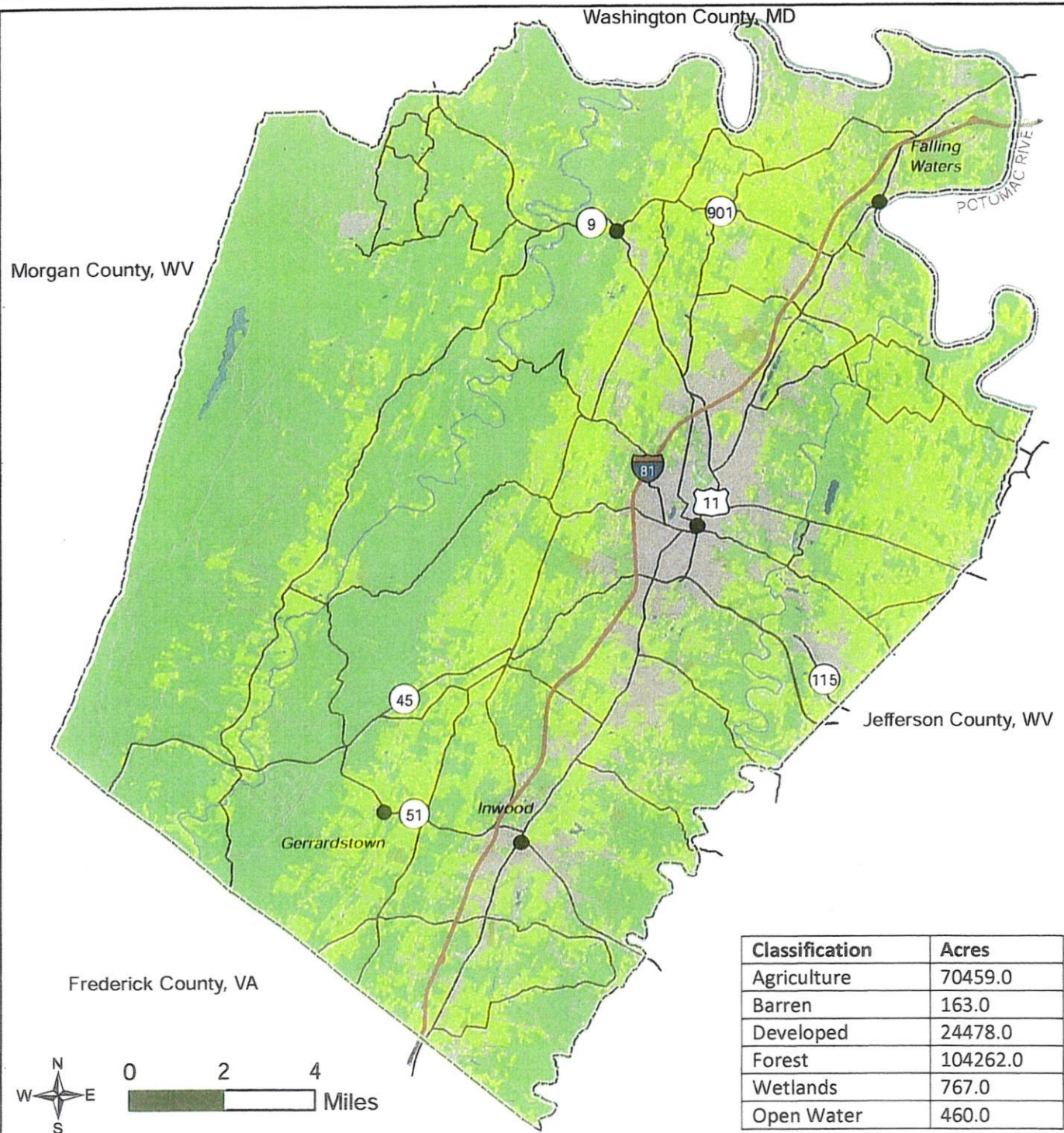


Data Source:  
Berkeley County  
GIS

## Berkeley County Map 1 - Topography

Berkeley County Comprehensive Plan Update 2016





| Classification | Acres    |
|----------------|----------|
| Agriculture    | 70459.0  |
| Barren         | 163.0    |
| Developed      | 24478.0  |
| Forest         | 104262.0 |
| Wetlands       | 767.0    |
| Open Water     | 460.0    |



|  |            |  |                    |
|--|------------|--|--------------------|
|  | Open Water |  | Grassland/Scrub    |
|  | Developed  |  | Pasture/Cultivated |
|  | Barren     |  | Wetlands           |
|  | Forest     |  |                    |



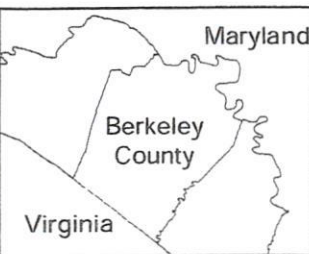
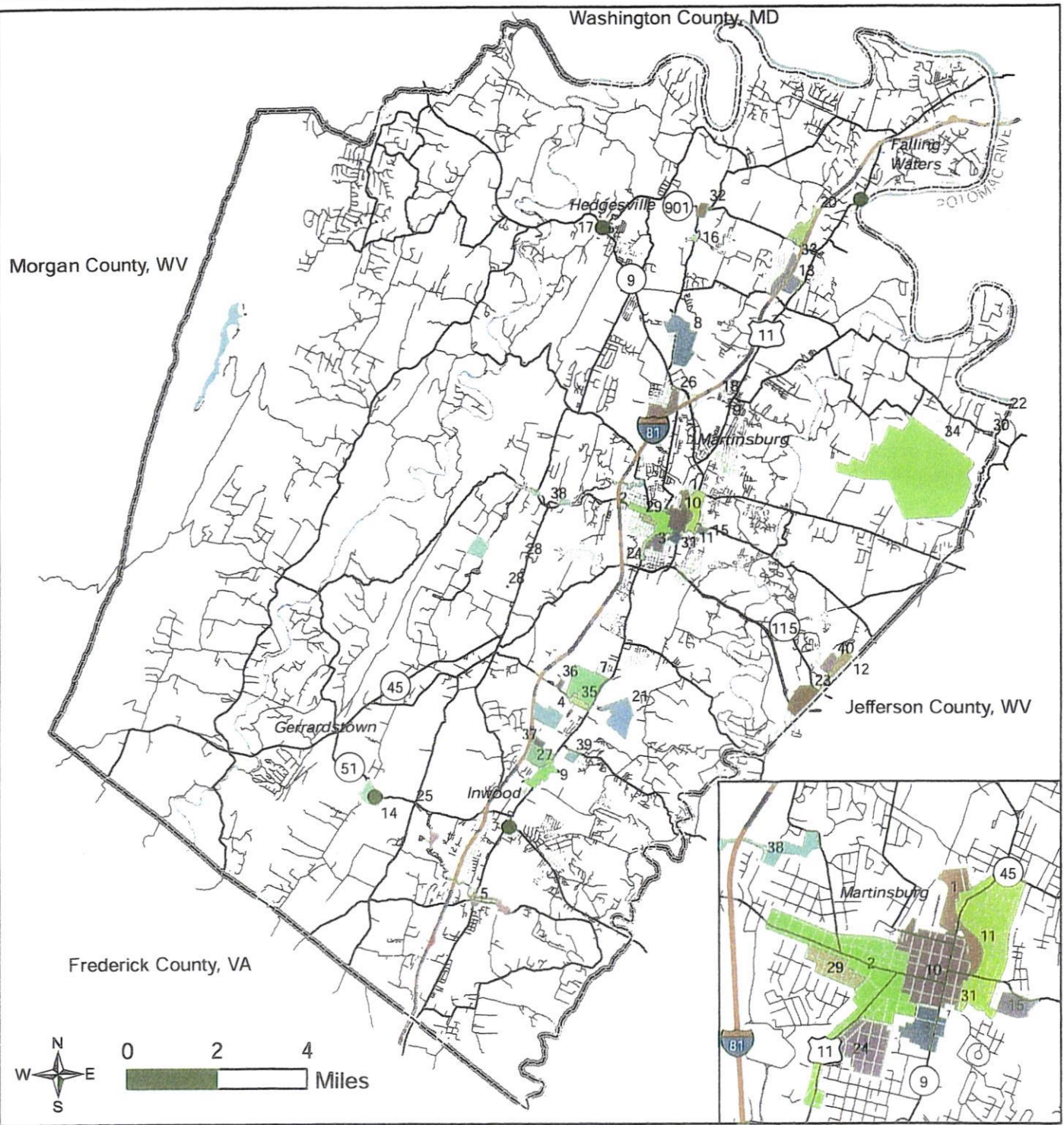
Data Source: Berkeley County GIS  
and WV GIS Tech Center

## Berkeley County

### Map 16 - 2006 Land Use

Berkeley County Comprehensive Plan Update 2016





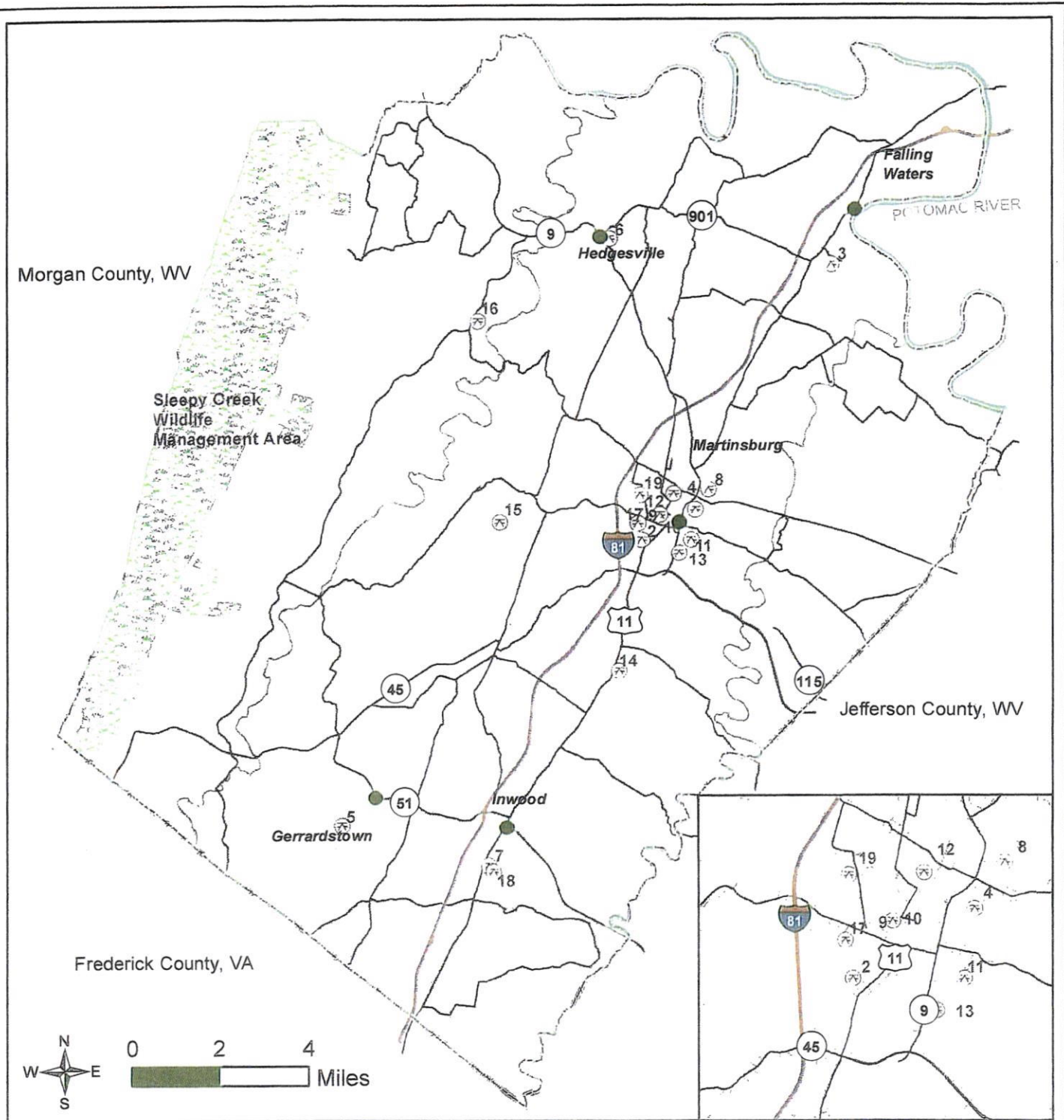
- |                                                                |                                                                      |
|----------------------------------------------------------------|----------------------------------------------------------------------|
| 1. Baltimore and Ohio and Related Industries Historic District | 21. John D. Rockefeller IV Science & Technology Center               |
| 2. Downtown Historic District                                  | 22. Jones' Mill Site                                                 |
| 3. Bayville                                                    | 23. Liberty Business Park                                            |
| 4. Breyer Manor Orchards Site                                  | 24. Martinsburg, Mining, Manufacturing & Improvement Co. Historic D. |
| 5. Rankin Hill Historic District                               | 25. Mill Creek Historic District                                     |
| 6. Clay's Mountain                                             | 26. North Star (Berkeley Park) Site                                  |
| 7. Crowell Site                                                | 27. Old National Bank Site                                           |
| 8. Cumby Yard Industrial Park                                  | 28. Ridge Road Historic District                                     |
| 9. Garberville Historic District                               | 29. Rosemont Historic District                                       |
| 10. Downtown Martinsburg Historic District                     | 30. Seaboard Historic District                                       |
| 11. East Martinsburg Historic District                         | 31. South Water Street Historic District                             |
| 12. F.O. Day Site                                              | 32. Spring Mills                                                     |
| 13. Falling Waters Industrial Center                           | 33. Spring Mills Business Park                                       |
| 14. Greenbush Historic District                                | 34. Stone Pond Manor Historic District                               |
| 15. Green Hill Cemetery Historic District                      | 35. Teller's Station                                                 |
| 16. Harlan Spring Historic District                            | 36. Telford Station Site                                             |
| 17. Hedgeville Historic District                               | 37. Telford Site                                                     |
| 18. Hallsdale Site                                             | 38. Teton Creek Historic District 1                                  |
| 19. Hallsdale Site                                             | 39. Valley Business Site                                             |
| 20. UCDM Industrial Park                                       | 40. White Site                                                       |

Data Source:  
Berkeley County  
GIS

# Berkeley County

## Map 15 - Historic Districts

Berkeley County Comprehensive Plan Update 2016



- |                                  |                                |
|----------------------------------|--------------------------------|
| 1. Allensville Acreage           | 11. Oak Street Park            |
| 2. Ambrose Park                  | 12. Oatesdale Park             |
| 3. DuPont Park & Soccer Complex  | 13. P.O. Faulkner Park         |
| 4. E Burke St Park               | 14. Pikeside Park              |
| 5. Gerrardstown Athletic Field   | 15. Poor House Farm Park       |
| 6. Hedgesville Park              | 16. Rooney (Tomahawk) Park     |
| 7. Inwood-Bunker Hill Lions Park | 17. Roush Field                |
| 8. Lambert Park                  | 18. W. Randy Smith Rec. Center |
| 9. Leeland Playground            | 19. War Memorial Park          |
| 10. Martin Luther King Jr. Park  |                                |



Data Source:  
Berkeley County  
GIS

## Berkeley County

### Map 12 - Parks and Outdoor Areas

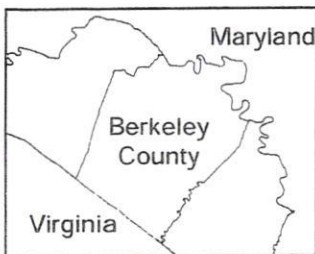
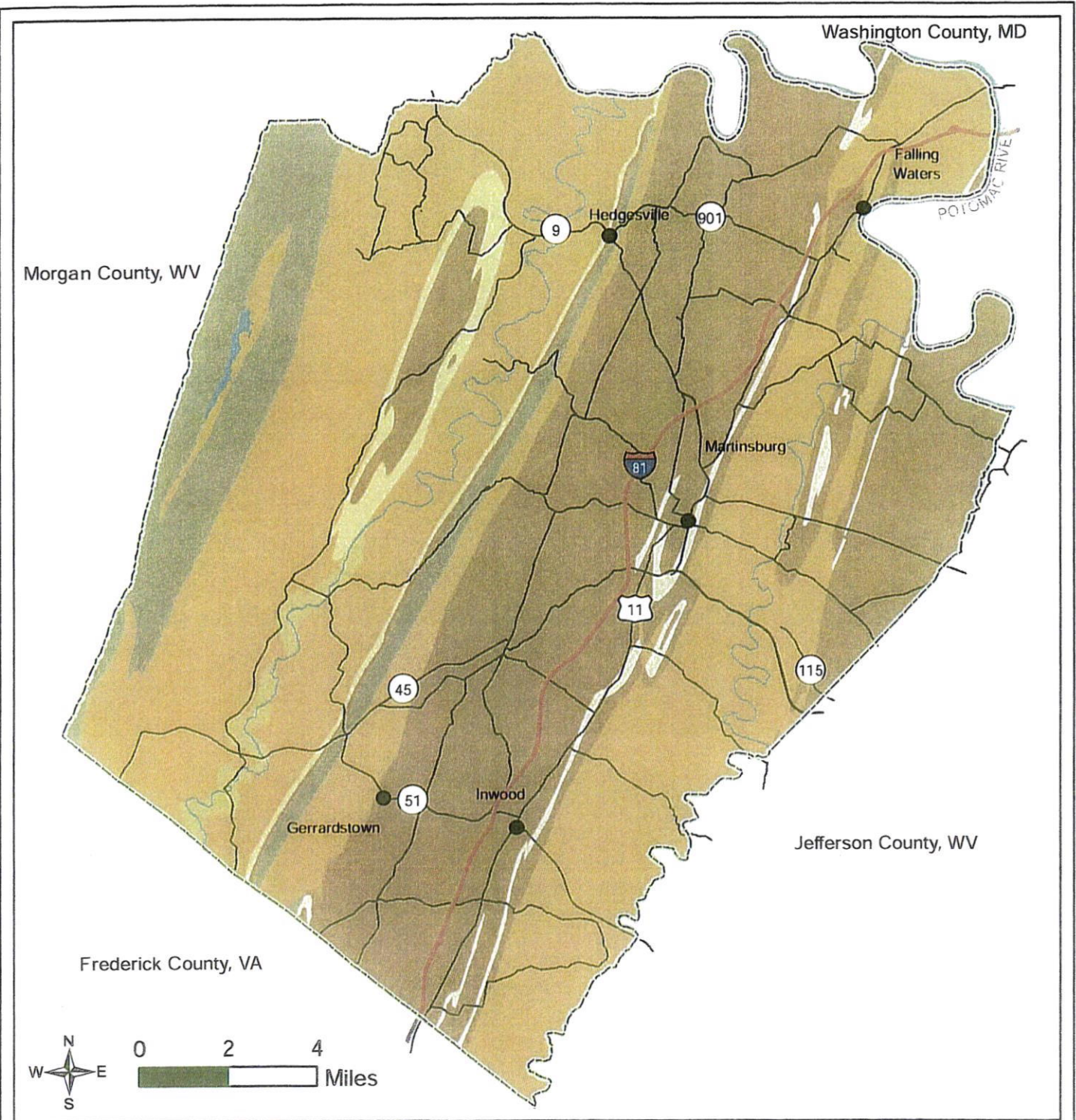
Berkeley County Comprehensive Plan Update 2016



Farmland Protected via the Berkeley County Farmland Protection Program (2023).







Data Source:  
Berkeley County  
GIS

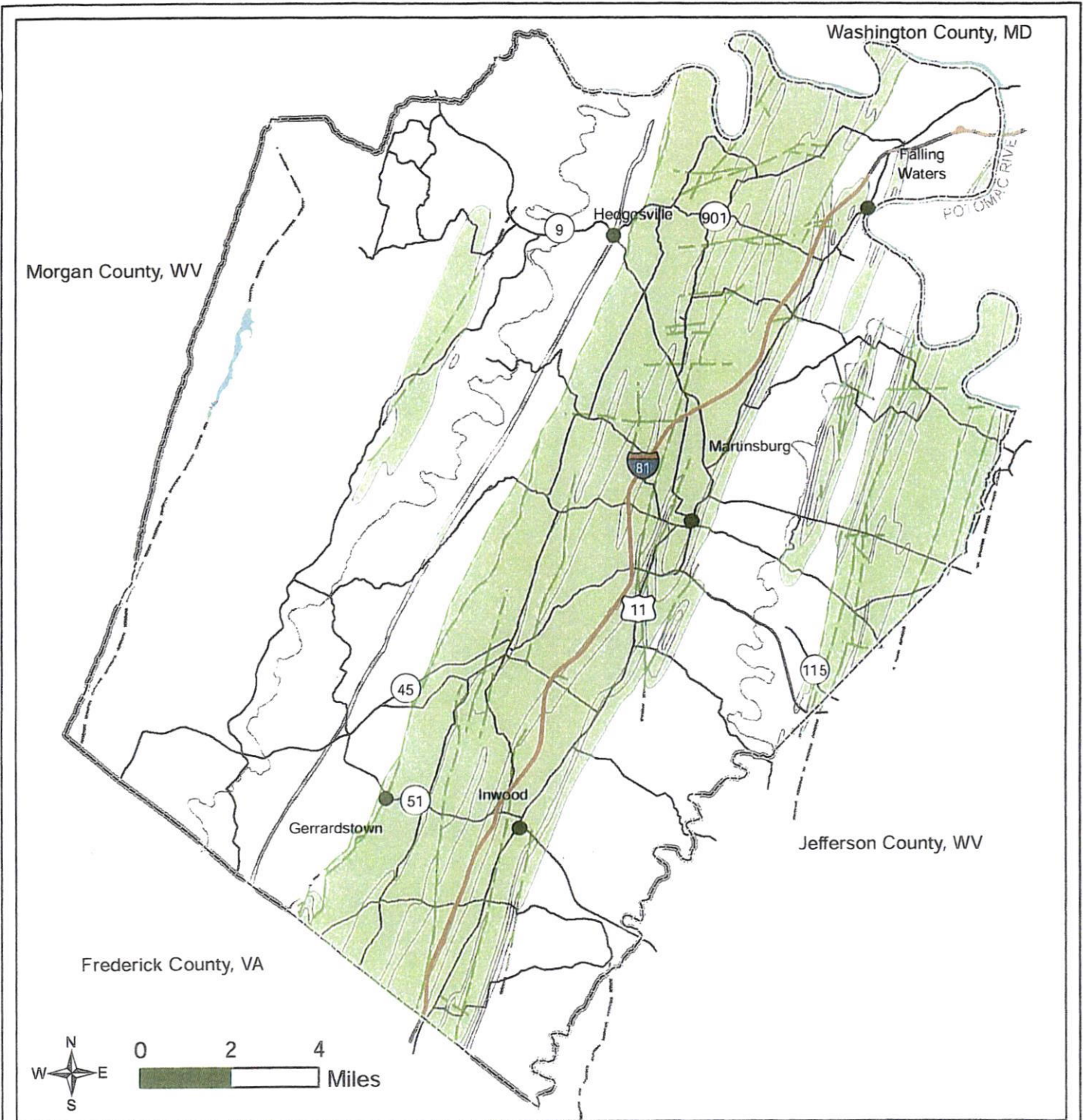
### Geologic Type

|           |                     |
|-----------|---------------------|
| Alluvium  | Sandstone           |
| Dolostone | Shale               |
| Limestone | Sandstone/Limestone |

## Berkeley County Map 3 - Geology

Berkeley County Comprehensive Plan Update 2016





Data Source:  
Berkeley County  
GIS

### Geologic Type

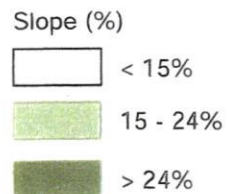
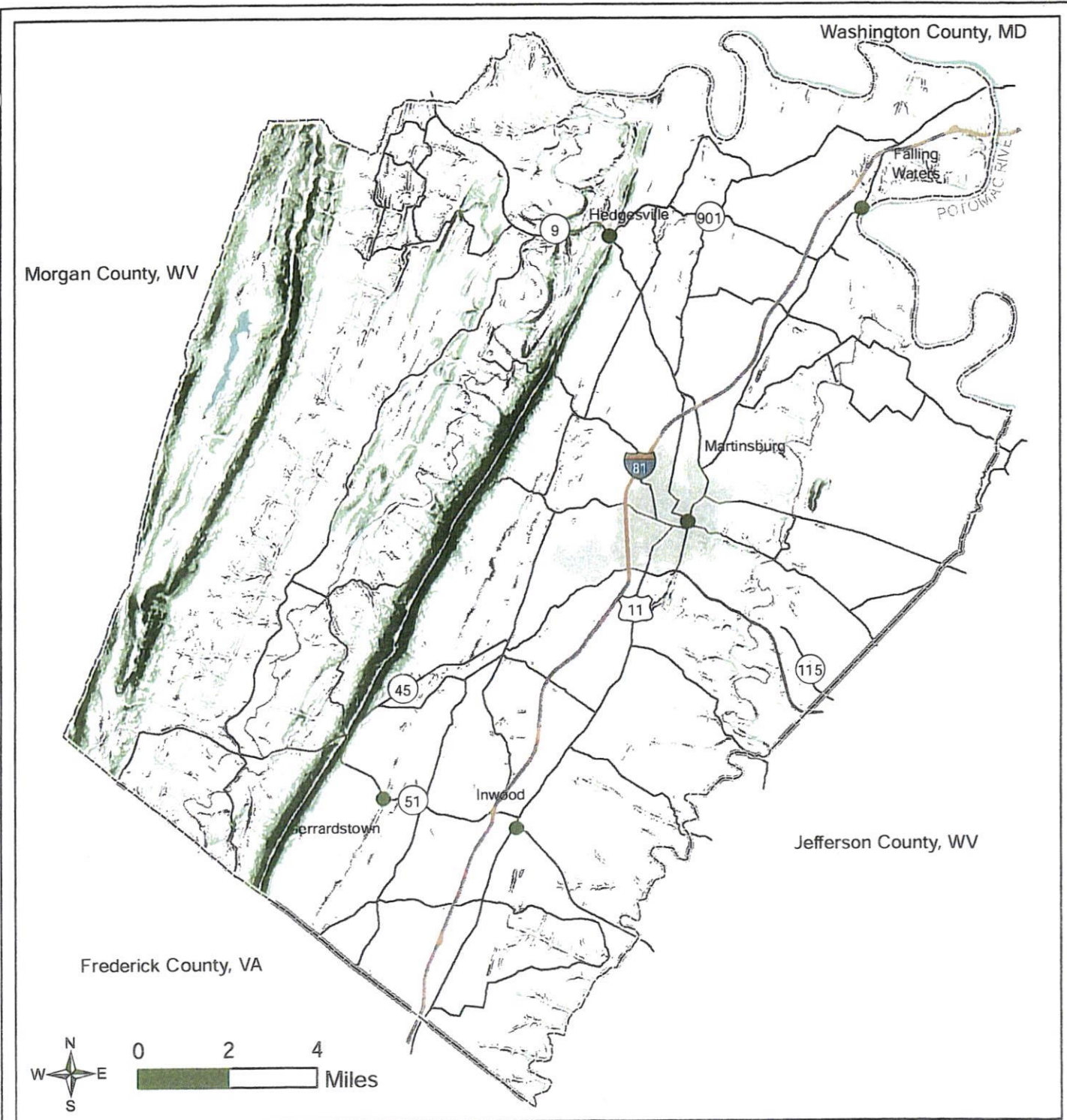
--- Fault Lines

 Karst Formations

## Berkeley County

### Map 4 - Geologic Features

Berkeley County Comprehensive Plan Update 2016

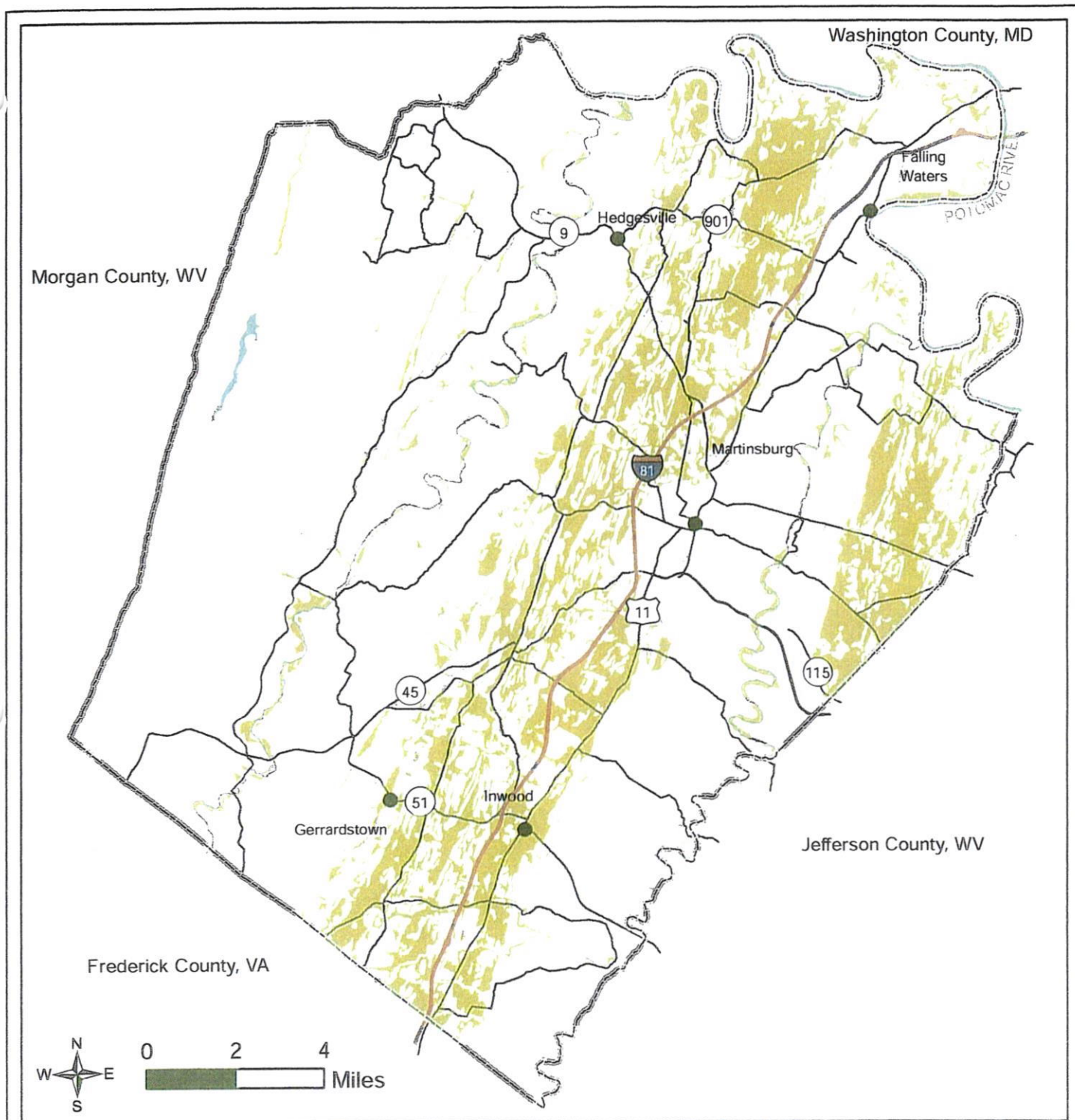


Data Source:  
Berkeley County  
GIS

## Berkeley County Map 2 - Slope

Berkeley County Comprehensive Plan Update 2016





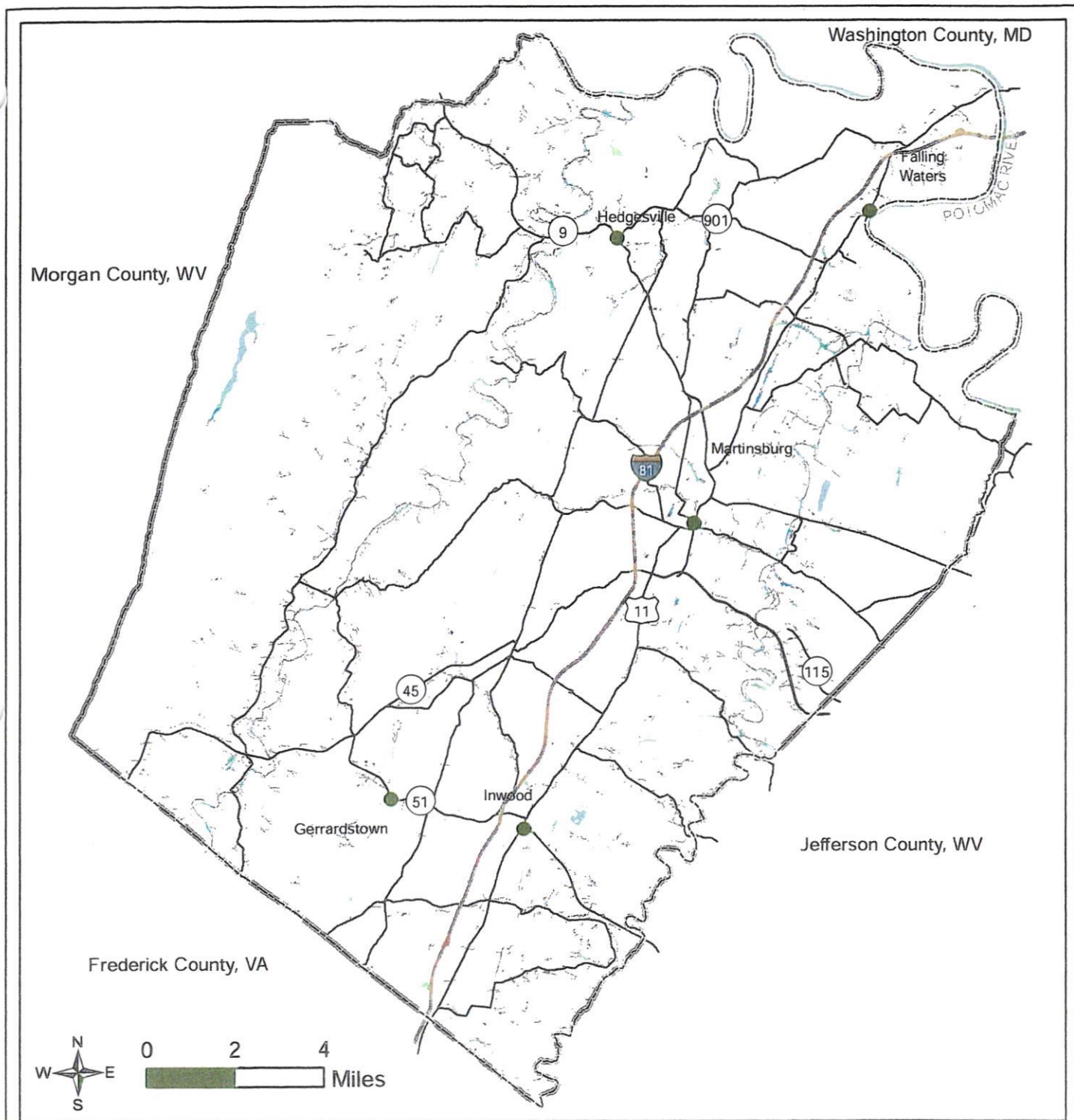
 Prime Farmland



Data Source:  
Berkeley County  
GIS

*Berkeley County*  
**Map 6 - Designated Soils**  
Berkeley County Comprehensive Plan Update 2016





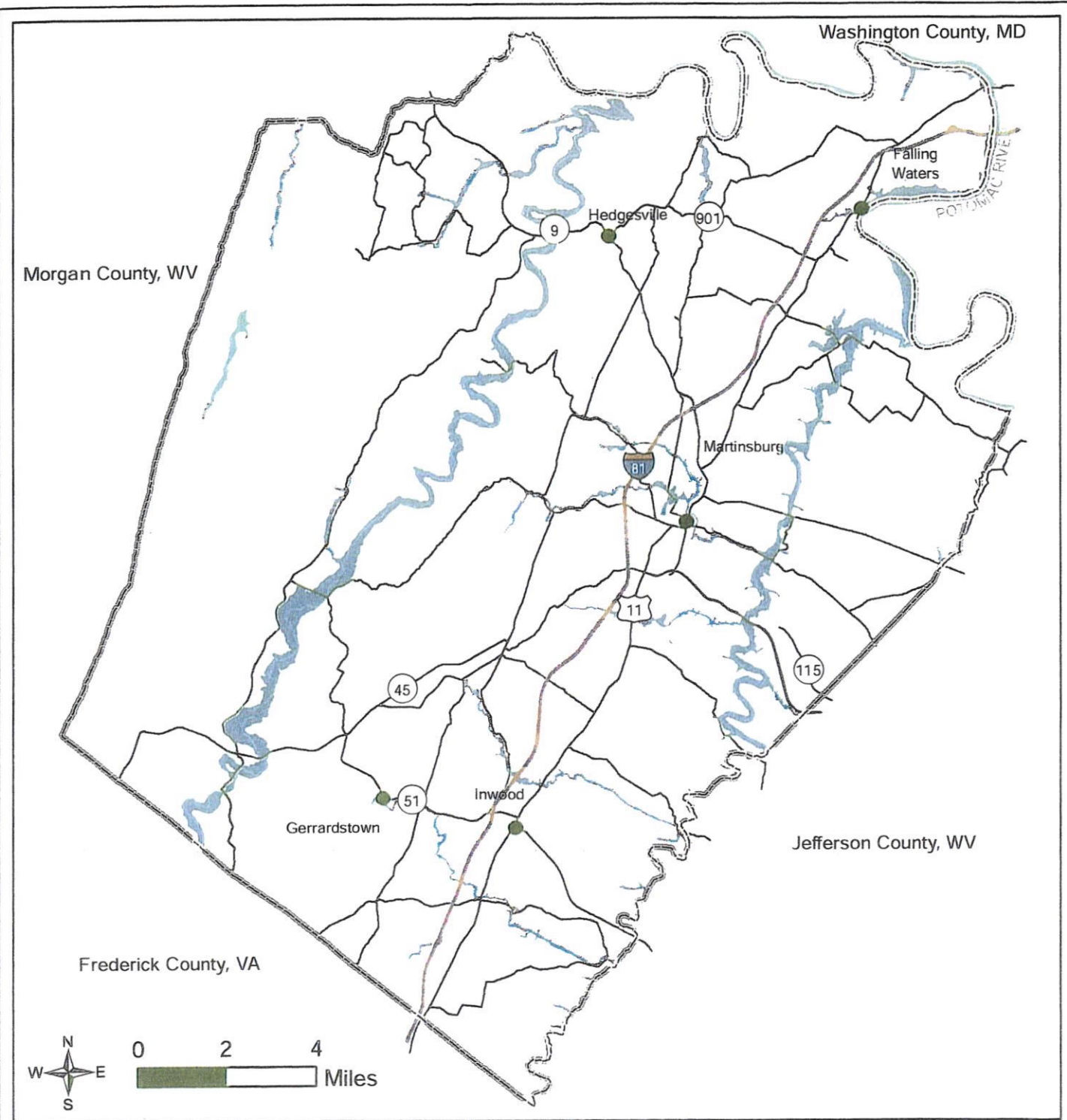
-  Rivers/Streams
-  Wetlands



Data Source:  
Berkeley County  
GIS

## Berkeley County Map 7 - Hydrology

Berkeley County Comprehensive Plan Update 2016



100 Year Floodplain

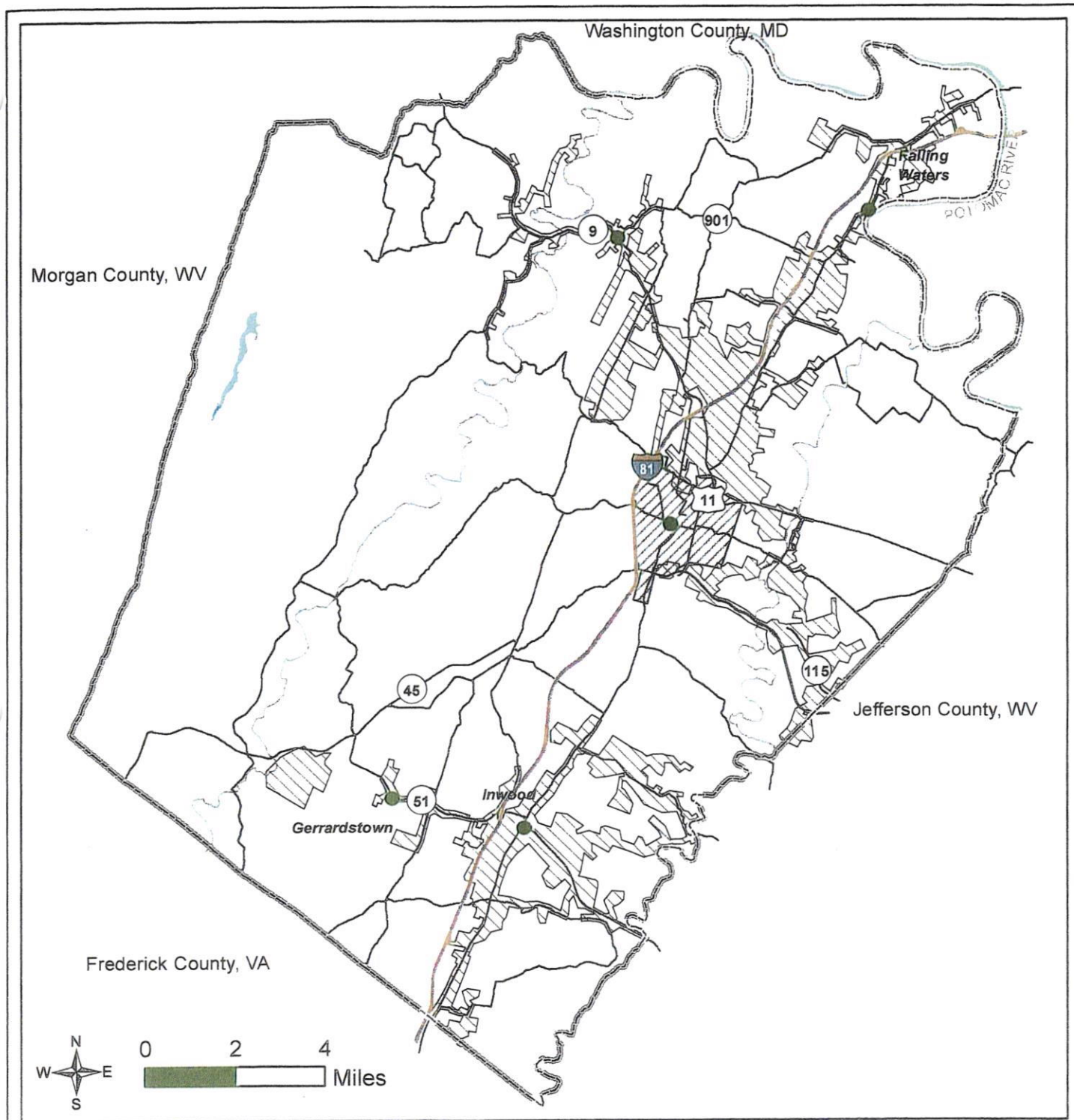


Data Source:  
Berkeley County  
GIS

# Berkeley County Map 8 - Flood Plains

Berkeley County Comprehensive Plan Update 2016





-  Berkeley County Water Service Area
-  Martinsburg Service Area

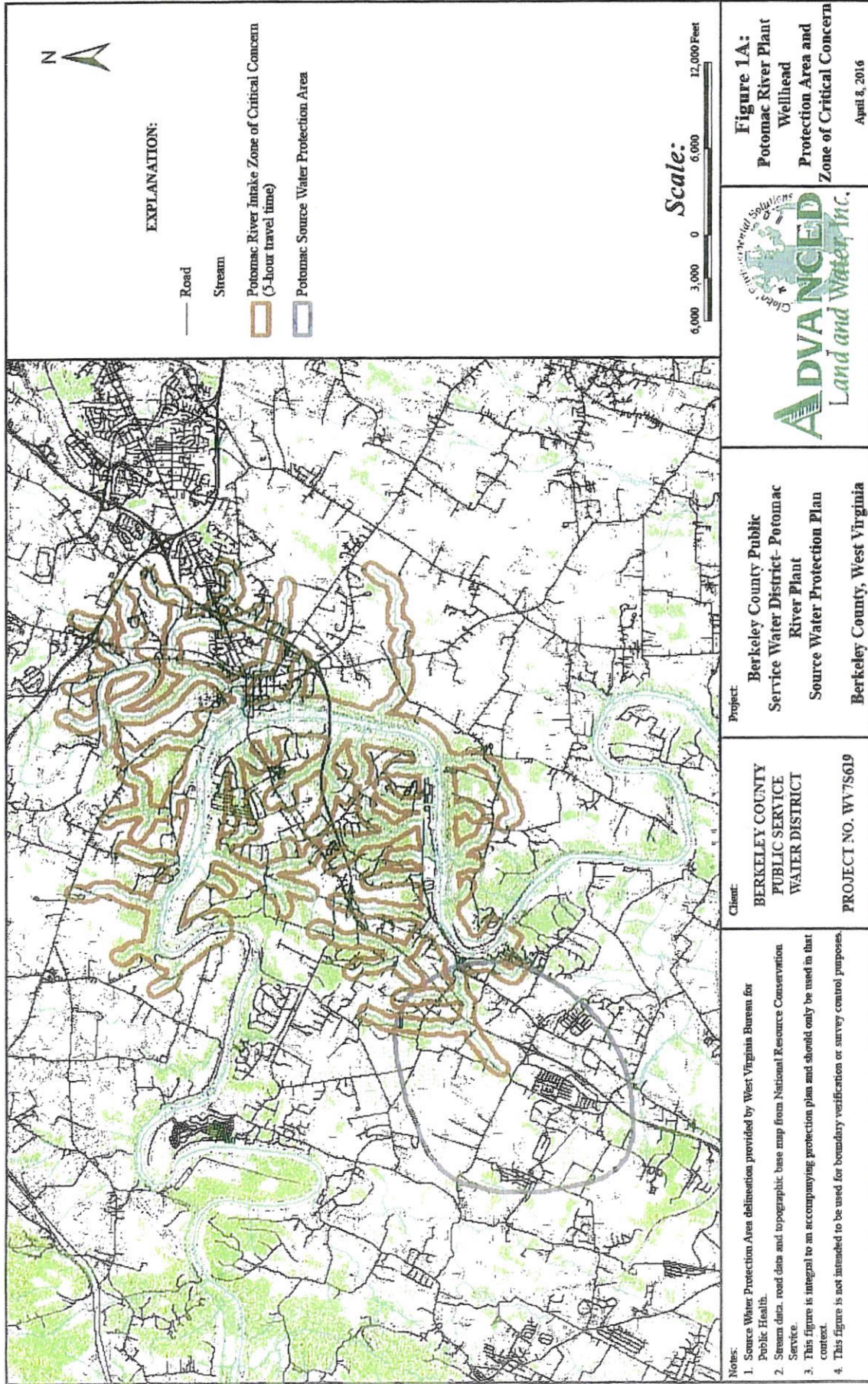


Data Source:  
Berkeley County  
GIS & BCPWSD

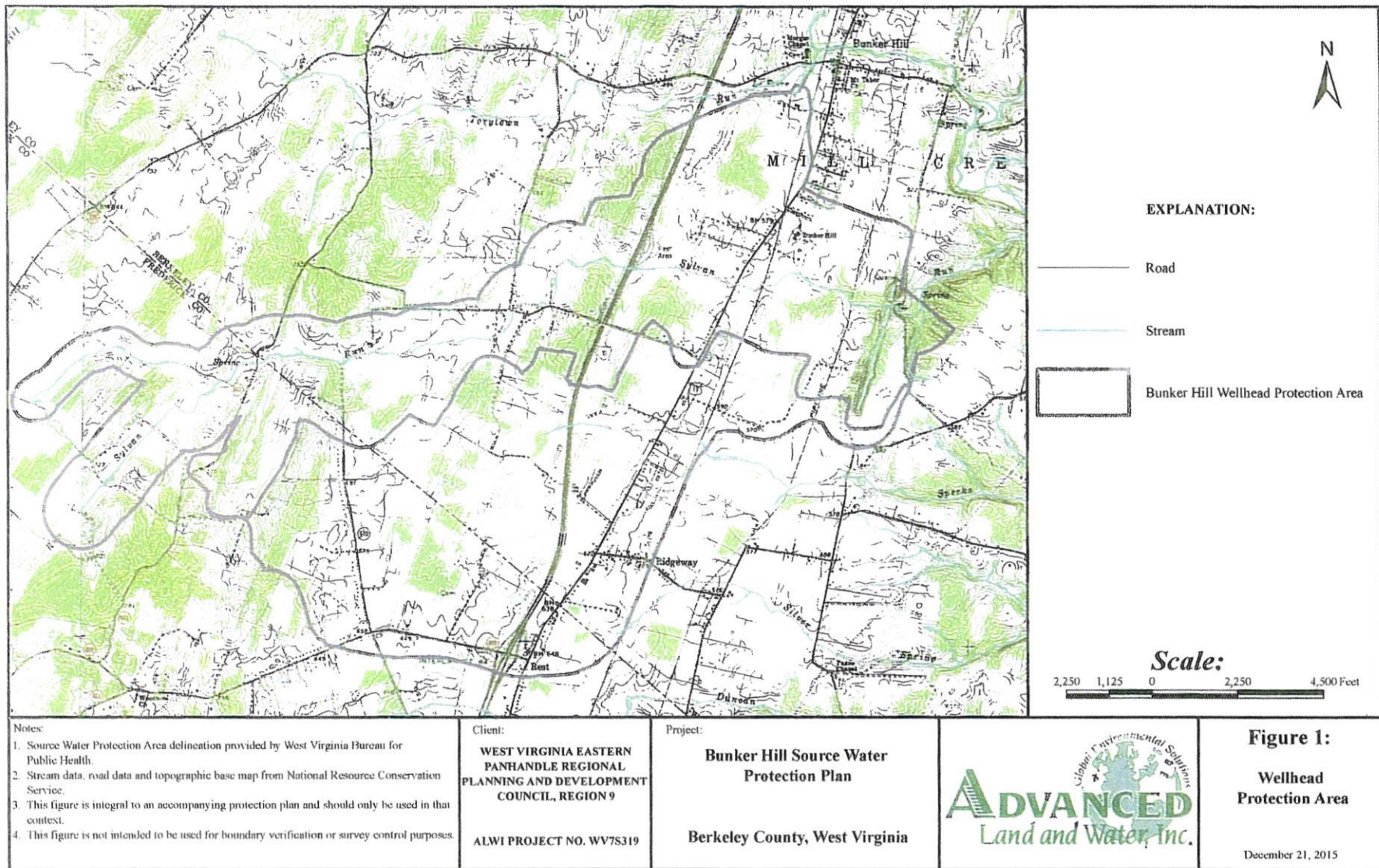
## Berkeley County Map 14 - Public Water Services

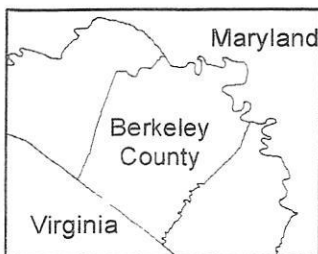
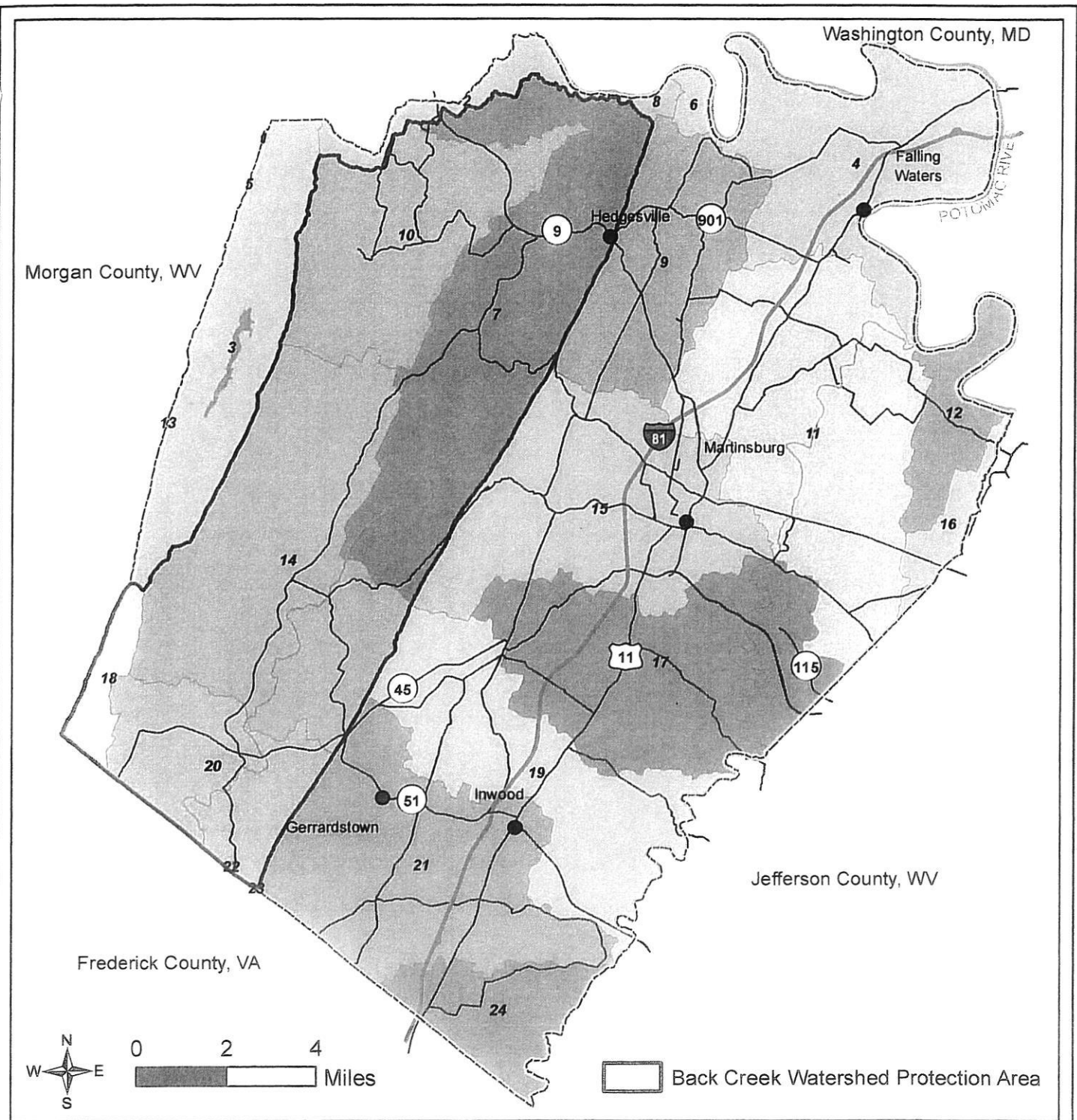
Berkeley County Comprehensive Plan Update 2016











|    |                               |             |    |                                |             |
|----|-------------------------------|-------------|----|--------------------------------|-------------|
| 1  | Lower Sleepy Creek            | 4.09        | 13 | Middle Fork Sleepy Creek       | 18.78820742 |
| 2  | Cherry Run-Potomac River      | 2271.68     | 14 | Elk Branch-Back Creek          | 22257.87215 |
| 3  | Meadow Branch                 | 10589.58    | 15 | Tuscarora Creek                | 17104.72032 |
| 4  | Camp Spring Run-Potomac River | 13540.45938 | 16 | Rockymarsh Run                 | 1943.66264  |
| 5  | Middle Sleepy Creek           | 20.74688207 | 17 | Evans Run-Opequon Creek        | 17998.34063 |
| 6  | Camp Spring Run-Potomac River | 720.2735537 | 18 | Brush Creek                    | 1933.042526 |
| 7  | Outlet Back Creek             | 20608.65334 | 19 | Middle Creek-Opequon Creek     | 14932.86678 |
| 8  | Cherry Run-Potomac River      | 402.5790818 | 20 | Warm Springs Hollow-Back Creek | 8908.404592 |
| 9  | Harlan Run                    | 10816.78327 | 21 | Mill Creek                     | 17745.94603 |
| 10 | Tillhance Creek               | 12760.29262 | 22 | Babbs Run                      | 39.37046956 |
| 11 | Hoke Run-Opequon Creek        | 21826.07844 | 23 | Babbs Run                      | 7.14499589  |
| 12 | Rattlesnake Run-Potomac River | 8994.836356 | 24 | Turkey Run-Opequon Creek       | 5403.293362 |

Data Source:  
Berkeley County  
GIS

## Berkeley County

### Map 9 - Surface Drainage Watersheds

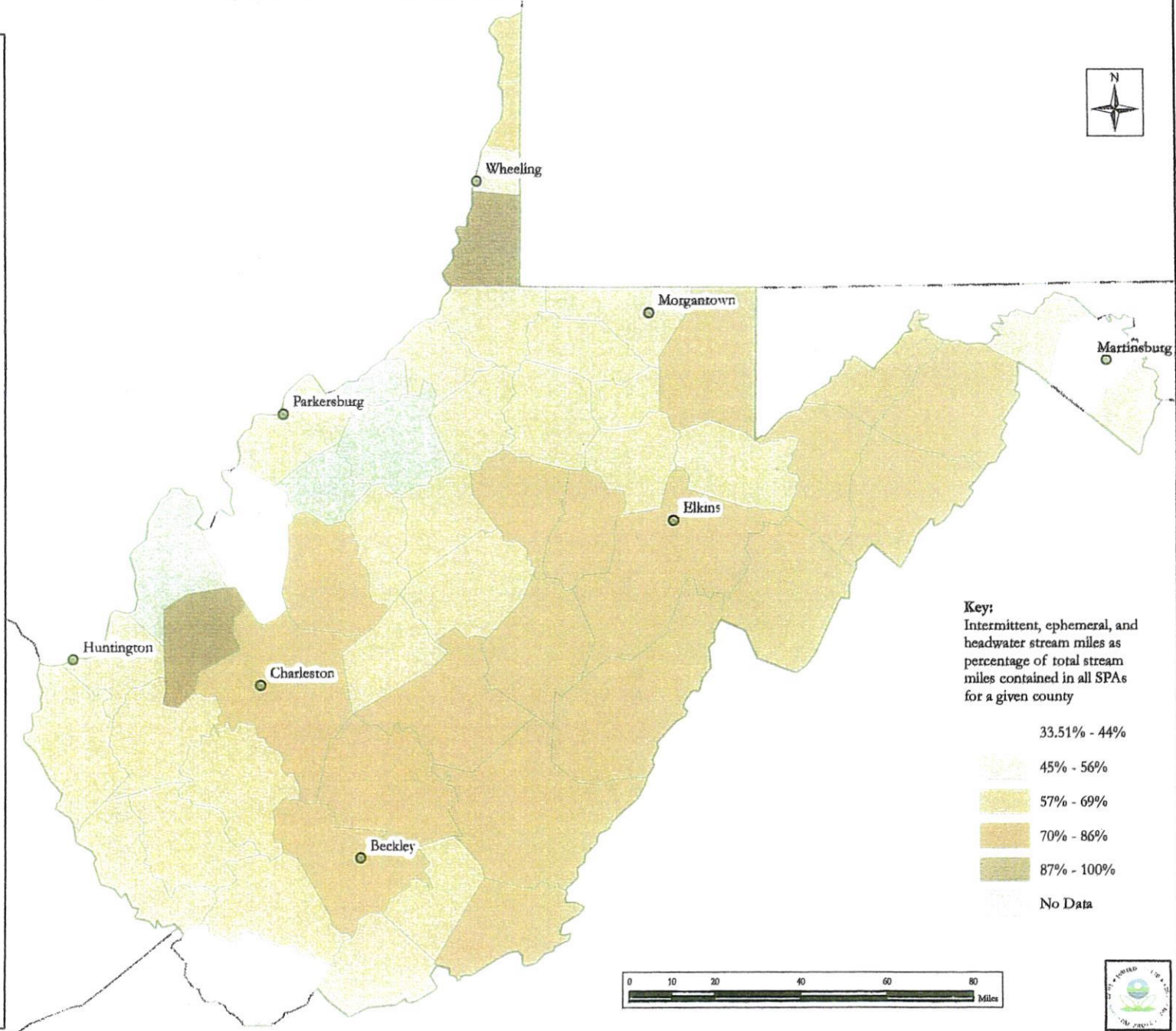
Berkeley County Comprehensive Plan Update 2016



## Percentage of Surface Drinking Water from Intermittent, Ephemeral, and Headwater Streams in West Virginia

**Legend:** This map highlights regional patterns of dependence on intermittent, ephemeral, and headwater streams for surface drinking water in West Virginia. In West Virginia, 14,825 total miles of streams provide water for surface water intakes supplying public drinking water systems; of this, 8,387 miles, or 57%, are intermittent, ephemeral, or headwater streams. Over 1 million people in West Virginia receive drinking water from public drinking water systems that rely at least in part on intermittent, ephemeral, or headwater streams. This analysis compared the stream length of intermittent, ephemeral, and headwater streams to total stream length within all mapped Source Protection Areas (SPAs) for each county. A SPA is an area upstream from a drinking water source or intake that contributes surface water flow to the drinking water intake during a 24-hour period. This is based on data that generally do not include streams less than one mile in length. Intermittent streams are streams containing water for only part of the year. Ephemeral streams flow in response to precipitation events. First-order streams have been used to represent headwater streams.

**Data Sources:** National Hydrography Dataset Plus at medium resolution; Federal Safe Drinking Water Information System 4<sup>th</sup> Quarter 2006 Data.



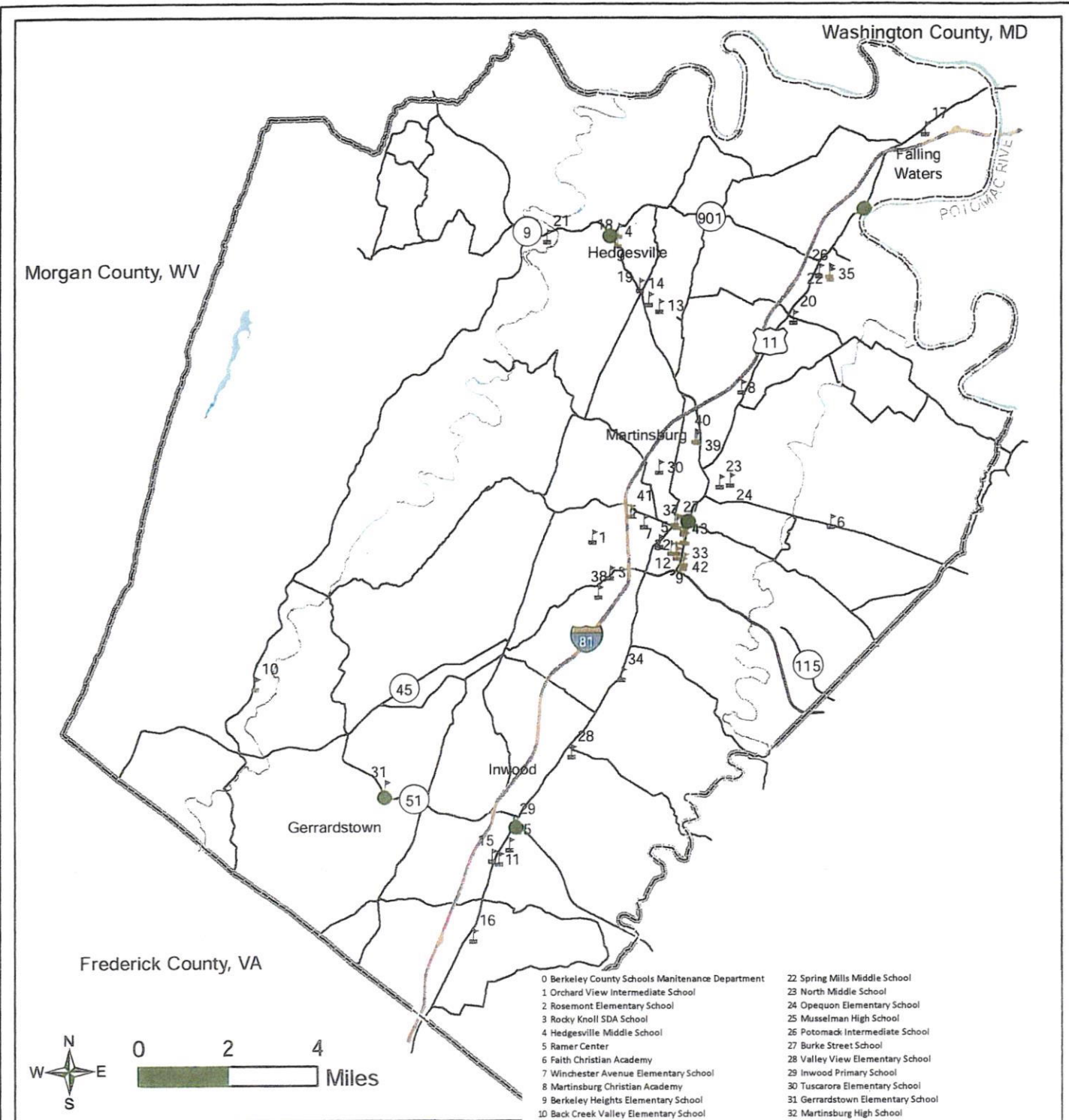


# Caves of Berkeley County, WV



Map Provided by WVU Student Grotto 2017





- |                                                  |                                                             |
|--------------------------------------------------|-------------------------------------------------------------|
| 0 Berkeley County Schools Maintenance Department | 22 Spring Mills Middle School                               |
| 1 Orchard View Intermediate School               | 23 North Middle School                                      |
| 2 Rosemont Elementary School                     | 24 Opequon Elementary School                                |
| 3 Rocky Knoll SDA School                         | 25 Musselman High School                                    |
| 4 Hedgesville Middle School                      | 26 Potomac Intermediate School                              |
| 5 Ramer Center                                   | 27 Burke Street School                                      |
| 6 Faith Christian Academy                        | 28 Valley View Elementary School                            |
| 7 Winchester Avenue Elementary School            | 29 Inwood Primary School                                    |
| 8 Martinsburg Christian Academy                  | 30 Tuscarora Elementary School                              |
| 9 Berkeley Heights Elementary School             | 31 Gerrardstown Elementary School                           |
| 10 Back Creek Valley Elementary School           | 32 Martinsburg High School                                  |
| 11 Mill Creek Intermediate School                | 33 St Joseph School                                         |
| 12 South Middle School                           | 34 Pikeville Learning Center -- Adult/Community Education   |
| 13 James Rumsey Technical Institute              | 35 Spring Mills Primary School                              |
| 14 James Rumsey Technical Institute              | 36 Berkeley County Public Schools Office                    |
| 15 Musselman Middle School                       | 37 Regional Education Service Agency (RESA VIII)            |
| 16 Bunker Hill Elementary School                 | 38 Blue Ridge Community and Technical College               |
| 17 Marlowe Elementary School                     | 39 Valley College                                           |
| 18 Hedgesville Elementary School                 | 40 Martinsburg College (Distance Learning Programs)         |
| 19 Hedgesville High School                       | 41 Mountain State University                                |
| 20 Bedington Elementary School                   | 42 Regional Education Service Agency (RESA VIII) Head Start |
| 21 Tomahawk Intermediate School                  | 43 International Beauty School                              |

Data Source:  
Berkeley County  
GIS

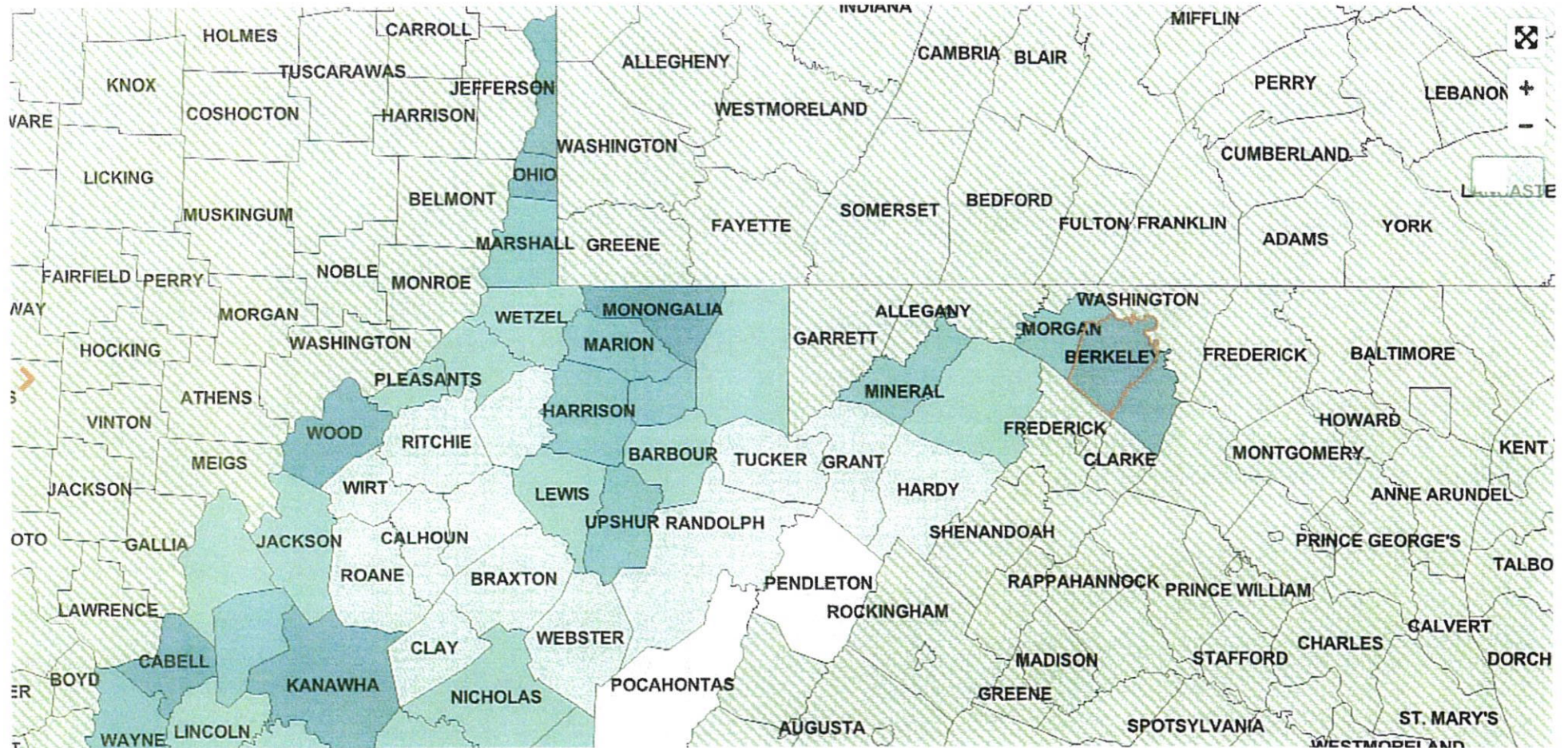
## Berkeley County

### Map 11 - Education Facilities

Berkeley County Comprehensive Plan Update 2016



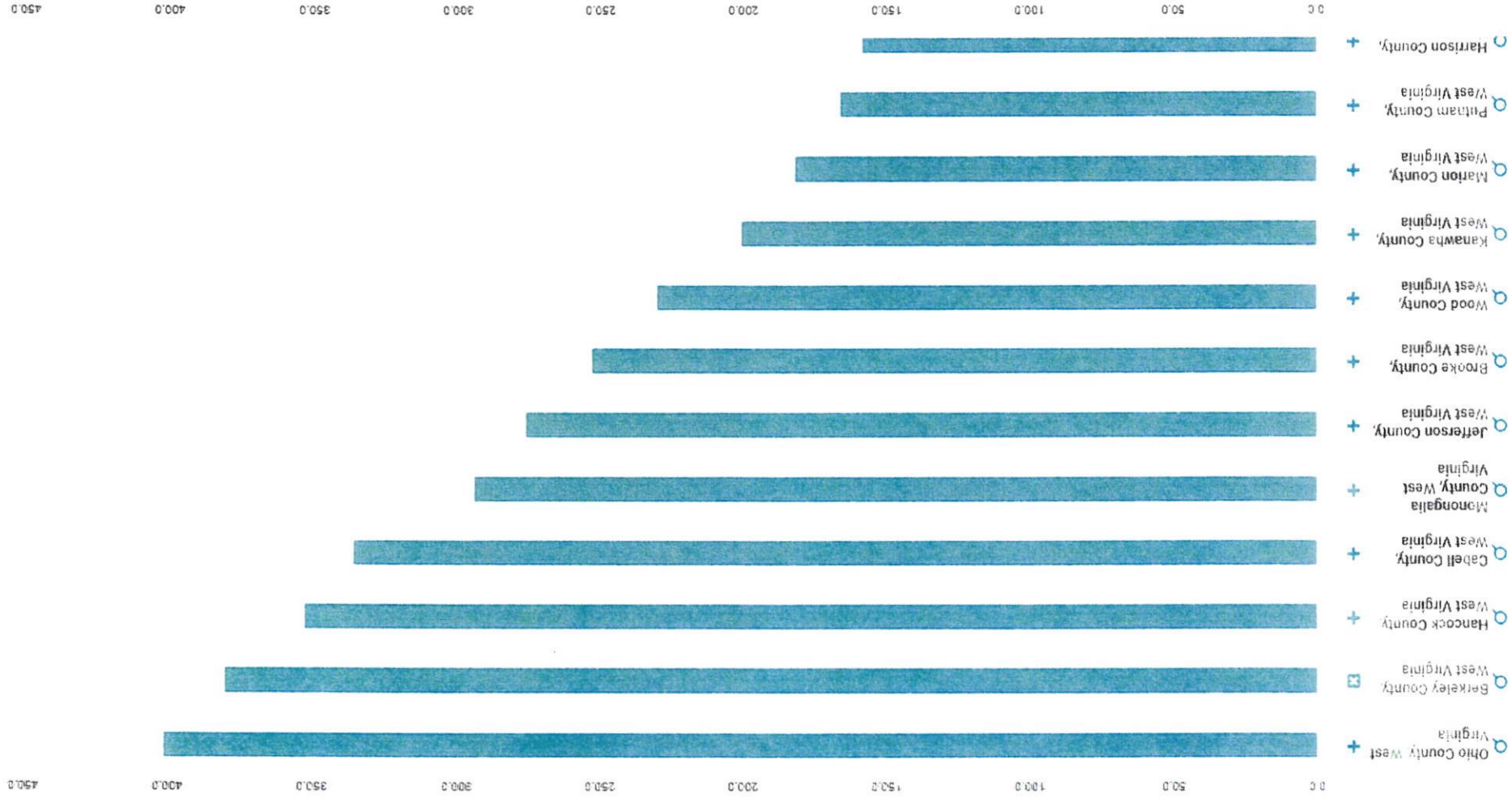
Population per square mile, 2020

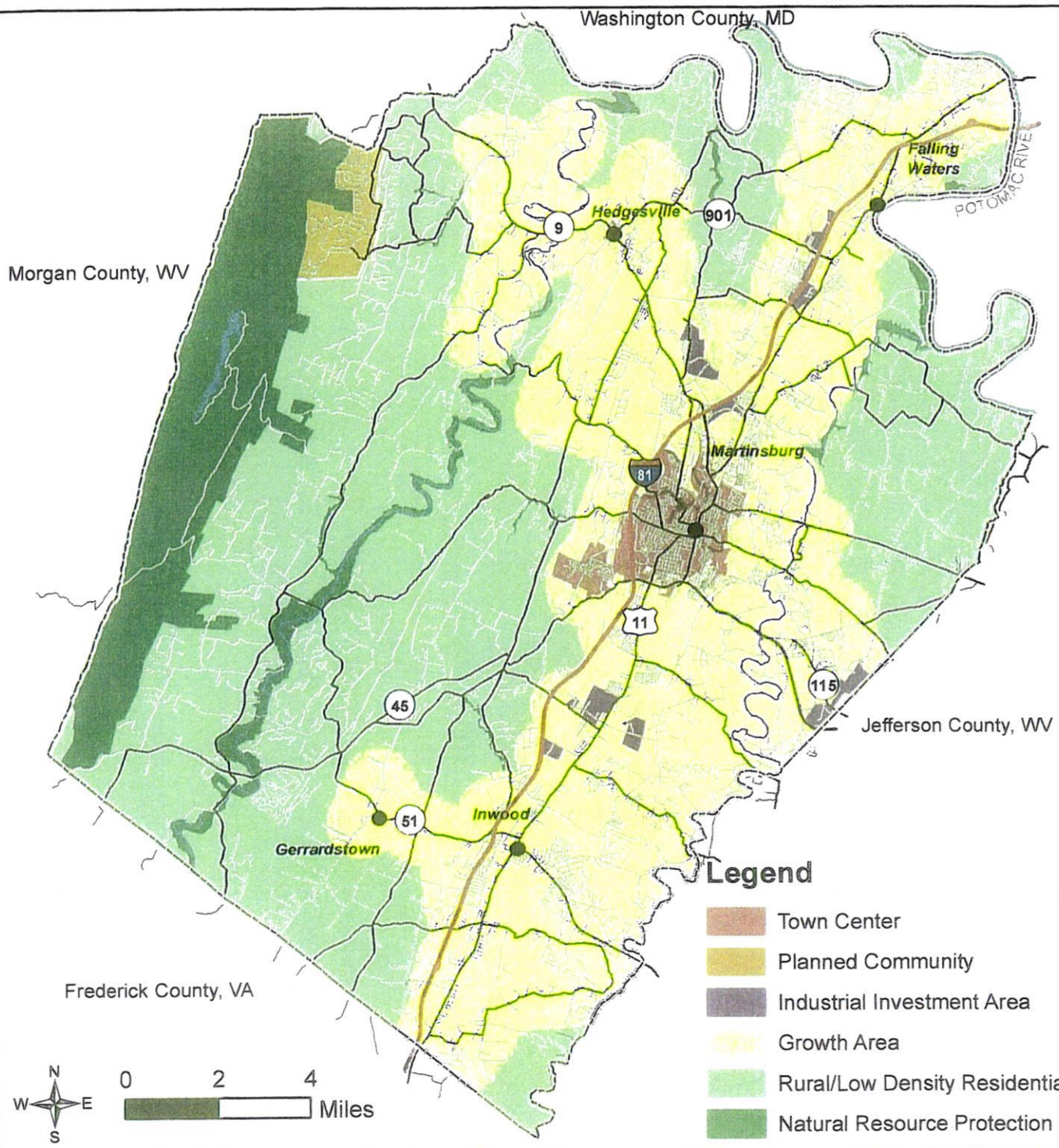


Populations below 5,000 are not in QuickFacts and therefore Not Selectable



Population per square mile, 2020





This map is a broad guide for future land use in Berkeley County and is not intended as a specific map for land use decision making.



Data Source:  
Berkeley County  
GIS

# Berkeley County Growth Management Map

Berkeley County Comprehensive Plan Update 2016



# Back Creek Watershed

## Legend

### Harperella

 Surveyed

### Green Floaters

 (4)  (2)  (1)

### WVSCI

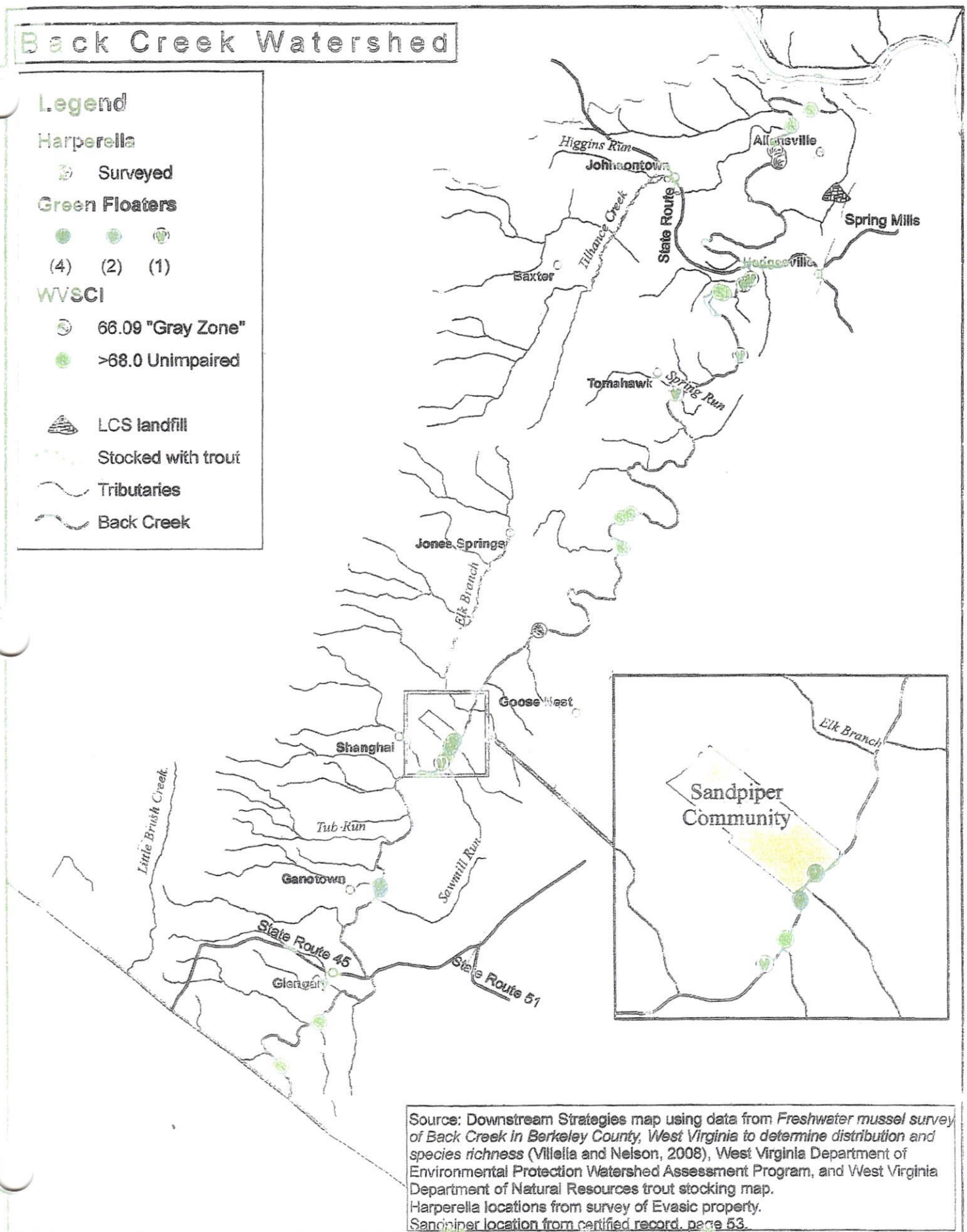
 66.09 "Gray Zone"  
 >68.0 Unimpaired

 LCS landfill

 Stocked with trout

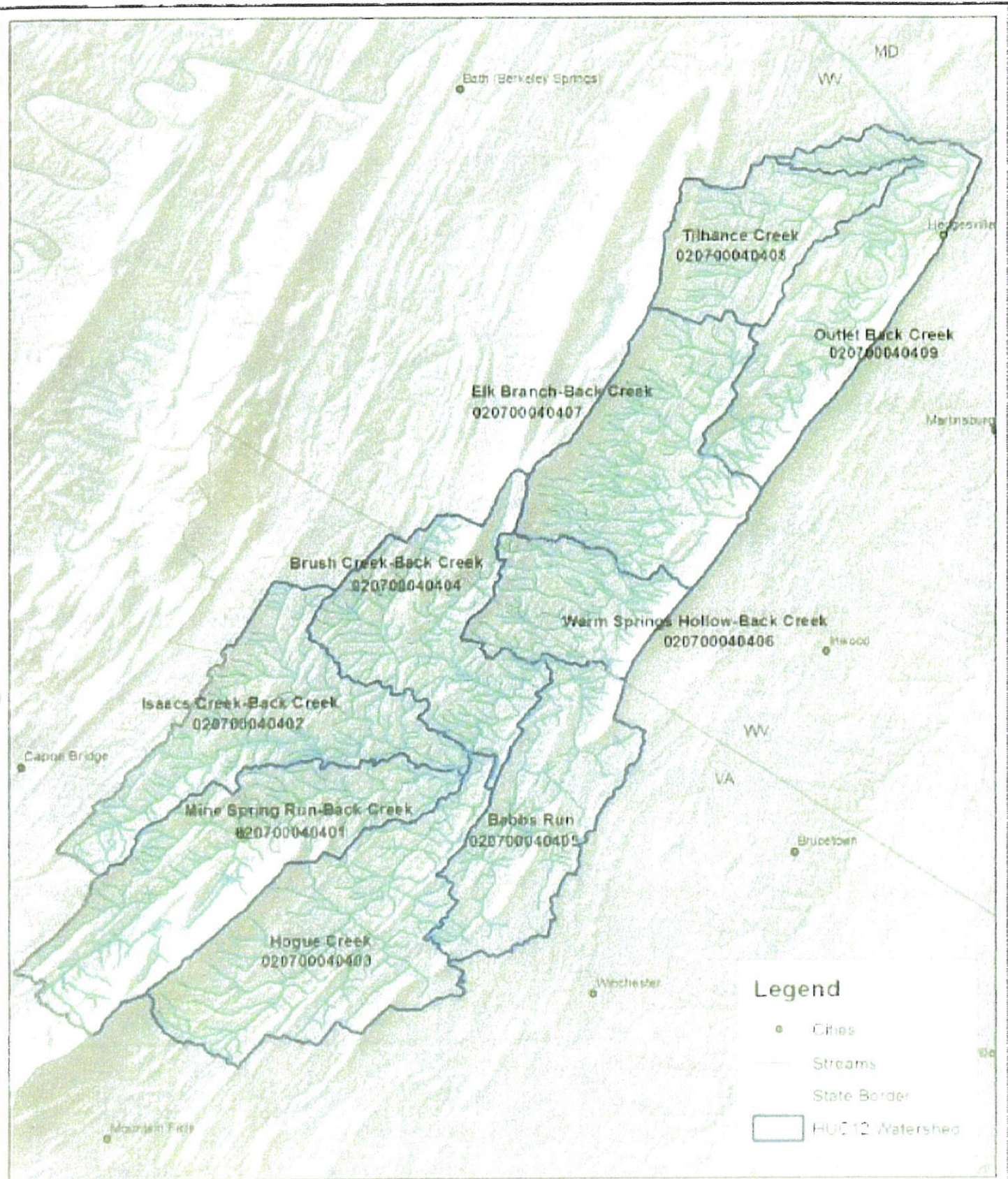
 Tributaries

 Back Creek



Source: Downstream Strategies map using data from *Freshwater mussel survey of Back Creek in Berkeley County, West Virginia to determine distribution and species richness* (Villella and Nelson, 2008), West Virginia Department of Environmental Protection Watershed Assessment Program, and West Virginia Department of Natural Resources trout stocking map. Harperella locations from survey of Evasic property. Sandpiper location from certified record, page 53.



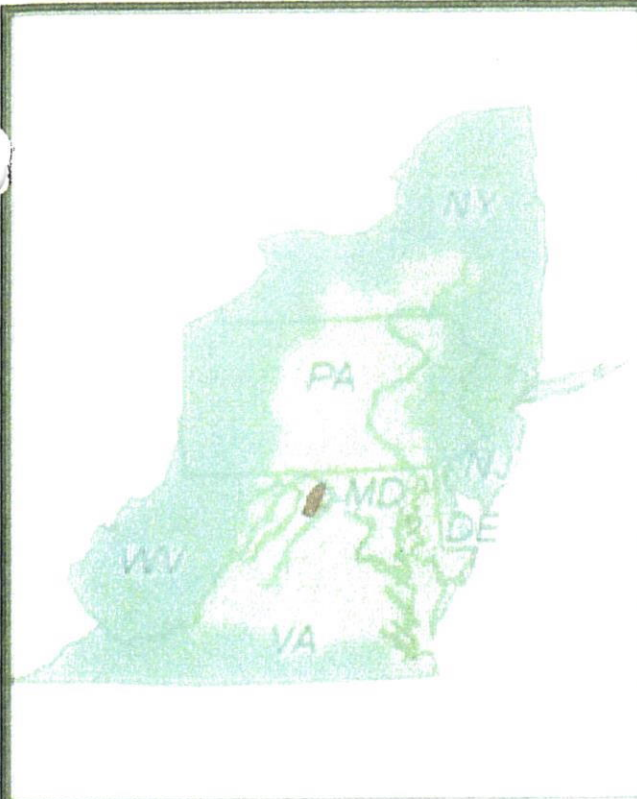


Back Creek HUC12 SubWatershed Map





# Opequon Creek Watershed



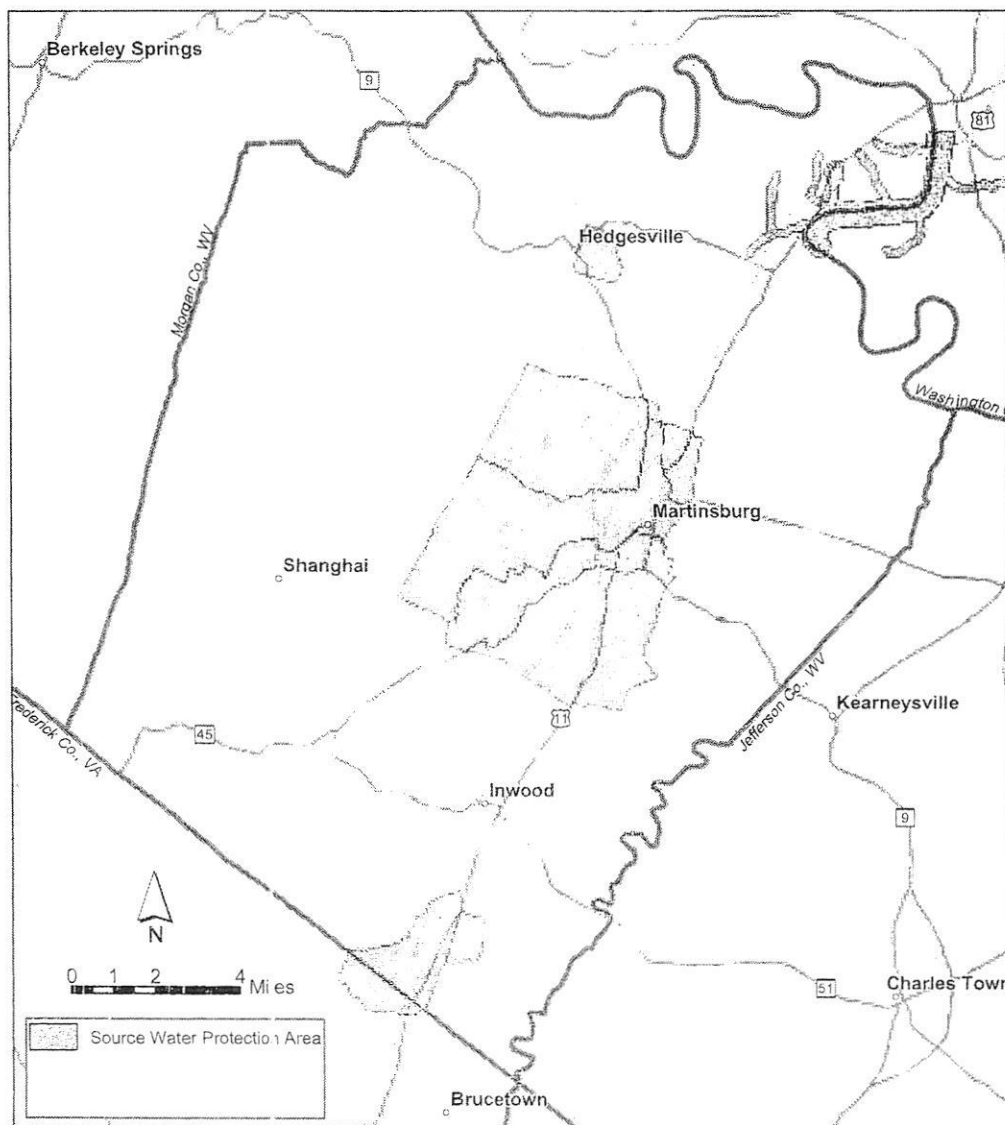
## Legend

-  Cities
-  Opequon Creek Watershed
-  Counties

0 1 2 3 4 5 Miles

#### Map # 4. Source Water Protection Zones in Berkeley County

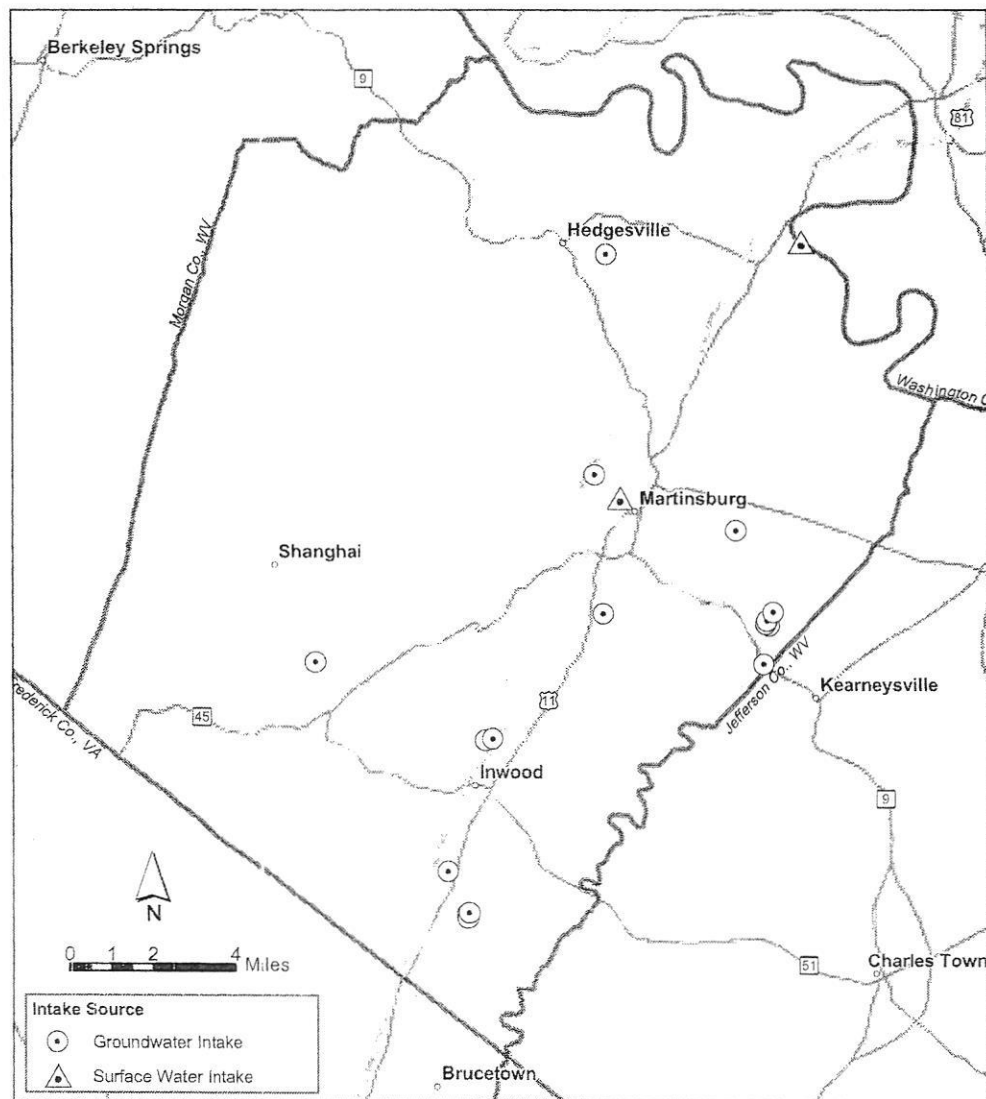
*Description:* These zones have been established by the West Virginia Bureau of Public Health through map interpretation and modeling. Well Head Protection Areas and the Zone of Critical Concern along the Potomac illustrate land that contributes to a major public water supply. Contamination within these areas may make its way into the water supply.





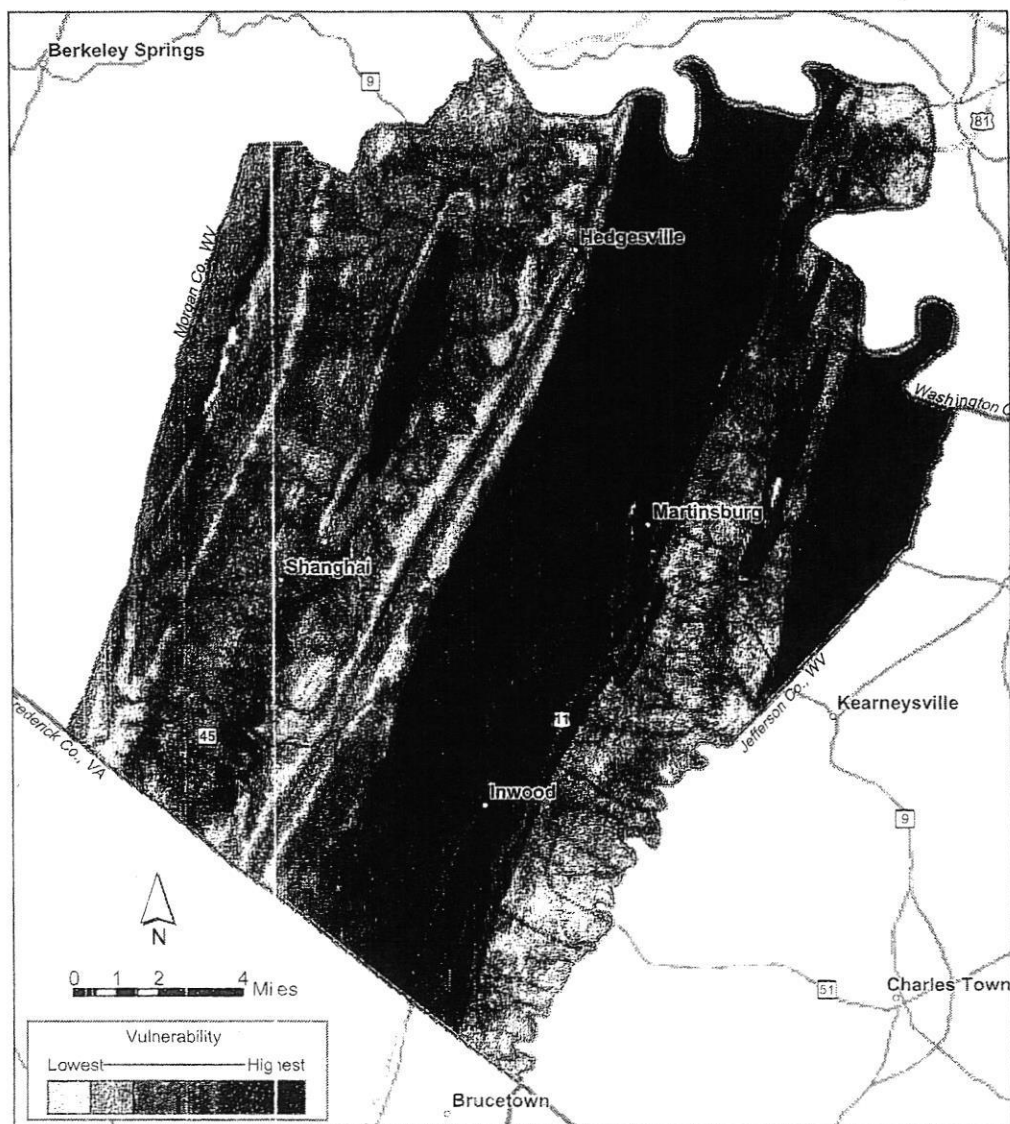
## Map #2. Public Water Intakes (Ground and Surface) in Berkeley County

*Description:* The water intakes represented here include major public sources as well as small sources that supply a public facility with water. Water is drawn from both wells and from surface sources such as the Potomac River.

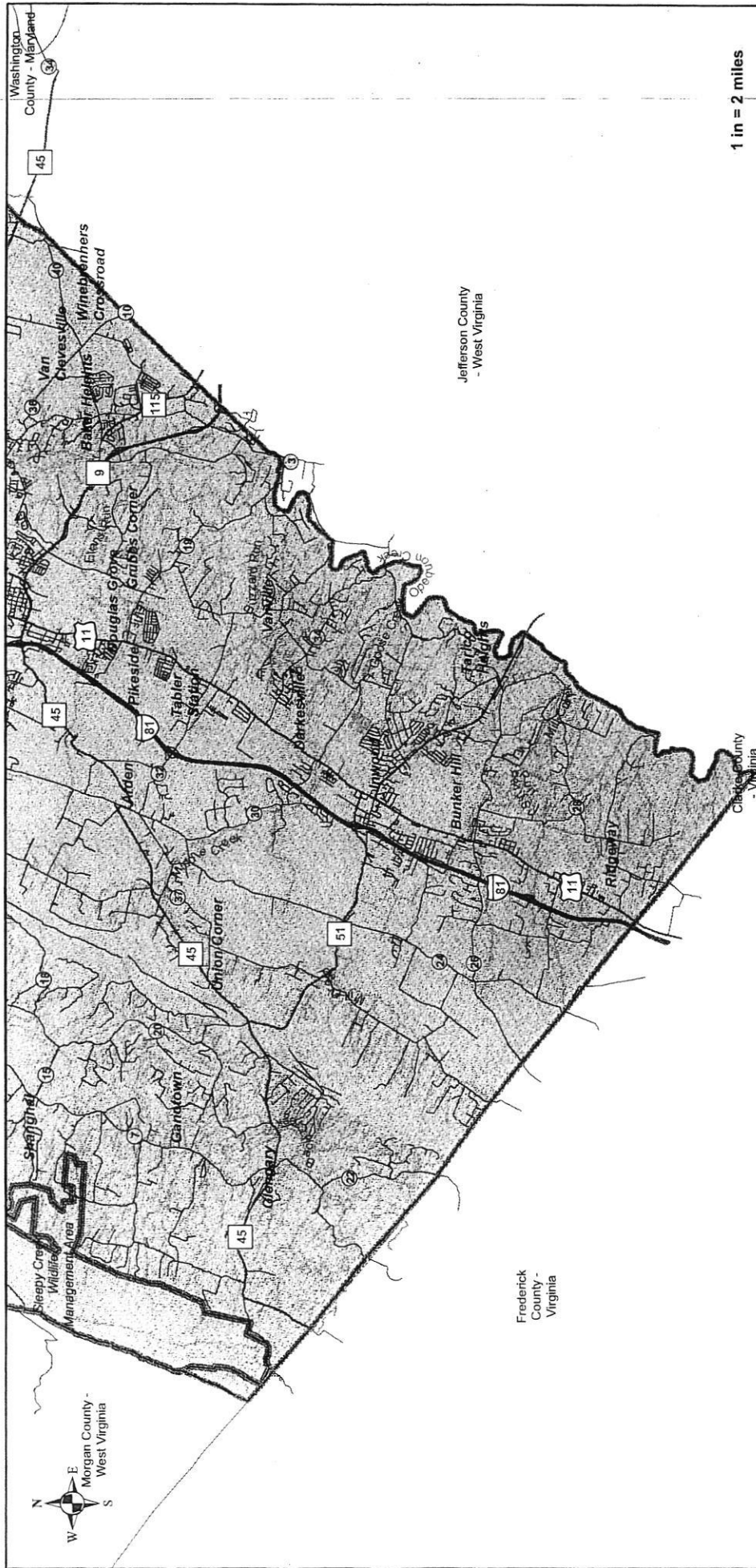


### Map 3. Groundwater Vulnerability to Pollution in Berkeley County

*Description:* The mottled appearance of this map is a representation of groundwater pollution potential. The light shades demonstrate areas that are less vulnerable to pollution, while darker shades indicate areas of highest vulnerability. This map was created using a method of analysis called, DRASTIC. The DRASTIC methodology combines multiple criteria such as topography, geology, and soils to estimate vulnerability. It illustrates that groundwater vulnerability is influenced by many natural factors and can therefore vary from location to location.

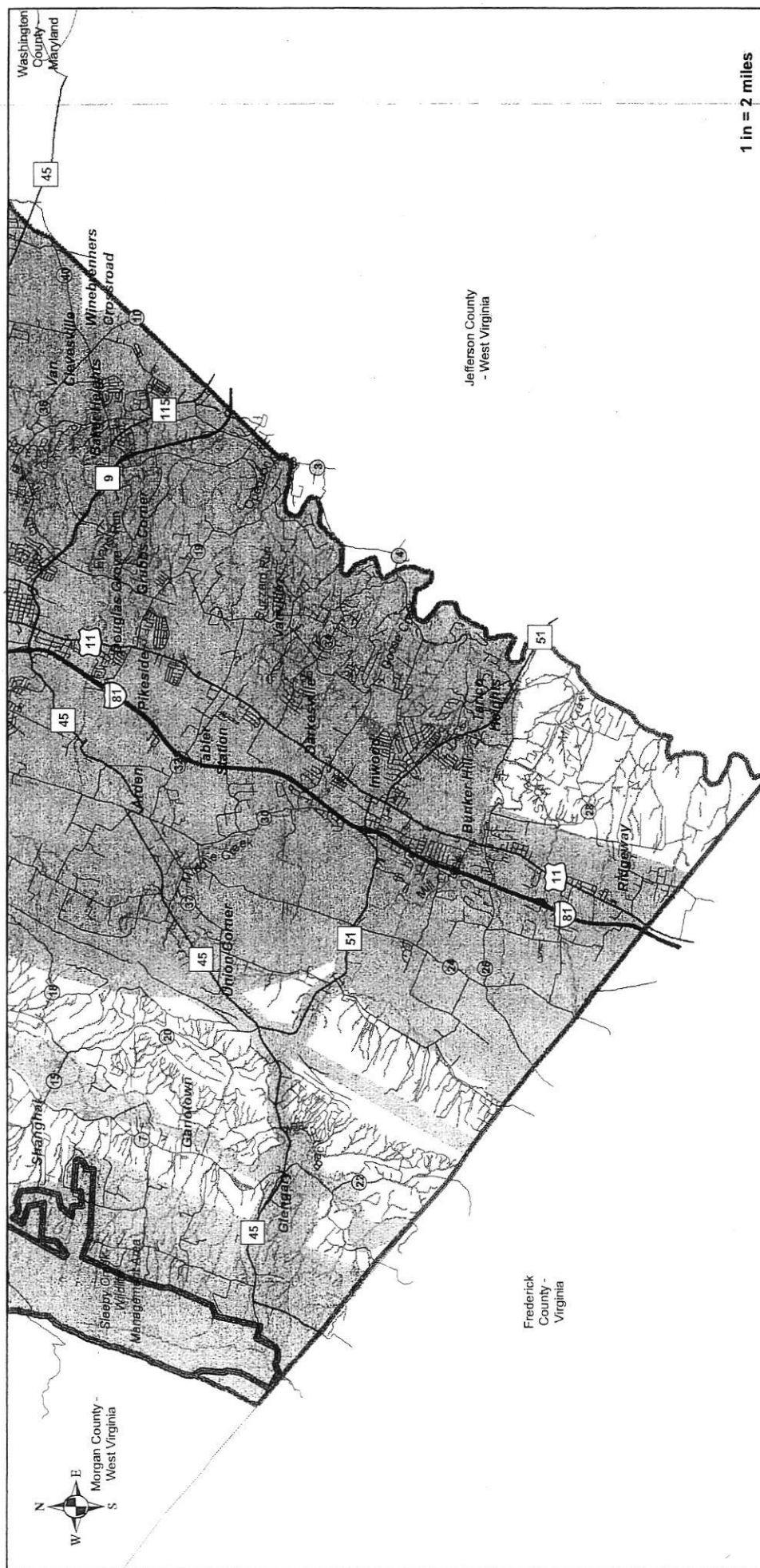












**1 in = 2 miles**

### Legend

-  Tentatively Prohibited Areas  
 Prohibited Areas  
 Sleepy Creek Wildlife Management Area  
 County Boundary

**Class B Landfill, Class C Landfill, Class D Landfill  
Southern Berkeley County**

BERKELEY COUNTY COMMERCIAL SOLID WASTE  
FACILITY SITING PLAN

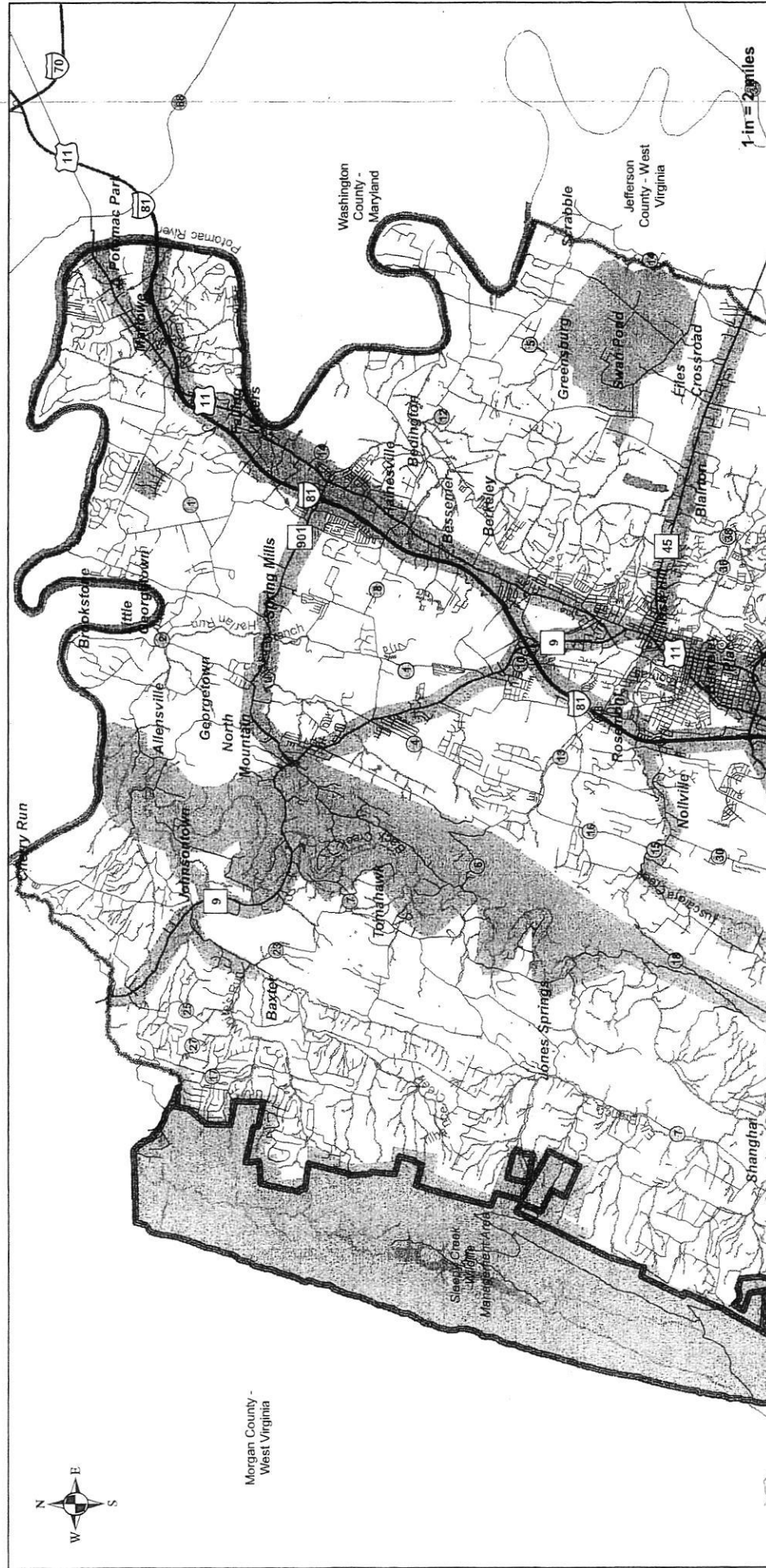
**FACILITY SITING PLAN  
BERKELEY COUNTY, WEST VIRGINIA  
SEPTEMBER 2017**

Map 2 of 2

**Map - Data Resources:**

**Berkeley County Council**  
**400 W Stephen St, Suite 201**  
**Martinsburg 25401**

Created By  
Berkeley County Department  
of Information Technology



# Legend

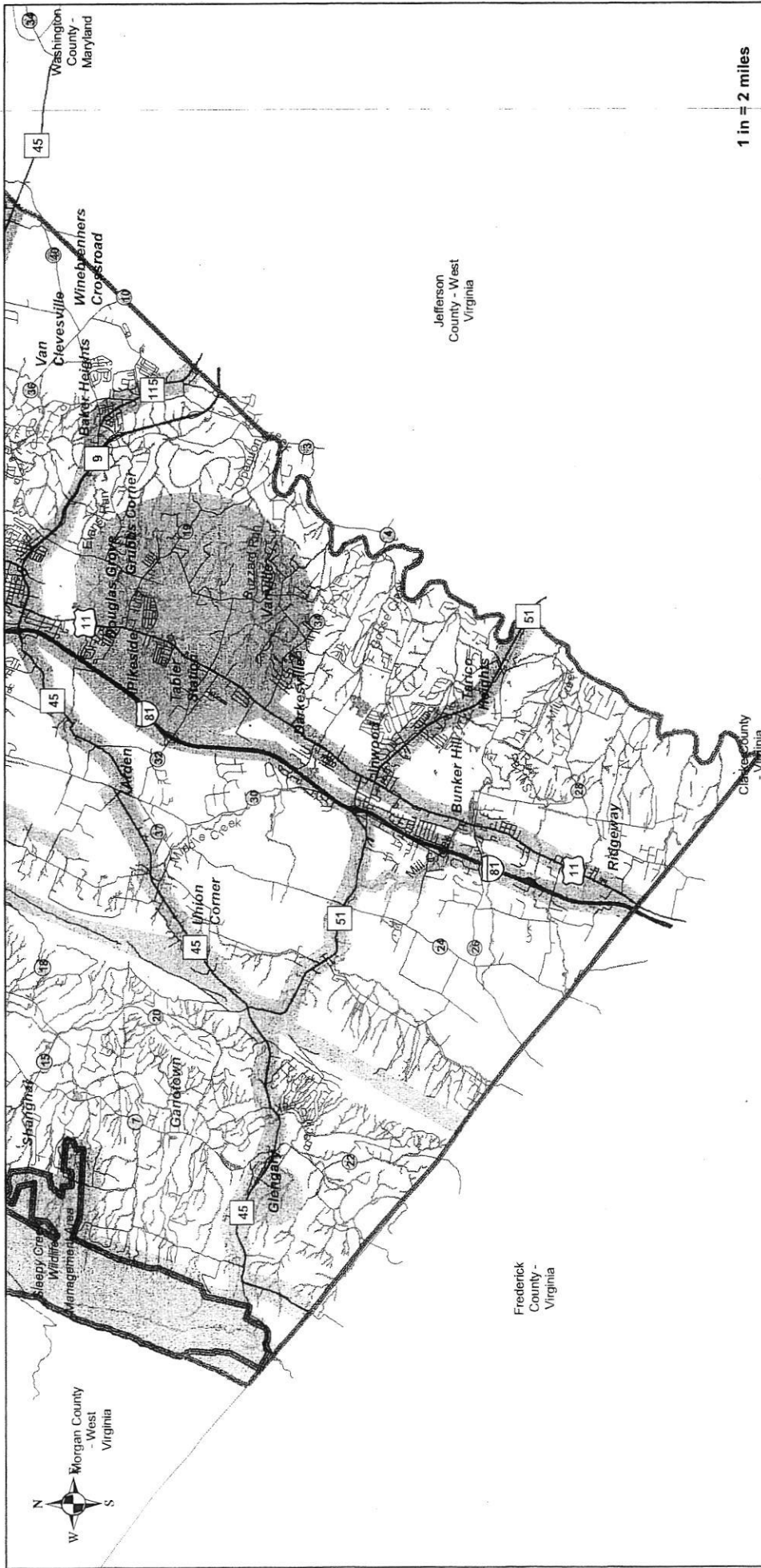
- Tentatively Prohibited Areas
- Prohibited Areas
- Sleepy Creek Wildlife Management Area
- County Boundary

Transfer Station  
Northern Berkeley County

## BERKELEY COUNTY COMMERCIAL SOLID WASTE FACILITY SITING PLAN BERKELEY COUNTY, WEST VIRGINIA SEPTEMBER 2017

Map 1 of 2

**Map - Data Resources:**  
Berkeley County Council  
400 W Stephen St, Suite 201  
Martinsburg 25401  
  
Created By  
Berkeley County Department  
of Information Technology



# Legend

- Tentatively Prohibited Areas
- Prohibited Areas
- Sleepy Creek Wildlife Management Area
- County Boundary

Transfer Station  
Southern Berkeley County

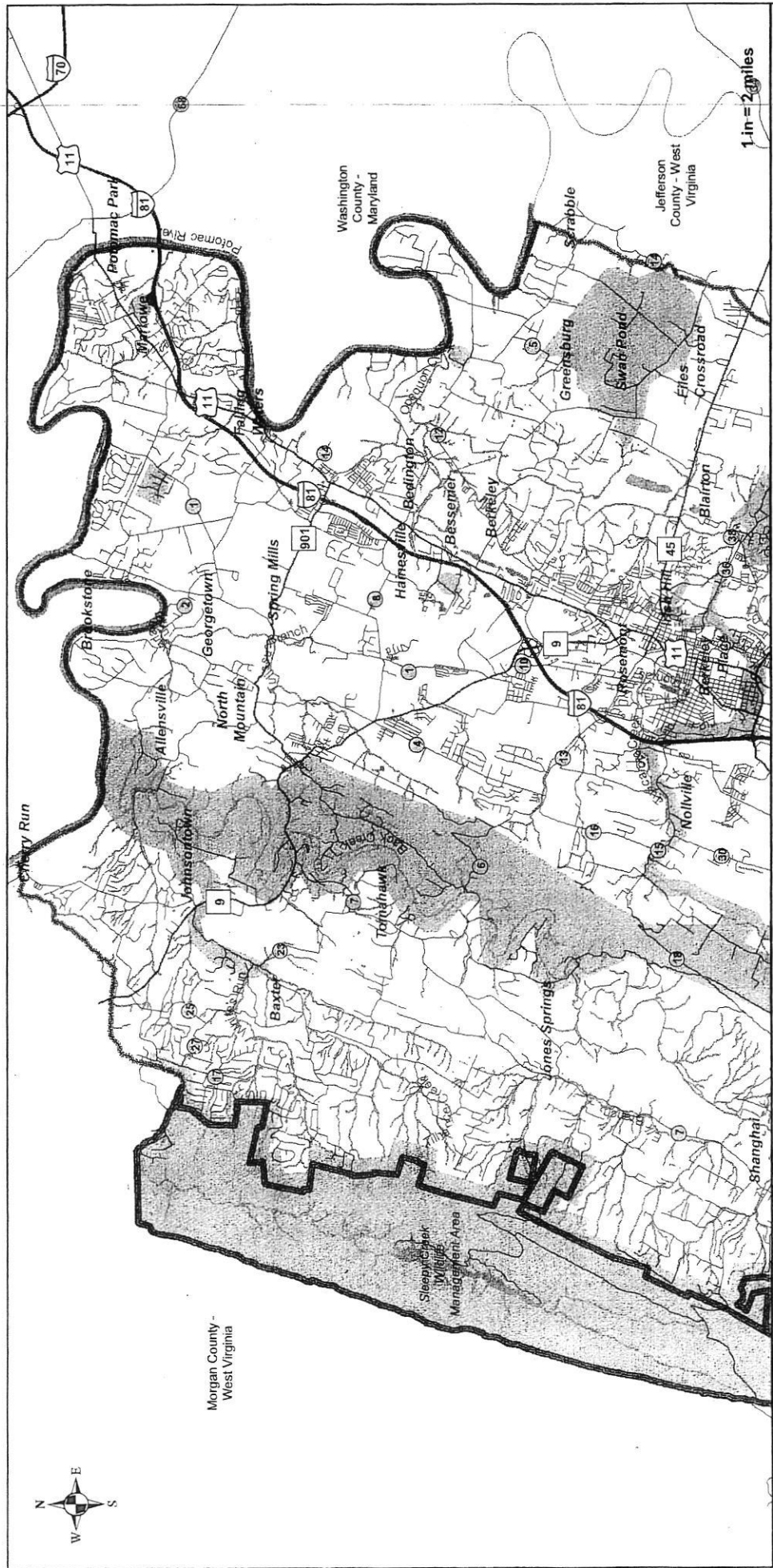
## BERKELEY COUNTY COMMERCIAL SOLID WASTE FACILITY SITING PLAN BERKELEY COUNTY, WEST VIRGINIA SEPTEMBER 2017

Map 2 of 2

**Map - Data Resources:**  
Berkeley County Council  
400 W Stephen St, Suite 201  
Martinsburg 25401  
  
Created By  
Berkeley County Department  
of Information Technology

1 in = 2 miles





# Legend

- Prohibited Areas
- Tentatively Prohibited Areas
- Sleepy Creek Wildlife Management Area
- County Boundary

Commercial Recycling, Energy Recovery Facility, Material Recovery Facility,  
Resource Recovery Facility, Mixed Waste Processing Facility  
Northern Berkeley County

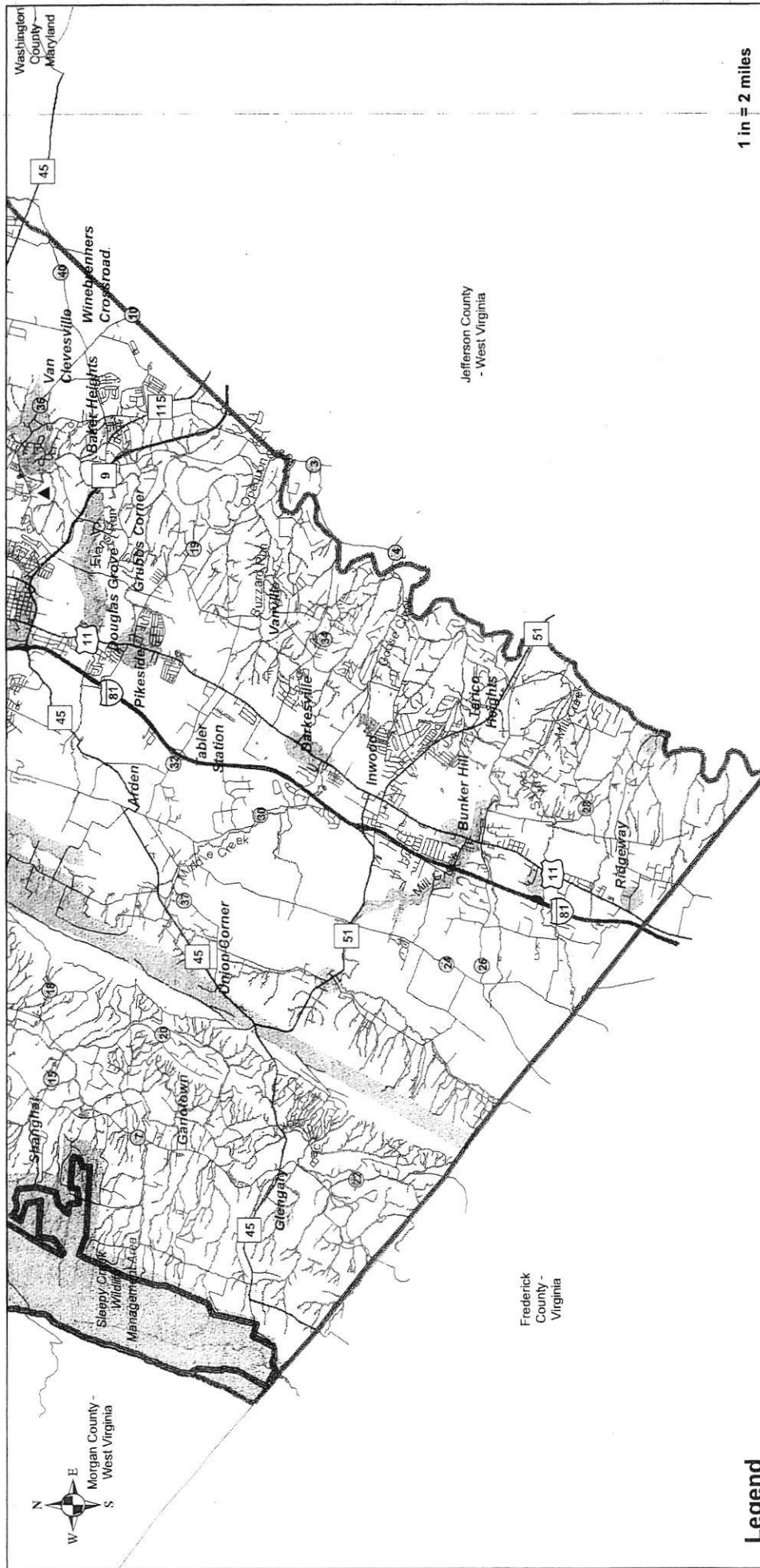
## BERKELEY COUNTY COMMERCIAL SOLID WASTE FACILITY SITING PLAN BERKELEY COUNTY, WEST VIRGINIA SEPTEMBER 2017

Map 1 of 2

### Map - Data Resources:

Berkeley County Council  
400 W Stephen St, Suite 201  
Martinsburg 25401

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Berkeley County Department  
of Information Technology



## Legend

▲ Permitted Area

□ Prohibited Areas

□ Tentatively Prohibited Areas

□ Sleepy Creek Wildlife Management Area

□ County Boundary

Commercial Recycling, Energy Recovery Facility, Material Recovery Facility,  
Resource Recovery Facility, Mixed Waste Processing Facility  
Southern Berkeley County

**BERKELEY COUNTY COMMERCIAL SOLID WASTE  
FACILITY SITING PLAN**

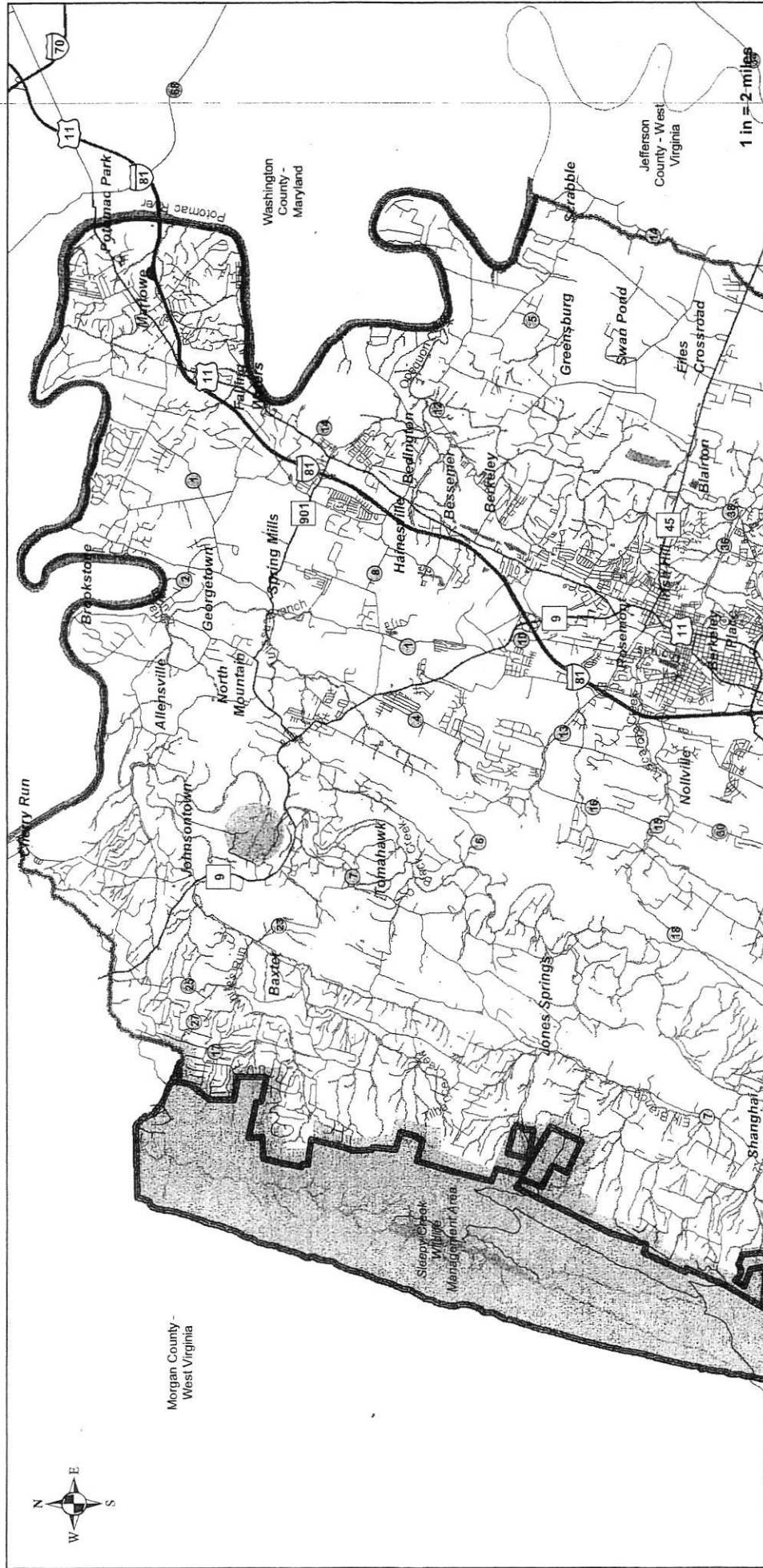
**BERKELEY COUNTY, WEST VIRGINIA  
SEPTEMBER 2017**

Map 2 of 2

## Map - Data Resources:

Berkeley County Council  
400 W Stephen St, Suite 201  
Martinsburg 25401

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Berkeley County Department  
of Information Technology



# Legend

- Tentatively Prohibited Areas
- Prohibited Areas
- Sleepy Creek Wildlife Management Area
- County Boundary

Commercial Composting Facilities  
Northern Berkeley County

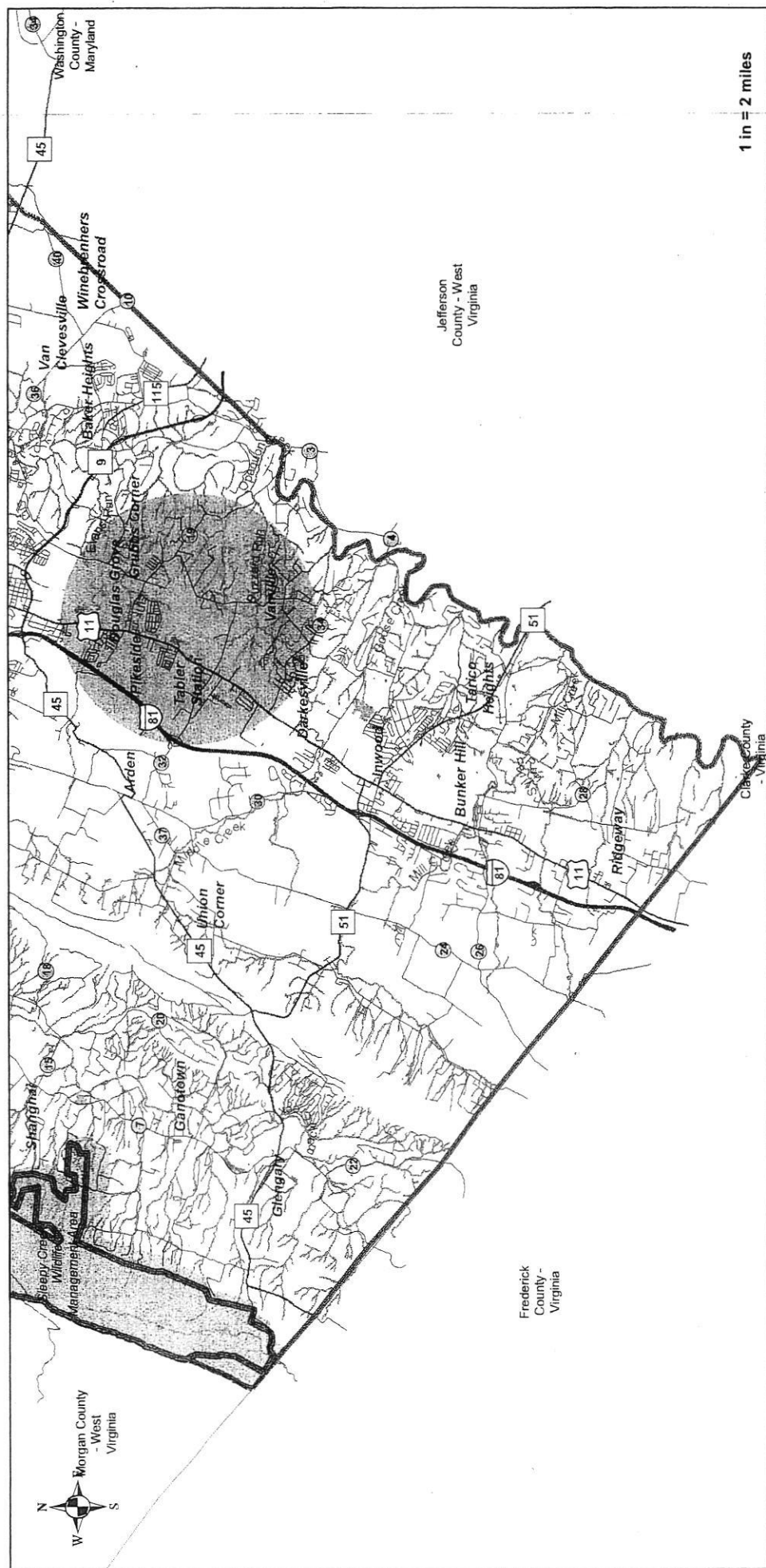
## BERKELEY COUNTY COMMERCIAL SOLID WASTE FACILITY SITING PLAN BERKELEY COUNTY, WEST VIRGINIA SEPTEMBER 2017

Map 1 of 2

### Map - Data Resources:

Berkeley County Council  
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Martinsburg 25401

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Berkeley County Department  
of Information Technology



### Legend

-  Tentatively Prohibited Areas  
 Prohibited Areas  
 Slespy Creek Wildlife Management Area  
 County Boundary

**Commercial Composting Facilities  
Southern Berkeley County**

**BERKELEY COUNTY COMMERCIAL SOLID WASTE  
FACILITY SITING PLAN  
BERKELEY COUNTY, WEST VIRGINIA  
SEPTEMBER 2017**

Map 2 of 2

**Map - Data Resources:**

**Berkeley County Council**  
**400 W Stephen St, Suite 201**  
**Martinsburg 25401**

Created By  
Berkeley County Department  
of Information Technology



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 4.78% 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 Aliensville 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 Aliensville 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 provide 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 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 WV 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.



*[Signature]*  
Chairman

*[Signature]*  
Vice-Chairman

*[Signature]*  
Secretary

*[Signature]*  
Member

*[Signature]*  
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.



WEST VIRGINIA  
GEOLOGICAL AND ECONOMIC SURVEY

Robert B. Erwin, Director  
and State Geologist

P. O. Box 879  
Morgantown, WV 265070879  
304/594-2331

Offices at Mont Chateau  
Mont Chateau Road  
Exit 10 (Cheat Lake) off U.S. 48

IN REPLY REFER TO:  
EV/8600/0706/220/86

August 8, 1986

Mr. Ray Johnson  
Woods Resort  
P. O. Box 5  
Hedgesville, WV, 25427

Dear Ray:

Thanks for your phone call yesterday concerning the proposed "landfill" north of Hedgesville. As I mentioned on the phone, we have just finished mapping the geology of that area. We have the detailed geology and some extremely interesting water data. My preliminary look would suggest that a worse site could not have been picked.

The West Virginia Geological Survey can supply geological and hydrological information.

Keep in touch and I'll try to drop by and visit.

Sincerely,

Peter Lessing, Head  
Environmental Geology

PL:lc

EXHIBIT

C



# The University of Toledo

March 27, 1990



Toledo, Ohio 43606-3390

The Honorable Harley O. Staggers, Jr.  
House of Representatives  
Washington, D.C. 20515

College of Arts and Sciences  
Department of Geology  
(419) 537-2009

Dear Mr. Staggers:

A letter addressed to you, dated February 9, 1990, from Mr. Doyle G. Frederick, acting director of the United States Geological Survey in Washington, D.C., concerning the Hedgesville landfill in Berkeley County, West Virginia, has recently been brought to my attention. As a geologist who has worked extensively in this region for nearly 30 years, I feel that it is important for me to expand somewhat on some of the information given to you.

As Mr. Frederick has pointed out, the landfill is located on and in close proximity to, the North Mountain Fault Zone. This fault system north of Hedgesville is made up of at least three eastward inclined thrust faults, with the major fault lying at the eastern base of North Mountain. The other faults cut strata underlying North Mountain itself and directly underlie one of the leachate ponds that are being constructed.

Mr. Frederick has concluded from available geological and topographic information that any leachate from the landfill entering the water table would flow in a northeast direction towards the Potomac River. I do not think that Mr. Frederick had access to our latest geological map that is currently in press at the West Virginia Geological and Economic Survey and should be available to the public in mid-May of this year. This map covers the geology in considerable detail. I am certain that he would have more strongly emphasized the possibility of water contamination into the strata at the eastern base of North Mountain and into the valley if he would have had access to this map. The detailed geology reveals that the strata and rock cleavage weakness planes all are inclined towards the east, providing numerous avenues for ground water migration in that direction. The strata here are also extensively faulted on a small scale, with most of these features also inclined gently towards the east. A shale formation (the Martinsburg Shale) does underlie part of the eastern flank and base of North Mountain and one might expect this rock type to provide an effective seal against eastward ground water migration. Unfortunately, this formation has been greatly thinned by faulting here. It also shows pervasive cleavage, fracture and fault development and will not serve as an effective seal for any length of time. A casual stroll through the railroad cut north of the landfill site easily verifies this statement. Approximately 15 years ago, one of my graduate students studied the ground water and geology of this region and I will quote to you directly from page 50 of his M.S. thesis. "Faults are often zones of increased permeability. This conclusion is supported in the study area because of fault locations of many springs, and a few relatively high-yield wells. The North Mountain Fault provides an excellent example of fault control on ground water level and yield. Many residents in the area indicated that large cavities were encountered at relatively shallow depths in their wells, and that water levels were always at or near the surface."

One resident reported artesian flow from his well immediately after drilling (No. 88). These cavities were generally cased off because of water turbidity problems and possible pollution from domestic waste disposal systems. Ten springs were located on, or near, the North Mountain fault trace."

In my opinion, the landfill will contaminate the ground water of the Great Valley east of North Mountain. Mr. Frederick has pointed out a potential of southeastward ground water migration because of the cavernous nature of the carbonate rocks there. The extent of eventual contamination is difficult to ascertain without additional detailed hydrogeological studies. However, the work of my student suggests that pollutants may reach as far east as the drainage of Harlan Run, some 1½ 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.

If you wish to contact me concerning this matter, please feel free to do so.

Sincerely,



Stuart L. Dean  
Professor of Geology

mf

Encl.



STATE OF WEST VIRGINIA  
DEPARTMENT OF COMMERCE, LABOR AND ENVIRONMENTAL RESOURCES  
WASTE MANAGEMENT SECTION  
1356 Hansford Street  
Charleston, West Virginia 25301  
Telephone (304)348-5929

ASTON CAPERTON  
Governor

J. EDWARD HAMRICK III  
Director

LARRY W. GEORGE  
Deputy Director

O R D E R

ISSUED UNDER THE

SOLID WASTE MANAGEMENT ACT

WEST VIRGINIA CODE, CHAPTER 20 ARTICLE 5F

Order Number SW-059-90

TO: L.C.S Services, Inc.  
1446-19 Edwin Miller Blvd.  
Martinsburg, West Virginia 25401

ATTENTION: Lee Snyder, President, L.C.S Services, Inc.

This Order is issued by the Director of the West Virginia Division of Natural Resources and the Chief of the Waste Management section, (hereinafter "Chief") under the authority of West Virginia Code, Chapter 20, Article 5F, Section 6 to L.C.S Services, Inc. L.C.S Services, Inc, (hereinafter, "the facility"), owns and operates a Solid Waste Facility as defined in Chapter 20, Article 5F, Section 2 of the West Virginia Code, as amended, (hereinafter, "the Code"). The Chief hereby finds the following:

1. L.C.S is currently constructing a solid waste landfill facility 1 mile north of Hedgesville in Berkeley County, West Virginia.
2. L.C.S. is currently constructing a leachate storage pond at the solid waste landfill facility.
3. The Division has made a finding that the leachate storage pond site is unsuitable in that it poses a high potential for leachate contamination of groundwater for the following reasons:
  - a. The pond is being constructed in the location of a spring which indicates the close proximity of the groundwater table to the surface in this location.

- b. The pond site overlies strata (shale) which is heavily cleaved and fractured and dips strongly to the east (approximately 45°) 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.
4. Section 4.8.3.c.A of the West Virginia Solid Waste Management Regulations (47 C.S.R. 38) states that "Any surface impoundment must be constructed a minimum of five (5) feet above the seasonally high groundwater table. A minimum of four (4) feet vertical separation must be maintained between the base of the constructed liner and bedrock."

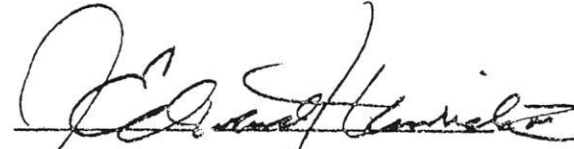
Requirements of Order

Now, therefore, in accordance with the provisions of Chapter 20, Article 5F, Section 6 of the Code, it is hereby ORDERED by the Chief as follows:

1. The Chief hereby disallows the use of this pond for the storage of any waste water including leachate and sediment laden runoff associated with the construction or operation of the solid waste landfill facility.

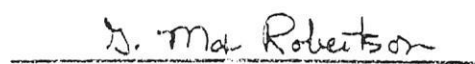
NOTICE OF RIGHT OF APPEAL

Any person having interest which is or may be adversely affected, or who is aggrieved by this Order, may appeal to the Water Resources Board in the same manner as appeals are taken under the Water Pollution Control Act, Chapter 20, Article 5F, Section 15 of the Code of West Virginia.

  
J. Edward Hamrick III  
Director, Division of  
Natural Resources

October 30, 1990

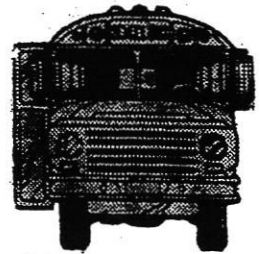
Date of Issuance

  
G. Max Robertson  
Chief  
Waste Management Section



**Berkeley County Schools Transportation Department**

2050 Grade Road, Martinsburg, WV 25401 (304)267-3575



C. ROBERT FULK, DIRECTOR

DEAR PARENTS;

DO TO SAFETY, NEW STUDENTS, EXTRA STOPS, AND  
ROADS. WE MUST REVERSE THE RUN. WE FEEL IT'S SAFER,  
RATHER THEN, TAKING ALL THE STUDENTS DOWN ALLENSVILLE.  
WHICH IS TRAVELED BY HEAVY TRUCKS. IN REVERSING THE  
RUN, YOUR CHILD WILL NOT HAVE TO TRAVEL THIS ROUTE.  
THE NEW TIME FOR YOUR CHILD IS \_\_\_\_ !!!!!  
SORRY ABOUT ANY INCONVENIENCE.

THANKS

CARLTON ADAMS BUS #164

BRUCE DUCKWORTH BUS #209

BEVERLY ROGERS TRANSPORTATION SUPERVISOR  
267-3575

*Beverly Rogers*

27

COUNTY ENGINEER  
BERKELEY COUNTY, WV  
P.O. BOX 1193  
MARTINSBURG, WV 25401

MEMORANDUM

TO: Berkeley County Planning Commission  
FROM: William J. Teach, P.E., County Engineer WJT  
DATE: December 8, 1989  
RE: LCS File #132-89

After a site visit for the above referenced project the following comments are being offered for the Planning Commission's consideration:

1. West Virginia route 3/2 west of the site, crosses a low water bridge of unknown weight capacity.
2. West Virginia route 3/2 west of the site becomes smaller in width to an average width of between 14 and 16 feet.
3. The pavement of route 3/2 west of the site is already breaking up and deteriorating from existing traffic.
4. West Virginia route 3/2 to its intersection with route 3 has several sharp turns of below standard radius.

Based on the above observations the following comments and recommendations are being made:

1. In reference to items 1 thru 3 it is suggested the Planning Commission require landfill traffic to use the road to the east only. This can be accomplished by having the developer approach the West Virginia Highway Department to post load limits just west of the landfill.
2. Item 4 should be addressed by requiring the developer to contact the West Virginia Department of Highways to work out an agreement to modify the turns.

The County Engineer feels that both items are safety problems as they currently exist. The addition of significant traffic, especially truck traffic, to the road would further endanger lives without some improvements to the road. The road as it currently exists is substandard in accordance with standard engineering practice and the published requirements for geometric design of streets and highways (i.e. AASHTO 1984). As such, I would recommend the Planning Commission deny the application unless it can be demonstrated that an adequate roadway can serve the project.



## DIVISION OF ENVIRONMENTAL PROTECTION

1356 Hansford Street  
Charleston, WV 25301-1401GASTON CAPERTON  
GOVERNORLaidley Eli McCoy, Ph.D.  
DIRECTOR

November 26, 1996

Dear Mr.

This letter is written in response to your inquiry letter (received by this office on September 4, 1996) in which you requested information regarding the new location standards for siting new solid waste landfills in seismic impact zones. The attached regulation citations (Section 2.72, 2.111 and 3.2.13) are from the current (effective date: June 2, 1996) Title 47 Series 38, Solid Waste Management Rule. As you can see, the regulation citations define a "Seismic Impact Zone" and set the standard for new solid waste landfill and lateral expansion sitings in reference to these zones.

Based on the information obtained from Ms. Jane McColloch of the West Virginia Geological and Economic Survey, the entire area of Berkeley County lies within a "Seismic Impact Zone" based on the definition cited in 47 CSR 38, Section 2.111. According to Ms. McColloch, Figure 1-7 of the "National Earthquake Hazard Reduction Program Maps" (1988 edition) displays all of Berkeley County within a zone having a range of 15% to 20% probability that the maximum horizontal acceleration in lithified earth material (expressed as a percentage of the earth's gravitational pull) will exceed 0.10 g in a 250 year period. In addition, the 1991 edition of the "National Earthquake Hazard Reduction Program Maps" indicates that all of Berkeley County lies within a "Seismic Impact Zone" having a range of 30% to 40% probability that the maximum horizontal acceleration in lithified earth material (expressed as a percentage of the earth's gravitational pull) will exceed 0.10 g in a 250 year period.

Should you need further information regarding the above referenced maps or the potential for seismic activity underlying Berkeley County (or the eastern panhandle area), please contact Jane McColloch, West Virginia Geological and Economic Survey, Mont Chateau Research Center, P. O. Box 879, Morgantown, WV 26507-0879 or at (304) 594-2331.

Sincerely,

A handwritten signature in cursive script, appearing to read "Richard P. Cooke".

Richard P. Cooke, Assistant Chief  
Solid Waste Management Section  
Office of Waste Management

RPC: gs

cc: Melvin L. Tyree, Geologist II, SWMS





STATE OF WEST VIRGINIA  
DEPARTMENT OF NATURAL RESOURCES  
CHARLESTON 25305

GASTON CAPERTON  
Governor

February 1, 1989

J. EDWARD HAMRICK III  
Director

LARRY W. GEORGE  
Deputy Director

TO THE CITIZENS OF BERKELEY COUNTY:

I am addressing this open letter to all the citizens of Berkeley County and the surrounding areas of the Eastern Panhandle who are affected by the proposal of LCS Services to construct and operate a major solid waste landfill on North Mountain.

This proposed landfill has caused great concern among local residents and I have received many letters and telephone calls from Berkeley County citizens who are opposed to the construction of this facility. These West Virginians have repeatedly expressed to me their very great concerns for the damage such a landfill would inflict upon the environmental, economic and cultural resources of Berkeley County communities. Clearly, this proposed landfill is incompatible with the protection of these resources.

Therefore, please be advised that the Department of Natural Resources is absolutely opposed to the construction of the proposed solid waste landfill on North Mountain. Governor Caperton has assured all West Virginians that his Administration will take every possible action to protect the environment and the quality of life in our beautiful state. I will use the full scope of the statutory powers vested in the Department to keep this commitment.

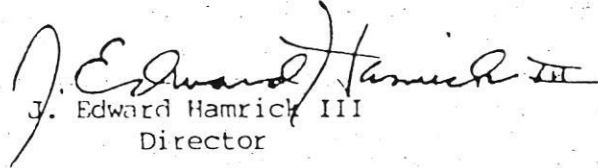
For this reason, I have carefully reviewed the concerns of Berkeley County citizens with the Department's enforcement staff and legal counsel. I am pleased to report to you that the Department is already pursuing an aggressive legal and administrative enforcement strategy to prohibit construction of the North Mountain landfill. For example, within only hours of taking office on January 17th, I decided to appeal the adverse ruling of Judge Knapp of the U.S. District Court which granted a landfill permit to LCS Services for the North Mountain site.

At my direction, the Office of the Attorney General has requested the U.S. Court of Appeals to reverse Judge Knapp's decision and deny the landfill permit. The Department has also initiated other legal actions before the State Water Resources Board and in U.S. District Court to stop the construction of this facility. I have every confidence that the Office of the Attorney General will provide effective legal representation to the Department of Natural Resources in its effort to protect the environmental and community integrity of Berkeley County.

Citizens of Berkeley County  
Page Two

Finally, I wish to commend the citizens of Berkeley County for their commitment to both the protection of the County's environmental quality and a commonsense approach to solid waste disposal. I hope that you will continue to work with the Department of Natural Resources and the Berkeley County Solid Waste Authority to achieve an effective resolution of these issues.

Very truly yours,

  
J. Edward Hamrick III  
Director

JEH:jsm



**HOUSE OF DELEGATES  
WEST VIRGINIA LEGISLATURE**

BUILDING 1, ROOM M-212  
1900 KANAWHA BLVD., EAST  
CHARLESTON, WV 25305-0470  
PHONE (304) 340-3200

**CHARLES TRUMP**  
306 S. WASHINGTON STREET  
BERKELEY SPRINGS, WV 25411  
PHONE (304) 258-1414

February 20, 1998

Committees:  
Judiciary  
Political Subdivisions  
Joint Committee on  
Government & Finance

Mr. John Caffrey  
Director  
Division of Environmental Protection  
10 McJunkin Road  
Nitro, West Virginia 25143

Re: LCS Landfill  
Hedgesville, WV

Dear Mr. Caffrey:

I have been contacted by my constituents who are concerned about the possibility that there is in the works consideration of an agreement that would affect the per day tonnage caps applicable to the LCS permit.

For the record, in my judgment, the 500 ton per day cap, which is part of the current permit, is an essential element of community safety in that part of my district. If there is no such cap, the increased traffic on the access roads would pose greatly increased hazards to the people who live in that area.

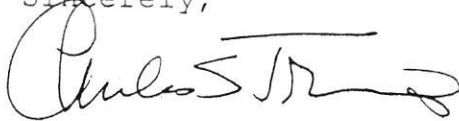
It was my understanding that the 500 ton per day cap was acquiesced in by the facility. I see no reason for the DEP to alter that now.

Furthermore, if there is to be any consideration of changes in that regard, they would not, in my judgment, constitute "minor modifications" to the permit. Far from it. Such a change would, in fact, be a major modification. My constituents are entitled to and should be afforded public hearing.

Mr. John Caffrey  
February 20, 1998  
Page Two

Thank you in advance for your consideration of my thoughts on the matter.

Sincerely,

A handwritten signature in dark ink, appearing to read "Charles S. Trump, IV". The signature is fluid and cursive, with a prominent "C" and "T".

Charles S. Trump, IV  
Delegate -- 51st District

CSTIV:mp

cc: Berkeley County solid Waste Authority  
Pat Kelly, Esquire





**DIVISION OF ENVIRONMENTAL PROTECTION**

GASTON CAPERTON  
GOVERNOR

1356 Hansford Street  
Charleston, WV 25301-1401

Laidley Eli McCoy, Ph.D.  
DIRECTOR

November 26, 1996

Mr. Gerry Fitzgerald, Chairman  
Berkeley County Solid Waste Authority  
P. O. Box 2027  
Inwood, West Virginia 25428

Dear Mr. Fitzgerald:

This letter is written in response to your inquiry letter (received by this office on September 4, 1996) in which you requested information regarding the new location standards for siting new solid waste landfills in seismic impact zones. The attached regulation citations (Section 2.72, 2.111 and 3.2.13) are from the current (effective date: June 2, 1996) Title 47 Series 38, Solid Waste Management Rule. As you can see, the regulation citations define a "Seismic Impact Zone" and set the standard for new solid waste landfill and lateral expansion sitings in reference to these zones.

Based on the information obtained from Ms. Jane McColloch of the West Virginia Geological and Economic Survey, the entire area of Berkeley County lies within a "Seismic Impact Zone" based on the definition cited in 47 CSR 38, Section 2.111. According to Ms. McColloch, Figure 1-7 of the "National Earthquake Hazard Reduction Program Maps" (1988 edition) displays all of Berkeley County within a zone having a range of 15% to 20% probability that the maximum horizontal acceleration in lithified earth material (expressed as a percentage of the earth's gravitational pull) will exceed 0.10 g in a 250 year period. In addition, the 1991 edition of the "National Earthquake Hazard Reduction Program Maps" indicates that all of Berkeley County lies within a "Seismic Impact Zone" having a range of 30% to 40% probability that the maximum horizontal acceleration in lithified earth material (expressed as a percentage of the earth's gravitational pull) will exceed 0.10 g in a 250 year period.

Mr. Gerry Fitzgerald  
November 26, 1996  
Page 2

Should you need further information regarding the above referenced maps or the potential for seismic activity underlying Berkeley County (or the eastern panhandle area), please contact Jane McColloch, West Virginia Geological and Economic Survey, Mont Chateau Research Center, P. O. Box 879, Morgantown, WV 26507-0879 or at (304) 594-2331.

Sincerely,



Richard P. Cooke, Assistant Chief  
Solid Waste Management Section  
Office of Waste Management

RPC: gs

cc: Melvin L. Tyree, Geologist II, SWMS

IN THE UNITED STATES DISTRICT COURT FOR THE  
NORTHERN DISTRICT OF WEST VIRGINIA  
AT MARTINSBURG

LCS SERVICES, INC.; CHAMBERS OF  
WEST VIRGINIA, INC.; and CHAMBERS  
DEVELOPMENT COMPANY, INC.,

*Plaintiffs,*

v.

*Civil Action No. 3:96-CV-31*

THE HONORABLE GASTON CAPERTON,  
Governor of the State of West Virginia;  
THE HONORABLE LAIDLEY ELI McCOY,  
Director, Division of Environmental  
Protection; THE HONORABLE B.F. "CAP"  
SMITH, Chief of the Office of Waste  
Management, West Virginia Division of  
Environmental Protection; THE PUBLIC  
SERVICE COMMISSION OF THE STATE OF  
WEST VIRGINIA; THE HONORABLE JAMES  
H. PAIGE III, Secretary, West Virginia  
Department of Tax and Revenue; and THE  
BERKELEY COUNTY SOLID WASTE  
AUTHORITY,

*Defendants.*

---

MEMORANDUM IN SUPPORT OF THE BERKELEY  
COUNTY SOLID WASTE AUTHORITY'S RESPONSE  
TO PLAINTIFFS' MOTION FOR PRELIMINARY INJUNCTION  
(With Revised Tables)

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I.

SUMMARY

The Plaintiffs' Motion for Preliminary Injunction asks this Court to enjoin enforcement of the 9,999 tons per month cap that has been imposed by law on the LCS landfill for six years, the lawfulness of which cap has already been finally

litigated in State circuit court and fully conceded by LCS<sup>1</sup> before the State Supreme Court of Appeals. State ex rel. Hamrick v. LCS Services Inc., 193 W. Va. 111, 116 n.7, 454 S.E.2d 405, 410 n.7 (1994) (hereinafter "Hamrick II"). LCS asserted in that earlier case that "every party in this case would prefer that this Court resolve the critical issues raised in this appeal once and for all." (See Exhibit C at p. 7.) LCS now wishes to revisit them, including its tonnage cap. Nonetheless, the Response of the Governor and Department of Environmental Protection indicates that they have chosen not to enforce this statutory tonnage cap. (They may change their mind in January, 1997, if not before.) In the meantime, the Berkeley County Solid Waste Authority intends to enforce this tonnage limitation, and to hold LCS to its concession in the earlier litigation, "once and for all."

This Court's preliminary injunction in Valero Terrestrial Corp., et al. v. McCoy, et al., Civil Action No. 5:93-CV-189 (hereinafter "Valero"), is the only predicate relied upon by LCS in seeking a preliminary injunction in this case. See Pls.' Mem. in Supp. of Mot. for Prelim. Inj. ("Pls.' Mem."). The plaintiffs purportedly seek relief in this case "coextensive" with that granted by this Court in Valero, (*id.* at 4), but offer no evidence whatsoever to suggest that they are similarly situated. Unlike Valero, plaintiffs here do not challenge or seek relief from the 1993 statute (S.B. 288) imposing solid waste assessment fees, and tonnage caps, on sewage sludge. That statute was the major impetus for the Valero preliminary injunction, and the only significant source of irreparable harm to the Valero plaintiffs. Unlike the Valero plaintiffs, LCS is barred by *res judicata* and applicable statutes of limitation from seeking relief coextensive with Valero.

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<sup>1</sup>All plaintiffs herein are collectively referred to as "LCS," and all such plaintiffs were parties to the prior litigation.



EASTERN PANHANDLE REGIONAL PLANNING  
AND  
DEVELOPMENT COUNCIL • REGION 9

SERVING MORGAN, BERKELEY AND JEFFERSON COUNTIES

TELEPHONE 304 263-1743

121 WEST KING STREET  
MARTINSBURG, WEST VA. 25401

September 2, 1986

Mr. Ronald R. Potesta, Director  
State Department of Natural Resources  
Building 3, Room 669  
State Capitol Complex  
Charleston, WV 25305

Dear Mr. Potesta:

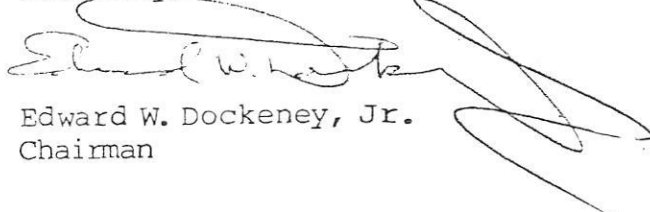
As you know, a company named Geo-Tech Reclamation Industries, Inc. proposes to construct and operate a large industrial waste landfill near Hedgesville in Berkeley County. For that purpose, the company has filed a permit application with your department, the sole regulatory agency in this matter.

We have requested that a copy of the application be sent to our office to be available to the public in our region. We were dumbfounded by the response from the Solid Waste Section that we should file a request under the Freedom of Information Act. It is inconceivable that we should have to resort to legal action against one of our state government agencies to obtain unclassified information.

Our Council is strongly opposed to the location of any waste disposal site, toxic or non-toxic, within our region which would import waste from outside the state. Such a site would be completely contrary to our goals and objectives of preserving the environmental quality of the eastern panhandle.

We ask three things of you: First, that you insure that a copy of the permit application be made available to the general public in Berkeley County. Second, that you act to prevent the location of this proposed waste site in the eastern panhandle. Third, that you support legislation that would prevent such activities in the future.

Sincerely,

  
Edward W. Dockeney, Jr.  
Chairman

EWD/JRH/dmm

c: Judy Phalen  
Legislators

EASTERN PANHANDLE REGIONAL PLANNING  
AND  
DEVELOPMENT COUNCIL • REGION 9

SERVING MORGAN, BERKELEY AND JEFFERSON COUNTIES

TELEPHONE 304 263-1743  
121 WEST KING STREET  
MARTINSBURG, WEST VA. 25401

September 2, 1986

The Honorable Arch A. Moore, Jr.  
Governor of West Virginia  
State Capitol  
Charleston, WV 25305

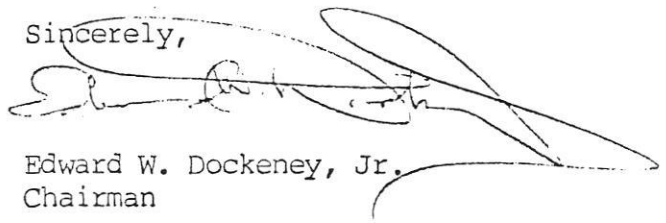
Dear Governor Moore:

As you know, a company named Geo-Tech Reclamation Industries, Inc. proposes to construct and operate a large industrial waste landfill near Hedgesville in Berkeley County. For that purpose, the company has filed an application with the State Department of Natural Resources, the sole regulatory agency in this matter.

The Region 9 Council is very concerned with the impact of this landfill on the environmental quality of the entire eastern panhandle. The citizens of Berkeley County in particular are strongly opposed to the landfill.

Our Council, by unanimous vote, have asked me to communicate directly to you our opposition to the location of any large waste disposal site, toxic or non-toxic, within our region which would include the importation of waste from outside the state. We ask you to act in concert with our state legislature to prevent such activities now and in the future.

Sincerely,



Edward W. Dockeney, Jr.  
Chairman

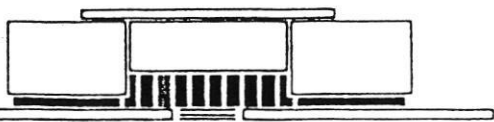
EWD/JRH/dmm

cc: Judy Phalen  
Legislators

---

DEPARTMENT OF EDUCATION AND THE ARTS • DIVISION OF CULTURE AND HISTORY

---



STATE OF WEST VIRGINIA  
GASTON CAPERTON, GOVERNOR

---

DR. STEPHEN E. HAJD, SECRETARY

WILLIAM M. DRENNEN, JR., COMMISSIONER

---

April 5, 1990

The Honorable J. Edward Hamrick, III  
Director  
Division of Natural Resources  
State Capitol  
Charleston, West Virginia 25305

Dear Ed:

Several questions have been raised concerning the State Historic Preservation Office review of the North Mountain Landfill in Hedgesville, West Virginia. Our research indicates the following:

In 1986 L.C.S. Services, Inc. submitted an application to DNR (Solid Water Management). The permit for a landfill was denied.

In 1987 L.C.S. submitted a new application. The permit was again denied. In December of 1988, the U. S. District Court ruled that DNR could not use "public sentiment" as grounds for denying a permit.

On June 29, 1989, the Department of Energy issued a quarry permit (#0-2005-87) to the applicant in the North Mountain Area and then on October 26, 1989, the Water Resources Board issued a landfill permit to LCS Services, Inc.

At no time in this process was the Division of Culture and History asked to review these permits. The State Code of West Virginia, Article 29-1-5, as amended in 1988 by Senate Bill 267, requires the Archives and History Division "to review all undertakings permitted, funded, licensed or otherwise assisted, in whole or in part, by the state for the purposes of futhering the duties of the department; ...." Those duties are "to locate, survey, investigate, register, identify, excavate, preserve, protect, restore and recommend to the commissioner for acquisition historic, architectural, archaeological and cultural sites, structures, documents and objects worthy of preservation, ...."

The Honorable J. Edward Hamrick, III

Page 2

April 5, 1990

It is our interpretation of the Code that the Division of Culture and History is required to review all projects requiring state permits, regardless of the source, in order to avoid the destruction of just such historic resources as the battlefield at North Mountain Depot. If there is a difference in your interpretation of this section of the Code, please refer to Title 82, Series 21, Legislative Rules, passed in 1989. I would like to meet with you to resolve any objections you might have to our interpretation of those rules.

It is my understanding that the original permit dated February 3, 1988, was denied illegally and that it must be granted, but are both the landfill permit granted by the Water Resources Board and the quarry permit granted by DOE both related to that original permit?

I appreciate your help in this matter.

Sincerely,



W. M. Drennen, Jr.

WMDjr:bsc

cc: Senator Sondra Lucht  
Delegate Pat Murphy  
Michael T. Hoglin ✓  
Steve Haid



**COUNTY ENGINEER**  
BERKELEY COUNTY, WV  
P.O. BOX 1193  
MARTINSBURG, WV 25401

*no improvement*

M E M O R A N D U M

TO: Berkeley County Planning Commission  
FROM: William J. Teach, P.E., County Engineer *WJT*  
DATE: December 8, 1989  
RE: LCS File #132-89

After a site visit for the above referenced project the following comments are being offered for the Planning Commission's consideration:

1. West Virginia route 3/2 west of the site, crosses a low water bridge of unknown weight capacity.
2. West Virginia route 3/2 west of the site becomes smaller in width to an average width of between 14 and 16 feet.
3. The pavement of route 3/2 west of the site is already breaking up and deteriorating from existing traffic.
4. West Virginia route 3/2 to its intersection with route 3 has several sharp turns of below standard radius.

Based on the above observations the following comments and recommendations are being made:

1. In reference to items 1 thru 3 it is suggested the Planning Commission require landfill traffic to use the road to the east only. This can be accomplished by having the developer approach the West Virginia Highway Department to post load limits just west of the landfill.
2. Item 4 should be addressed by requiring the developer to contact the West Virginia Department of Highways to work out an agreement to modify the turns.

The County Engineer feels that both items are safety problems as they currently exist. The addition of significant traffic, especially truck traffic, to the road would further endanger lives without some improvements to the road. The road as it currently exists is substandard in accordance with standard engineering practice and the published requirements for geometric design of streets and highways (i.e. AASHTO 1984). As such, I would recommend the Planning Commission deny the application until it can be demonstrated that an adequate roadway can serve the project.



**COPY**

DEPARTMENT OF COMMERCE, LABOR & ENVIRONMENTAL RESOURCES  
**DIVISION OF ENVIRONMENTAL PROTECTION**

1356 Hansford Street  
Charleston, WV 25301-1401

Gaston Caperton  
Governor

John M. Ranson  
Cabinet Secretary

David C. Callaghan  
Director

Ann A. Spaner  
Deputy Director

November 23, 1994

Sheryle A. Evasic  
Blue Heron Environmental Network, Inc.  
Route 1, Box 362  
Hedgesville, West Virginia 25427

Re: North Mountain Sanitary Landfill (LCS) NPDES permit issuance

Dear Ms. Evasic:

I would like to compliment the Blue Heron Environmental Network for their excellent work in monitoring the Back Creek Watershed. Our meeting on November 16, 1994 was very informative.

At the meeting your group expressed concerns about the proposed discharge of treated leachate into Kates Run (unnamed tributary of Back Creek) from the North Mountain Sanitary Landfill. You also discussed sediment loading and alternative means of treating leachate including the Washington County Sanitary Treatment facility. You requested that we delay the issuance of the permit. During the meeting we responded to each of your questions pointing out that we were taking the maximum steps to protect water quality under the law.

Also, I advised you to provide us with any information that your group wanted this agency to review. You need to do this quickly as follow-up on response to the public meeting held in October will be complete soon. Upon reflection on the meeting and discussion with the staff I'm not aware of any major additional information you provided that we are not already aware of. We will certainly bring the alternative treatment option to the company's attention, however as explained in the meeting the discharge conditions spelled out in the permit meet all regulatory requirements. The regulations (47 CSR 38.4.8.1.g.) limit the time in which a company can truck leachate to three (3) years.

Sheryle A. Evasic  
Blue Heron Environmental Network, Inc.  
November 23, 1994  
Page Two

Please, be reminded that the renewal permit is for a Class B Facility and will contain a compliance schedule that eliminates the spray field. The NPDES discharge is required to meet extremely stringent water quality standards which are protective for downstream use for drinking water and trout in Back Creek. We will do everything within our power to see that these standards are met.

If you or anyone in your group has further questions, please contact me or Dick Cooke.

Sincerely,

*Max Robertson*

G. Max Robertson, Chief  
Office of Waste Management

GMR:b

cc: Mark Scott, Chief, OWR  
Richard P. Cooke, Assistant Chief, SWMS  
Provin Sangani, Branch Leader, OWR  
Greg Rote, ERS III, OWR  
Selvam Arunachalam, E.I.T. I, SWMS  
Wendy Radcliff, Environmental Advocate, DEP  
Bill Rheinlander, Public Information Specialist, OWM



**HOUSE OF DELEGATES**  
**WEST VIRGINIA LEGISLATURE**  
STATE CAPITOL BUILDING 1, ROOM R-151  
1900 KANAWHA BLVD., EAST  
CHARLESTON, WV 25305-0470  
MESSAGES 1-800-642-8650  
CAPITOL OFFICE PHONE (304) 340-3148

*COPY*

JOHN OVERINGTON  
220 HOFFMAN ROAD  
MARTINSBURG, WV 25401  
PHONE (304) 274-1791  
e-mail: john@overington.com

February 23, 1998

Committees:  
Government Organization  
Agriculture & Natural Resources  
Constitutional Revision  
Industry & Labor  
Enrolled Bills

The Honorable Cecil H. Underwood  
Office of the Governor  
State Capitol  
Charleston, West Virginia 25305

Dear Governor Underwood:

This letter is to express my concern over the Berkeley County Commission's request to remove the 500 ton/day cap at LCS Landfill near Hedgesville. My understanding is that the discussion and final decision was made in secret without public input.

I request that no action on removing the caps be made until at a minimum there is a public meeting conducted by the DEP so the affected local people can express their concerns and be a part of any decision making process.

Please keep me apprised of the decision making process.

Sincerely,

John Overington

JO/lds



# West Virginia Geological and Economic Survey

P.O. Box 879  
Morgantown, WV 26507-0879  
Phone (304) 594-2331  
FAX (304) 594-2575

Gaston Caperton  
Governor



Larry D. Woodfork  
Director and State Geologist

Mr. Ray W. Gano  
Rt. #1 Box 354  
Hedgesville, WV 25427

June 26, 1996

Dear Mr. Gano,

Thank you for your letter concerning the LCS landfill north of Hedgesville. The West Virginia Geological Survey mapped the geology of this area in 1986 and this colored map [Map WV-31] is available from our publications sales office. I am enclosing a xerox of the area in question. I was also involved with the DNR report in 1992 and I gave a copy to the Berkeley County Solid Waste agency [I believe the man in charge was a Mr. Moore]. The legal aspects of the operation are beyond this agency's domain.

As for your specific question regarding seismic activity, be advised that the North Mountain fault zone that trends along North Mountain is not active and has not been for many millions of years. Our analysis would suggest that any movement along this fault zone is very improbable. Consequently, the reference to 50 years or 250 years is not critical.

Our concern at one public meeting in Hedgesville and our DNR report stressed that the fault zone is a potential avenue for ground water movement. Thus, if the leachate escaped from the landfill holding ponds, it would travel east and possibly contaminate ground water 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.

I hope this assists you and should you have further questions concerning the geology of this area, please do not hesitate to write me.

Sincerely,

Peter Lessing  
Senior Research Geologist

- Formation upon shales of the Martinsburg Fm.
- 36.60 Turn right at road intersection. Highs Dairy Store is on the northwest corner. Proceed north along a fault slice (horse) of Martinsburg shale within the footwall of North Mountain fault.
  - 37.00 Pass old Hedgesville High School (now Middle School) and turn right on Allensville Road (Route 901).
  - 37.80 Turn left on Allensville Road just before railroad tracks. Proceed towards North Mountain railroad cut.
  - 38.00 Cross North Mountain fault trace in a topographic low just around sharp bend to the left in the road. Proceeding northeast around sharp bend to the right, the road lies just west of the North Mountain fault trace. Overturned Tuscarora Sandstone (Lower Silurian) caps North Mountain to the left.
  - 38.60 Remains of the old Martinsburg shale brick plant on right side of road. Tuscarora Sandstone is exposed in cuts on left side of road.
  - 39.20 Turn right and cross railroad tracks on dirt road.

#### STOP 6 (FIGURE 13)

Walk east through railroad cut. Discussion will begin at eastern end as we walk west back to the bus.

#### CAUTION: ONCE AGAIN, TRAINS TRAVEL FAST THROUGH THIS SECTION. BE ESPECIALLY CAREFUL HERE ONCE IN THE RAILROAD CUT.

The low ridge approximately 0.25 mi east of our location is underlain by the Elbrook Formation. The North Mountain fault trace lies 600 feet east of where we stand and runs just east of the abandoned farm house. The North Mountain fault, and related fault-bound horses, is one of the major overthrusts of the Appalachians (Dean et al., 1987). It extends from near the Pennsylvania-Maryland border to the trend change between central and southern Appalachian structures in southwestern Virginia, a distance of approximately 175 miles (Kulander and Dean, 1986). In the Great Valley and Blue Ridge, the North Mountain fault is on a decollement above shales of the Martinsburg Fm. The entire Great Valley and Blue Ridge are allochthonous and comprise the Massanutten-Blue Ridge sheet, which has effectively doubled the thickness of the Cambrian-Ordovician section. At the first location, the Elbrook has been thrust onto Chambersburg Limestone, which in turn is thrust as a small horse against the Martinsburg Formation (Figure 14A, B).

Approximately 5,000–7,000 ft of Cambrian and Ordovician rocks encompassing the Elbrook Fm., Conococheague Fm., Beekmantown Fm., St. Paul Group, and Chambersburg Limestone are omitted by faulting at this locale. Some interpretations suggest that the entire displacement of the Massanutten-Blue Ridge sheet is accommodated here by upward ramping of the North Mountain fault in the western Great Valley. However, our minimum estimates (Kulander and Dean, 1988) indicate that 30–35 mi of displacement are necessary for the emplacement of this overthrust sheet. From our present location, the North Mountain fault complex ends just 15–20 mi northeastward in Pennsylvania. This requires the displacement of the thrust sheet to die out rather abruptly, although the Blue Ridge and Great Valley in southern Pennsylvania still require major overthrusting of the Massanutten-Blue Ridge sheet. A more plausible explanation to accommodate this major overthrusting is to transfer movement along the North Mountain ramp to a buried detachment in the Martinsburg Fm. (Dean et al., 1990b). Thus, as the North Mountain fault displacement decreases northeast, displacement increases westward at the Martinsburg level under the Valley and Ridge. The increase in surface folding and faulting in Maryland and Pennsylvania to the northwest and north of our location are consistent with this interpretation.

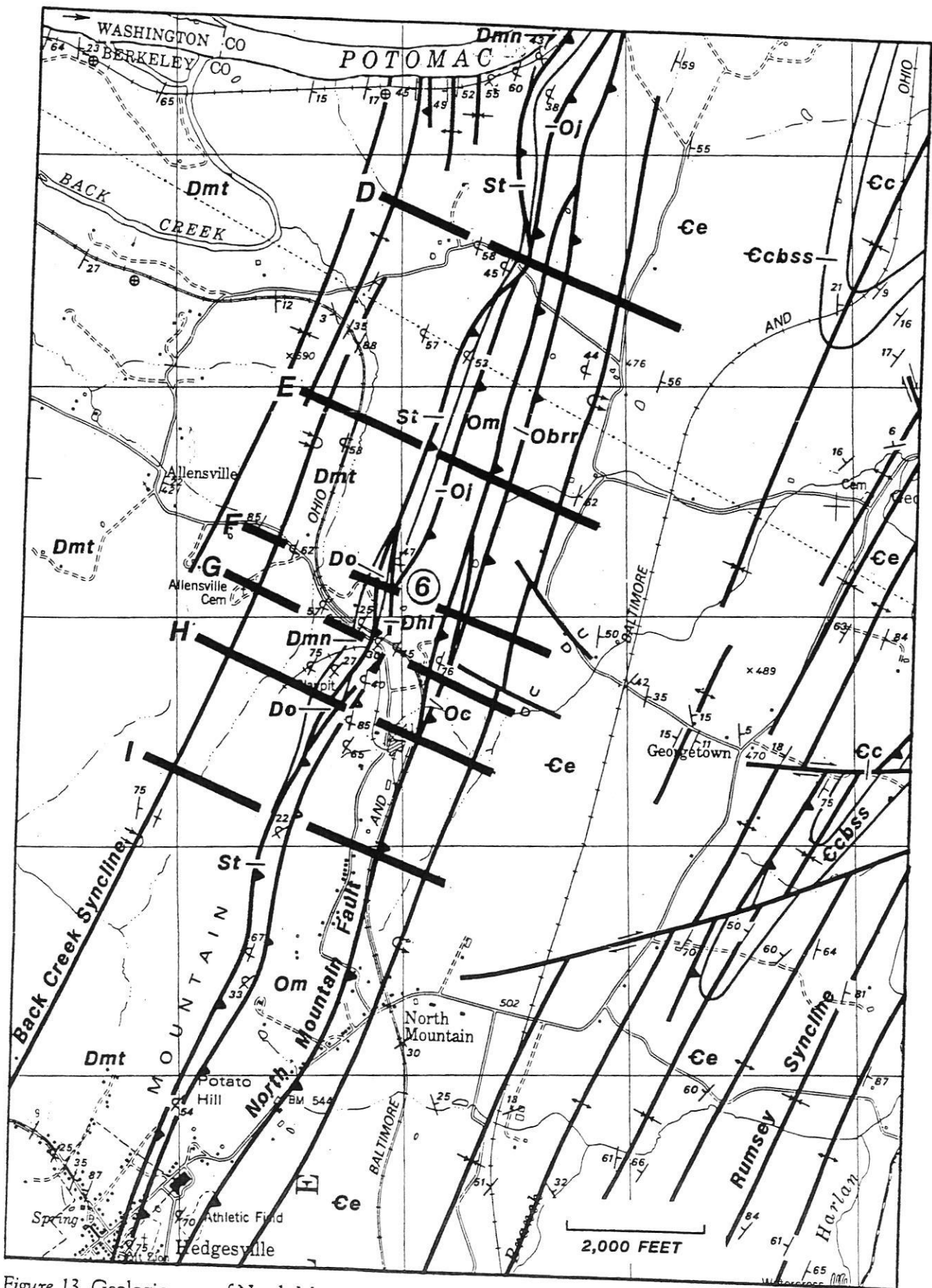


Figure 13. Geologic map of North Mountain area; Stop 6. Cross section lines D-I are illustrated in Figure 14.

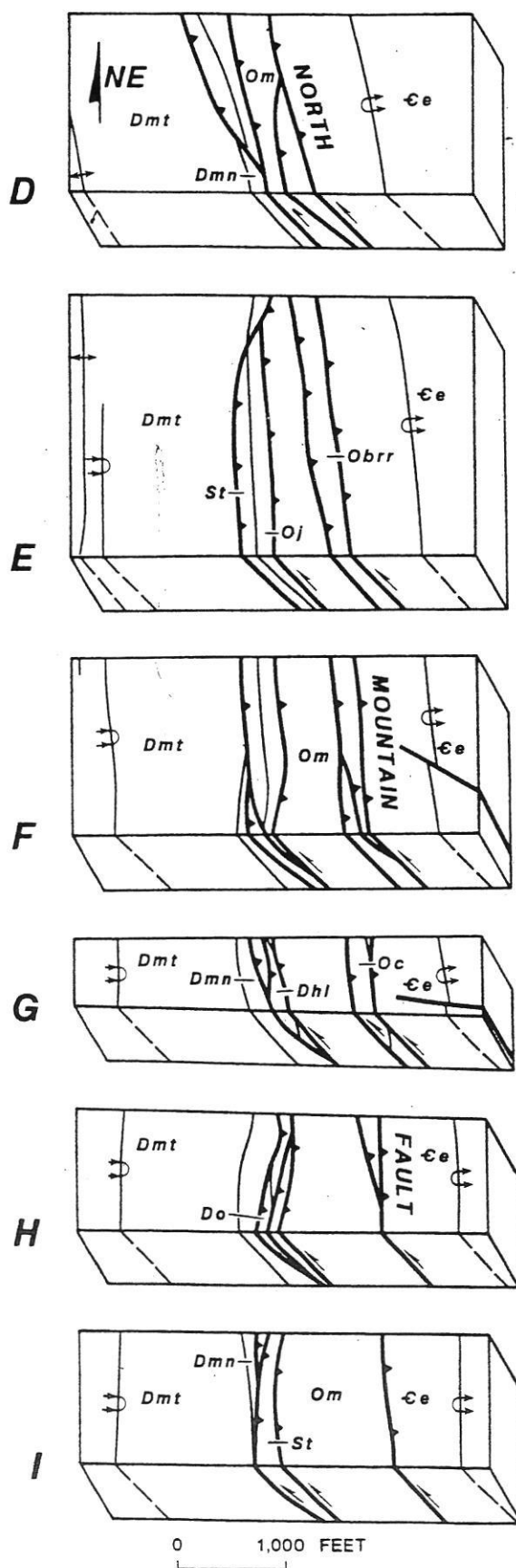


Figure 14A. Block diagrams through North Mountain fault zone; Stop 6.



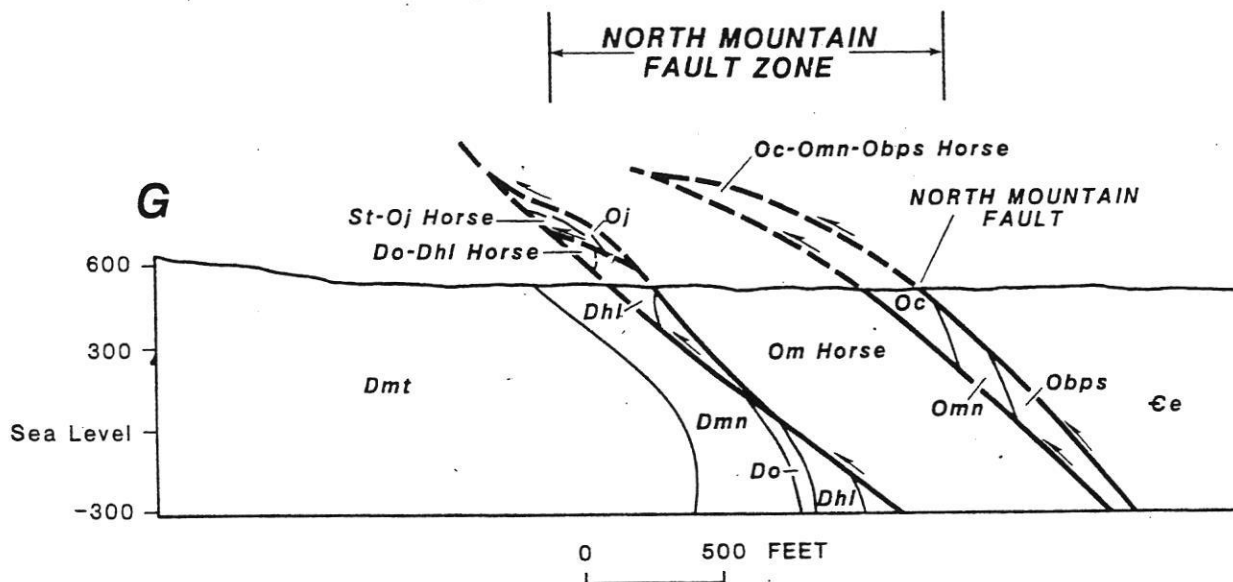


Figure 14B. Cross section through B&O (now CSX) railroad cut at North Mountain fault; Stop 6.

Proceeding northwest along the railroad tracks, we cross approximately 1,200 ft of folded and predominantly overturned rocks of the Martinsburg Fm. The shale is smoke-blackened from decades of coal-burning locomotives. The Martinsburg Fm. is intensely fractured, and has a pervasive cleavage. Before entering the deep railroad cut, the Martinsburg Fm. section ends and a thin outcrop of fossiliferous, cherty, Helderberg Limestone (Lower Devonian–Upper Silurian) can be seen on the left (south). The Martinsburg–Helderberg juxtaposition results from a major footwall splay off the upward ramping North Mountain fault (Figure 14B), or a splay from the westward translated Martinsburg level detachment. This fault has truncated much of the Upper Ordovician section (i.e., Martinsburg to Juniata Formations) and the entire Silurian section, a total stratigraphic omission of approximately 3,000 ft. The offset of the fault-terminated Helderberg Limestone is probably close to this figure.

The western end of the Helderberg Limestone section lies in fault contact with black shales of the Middle Devonian Needmore and Marcellus Fms. Fault displacement on this additional splay is minimal, likely on the order of 200–300 ft since only part of the Helderberg Limestone, all of the Lower Devonian Oriskany Sandstone, and part of the black shale sequence have been deleted. Entering the deep railroad cut, the Needmore–Marcellus shale interval is overturned and cut by several low-dipping thrust faults. A few carbonate lenses and carbonate beds, typical of this interval, are present. Small-scale structural features include well-developed cleavage, boudinage, and late-stage extension faults. Approximately 200 ft into the deep cut, the black shale grades into siltstone and shale of the fossiliferous Mahantango Formation of Middle Devonian age. From this point to the western end of the railroad cut, the Mahantango Fm. is overturned. The section has pervasive cleavage and is intensely fractured. Deformed fossils are present at several zones throughout this section.

Proceed back towards Hedgesville via the same route.

40.50 Turn right on Allensville Road towards Hedgesville.



# BERKELEY COUNTY SOLID WASTE AUTHORITY



Post Office Box 1227  
Inwood, West Virginia 25428  
Office Telephone: (304) 267-9370  
Recycling Hotline: (304) 671-2925  
Email: berkeleycountyswa@msn.com

AGENDA  
REGULAR MEETING  
WEDNESDAY, NOVEMBER 21, 2012  
12:00 NOON

- 1) CALL TO ORDER: (Discussion/ Action)
- 2) ROLL CALL: (Discussion/ Action)
- 3) MEETING NOTICE/ AGENDA APPROVAL: (Discussion/ Action)
- 4) APPROVAL OF THE MINUTES OF THE REGULAR MEETING OF OCTOBER 24, 2012 (Discussion/ Action)
- 5) REPORTS: (Discussion/ Action on all reports listed below)
  - A) RECYCLING PROGRAM REPORT AND ACTIVITIES:
  - B) REAP RECYCLING ASSISTANCE GRANT, FEMA DISASTER ASSISTANCE GRANT, CED GRANT, LITTER CONTROL GRANT AND WV-SWMB GRANT APPLICATIONS AND REPORTS:
  - C) TREASURER'S REPORT - SEPTEMBER THRU OCTOBER SWMB GRANT REPORTS; OCTOBER MONTHLY BUDGET REPORTS, NOVEMBER BILLS TO BE PAID:
- 6) BUSINESS ITEMS: (Discussion/ Action of all items listed below)
  - A) CONSIDERATION OF THE APPLICATION BY LCS SERVICES FOR AMENDING THE BERKELEY COUNTY COMMERCIAL SOLID WASTE FACILITY SITING PLAN TO CONVERT THE LCS SERVICES/ NORTH MOUNTAIN SANITARY LANDFILL TO CLASS A STATUS, AND ANY ACTION THEREON:
  - B) LITTER CONTROL RADIO AD
  - C) GAYLORD BOX RFP AWARDDING
- 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 870 GRAPEVINE ROAD, MARTINSBURG, WV 25401

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

Posted 11-14-12 @ 9:20am.



# BERKELEY COUNTY SOLID WASTE AUTHORITY



Post Office Box 1227  
Inwood, West Virginia 25428  
Office Telephone: (304) 267-9370  
Recycling Hotline: (304) 671-2925  
Email: berkeleycountyswa@msn.com

## **Minutes of Regular Monthly Public Meeting**

**Wednesday, November 21, 2012**

### **1) Call To Order:**

The November 21, 2012 regular monthly meeting of the Berkeley County Solid Waste Authority (BCSWA) was called to order at 12:06 pm by Chairman, Clint Hogbin at the Grapevine Road Office, Martinsburg, WV.

### **2) Roll Call:**

Board members in attendance: Clint Hogbin, John Christensen, Edgar Mason, Lynne Lashley and Kirby Lewis.

Visitors: Terry Stein (WMI); Darrell Klink (WMI); Emily Dyson (DEMC) arrived at 1:45 pm.

Staff present: Kelly Stewart (arrived at 1:50pm).

### **3) Meeting Notice/ Agenda Approval:**

Lynne Lashley moved to accept the agenda as posted. Seconded by Kirby Lewis. Unanimous approval. Motion passed.

### **4) Approval of the Minutes of the Regular Meeting of October 24, 2012:**

Lynne Lashley asked the Board to consider a couple grammatical corrections to the proposed draft minutes.

Edgar Mason moved to approve the minutes of October 24, 2012 as amended. Seconded by Lynne Lashley. Vote: 3 ayes, no nays. Kirby Lewis abstained due to not being present at the meeting. Motion passed.

The Chairman directed the Board to the agenda's Business Item 6A which is titled:

"Consideration Of The Application By LCS Services For Amending The Berkeley County Commercial Solid Waste Facility Siting Plan To Convert The LCS Services/ North Mountain Sanitary Landfill To Class A Status, And Any Action Thereon".

**5) Business items:**

**A) Consideration Of The Application By LCS Services For Amending The Berkeley County Commercial Solid Waste Facility Siting Plan To Convert The LCS Services/ North Mountain Sanitary Landfill To Class A Status, And Any Action Thereon".**

The Chairman stated that he had a few questions to ask the WMI representatives.

He stated that he has heard rumors of a fire at LCS and asked if those rumors are accurate?

Darrell Klink responded that a fire was reported at LCS on Sunday November 4, 2012, at 9am. Darrell Klink stated that a LCS employee opened the gates for the fire department and the State Police. He stated that the landfill was closed, and the cause of the fire is currently under investigation and is likely arson. Mr. Klink said the fire was put out with a D6 bulldozer. He also reported that on November 16, 2012, the landfill maintenance building was broken into with no obvious entry points, no locks were broken or fencing cut.

The Chairman stated that the 2012 application by LCS in paragraph #20 references "a monthly limit of 15,000"; while other places says "12,500 tons per month". He asked WMI if this was a typo and did they mean 12,500 tons per month?

Darrell Klink responded that they did mean 12,500 tons per month in this paragraph.

The Chairman stated that he believed it was important to make certain that all documents were considered in reviewing the LCS application. He outlined the documents as:

- 1) February 15, 2012 – Approved Berkeley County Commercial Solid Waste Facility Siting Plan.
- 2) June 6, 2012 letter from Darrell Klink titled "Application to Amend Berkeley County Commercial Solid Waste Facility Siting Plan".
- 3) June 19, 2012 LCS/WMI formal request titled "LCS Landfill's Amended Application for Class A Status"
- 4) June 19, 2012 – copy of WV-DEP letter dated April 23, 2012 congratulating LCS on being recognized for an Environmental Excellence Award.
- 5) June 19, 2012 – copy of May 11, 2012 \$5,000.00 Keep America Beautiful grant being presented to Berkeley County Council for trees.



6) June 19 2012 - copy of April 9, 2012 ribbon cutting ceremony to celebrate the 78 acre land donation.

7) June 19, 2012 BCSWA minutes of Special Meeting.

8) July 19, 2012 fax from Darrell Klink titled "Application to Amend Berkeley County Commercial Solid Waste Facility Siting Plan".

9) August 8, 2012 letter – from Apple Valley rescinding Morgan Sanitation's support for LCS's request for Class A status.

10) August 9, 2012 letter titled "LCS Meeting" from Darrel Klink that discussed site life, 600 ton daily cap.

11) August 15, 2012 letter – from Entsorga reminding BCSWA of Entsorga alternative to Class A status.

The Chairman asked Mr. Klink if we missed any documents that we should have considered?

Darrell Klink stated that no documents were missed. Mr. Stein asked if WMI could obtain a copy of the AVW letter? The Chairman said he would provide a copy as they are public documents and are available to anyone.

The Chairman stated that he is dividing his comments into three sections. He stated that the 1<sup>st</sup> section will take the longest to explain and discuss.

He stated that the application did not address many of the setbacks and determinations in the approved siting plan. He stated that he wanted to outline as many as possible but may have ultimately missed some.

1) The Chairman stated that the 2012 approved siting plan includes a prohibition on Class A Landfills within 1,000 feet of any state, interstate, federal or secondary highway. The Chairman stated that readily available information does not show whether or not LCS is within 1,000 feet of such a road. The Chairman added that we all know that Allensville Road borders the landfill property, but we don't know if Allensville Road is one of these types of roads. He added that the application nor other readily available information does not address factors from increased use of Allensville Road. Examples of such factors are traffic and mud. The Chairman stated that ultimately this may or may not be a significant factor. But, the omission itself is potentially significant.

2) The Chairman stated that the 2012 approved siting plan includes a prohibition on Class A Landfills within 1,000 feet of any railroad which is used for passenger service or tourism. The Chairman stated that current knowledge does show that there is a railroad near LCS, but the application nor other readily available information does not show if the railroad is used for passenger service or tourism. He added that the application did not address factors from the increase in tonnage; such as odors. The Chairman stated that

ultimately this may or may not be a significant factor. But, the omission itself is potentially significant.

3) The Chairman stated that the 2012 approved siting plan includes a prohibition on Class A Landfills within 500 feet of any dwelling. Again, the Chairman pointed out that we all know there are many houses near the landfill, but that the application nor other readily available information does not show if there is a dwelling within 500 feet. The Chairman stated that ultimately this may or may not be a significant factor. But, the omission is potentially significant.

4) The Chairman stated that the 2012 approved siting plan includes a prohibition on Class A Landfills where a significant adverse impact upon any natural wetland may likely occur. Again, the Chairman stated that the application nor other readily available information does not show if there is natural wetland that could be impacted. The Chairman stated that ultimately this may or may not be a significant factor. But, the omission is potentially significant.

5) The Chairman stated that the 2012 approved siting plan includes a prohibition on Class A Landfills within 1,200 feet of any public or private water source or wellhead protection area or in a manner that may significantly adversely impact any public or private water source. Again, the Chairman stated that the application nor other readily available information does not show if there is a water source or wellhead protection area within 1,200 feet. He stated that generally he knows there is a wellhead protection area around the Hedgesville public water source, but he added the application nor other readily available information addresses the 1,200 foot setback nor did the application address factors from the increase in tonnage; such as possibility of vehicular wrecks adversely impacting these water sources. The Chairman stated that ultimately this may or may not be a significant factor. But, again, the omission itself is potentially significant.

6) The Chairman stated that the 2012 approved siting plan includes a prohibition on Class A Landfills within 300 feet of any surface water. Again, the Chairman stated that the application nor other readily available information did not show if the landfill is located within 300 feet of any surface water. He added that the application did not address factors associated with the 2,500 tonnage increase; such as possibility of accidents or failure of leachate systems that could impact surface water. The Chairman repeated that ultimately this may or may not be a significant factor. But, the omission is potentially significant.

The Chairman paused at this time and stated that these were examples of setbacks or determinations that needed to be considered but were not addressed in the application. He stated that there were 18 – 20 or so in total. But, that he wanted to stop at this point and asked the WMI representatives if these examples were making any sense to them? Terry Stein responded that WMI saw a need for increase in tonnage at LCS and that they will review their application. He added that they also believed the 2,500 ton per

month increase was not significant enough to evaluate these factors but it sure sounds like that's now the case.

The Chairman stated that there are additional setbacks for consideration. He stated again that the application or other readily available information did not show whether the landfill met these setbacks or if the requested 2,500 tonnage increase impacted these areas. Again, the Chairman repeated that ultimately these may or may not be a significant factor. But, the omission itself is potentially significant. The Chairman stated that the additional setbacks or areas of consideration are:

7) The 2012 approved siting plan includes a prohibition on Class A Landfills where a significant adverse impact upon surface water may likely occur. The Chairman stated that the application did not state whether or not the landfill or the increase of 2,500 tons could cause an impact upon surface water.

8) The 2012 approved siting plan includes a prohibition on landfills on or near aquifers or other areas of hydrological sensitivity. The Chairman stated that the application did not state whether or not the landfill was on or near an aquifer or other areas of hydrological sensitivity or if the requested 2,500 tonnage increase would impact these areas.

9) The 2012 approved siting plan includes a prohibition on Class A Landfills where a significant adverse impact upon groundwater will likely occur. The Chairman stated that the application did not state whether or not the landfill or the increase of 2,500 tons could cause an impact upon the groundwater.

10) The Chairman stated that the application requires the groundwater and surface water studies be attached to the submission. He stated that the studies were not attached. He added that just because water analysis has been conducted for 20 years and have been submitted to the WV-DEP does not does not relieve LCS of the burden of supplying it to the BCSWA.

11) The 2012 approved siting plan includes a prohibition on Class A Landfills within 300 feet of known faults, regardless of displacement age. The Chairman stated that he knew there were geological faults on the LCS property but did not know if they were within 300 feet of the landfill or if the requested 2,500 tonnage increase would impact these areas.

12) The 2012 approved siting plan includes a prohibition on Class A Landfills within an area of high permeability. The Chairman stated that the application did not state whether or not the landfill was within an area of high permeability or if the requested 2,500 tonnage increase would impacted these areas.

13) The 2012 approved siting plan includes a prohibition on Class A Landfills within previously surfaced mined areas. The Chairman stated that he knew the LCS property was previously used for a brick manufacturing operation that included a surface mine, but didn't know if the surface mine area was the same location of the landfill operation or if the requested 2,500 tonnage increase would impact these areas.

14) The 2012 approved siting plan includes a prohibition of landfills within the 23 prohibited bedrock formations. The Chairman stated that the application did not state whether or not LCS was in these bedrock formations or if the requested 2,500 tonnage increase would impact these areas.

15) The 2012 approved siting plan includes a prohibition of landfills within a seismic impact zone. The Chairman stated that the application did not state whether or not LCS was in such a zone or if the requested 2,500 tonnage increase would impact these areas.

16) The 2012 approved siting plan includes a prohibition of landfills where treated stormwater or treated leachate will be discharged within any surface water containing "losing stretches" of surface water. The Chairman stated that the application did not state whether or not LCS discharging stormwater into a "losing stretch" of surface water or if the requested 2,500 tonnage increase would impact these areas.

17) The 2012 approved siting plan includes a prohibition on Class A landfills within 1,000 feet of an existing or proposed conservation district/ area. Again, the Chairman stated that the application did not state whether or not the landfill was within this area or if the requested 2,500 tonnage increase would impact these areas.

18) The 2012 approved siting plan includes a prohibition on Class A landfills within 1,000 feet of an existing property accepted into the Berkeley County Farmland Protection Program. Again, the Chairman stated that the application did not state whether or not the landfill was within this setback or if the requested 2,500 tonnage increase would impact these areas.

19) The 2012 approved siting plan includes a prohibition on Class A landfills within 1,000 feet of a property with a conservation easement. Again, the Chairman stated that the application did not state whether or not the landfill was within this setback or if the requested 2,500 tonnage increase would impact these areas.

20) The 2012 approved siting plan includes a prohibition on Class A landfills in a manner that would significantly adversely impact the county's trout streams, water supply streams, recreational streams, streams containing rare/endangered species or significant plant/ animal habitat. The Chairman stated that it is well known that LCS discharges stormwater into Back Creek via Kate's Run. And, it is known that Back Creek contains endangered plants and animals. But, the LCS application did not address whether or not the 2,500 ton per month increase might or might not significantly adversely affect Back Creek. The Chairman stated that ultimately this may or may not be a significant factor. But, the omission itself is potentially significant.



21) The 2012 approved siting plan includes a prohibition on Class A landfills in a manner that would adversely impact land preserves, or land with a conservation easement. The Chairman stated that the LCS application did not address whether or not the 2,500 ton per month increase might or might not significantly adversely affect land preserves or even if a land preserve existed in that area of the county. The Chairman stated that ultimately this may or may not be a significant factor. But, the omission is potentially significant.

The Chairman read this extract from the 2012 approved siting plan: *"The general welfare of the citizens can best be protected by development of commercial solid waste facilities that are located in a manner so they do not adversely impact those places that are greatest value to our citizens. Examples of such places are long established residential areas, schools, hospitals, cemeteries, churches, day care centers, community centers, parks, museums, open space areas, conservation areas, tourist areas, historic areas, scenic areas and natural wetlands."*

The Chairman summarized his comments by stating this aforementioned paragraph is a great reference that shows why addressing the setbacks are important. He added that neither he nor the other Board members are experts on many of the areas that the LCS application failed to address. And, that scenario makes it all the more important for LCS to address the setbacks and the other criteria. The Chairman explained that the overriding point is that no analysis was performed by LCS regarding whether it currently complies with any of these setbacks or whether it will have an adverse impact. That might be an insignificant omission if such analyses had actually been performed and their results approved by the BCSWA at the time that LCS received its Class B permit, but that didn't happen, so these omissions might be very significant.

The Chairman also stated that the application in paragraph 24 and 26 makes reference that the landfill "has been sited, permitted, constructed and operated for 20 years in compliance with the siting criteria required by the WV Solid Waste Management Rule as well as those criteria set for in Legislative Rule Title 54 Series 4". He added that his research with legal counsel shows that LCS argued that it should be treated as exempt from any such analyses because of the Supreme Court decision holding that it had a valid Class B permit. However, the Court said their decision applied only to the Class B facility. LCS completely dropped its request for Class A status before the Supreme Court because it was clear that the local siting approval did apply to Class A facilities.

The Chairman read a quote from the Supreme Court Opinion: "On January 25, 1989, W. Va. Code, 20-5F-4a [1988] required a Class A applicant to obtain a county approval permit from either a county commission or a solid waste authority prior to filing the permit application with the DNR. However, in the case before us, W. Va. Code, 20-5F-4a [1988] is inapplicable because LCS is operating a Class B solid waste facility and not a Class A solid waste facility."

The Chairman stated that, in other words, LCS has never been exempted from permit requirements that apply to Class A facilities, including local approval, including Class A requirements enacted at any time before or after the LCS decision by the Supreme Court.

The Chairman asked the WMI attendees if they have any questions regarding the 1<sup>st</sup> section of comments from the Chairman. Terry Stein stated that LCS needs to understand the siting plan issues better and again stated that the need for a Class A Landfill as the utmost of their concern due to tonnage increases in area. He added that LCS is not changing the landfill's hours of operation or anything else. But, Mr. Stein admitted that LCS erred in the omissions and that they need to look it over again. Mr. Stein stated that he knew Chairman Hogbin would thoroughly research the application and complimented Clint on his thoroughness.

The Chairman stated that he would now move to his second set of comments. He noted that while there were a significant number of setbacks and other factors not addressed in the request for Class A status, some of these factors can be addressed with information already known to the BCSWA.

For example, the Chairman stated that the 2012 approved siting plan includes a prohibition on Class A Landfills which proposes to utilize any part of the Washington Heritage Trail route. He noted that Rt. 9 west to Hedgesville is a part of the Washington Heritage Trail. He noted that LCS currently uses and proposes to increase its use of Rt. 9. This is the exact path of the Washington Heritage Trail. Therefore, this is fatal to LCS's request for Class A status.

The Chairman stated that the 2012 approved siting plan includes a prohibition on any landfill in or near the City of Martinsburg, Town of Hedgesville, and any other area of urbanization in the county. The Chairman noted that LCS is near the Town of Hedgesville, and the urban area of North Mountain/Allensville. Therefore, this prohibition is fatal to LCS's request for Class A status.

The Chairman stated that the 2012 approved siting plan includes a prohibition on Class A Landfills in or near or by any means which adversely impact any area of historic value. LCS currently uses and proposes to increase its use of Rt. 9 and Rt. 901 through the historic areas of Hedgesville and Clary's Mountain. Therefore, this prohibition is fatal to LCS's request for Class A status.

The Chairman stated that the 2012 approved siting plan includes a prohibition on Class A Landfills in a manner that may significantly adversely impact the George Washington Heritage Trail. Again, the Chairman stated that LCS currently uses and proposes to increase its use of Rt. 9. This is the exact path of part of the George Washington Heritage Trail. Therefore, this is again fatal to LCS's request for Class A status.

The Chairman stated that he would now move to his third set of comments. He stated that as everyone knows, there is a proposed Class B mixed waste resource recovery facility in the waste shed and in Berkeley County. He added that this knowledge is based on an application that was approved to amend the siting plan, an approved WV-DEP air quality permit, an application for a certificate of site approval and a WV-PSC application to request a certificate of need. The Chairman noted that this proposed facility, if built, will meet the legislative requirements of WV Code 22C-4-1 requiring county and regional solid waste authorities to establish programs and plans based on an integrated waste management hierarchy. 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.

The Chairman stated that the LCS application is based, in large part, on the community's need for additional disposal options. He stated that even assuming, as LCS contends, that an additional 2,500 tons of capacity is needed, Entsorga will more than satisfy that need and may better address the hierarchy in the near future. Again, this is fatal to LCS's request for Class A status.

The Chairman offered the WMI representatives an opportunity to comment or ask questions. Terry Stein stated that it does not look good for LCS gaining Class A status based on the different issues that the Chairman reported on. He stated that there are many heart aches from the past. He stated that LCS was wrong in regard to the railroad spur and interstate waste. He expressed that LCS's has a good record of operating a safe and clean facility over the years. He spoke generally about new technologies that LCS would consider going forward but stated that they first wanted to consider the immediate needs of the community. He stated that some of the new technology similar to Entsorga such as pulling waxes from waste looks promising. He stated that even renewable algae technologies will be considered in the future but is not ready at this time. He stated that WMI is ready to build a facility like Entsorga in Philadelphia, Pa. soon. He added that WMI understands the benefit of the Entsorga technology and they would be lying to say these technologies are not there. He added that these new technologies would be coming when the market supports WMI bringing them forward. He stated that the tonnage increase requested by LCS was insignificant. He again complimented the Chairman on a thorough review of the application.

Edgar Mason stated that Entsorga is not a new situation to WMI. He reminded WMI that they were invited years ago by BCSWA Board members to look at the new technologies. He added that it is not a new thing that the BCSWA wanted to improve the disposition of solid waste and that WMI was invited to be involved. He reminded them that he and Clint have been working diligently on alternative technologies and invited WMI to come to the table. He stated that the BCSWA even invited WMI on a fact finding trip to Ohio many years ago and added again that WMI was well aware of our efforts to find a more environmentally sound solution to landfilling.

Terry Stein stated that he agrees that there was a clean slate approach offered by the BCSWA to WMI years ago. But, that WMI did not come up with a plan to beat Entsorga's. He added that WMI seriously looked at the Entsorga technology and single stream recycling technologies. He noted that technology has moved waste management from open dumps to today's lined landfills. He stated that WMI is not against technology as long as it is affordable. He added that WMI is not against any new technology that will benefit the citizens and would have liked to have been able to propose something earlier.

The Chairman recommended to the Board that the LCS's application for an amendment to the siting plan be denied for the following reasons, any one of which would suffice to deny the application:

LCS failed to affirmatively and clearly demonstrate, based on the applicable statutory criteria, that the requested redesignation to a Class A Landfill is in the public interest at the North Mountain Sanitary Landfill location, particularly in regard to its impact on the George Washington Heritage Trail, nearby urbanized areas and areas of recognized historic value; that LCS failed to make, or failed to report that it made, whatever examination was necessary to so demonstrate; and that LCS failed to submit detailed information to the authority relating to the ten (10) siting criteria and the various associated requirements, in the BCSWA Siting Plan, regarding setbacks and potential adverse impacts on the neighboring community, including (but not limited to) water quality, schools and outdoor recreational opportunities. Lastly, the Authority recognizes that, pursuant to WV Code Section 24C-4-1, it is statutorily required to prefer recycling, reuse and recovery facilities over landfilling. Thus, additional landfill capacity is the least desirable of all disposal options. Because the Authority is aware of a proposed mixed waste resource recovery facility that, if implemented, may be a superior alternative for the efficient disposal of solid waste in accordance with the hierarchy established by WV Code Section 24C-4-1, it is reluctant to approve additional landfill capacity at this time.

Edgar Mason moved to accept the recommendation of Chairman Clint Hogbin and deny the request for Class A status for LCS and WMI. Seconded by Kirby Lewis. Unanimous approval. Motion passed.



Darrell Klink asked how long WV Code Section 24C-4-1 had been in effect? The Chairman stated that he was not 100% certain but thought it was probably from the original 1991 solid waste act.

Darrell Klink also asked if we were going to send a letter to LCS that states the Board's findings? The Chairman stated that once the minutes of the meeting are approved that he would send them to LCS and would seek to have all his notes and comments included within the minutes.

## **6) Reports:**

### **A) Recycling Program Report and Activities:**

The Chairman stated that he received a phone call from a WV-DEP inspector regarding his observations during a recent inspection. He noted that a formal inspection report would be forwarded in the future. The Chairman noted that the inspections are new to the recycling program, and discussed the general steps that have been completed regarding the utilization of Reliance Labs for the new NPDES storm water testing and a new DMR form from the WV-DEP.

The Chairman reminded Board members that Lynne, John and he will be attending a DEP training seminar at the Holiday Inn on December 6, 2012.

### **B) REAP Recycling Assistance Grant, FEMA Disaster Assistance Grant, CED Grant, Litter Control Grant and WV-SWMB Grant Applications and Reports:**

The Chairman stated that the BCSWA was awarded \$125,750.00 from the REAP Recycling Assistance Grant. He presented a copy of the itemized budget that shows what items were funded and how much. He asked the Board to think about how the funded loading dock construction and building should look in the end. He asked Board members to think about factors such as size and location.

The Chairman stated that there has been little information on the FEMA grant. He noted that this grant should reimburse the BCSWA for the damage from the dericho. Kelly Stewart noted that a package was in the mail today from the WV Homeland Security Office in Charleston.

The Chairman stated that it has been determined that the WV-SWMB Grant cannot be used to reimburse the calendar year grinding activity. This grant will need to wait until next grinding event in 2013 and be competitively bidded out.

The Chairman stated that he was waiting for Region 9 staff to show for tonight's meeting prior to moving to the talk about two other grants.

The Chairman directed the Board to Treasurer's Report.

**B) Treasurer's Report – September thru October SWMB Grant Reports; October Monthly Budget Report; November Bills To be Paid:**

The Treasurer presented the "Summary of Bank Accounts" for Board review.

The Treasurer presented the Regular Budget Report for October, 2012. Lynne Lashley moved to accept the Regular Budget Report for October, 2012 as presented. Seconded by Edgar Mason. Unanimous Approval. Motion passed.

The Treasurer presented the Anti-Litter Budget Report for October, 2012. Lynne Lashley moved to accept the Anti-Litter Budget Report for October, 2012 as presented. Seconded by Edgar Mason. Unanimous Approval. Motion passed.

The Treasurer stated that the Recycling Budget Report for October, 2012 would be delayed as she was not comfortable with the accuracy of the draft report.

The Treasurer then presented the reconciliation detail report for the FY13 CED grant and the FY13 SWMB grant. The Chairman stated that he would not call for Board action to approve these reports. But, in the future, he may ask for Board approval of these reports.

The Treasurer stated that the Recycling Budget Report for October, 2012 will be presented at the December meeting.

The Treasurer presented the Regular unpaid bills for November, 2012:

|                      |                   |                           |
|----------------------|-------------------|---------------------------|
| Aerotek              | \$1058.20         | Office Attendant          |
| Kelly Stewart        | \$70.50           | Reimbursement             |
| Potomac Edison       | \$.10             | Rental building electric  |
| Potomac Edison       | \$99.09           | Office electric           |
| Berkeley County PSSD | \$35.80           | Office/rental water       |
| BB&T                 | \$39.75           | Safety Deposit box rental |
| WV Ethics Commission | \$100.00          | Registration Fee          |
| Lynne Lashley        | \$205.88          | Reimbursement             |
| John Christensen     | \$337.44          | Reimbursement             |
| <b>Total</b>         | <b>\$1,946.76</b> |                           |

Lynne Lashley moved to authorize the Treasurer to pay the Regular unpaid bills of November, 2012 as presented. Seconded by Kirby Lewis. Unanimous Approval. Motion passed.

The Treasurer presented the Recycling unpaid bills for November, 2012:

|                          |                    |                                   |
|--------------------------|--------------------|-----------------------------------|
| Aerotek                  | \$6241.60          | Attendants                        |
| US Cellular              | \$56.65            | Hotline                           |
| WM                       | \$109.42           | 2 SB contamination                |
| WM                       | \$739.20           | 4 GV/3 SB YW                      |
| Sprint                   | \$51.89            | Internet                          |
| Southern Scrap           | \$600.00           | 3 GV/3 SB 1&2                     |
| Southern Scrap           | \$91.30            | Dual Stream Fee                   |
| Potomac Edison           | \$7.77             | SB electric                       |
| Big K's Hauling          | \$140.00           | 4536 SB to MTC/2150 GV to MTC     |
| Big K's Towing           | \$180.00           | Recycling trlr Hedge to GV & back |
|                          |                    | 4 trips                           |
| Humble Hauling           | \$530.00           | Paper Hauling                     |
| Lyle Tabb & Sons         | \$250.00           | Lbr box rent 1 GV, 1 AV box       |
| Lyle Tabb & Sons         | \$23,760.00        | SB Grinding                       |
| Winchester Equipment     | \$607.78           | Parts/SB Kubota                   |
| Clint Hogbin             | \$219.75           | Reimbursement                     |
| MTC                      | \$351.84           | trailer 2150                      |
| Charles R Biggs Memorial | \$100.00           | Memorial contribution             |
| William Stephens         | \$9.44             | Reimbursement                     |
| <b>Total</b>             | <b>\$34,046.64</b> |                                   |

Kirby Lewis moved to authorize the Treasurer to pay the Recycling unpaid bills of November, 2012 as presented. Seconded by Lynne Lashley. Unanimous Approval. Motion passed.

The Treasurer presented the CED Grant unpaid bills for November, 2012:

|                  |                 |             |
|------------------|-----------------|-------------|
| Lyle Tabb & Sons | \$70.00         | 70 pallets  |
| RM Roach & Sons  | \$232.88        | Diesel Fuel |
| <b>Total</b>     | <b>\$302.88</b> |             |

Kirby Lewis moved to authorize the Treasurer to pay the November, 2012 CED grant unpaid bills as presented. Seconded by Lynne Lashley. Unanimous Approval. Motion passed.

The Chairman directed the Board to Agenda Item 6B) titled Litter Control Radio Ad as it has become apparent that Region 9 staff will not be attending today's meeting.

## **7) Business items:**

### **A) Litter Control Radio Ad**

The Chairman introduced a concept of a cooperative with Region 9's Clean Air Connection Program. He noted that to him there is an obvious relationship with the open burning of solid waste, including tree leaves to clean air. He spoke of a previous conversation with the Clean Air Program Coordinator that suggested to him they would be very open to such a relationship.

The Chairman suggested that a good starting point would be the utilization of the FY13 Litter Control Grant for radio ads promoting both programs and the need to reduce litter, roadside dumping and open burning. The Chairman stated that he would suggest Board approval of the radio ads on WEPM 1340, WLTF 97.5 and maybe WRNR 740 or their FM repeater.

Lynne Lashley moved to authorize the partnership with Clean Air Connection via the utilization of the proposed radio ads. Seconded by Kirby Lewis. Unanimous Approval. Motion passed.

### **B) Gaylord Box RFP Awarding:**

The Chairman reminded the Board that the FY13 CED grant will fund one year's supply of Gaylord Boxes for the ongoing e-cycling program. He noted that an RFP was developed and advertised in The Journal. The RFP requested proposals for a lot of 25 Gaylord boxes to be delivered weekly.

The Chairman presented two quotes:

Usedcardboardboxes.com responded that they could not meet the 25 Gaylord box minimum requirements.

Southern Scrap submitted a written proposal to deliver a lot of 25 Gaylord boxes per week for \$250.00 for the small bottom boxes or \$300.00 for the large bottom boxes. They noted that the delivery would be made via the return trip of our trailers to SBRC and this cost included the delivery fee.

Lynne Lashley moved to authorize the awarding of the contract to Southern Scrap and directing the Chairman to forward the proposals to WV-DEP REAP for their consent and approval. Seconded by Kirby Lewis. Unanimous Approval. Motion passed.

## **8) Other Business Items:**

John Christensen updated the Board on his attendance of the Charles Biggs memorial service upon his passing in early November. The Chairman thanked John for attending the service last week and reminded the Board that the BCSWA sent a memorial contribution from the Board.



The Chairman stated that the December regular Board meeting will be held on December 12, 20012, starting at 12 noon in order to accommodate the Entsorga Certificate of Site Approval public hearing already scheduled for December 19, 2012.

The Chairman reminded the Board of the pending AWWSWA conference at Oglebay Park. He noted that both John and he are planning to attend.

John Christensen spoke about the Potomac River Trash Summit. He noted, in his opinion, it was a great one day conference and enjoyed the Chair receiving the Potomac Champion Award.

Kirby Lewis described his health challenges over the past six months with cancer and then heart surgery. He thanked the Board for their prayers, cards, emails and patience during this period.

**9) Adjournment:**

Edgar Mason moved to adjourn at 2:45 p.m. Seconded by Lynne Lashley. Unanimous approval. Motion passed.

Respectfully submitted,



John Christensen,

Secretary

ks

**BEFORE THE  
BERKELEY COUNTY SOLID WASTE AUTHORITY**

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

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**FINDINGS OF FACT AND CONCLUSIONS OF LAW**

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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 WMI, 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 8/10<sup>th</sup> 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 Asupport 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 .

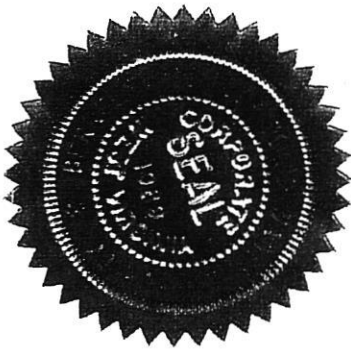
- 9) The Authority concludes that, in order to adhere to the State's solid waste management hierarchy as expressed in WV Code §22C-4-1, to the maximum extent possible, landfill disposal of the municipal waste stream should be reserved for non-recyclables and other materials that cannot be practically 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.



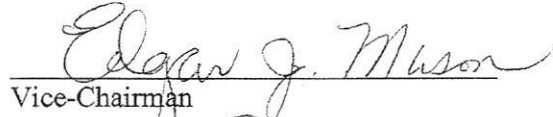
## ORDER

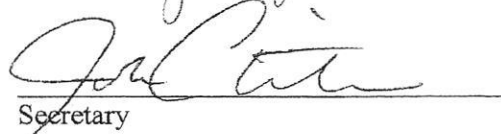
Upon motion duly made and passed at its public meeting of January 24<sup>th</sup>, 2013, the Berkeley County Solid Waste Authority does hereby ADOPT the above Findings of Fact and Conclusions of Law and does GRANT the requested Certificate of Site Approval to Entsorga, West Virginia LLC, to build and 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.

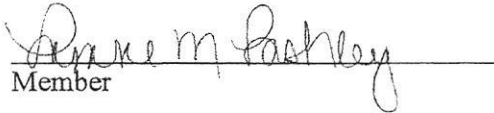
January 24<sup>th</sup>, 2013.



  
Chairman

  
Vice-Chairman

  
Secretary

  
Member

  
Member

**BERKELEY COUNTY COMMERCIAL SOLID WASTE FACILITY  
SITING PLAN PUBLIC HEARING**

**May 8, 2024**

**PROCEEDINGS:**

Whereupon,

Mr. Hogbin: I see its 6:00 pm. I'll go ahead and call the public hearing to order. I'd like to note that there are no members of the public in attendance. Even though there's no members of the public in attendance, for protocol reasons, I'm going to speak on the matter.

Mr. Hogbin: My name is Clint Hogbin. I'm the Chairman of the Berkeley County Solid Waste Authority and with me here this evening are several other Board members. Present we have Mark Barney who is Vice Chairman, our secretary is John Christensen and Michele Atha – a new Board member. Board member Matthew Grove is absent.

Mr. Hogbin: The basic reason that we're here tonight is to accept comments from the public on the draft update of the Berkeley County Commercial Solid Waste Facility Siting Plan.

Mr. Hogbin: Most counties, including Berkeley County, have had a siting plan since the early 1990's. There is a state requirement to update the plan every five years and that is the reason for this updating. The plans are mandated by an act of the West Virginia Legislature and there are specific rules adopted by the Legislature which regulate the creation, updating or amending a Plan. And, those rules require us to have a public hearing and that's why we are here tonight.

Mr. Hogbin: This plan enables the local community to have a voice in what type of solid waste facilities are developed in your county and where those facilities may or may not be located. The plan has been prepared in compliance with Title 54 Series 4 regulations where every solid waste authority is charged with the task of preparing a plan and identifying any zones within the county where commercial solid waste facilities are either permitted, prohibited, or tentatively prohibited. The plan addresses a variety of different solid waste facilities. They range from landfills, small, medium, and large. They include recycling facilities, energy recovery facilities, material recovery facilities, composting facilities, incinerators, transfer stations, mixed waste processing facilities, and resource recovery facilities.

Mr. Hogbin: West Virginia Code Chapter 22C establishes ten criteria for consideration and development of these zones for each of the various types of solid waste facilities. The ten criteria are: Efficient disposal, economic development, transportation infrastructure, property values, impact on ground water and surface water, geological and hydrological conditions, aesthetics and environmental quality, impact on historic and cultural resources, the present or potential land uses and the public health, welfare and convenience.

Mr. Hogbin: As required by the Rules, a Class I legal advertisement of tonight's public hearing was placed in the Martinsburg Journal more than 30 days ago. Public notices were placed on the bulletin board in the historic courthouse and a separate public notice was placed on the office of the Berkeley County Solid Waste Authority, on Facebook and on the solid waste authority's website.

Mr. Hogbin: Hard copies of the draft siting plan were placed at all four libraries in the County, in the Clerk's Office, the Office of the Solid Waste Authority and an electronic copy was posted on the solid waste authority's website.

Mr. Hogbin: I have 6:06 pm. With no one desiring to speak, I'm inclined to wait at least 15 minutes before closing the public hearing.

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

Mr. Hogbin: I now have 6:17pm. No member of the public has shown. Let me say one final reminder, the rules require that we continue to accept written comments for the next ten days and the comments can either be snail mailed or emailed. Other than that, thank you for attending and have a nice evening. The public hearing is adjourned at 6:18pm.

S. Fong PLAN  
5/8/2024

[illegible]





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 will conduct a public hearing on May 8, 2024 at 6pm in the Berkeley County Council Chambers at the Dunn Building located at 400 West Stephen Street, Martinsburg, WV 25401.

The purpose of the public hearing is to accept comments, written and oral, on the draft Berkeley County Commercial Solid Waste Facility Siting Plan. All comments received at the public hearing will be recorded.

The draft siting plan can be viewed at:

Berkeley County Solid Waste Authority Office  
870 Grapevine Road  
Martinsburg WV, 25401

Martinsburg – Berkeley County Public Library  
101 West King Street  
Martinsburg, WV 25401

Musselman - South Berkeley Community Library  
c/o Musselman High School  
126 Excellence Way  
Inwood, WV 25428

Hedgesville Public Library  
207 North Mary Street  
Hedgesville, WV 25427

North Berkeley Public Library  
1255 TJ Jackson Drive  
Falling Waters, WV 25419

Berkeley County Clerk's Office  
110 West King Street  
Martinsburg WV 25401

The public comment period will extend 10 days beyond the date of the public hearing for the continued submission of written comments. All public comments received will be considered in the development of the final plan. Comments can be mailed to the Berkeley County Solid Waste Authority, 19 Recovery Way, Martinsburg WV 25405 Attn: Siting Plan or emailed at [office@berkeleycountyrecycling.com](mailto:office@berkeleycountyrecycling.com)

By order of the Berkeley County Solid Waste Authority,

Clint R. Hogbin  
Chairman

Posted at Courthouse 3/21/24 1300  
(date) (time)

**DO NOT REMOVE THIS NOTICE !**

# The Journal

## AFFIDAVIT OF PUBLICATION

Journal (Martinsburg)  
207 W. King St  
(304) 263-8931

State of New Jersey, County of Hudson, ss:

Laquansay Nickson Watkins, being first duly sworn, deposes and says: That (s)he is a duly authorized signatory of Column Software, PBC, duly authorized agent of Journal (Martinsburg), a newspaper printed and published in the City of Martinsburg, County of Berkeley, State of West Virginia, and that this affidavit is Page 1 of 1 with the full text of the sworn-to notice set forth on the pages that follow, and that the attachment hereto contains the correct copy of what was published in said legal newspaper in consecutive issues on the following dates:

### PUBLICATION DATES:

Mar. 25, 2024

NOTICE ID: xCAd7aQ8A87Uo2Z3V6TV

NOTICE NAME: Siting Plan Legal Notice

Publication Fee: \$68.09

*Laquansay Watkins*

Signed:

### VERIFICATION

State of New Jersey  
County of Hudson

SHANNEA H HOLMES  
NOTARY PUBLIC  
STATE OF NEW JERSEY  
My Commission Expires August 1, 2026

Subscribed in my presence and sworn to before me on this: 04/05/2024

*Shanea H Holmes*

Notary Public

Notarized remotely online using communication technology via Proof.

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Martinsburg WV 25405

Martinsburg - Berkeley County Public Library  
101 West King Street  
Martinsburg, WV 25401

Musselman - South Berkeley Community Library  
c/o Musselman High School  
126 Excellence Way  
Inwood WV 25428

Hedgesville Public Library  
207 North Mary Street  
Hedgesville, WV 25427

North Berkeley Public Library  
1255 TJ Jackson Drive  
Falling Waters, WV 25419

Berkeley County Clerk's Office  
110 West King Street  
Martinsburg WV 25401

The public comment period will extend 10 days beyond the date of the public hearing for the continued submission of written comments. All public comments received will be considered in the development of the final plan. Comments can be mailed to the Berkeley County Solid Waste Authority, 19 Recovery Way, Martinsburg WV 25405 Attn: Siting Plan. Comments can be emailed at [office@berkeleycountyrecycling.com](mailto:office@berkeleycountyrecycling.com)

By order of the Berkeley County Solid Waste Authority.

Clint R. Hogbin  
Chairman



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, MAY 22, 2024  
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 APRIL 24, 2024 (Discussion/ Action)  
CONSIDERATION OF THE MINUTES OF THE SPECIAL MEETING OF MAY 10, 2024 (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 FACILITY REPORT AND ANY ACTION THEREON:
  - C) TREASURER'S REPORT: CONSIDERATION OF THE MONTHLY BUDGET REPORTS AND ANY ACTION THEREON:
  - D) TREASURER'S REPORT: CONSIDERATION OF MAY BILLS TO BE PAID AND ANY ACTION THEREON:
- 6) BUSINESS ITEMS: (Discussion/ Action of all items listed below)
  - A) CONSIDERATION OF THE FY25 LITTER CONTROL GRANT APPLICATION ANY ACTION THEREON:
  - B) CONSIDERATION OF THE ADOPTION OF THE UPDATED BERKELEY COUNTY COMMERCIAL SOLID WASTE FACILITY SITING PLAN 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/6650649836?omn=89774423161>

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

Posted 5/15/24 @ 16:26





BERKELEY COUNTY SOLID WASTE AUTHORITY  
19 RECOVERY WAY  
MARTINSBURG, WEST VIRGINIA 25405  
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www.berkeleycountyrecycling.com

**Minutes of Regular Monthly Public Meeting**

**Wednesday, May 22, 2024**

**1) Call To Order:**

The May 22, 2024, 2024 regular monthly meeting of the Berkeley County Solid Waste Authority (BCSWA) was called to order at 6:01 pm by Chairman, Clint Hogbin at the 19 Recovery Way Office, Martinsburg, WV.

**2) Roll Call:**

Board members in attendance: Clint Hogbin, Michele Gula Atha (Zoom), Matthew Barney (Zoom), Matthew Grove and John Christensen.

Board members absent: None

Staff Present: None

Visitors Present: None

**3) Meeting Notice/ Agenda Approval:**

Mark Barney motioned to accept the May 22, 2024 agenda as posted. Seconded by Michele Atha. Vote: Unanimous approval. Motion passed.

**4) Consideration of the Minutes of the Regular Meeting of April 24, 2024:**

Mark Barney motioned to accept the minutes of the Regular Meeting of April 24, 2024, as presented. Seconded by Michele Atha. Vote: Unanimous approval. Motion passed.

Matthew Grove motioned to table the consideration of the minutes of the Special Meeting of May 10, 2024. Seconded by Mark Barney. Vote: Unanimous approval. Motion passed.

## **5) Reports:**

### **A) Litter Control Program Report and Any Action Thereon:**

The Chairman stated that the roadside litter program cleaned 162 bags of litter, 2 tires, 66 bulky items from 16 miles of 9 roads in the month of April, 2024. Since 2018, there have been a total of 13,669 bags collected and 1,001 bulky items from 1,360 miles of roads.

The Chairman presented the stream cleanup report for April, 2024. The report shows three (3) stream cleanup trips collecting 40 bags, 56 tires and 13 bulky items. The Chairman also noted that the stream cleanup members participated in the Eastern Panhandle Home Show, Spring Tire Event, MIT Shine Event and the Earth Day Event.

The Chairman presented the litter control enforcement report as prepared by Lynne Lashley for the month of April. The report shows 4 complaints registered for the month, with two (2) cleaned.

The Chairman stated that the May 4, 2024 tire event collected an estimated 7,000 tires from 411 vehicles.

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

The Chairman stated that all is well at the recycling centers overall. Recycling Attendants Michael Thomas, James Dixon and Raymond Washington continues to perform well. However, Ron Holder's continued poor work habits have resulted in his termination. He was given a written warning about two weeks prior to the termination but continued to perform poorly. John Christensen commented that he is pleased to see Mr. Holder dealt with. The Chairman stated that the Board will soon advertise for a full-time position.

The Chairman stated that Lynne Lashley has learned that CALL2RECYCLE is now charging for the acceptance of rechargeable batteries. Lynne has located alternatives to utilizing them.

The Chairman stated that several trailers of cardboard has been sent to JC Services. He added that more time is needed to understand if JC Services is an acceptable alternative to CWP. However, JC Services is performing well so far.

The Chairman stated that the Spring, May 11, 2024 document shredding event produced 97 participants collecting 6,600 pounds of paper for recycling.

The Chairman stated that the Spring, May 18, 2024 bulky good collection event produced 264 participants collecting 737 items. He added that the free acceptance of electronics produced 5 roll off containers of items.

Mark Barney stated that the Operation Greenlid Recycling Contest presentation is scheduled for May 23 before the Berkeley County Commission. He added that Martinsburg South Middle School and St. Joseph School will be presented \$500.00 for their participation in the contest.

**C) Treasurer's Report: Consideration of the Monthly Budget Reports And Any Action Thereon:**

The Chairman presented the April summary of accounts report as prepared by the Treasurer.

The Chairman presented the March 2024 Litter Control Account, General Account Budget Report and the Recycling Account Budget Reports.

Matthew Grove motioned to accept the various Budget Reports for the Litter Control, General and Recycling accounts as presented. Seconded by John Christensen. Vote: Unanimous approval. Motion passed.

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

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

**CED GRANT UNPAID BILLS**

|     |          |                            |
|-----|----------|----------------------------|
| AVW | \$550.00 | Electronics Transportation |
|-----|----------|----------------------------|

**Total \$550.00**

**WV-SWMB GRANT UNPAID BILLS**

None

**Total \$0.00**

**GENERAL ACCOUNT UNPAID BILLS**

|                |             |                                 |
|----------------|-------------|---------------------------------|
| BCPSSD         | \$24.00     | Office Water                    |
| BCSWA          | \$20,000.00 | Transfer to Recycling Account   |
| Potomac Edison | \$72.95     | Office Electric                 |
| US Bank        | \$652.59    | Supplies                        |
| US Cellular    | \$240.92    | Phones, Plan                    |
| WVCoRP         | \$7,912.50  | Semi Annual Liability Insurance |
| WVCoRP         | \$35.20     | Worker's Compensation Insurance |

**Total \$28,938.16**

**RECYCLING ACCOUNT UNPAID BILLS**

|                     |             |                                     |
|---------------------|-------------|-------------------------------------|
| Abshire Enterprises | \$400.00    | Hedgesville Recycle Trailer         |
| All Shred           | \$825.00    | GVRC Shed Event                     |
| AVW                 | \$1,925.00  | S.S, Plastic & Glass Transportation |
| BCPSSD              | \$24.00     | Water/SS                            |
| BCSWA               | \$16,000.00 | Transfer to Payroll                 |

|                    |             |
|--------------------|-------------|
| Bousum Transfer    | \$300.00    |
| Cirba Solutions    | \$1,679.37  |
| CWP                | \$1,621.20  |
| CWP                | \$360.00    |
| JC Services        | \$325.00    |
| The Journal        | \$220.00    |
| Pine Knoll         | \$1,168.98  |
| McCarty Tire       | \$1,013.50  |
| Operation Greenlid | \$500.00    |
|                    | \$500.00    |
| Potomac Edison     | \$29.83     |
| Potomac Edison     | \$66.01     |
| Rescue Mission     | \$1,800.00  |
| Roach Energy       | \$905.47    |
| Robert's Welding   | \$425.00    |
| Sign Here          | \$98.00     |
| Stephens           | \$11,810.32 |
| Lyle Tabb & Sons   | \$1,025.00  |
| Terracycle         | \$559.56    |
| TQL                | \$1,190.00  |
| US Bank            | \$2,348.43  |
| Valicor            | \$560.70    |
| WV CoRP            | \$2,084.60  |

|                                    |
|------------------------------------|
| Transportation to Rescue Mission   |
| Battery Recycling                  |
| Paper Transportation               |
| Hedgesville Trailer Transportation |
| Gaylord Boxes                      |
| Education                          |
| Glass Transportation               |
| Tractor Tire/SBRC                  |
| South Middle School                |
| St. Joseph School                  |
| GVRC                               |
| SBRC                               |
| Plastic Bag Payment                |
| Fuel: GVRC & SBRC                  |
| GVRC Forks                         |
| Volunteer Signs                    |
| Trailer Repair/ Inspection x5      |
| Lumber, FW, YW                     |
| Fluorescent Tube Box               |
| Electronics Transportation         |
| Supplies for GVRC, SBRC, & SS      |
| Oil & Antifreeze Transportation    |
| Worker's Compensation Insurance    |

|              |                    |
|--------------|--------------------|
| <b>Total</b> | <b>\$49,764.97</b> |
|--------------|--------------------|

#### **LITTER CONTROL UNPAID BILLS**

|         |          |
|---------|----------|
| WVCoRP  | \$637.20 |
| US Bank | \$35.27  |

|                                 |
|---------------------------------|
| Worker's Compensation Insurance |
| Make It Shine Event             |

|              |                 |
|--------------|-----------------|
| <b>Total</b> | <b>\$672.47</b> |
|--------------|-----------------|

Mark Barney motioned to authorize the Treasurer to make payment of the May bills as presented. Seconded by: Michele Atha. Vote: Unanimous approval. Motion passed.

#### **6) Business Items:**

##### **A) Consideration Of The FY25 Litter Control Grant Application And Any Action Thereon:**

The Chairman presented the draft FY25 Litter Control Grant application. He noted that the application request \$5,000.00 with a cash match of \$5,000.00. The application requests funding to continue the county wide educational campaign utilizing radio and social media.



Mark Barney motioned to authorize the Chairman and Secretary to sign and submit the FY25 Litter Control Grant application as presented. Seconded by: Matthew Grove. Vote: Unanimous approval. Motion passed.

**B) Consideration Of The Adoption Of The Updated Berkeley County Solid Waste Facility Siting Plan And Any Action Thereon:**

The Chairman stated that no public comments were received at the public hearing or during the 10-day comment period following the hearing. He noted that the draft Plan is now ready for Board consideration of adoption.

Michele Atha stated that she supports the draft Plan. However, she requested that Appendix B be amended to include the various supporting documentation.

The Chairman stated his expectation that WV-SWMB Chief Planner Carol Throckmorton will have some minor grammatical corrections as well. However, Ms. Throckmorton has indicated in writing that the Plan has advanced to the point that the BCSWA is now in compliance for the FY25 WV-SWMB grants.

Mark Barney motioned to authorize the adoption of the Berkeley County Commercial Solid Waste Facility Siting Plan and to authorize all Board members to sign and to further authorize the Chairman to make technical corrections as needed. Seconded by Michele Atha. Vote: Unanimous approval. Motion passed.

**7) Other Business Items:**

The Chairman reminded Board members that the June meeting will bring nomination of officers and consideration of the FY25 budgets. He also encouraged Board members to attend the CWP tour of their new transfer station/ C&D Recycling Facility.

**8) Public Comment: None**

**9) Adjournment:**

John Christensen motioned for adjournment at 7:20 pm. Seconded by Matthew Grove. Vote: Unanimous approval. Motion passed.

Respectfully submitted,



John Christensen  
Secretary

# SUMMARY RESPONSE TO PUBLIC COMMENTS

The Berkeley County Solid Waste Authority conducted a public hearing on May 8, 2024 to accept public comments on the draft Berkeley County Commercial Solid Waste Facility Siting Plan. There were no comments received during or prior to the public hearing. Additionally, there were no public comments received in the 10-day period after the public hearing. However, the Authority authorized technical corrections to be made as needed. Those technical corrections were:

- 1) Added signatures.
- 2) Remove "Draft" watermark.
- 3) Editing the page numbers on the table of contents.
- 4) Corrected spelling on page 2.
- 5) Corrected spelling on page 78.
- 6) Inserting formal reference documents behind Tab B.
- 7) Inserting clarifying language on pages 99 and 101.
- 8) Inserting the transcript of the May 8, 2024 Public Hearing.
- 9) Inserting Notice of Public Hearing.
- 10) Inserting Minutes of the May 22, 2024 public meeting.
- 11) Inserting Summary Response to Public Comments.
- 12) Change Appendix E to Appendix H on Page 2.
- 13) Change Page 4, fourth paragraph to remove reference to 50% diversion rate.
- 14) Insert hyphen on Page 4 paragraph 7.
- 15) Page 5 paragraph 3 added "See page update on page 24."
- 16) Removed underlining from page 22.
- 17) Removed formula from page 26.
- 18) Page 78 changed "raise" to "raised" 4<sup>th</sup> paragraph.



## WEST VIRGINIA SOLID WASTE MANAGEMENT BOARD

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

Mark D. Holstine, PE, Executive Director  
[www.state.wv.us/swmb](http://www.state.wv.us/swmb)

November 8, 2024

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

Chairman Beckett:

The Berkeley County Commercial Solid Waste Facility Siting Plan update was approved at the October 29, 2024 meeting of the Solid Waste Management Board (SWMB). Your Authority must now submit four copies of your final plan, including one copy in an electronic format, to the SWMB. 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 black ink, appearing to read "Carol Ann Throckmorton".

Carol Ann Throckmorton  
Environmental Resource Specialist III

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[National Overview: Facts and Figures on Materials, Wastes and Recycling | US EPA](#)
107. Berkeley County Farmland data found at: [cp54003.pdf \(usda.gov\)](#)
108. 2023-2027 Eastern Panhandle Regional Planning and Development Council 5-year RDP/CEDS Plan found at:  
[Comprehensive Economic Development Strategy \(CEDS\) \(wsimg.com\)](#)
109. West Virginia Travel Impacts 2000-2018 found at:  
[2019.10.15-Travel-Impacts\\_Final\\_Web.pdf \(wvtourism.com\)](#)
110. Eastern Panhandle Region Outlook Forecast 2023 – 2027 found at:  
[eastern-panhandle-economic-outlook-2023-2027.pdf \(wvu.edu\)](#)
111. Data regarding Commercial Metals Company found at:  
[Commercial Metals breaks ground on metals recycling plant in Eastern Panhandle - WV MetroNews](#)
112. Eco-Cycle Article Titled "Jobs and Economic Benefits of Zero Waste" found at:  
[Jobs & Economic Benefits of Zero Waste - Eco-Cycle \(ecocycle.org\)](#)
113. The Hidden Damage of Landfills; <https://www.colorado.edu/center/2021/04/15/hidden-damage-landfills>
114. Keystone Sanitary Landfill; <http://wnep.com/2017/02/14/landfill-cited-for-leachate-leak/>
115. West Virginia Floodplains: Flood boundaries found at [WV Flood Tool \(mapwv.gov\)](#)
116. Recycling Today, January 2024 Article titled: "Study Highlights Market Value Lost to Landfills"
117. BioCycle, January 2024 Article titled: "Connections: Food Waste and Landfill Methane Report – A Giant Step On A Long Road".

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- This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears to be a standard notebook page.

8) **Proposed Type of Facility: (Check one):**

Class A Landfill: **Prohibited County Wide**

Conversion from existing Class B Landfill to Class A Landfill:

**Prohibited County Wide**

Class B Landfill \_\_\_\_\_

Class C Landfill \_\_\_\_\_

Class D Landfill \_\_\_\_\_

Commercial Solid Waste Recycling Facility \_\_\_\_\_

Commercial Materials Recovery Facility \_\_\_\_\_

Commercial Composting Facility \_\_\_\_\_

Commercial Transfer Station \_\_\_\_\_

Commercial Energy Recovery Facility \_\_\_\_\_

Commercial Resource Recovery Facility \_\_\_\_\_

Commercial Tire or Tire Material Incineration (Pilot Projects Only) \_\_\_\_\_

Other: \_\_\_\_\_ (Define type of facility or facilities) \_\_\_\_\_

9) **Has the proposed location ever been denied site approval by Berkeley County Solid Waste Authority?**

Yes \_\_\_\_\_

No \_\_\_\_\_

10) **Total acres owned:** \_\_\_\_\_

11) **Total acres of proposed and existing facility footprint:** \_\_\_\_\_

12) **Identify geographic area to be served by facility  
(i.e. counties, states, waste sheds, etc.)**

13) **Provide letters of confirmation, including estimated monthly tonnage, from potential customers within the geographical area the proposed facility is intended to serve.**

14) **Provide estimated number of households, commercial and industrial customers to be served.**

15) **Provide the maximum daily and monthly tonnage intake of the proposed facility (cannot exceed 500 tons/ day or 9,999 tons per month).**

16) **How is the proposed facility's location designated (permitted, prohibited or tentatively prohibited) in the Berkeley County Commercial Solid Waste Facility Siting Plan? (Attach Map)**

Tentatively Prohibited \_\_\_\_\_

Prohibited \_\_\_\_\_



- 17) Is the proposed site in compliance with all zones in the Berkeley County Commercial Solid Waste Facility Siting Plan? Explain in detail.
- 18) Describe your experience in the operation of similar solid waste facilities.
- 19) Describe the impact of the proposed facility on 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.
- 20) Describe the impact of the proposed facility on economic development.
- 21) Describe the impact of the proposed facility on the transportation infrastructure.
- 22) Describe the impact of the proposed facility on property values.
- 23) Describe the impact of the proposed facility on the ground water and surface waters.
- 24) Describe the geological and hydrological conditions in and around the proposed facility.
- 25) Describe the impact of the proposed facility upon the immediate area's aesthetic and environmental quality.
- 26) Describe the impact of the proposed facility upon the area's historic and cultural resources.
- 27) Describe the impact of the proposed facility upon present or potential land uses for residential, commercial, recreational, environmental conservation or industrial purposes.
- 28) Describe the impact of the proposed facility upon the public health, welfare and convenience.

**ALL Commercial Solid Waste Landfills:**

Has groundwater and surface water studies been completed for the location? Please attach.

Provide the intended lifespan of the proposed or existing landfill based on the requested tonnage intake. Attach sheets showing calculations.

Provide the expected closure date for the proposed or existing landfill.

If applicable, has the existing facility or owner ever been issued a Notice of Violation (NOV's) by the WV – Division of Environmental Protection? If so, include copies of all NOV's and corrective action taken.

**Note:** Upon a request from any person or group the Berkeley County Solid Waste Authority reserves the right to require additional information other than the initial information provided in this form. The Berkeley County Solid Waste Authority may amend the Siting Plan by redesignating a zone or any portion of a zone. However, in such case, the person or group seeking the change has the burden of affirmatively and clearly demonstrating, based on all the ten siting criteria that the requested redesignation is appropriate and proper and that any solid waste facility sited can be appropriately operated in the public interest at such location and in accordance with the Siting Plan in effect at that time. The Authority concludes that the public's interest will be best served by granting "conditional approval" should any particular location receive approval. These "conditional approvals" will be based upon many factors, including but not limited to, daily and monthly tonnage limitations, the particular type of facility offered, the site location and the 10 siting criteria. Should any future violation of the conditional approval occur, then the Authority reserves the right to revoke site approval if the public interest is best served by taking such action.

**Adopted: November 20, 2024**

**VERIFICATION**

**State of** \_\_\_\_\_

**County of** \_\_\_\_\_

**Came before me on this date, the undersigned applicant, named in the foregoing application, who being duly sworn, states that the facts and information contained this application therein are true, under penalty of law.**

\_\_\_\_\_  
**Applicant**

\_\_\_\_\_  
**Print Name and Title**

\_\_\_\_\_  
**Date**

**Taken, sworn to, and subscribed before me this** \_\_\_\_\_ **day of** \_\_\_\_\_,  
**20**\_\_\_\_.

\_\_\_\_\_  
**Notary Public**

**My commission expires on the** \_\_\_\_\_ **day of** \_\_\_\_\_, **20**\_\_\_\_.

**APPLICATION FOR CERTIFICATE OF SITE APPROVAL**

**Date Submitted:** \_\_\_\_\_

**Submitted to (Authority's Name):** \_\_\_\_\_

**Authority Address:** \_\_\_\_\_

**1) Applicant Name:** \_\_\_\_\_

**Class A Landfill: Prohibited in Berkeley County.**

**Conversion from Class B Landfill to Class A Landfill: Prohibited in Berkeley County**

**Class B Landfill** \_\_\_\_\_

**Class C Landfill** \_\_\_\_\_

**Class D Landfill** \_\_\_\_\_

**Commercial Solid Waste Recycling Facility** \_\_\_\_\_

**Commercial Materials Recovery Facility** \_\_\_\_\_

**Commercial Composting Facility** \_\_\_\_\_

**Commercial Transfer Station** \_\_\_\_\_

**Commercial Energy Recovery Facility** \_\_\_\_\_

**Commercial Tire or Tire Material Incineration (Pilot Projects Only)** \_\_\_\_\_

**Commercial Resource Recovery Facility** \_\_\_\_\_

**Commercial Mixed Waste Processing Facility** \_\_\_\_\_

**Other:** \_\_\_\_\_ (Define type of facility or facilities) \_\_\_\_\_

**2) Proposed or existing facility:**

**Location, Address**

**City:** \_\_\_\_\_ **County:** \_\_\_\_\_ **Zip:** \_\_\_\_\_

**Mailing Address:**

**City:** \_\_\_\_\_ **County:** \_\_\_\_\_ **Zip:** \_\_\_\_\_

**Phone Number:** \_\_\_\_\_

**3) Address of proposed certificate holder:** \_\_\_\_\_

**4) Name in which certificate will read (if different from applicant):** \_\_\_\_\_

**5) Name, address, phone number and titles of contact person(s):**

\_\_\_\_\_



**6) List your experience in the operation of solid waste facilities, specifying:**

a) Each facility which you, your officers and/or directors have owned, operated or been employed by:

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b) Address of each facility:

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c) The nature of the relationship (ownership, operation, employment) if employment, specify the name of the individual co-employed and title:

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d) The effective dates of stated relationship: \_\_\_\_\_

**7) If proposed certificate holder:** Sole Proprietorship \_\_\_\_\_  
Partnership \_\_\_\_\_ Corporation \_\_\_\_\_

If holder is corporation, attach list of stockholders owning five (5%) or more of the stock along with the addresses.

**8) Has the applicant or any stockholder owning five percent (5%) or more been convicted of a felony, misdemeanor or had a permit for a solid waste facility been denied or revoked? If so, please describe. Please be advised that the DEP application process requires a background investigation.** \_\_\_\_\_

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**9) Have groundwater and surface water studies been completed for the location? \_\_\_\_\_ If completed, attach copy of part one.**

**10) Identify geographic area to be served by facility (wasteshed, counties, etc.)**

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**11) Please provide letters of confirmation, including estimated monthly tonnage, from potential customers within the geographic area this facility is intended to serve (e.g. haulers, municipalities and/or solid waste authorities).**

12) If applicable, what is the estimated number of households, commercial and industrial customers served? Households\_\_\_\_ Commercial \_\_\_\_\_ Industrial \_\_\_\_\_

13) If applicable, what is the daily and monthly tonnage proposed to be disposed of at facility?

\_\_\_\_\_

\_\_\_\_\_

14) Total monthly tonnage of solid waste for which the facility is seeking a permit from the DEP and specific sources of solid waste?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

15) What is the intended lifespan, where applicable, of the facility (number of years) based on tonnage permitted: (Attach sheets showing how you arrived at this projection.)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

16) What is the projected closure date for the facility? Specify closure date for any part of facility projected to close prior to entire facility and identify such parts:

\_\_\_\_\_

\_\_\_\_\_

17) What is the total monthly tonnage of solid waste generated within the county to be served by the facility, (Based on WVSMB Figures of 4.0 lbs per person per day)?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

18) What is the estimated total of monthly tonnage of solid waste generated within the watershed to be served by the facility, (Based on SWMB figures of 4.0 lbs per person per day?)

\_\_\_\_\_

\_\_\_\_\_

19) How is the facility's location/ proposed location designated in the local solid waste authorities Solid Waste Facility Siting Plan? Approved\_\_\_\_ Tentatively Prohibited\_\_\_\_\_, or Prohibited \_\_\_\_\_.

20) Is the site in compliance with DEP location standards, Title 33 Series 1?

21) Total Permitted disposal acres at the site? \_\_\_\_\_  
Bonded acres? \_\_\_\_\_

22) Has the applicant, partner or stockholder listed in the partnership or corporation requested Closure assistance funds for the State of West Virginia? If yes, who? \_\_\_\_\_

Dates applied for and amount? \_\_\_\_\_

Facility or facilities involved? \_\_\_\_\_

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23) Has the applicant applied or received approval from these Berkeley County agencies for the:

- a) Berkeley County Salvage Yard Ordinance? (Yes or No) Explain why or why not.
- b) Berkeley County Stormwater Management & Sediment and Erosion Control Ordinance ? (Yes or No) Explain why or why not.
- c) Berkeley County Flood Plain Ordinance (Yes or No) Explain why or why not.
- d) Berkeley County Subdivision Ordinance (Yes or No) Explain why or why not

24) Has the location ever been denied Certificate of Site Approval by the Berkeley County Solid Waste Authority?

25) Describe the impact of the proposed facility on 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.

26) Describe the impact of the proposed facility on economic development.

27) Describe the impact of the proposed facility on the transportation infrastructure.

28) Describe the impact of the proposed facility on property values.

29) Describe the impact of the proposed facility on the ground water and surface waters.

30) Describe the geological and hydrological conditions in and around the proposed facility.

**31) Describe the impact of the proposed facility upon the immediate area's aesthetic and environmental quality.**

**32) Describe the impact of the proposed facility upon the area's historic and cultural resources.**

**33) Describe the impact of the proposed facility upon present or potential land uses for residential, commercial, recreational, environmental conservation or industrial purposes.**

**34) Describe the impact of the proposed facility upon the public health, welfare and convenience.**

## **NOTICE**

**Be advised the Berkeley County Solid Waste Authority on June 15, 2011 adopted the following rules which require the following minimum criteria of the applicant during the course of the consideration for a Certificate of Site Approval:**

- a) Requires the BCSWA to conduct a public hearing on the Certificate of Site Approval application only if a public hearing was not conducted on a corresponding siting plan amendment application.**
- b) Requiring the applicant to make the site available for review.**
- c) Requires the applicant to be responsible for all costs incurred as a result of any public hearing on the Certificate of Site Approval application, if any such hearing is conducted.**
- d) Requires the applicant to provide a copy of its completed application and any associated documents for public review at the Office of the Berkeley County Solid Waste Authority.**
- e) Requires the applicant to supply the BCSWA a copy of the application made to the WV-PSC for a Certificate of Need.**
- f) Requires the applicant to submit site specific detailed information prior to deeming any application complete.**



**VERIFICATION**

State of \_\_\_\_\_

County of \_\_\_\_\_

Came before me on this date, the undersigned applicant, named in the foregoing application, who being duly sworn, states that the facts and information contained this application therein are true, under penalty of law.

\_\_\_\_\_  
Applicant

Authorized Representative: \_\_\_\_\_

Print Name and Title: \_\_\_\_\_

Taken, sworn to, and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_,  
20\_\_\_\_.

\_\_\_\_\_  
Notary Public

My commission expires on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Submit completed copy of this form to:  
WV Solid Waste Management Board  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304

Submit completed copy of this form to:  
Berkeley County Solid Waste Authority  
PO Box 1227  
Inwood WV 25428