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*Including Berkeley County, the City of Martinsburg and the Town of Hedgesville*

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## DESCRIPTION OF THE PLANNING AREA – BERKELEY COUNTY

### *Including the Town of Hedgesville, and the City of Martinsburg*

#### BERKELEY COUNTY

Berkeley County is an area of 316 square miles in the Valley and Ridge Physiographic Province commonly referred to as the “Eastern Panhandle” of West Virginia. Berkeley County is bordered on the north by the Potomac River and Washington County, Maryland; on the south by Frederick County, Virginia on the west by Morgan County, West Virginia; and on the east by Jefferson County, West Virginia. Berkeley County was one (1) of the first settled areas of the State of West Virginia, and is the second oldest county in the state. Many Quakers and Scotch-Irish Presbyterians, along with the English and Dutch, became residents here in the early 1700s. Berkeley County was formed from Frederick County, Virginia, in 1772 and named for Lord Norborne Berkeley. Berkeley County is roughly rectangular in shape with a width of approximately 14 miles, and a length of approximately 22 miles. The county contains two (2) incorporated municipalities: Hedgesville and Martinsburg. The county seat was established in the colonial village of Martinsburg, named for Thomas Bryan Martin, and was incorporated in 1778.

Berkeley County’s transportation system is comprised of land, rail, and air components. The land component consist of major highways that service the region, including Interstate 81, which runs north and south through the middle of the county, U.S. Route 11, and State Routes 9, 45, 51, 901. Major railroads that traverse Berkeley County include CSX, Winchester & Western, and AMTRAK. The air component consists of one (1) airport, the Eastern WV Regional Airport (a public airport located in Martinsburg). Nearby metropolitan cities include Washington, DC, Baltimore, Maryland, and Harrisburg, Pennsylvania.

Berkeley County contains several acres of forestland. The majority of the county is forested with northern hardwoods including oak, beech, maple, and birch. Tributaries of the Potomac River drain the county.

According to the 2000 Census, Berkeley County has a population of 75905, which is a significant increase from 1990. Census figures also indicate that there are 32,913 housing units in Berkeley County. Housing units include both traditional houses and apartments. The county has an average rate of 2.30 persons per household. Further, the county’s median household income is listed as \$38763. Berkeley County’s unemployment rate was 7.9% in *January of 2009\**.

There are an estimated 34250 structures in the county. Approximately 96% (32,913) of the structures are residential housing. The county also contains *two hospitals (City Hospital and the Veteran’s Affairs Medical Center)*, 27 public schools, *four (4) private schools*, a vocational

school campus, 26 licensed day care centers, eight (8) fire departments, three (3) police stations, an E-911 emergency communications facility, an Office of *Homeland Security and Emergency Management*, an airport complex (including West Virginia National Guard and USAR facilities), five (5) federal building complexes, and a railway building complex.

Berkeley County has a semi-humid continental-type climate because of its relatively high precipitation and temperature contrast between summer and winter. The mean temperature for January is 32 degrees Fahrenheit. Summers are moderate, with the warmer days usually followed by refreshingly cool nights. The mean temperature during July is 75.7 degrees Fahrenheit.

There are several public and private schools located in Berkeley County. Currently, there are nineteen (19) elementary schools, five (5) middle or junior high schools, and three (3) high schools, and five (5) private schools located through the county. There are also four (4) public libraries within the county.

Berkeley County is the home of several tourist attractions. Martinsburg is situated along the old Cumberland Trail, which was a major route during the 1700s and 1800s to points west and changed hands several times during the Civil War. Harpers Ferry, which is famous for John Brown's attempted taking of the Federal Arsenal lies only minutes from Martinsburg.

Several outdoor recreational opportunities exist in Berkeley County. For example, there are three (3) golf courses, 13 parks, and two (2) swimming pools located in the county. The Potomac River offers residents boating and fishing opportunities.

## **CITY OF MARTINSBURG**

The City of Martinsburg is located in the center of Berkeley County and is the county seat. Martinsburg was founded in 1778 by General Adam Stephen. It is totally surrounded by unincorporated areas within the jurisdiction of Berkeley County. Martinsburg is approximately six (6) square miles in size, and is the largest municipality in the county. The adjacent unincorporated areas around the city have been subject to a steady process of both residential and commercial development for the past 25 years; and as an area-in-total, is formally recognized as an urbanizing corridor within the Hagerstown, Maryland, *HUD-Designated Urbanized Area*. In general, the topography of Martinsburg and the surrounding area can be characterized as level to gently rolling, although there are some small areas of steep slope in the eastern section of the city. Martinsburg continues to be the focus of the business area in Berkeley County.

The 2000 Census indicates that the City of Martinsburg has a population of 14,972 and is the most densely populated municipality in the county. It contains approximately 7,432 housing

units with an average of 2.01 persons per household. The city holds a median household income of \$29,495.

The major roadways that service the City of Martinsburg include Interstate 81, U.S. Route 11, State Route 9, and 45. The Eastern West Virginia Regional Airport is located in Martinsburg.

### **TOWN OF HEDGESVILLE**

The Town of Hedgesville is located in northern Berkeley County, just south of the Potomac River, less than five (5) miles due northwest on State Route 9 from Martinsburg. It is approximately 0.6 square miles in size. Although smaller in scale, Hedgesville's surrounding unincorporated areas are also experiencing residential and commercial growth, particularly in the direction toward Martinsburg. The town contains a middle school (Hedgesville) and is adjacent to the region's landfill facility of North Mountain.

A segment of Back Creek flows just west of Hedgesville. The major roadways that service the Town of Hedgesville are State Routes 9 and 901.

According to 2000 Census, the Town of Hedgesville has a residential population of 240. Hedgesville contains approximately 99 housing units with an average of 2.42 persons per household and boasts a median household income of \$49,375.

### ***Update:***

*\*Unemployment data per Work Force West Virginia as of January of 2009.*

## DOCUMENTATION OF THE PLANNING PROCESS – BERKELEY COUNTY

### *Including the Town of Hedgesville, and the City of Martinsburg*

*As per requirement 44 CFR Part 201.6(c)(1): [The plan must document] the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.*

### OVERVIEW

Berkeley County, the Town of Hedgesville, and the City of Martinsburg have developed a Multi-Jurisdictional Hazard Mitigation Plan in an effort to indicate probable hazard risks, profile future hazard events, estimate damage and losses as a result of future hazard events, and advocate mitigative projects to reduce the effects of the identified hazards on the communities within the county. The Berkeley County Commission was the lead agency in the development of the plan, which aims to create safer, more disaster-resistant communities.

*In 2003*, the commission created a Hazard Mitigation Committee (HMC), known as project stakeholders, to be responsible for the development and implementation of the plan. The committee included representatives from the Berkeley County Commission, *Berkeley County Office of Homeland Security and Emergency Management*, the Town of Hedgesville, and the City of Martinsburg, Berkeley County Development Authority, Berkeley County Fire Board, Berkeley County Ambulance Authority, *The Journal* (local newspaper), and R.D. Zande & Associates Inc. *(now Stantec)*. *For the update, the Region 9 Planning and Development Council also provided data and input.*

The actions of the county commission with regard to the mitigation plan were continually documented in *The Journal* Berkeley County's local newspaper. As such, the public was continually updated as to the status of the plan's preparation. Further, with respect to the development of an action plan, one (1) stakeholders meeting and one (1) general public meetings were scheduled to discuss the formulation of the plan, and ways in which county agencies can work together to implement identified mitigation strategies.

Feedback received from the public proved valuable in the development of the plan. Several comments were received that resulted in the reevaluation of the proposed high-priority mitigative actions, as well as the risks that should be included in the plan. The public showed a strong desire to be educated as to what it could do to assist mitigation, as well as a desire to see active cooperation among community organizations with respect to mitigation. As a result, the plan has been tailored to Berkeley County's specific needs, and will prove to be a document county residents can feel ownership of and utilize to make educated decisions that will reduce their vulnerability to hazards.

## METHODOLOGY

The risk assessment phase of the mitigation plan was completed using a variety of research techniques. Federal Emergency Management Agency (FEMA) GeoHazards and other Internet sites were searched for historical hazard event records. R.D. Zande & Associates, Inc. (*now Stantec*) conducted reviews of existing reports and plans, which were on file with the governing bodies to assist in the determination of hazard susceptibility areas. Interviews and other discussions were conducted with numerous local officials, including first responders, insurance agents, and West Virginia Division of Highways officials, to ascertain the risks associated with particular hazards in specific areas of the county. After identifying the areas in which the hazards were most prominent, they were profiled and positioned into a base map of the county. This Geographic Information System (GIS)-based map contains several layers with information regarding the individual hazards. Within each of the denoted “hazard risk areas”, assets (structures, utilities etc.) were inventoried and loss estimates were calculated for each of the inventoried assets with respect to that particular hazard. The general public of Berkeley County was further involved in the process as information was gathered from the county’s assets to complete loss estimates. The county’s contractor contacted representatives from each of these assets, explaining the process and collecting ideas.

Following the completion of the risk assessment, the (HMC) used information such as hazard profiles and loss estimations to formulate mitigation goals, objectives, and strategies. For this phase of the project, the HMC met separately to discuss baseline strategies. Such an action was reasoned most appropriate, as project stakeholders are individuals that deal with hazard events on a regular basis and will be directly affect by the plan. Members of the HMC were notified via memoranda and telephone correspondence from the county’s *Office of Homeland Security and Emergency Management*. The stakeholders’ ideas were used as a starting point for further planning steps.

The baseline mitigation strategies were presented to the public to ensure the fair participation of all sectors of the county. These meetings were relatively well attended and those in attendance provided valuable insight that was used in the development of the plan. These meeting were publicized at public county commission meetings, as well as in the local newspaper. The local newspapers also provided coverage of the meetings themselves, as a way to further update county residents as to the status of the plan. *The 2009 update to this plan was placed on the Berkeley County Commission Website ([www.berkeleycountycomm.org](http://www.berkeleycountycomm.org)) and public input was requested.*



## **FORMAL ADOPTION OF THE PLAN**

The Berkeley County Commission, the Town of Hedgesville, and the City of Martinsburg worked cooperatively to complete this hazard mitigation plan. Following the completion of the plan, all three (3) entities adopted formal resolutions to implement the plan in their jurisdiction.

Copies of the adopting documents were included in the plan. Also, a letter was sent to appropriate organizations and civic groups throughout Berkeley County, notifying them of the adoption of the plan and the plan's relevance to them. A copy of the form letter used is also included.

### *Update:*

*The same methodology and adoption methods were used in the 2009 update as was for the initial 2003 plan. Staff from the BC OHSEM conducted the update with input from many of the original participants. No outside contractor was utilized to perform the update. Additional updated data was collected from many of the previous sources in compiling the update. The updating of mapping contained within the 2009 revisions will be performed during the 2014 update using data from the 2010 Census (i.e. housing, population, etc.) With Digital mapping now being available to the county, a base flood map layer is now available, but updates to the DFIRM are in the process and as of this date, unavailable.*

*The formal adoption of the 2009 update was on \_\_\_\_\_, 2009.*



# County Commission of Berkeley County



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DEBORAH HAMMOND  
COUNTY ADMINISTRATOR

SHERRY A. CAIN  
ADMINISTRATIVE SECRETARY

## A Resolution of the Berkeley County Commission

### Multi-Jurisdictional Hazard Mitigation Plan

- WHEREAS,** Berkeley County has developed a Multi-Jurisdictional Hazard Mitigation Plan that includes hazards to which the county is susceptible per Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.
- WHEREAS,** Berkeley County has been assessed for its susceptibility to the identified hazards,
- WHEREAS,** Berkeley County has compiled a list of all structural assets that could be affected by the identified hazards,
- WHEREAS,** Berkeley County has estimated potential losses which structural assets could suffer in the event of a natural hazard,
- WHEREAS,** Berkeley County has developed goals, objectives, and strategies to mitigate against the hazards that have been identified in the county,
- WHEREAS,** Berkeley County stakeholders have identified and analyzed mitigation measures,
- WHEREAS,** Berkeley County stakeholders have prioritized the aforementioned mitigation strategies,

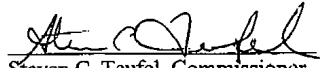
*Multi-Jurisdictional Hazard Mitigation Plan Resolution – 11/20/03 – Page 2*

**WHEREAS**, the Berkeley County Commission has agreed to hold periodic stakeholders and public meetings to review and update the Multi-Jurisdictional Hazard Mitigation Plan.

**THEREFORE, BE IT RESOLVED THAT** the Berkeley County Commission hereby adopts and plans to implement the actions prescribed in the Multi-Jurisdictional Hazard Mitigation Plan.

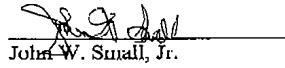
*Adopted this 20<sup>th</sup> day of November, 2003.*

  
Howard L. Strauss, President

  
Steven C. Teufel, Commissioner

\_\_\_\_\_  
John E. Wright, Commissioner

Attest:

  
John W. Small, Jr.  
County Clerk

Date 11/20/03

doc: hazard/ps

**RESOLUTION 2003-19**

**RESOLUTION 2003-19 ADOPTING THE MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN, PROVIDING FOR THE EVALUATION OF NATURAL AND MAN-MADE DISASTERS IN BERKELEY COUNTY AND ITS MUNICIPALITIES, AND SYSTEMATICALLY PROVIDING FOR DISASTER PLANNING TO FACILITATE IMPROVED PUBLIC SAFETY IN ACCORDANCE WITH THE ROBERT T. STAFFORD DISASTER RELIEF AND EMERGENCY ASSISTANCE ACT**

**WHEREAS**, the Berkeley County Commission has developed a Multi-Jurisdictional Hazard Mitigation Plan that includes the hazards to which Berkeley County and its municipalities are susceptible as per Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act; and

**WHEREAS**, the City of Martinsburg has been assessed for its susceptibility to the hazards that affect all of Berkeley County; and

**WHEREAS**, a list of all critical facilities and other assets in the City of Martinsburg that could be affected by hazard events has been generated; and

**WHEREAS**, the estimated potential losses that Martinsburg's assets could incur during a hazard event have been calculated; and

**WHEREAS**, goals, objectives, and strategies to mitigate against the hazards that have been identified in the county, including the City of Martinsburg, have been developed; and

**WHEREAS**, mitigation measures for the City of Martinsburg and surrounding areas have been analyzed; and

**WHEREAS**, mitigation strategies for the City of Martinsburg and surrounding areas have been prioritized; and

**WHEREAS**, Berkeley County's stakeholders have agreed to hold periodic stakeholders and public meetings to review and update the Multi-Jurisdictional Hazard Mitigation Plan.

**NOW, THEREFORE, BE IT RESOLVED**, that the City Council of the City of Martinsburg hereby adopts and plans to implement the actions prescribed in the Multi-Jurisdictional Hazard Mitigation Plan.

**IN WITNESS THEREOF**, I, George Karos, Mayor, have hereunto set my hand and caused the official seal of the City of Martinsburg, West Virginia to be affixed this 18<sup>th</sup> day of November, 2003.

**CITY OF MARTINSBURG**

*George Karos*  
George Karos, Mayor



Attest:

*Sharon A. Flick*  
Sharon A. Flick, City Recorder

*Multi-Jurisdictional Hazard Mitigation Plan*

**ADOPTING RESOLUTION**

WHEREAS the Berkeley County Commission has developed a Multi-Jurisdictional Hazard Mitigation Plan that includes the hazards to which Berkeley County and its municipalities are susceptible as per Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act,

WHEREAS the Town of Hedgesville has been assessed for its susceptibility to the hazards that affect all of Berkeley County,

WHEREAS a list of all critical facilities and other assets in the Town of Hedgesville that could be affected by hazard events has been generated,

WHEREAS the estimated potential losses that Hedgesville's assets could incur during a hazard event have been calculated,

WHEREAS goals, objectives, and strategies to mitigate against the hazards that have been identified in the county, including the Town of Hedgesville, have been developed,

WHEREAS mitigation measures for the Town of Hedgesville and surrounding areas have been analyzed,

WHEREAS mitigation strategies for the Town of Hedgesville and surrounding areas have been prioritized,

WHEREAS Berkeley County's stakeholders have agreed to hold periodic stakeholders and public meetings to review and update the Multi-Jurisdictional Hazard Mitigation Plan.

THEREFORE BE IT RESOLVED THAT the Town Council of the Town of Hedgesville hereby adopts and plans to implement the actions prescribed in the Multi-Jurisdictional Hazard Mitigation Plan.

Adopted this 3 day of Dec., 2003.

<u>Mayor - Town of Hedgesville</u>	
Name:	<u>Mary Beth Good</u>
Print:	<u>Mary Beth Good</u>

<u>Witness</u>	
<u>Town Recorder</u>	
Name:	<u>Ranilla L Good</u>
Print:	<u>RANILLA L. Good</u>

## **HAZARD RISK ASSESSMENT – MULTI-JURISDICTIONAL PLAN REQUIREMENTS**

*According to 44 CFR Part 201.6(c)(2)(ii)(C)(iii), the risk assessment section must assess each jurisdiction's risk where they vary from the risks facing the entire planning area.*

For the purpose of this risk assessment, the hazard risks will be assessed separately for each jurisdiction involved where the risk differs significantly. If the risk affects one (1) jurisdiction and not another, or if the risk affects one (1) jurisdiction in a significantly different manner, it will be so noted in the hazard identification and hazard profile steps. If the risks are determined to impact each jurisdiction equally or in the same manner, it will be so noted. In such cases, please refer to the hazard profile contained in the larger jurisdiction's hazard profile (i.e. please refer to *Profiling Hazard Events –Berkeley County* for risks affecting Berkeley County and all of its municipalities in the same manner.)

## IDENTIFYING HAZARDS – BERKELEY COUNTY

*As per requirement 44 CFR Part 201.6(c)(2)(i): [The risk assessment shall include a] description of the type...of all natural hazards that can affect the jurisdiction.*

Berkeley County identified several hazards that will be addressed in the county's Hazard Mitigation Plan. These hazards were identified through an extensive research process that utilized input from several sources, including:

- Interviews conducted with local officials/experts:
  - Mr. Steve Allen, Berkeley County OES Director,
  - Mr. Howard Strauss, Berkeley County Commissioner,
    - *(As of November 2008 the Commission President is Ronald K. Collins. Mr. Collins is replacing Mr. Strauss.)*
  - Mr. Michael Covell, Martinsburg City Engineer,
- Reviews conducted of Flood Insurance Rate Maps (FIRMs) for Berkeley County, the Town of Hedgesville, and the City of Martinsburg,
- Searches of multiple Internet sites concerning hazard mitigation and planning (The following sites are general listings that were searched at the onset of the project. Sites that were searched regarding specific hazards are listed with those hazards below.):
  - American Red Cross – Local Chapters  
<http://www.redcross.org/where/where.html>
  - Disaster Center  
<http://www.disastercenter.com>
  - Digital Q3 Flood Data  
<http://msc.fema.gov/MS/statemap.htm>
  - ESRI  
<http://www.esri.com/hazards>
  - Federal Emergency Management Agency  
<http://www.fema.gov>
  - HAZUS Instruction and Technical Information  
<http://www.fema.gov/hazus/>
  - Socio-Economic Data Resources  
[http://www.csc.noaa.gov/products/nchaz/htm/dinfo\\_4.htm](http://www.csc.noaa.gov/products/nchaz/htm/dinfo_4.htm)
  - USDA Natural Resources Conservation Service

<http://www.nhq.nrcs.usda.gov/RID/RID.html>

➤ National Oceanic Atmospheric Administration

<http://www.noaa.gov>

The following *natural hazards* have been considered and identified in the Berkeley County Hazard Mitigation Plan:

<i>Hazard</i>	<i>How Identified</i>	<i>Why Identified</i>
Drought	<ul style="list-style-type: none"> <li>• Review of <i>Palmer Drought Index</i></li> <li>• NOAA Event Records</li> <li>• Internet research</li> <li>• <i>Review of online information found at the U.S.D.A. website.</i></li> </ul>	<ul style="list-style-type: none"> <li>• According to a NOAA Event Record, as of September 1, 1999 rainfall from two (2) tropical storms and a handful of low pressure systems made an impact in the drought that plagued the region since the summer of 1998. By the end of the month, conditions across the Eastern Panhandle were upgraded from an extreme to a moderate drought because rainfall was above average during September. By month's end, 28% of farmers were still hauling water for livestock and 25% of wells were dry or had an extremely low water reserve.</li> <li>• The <i>Palmer Drought Severity Index</i> reports that West Virginia counties spend 0–5% of the summer and autumn months under drought conditions.</li> <li>• <i>Update: The drought continues to be an issue for the county overall. As of March 2009, the county is listed as “abnormally dry” by the U.S. Drought Monitor. The USDA Natural Resources Conservation Service (NRCS) is providing limited funding for agricultural needs for assistance with livestock water sources. Precipitation deficits at timescales from 1 week to 6 months and stream flows below the 20<sup>th</sup> percentile are widespread. This will be closely monitored as the summer months approach.</i></li> <li>• <i>In Aug. of 2007, severe</i></li> </ul>



		<p><i>agricultural conditions existed from July thru Aug. Some locations averaged rainfall totals as high as 6" below normal. Some water use restrictions.</i></p> <ul style="list-style-type: none"> <li>• <i>July 2007: Some agricultural restrictions for use of water.</i></li> </ul>
Earthquake	<ul style="list-style-type: none"> <li>• Review of US Geological Survey National Seismic Hazard Mapping Project</li> <li>• Review of ESRI GIS information on West Virginia</li> <li>• West Virginia Division of Natural Resources web site</li> <li>• <i>Update: Data located at the USGS Earthquake Hazards Program website.</i></li> </ul>	<ul style="list-style-type: none"> <li>• US Geological Survey lists Berkeley County as a PGA 3.0 (MMI IV).</li> <li>• According to the USGS, a number of places in West Virginia felt tremors from a major earthquake on November 1, 1935 that was centered near Timiskaming, Quebec, Canada. About two and a half hours after the Canadian earthquake, several residents of the county felt three (3) trembling shocks lasting about 30 seconds each.</li> <li>• <i>Update: This issue is continuing to be monitored. The most recent earthquake to impact the State was in January 2008. According to the USGS Earthquake Hazards Program, a magnitude 2.3 earthquake hit White Sulphur Springs, WV on January 29, 2008. This is not in the immediate area of Berkeley County but is located in the southern portion of the state. In relation to Berkeley County, the peak acceleration is 7g with 2% probability of exceedance during the next 50 years.</i></li> </ul>
Epidemic	<ul style="list-style-type: none"> <li>• Internet research</li> <li>• Public input</li> <li>• West Virginia Division of Natural Resources web site</li> <li>• World Health Organization web site</li> <li>• <i>Review of online information from the West Virginia Department of Natural Resources.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Epidemics can strike any area suddenly and at any time.</li> <li>• The West Nile Virus has created growing concern in West Virginia and the northeast where widespread spraying to kill mosquitoes that carry the virus has not quelled its spread.</li> <li>• <i>Update: According to the West Virginia Department of Natural Resources, the threat of West Nile Virus is still active. Widespread spraying to kill mosquitoes and monitoring bird deaths is ongoing.</i></li> </ul>

<p style="text-align: center;">Flooding</p>	<ul style="list-style-type: none"> <li>• Review of FIRMs</li> <li>• Public input</li> <li>• Review of past disaster declarations</li> <li>• NOAA Event Records</li> <li>• Information supplied by Region 9 PDC</li> <li>• <i>Update: Reviewing of previous records for updated information.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Berkeley County is positioned south of the Potomac River, and contains Opequon Creek, and Tuscarora Creek.</li> <li>• As indicated by a <i>NOAA Event Record</i> on January 19, 1996 high dew point temperatures melted most of the snow on the ground within 12 hours. The snowmelt combined with one (1) to three (3) inches of rainfall produced the worst regional flooding since 1985. Crests ranged from three (3) to 21 feet above flood stage. A flood of record was noted on Opequon Creek near Martinsburg.</li> <li>• <u><i>Updated Information:</i></u></li> <li>• <i>Feb. 2004: Flooding due to heavy rainfall and melting snow. Approx. 2" to 3" of rain fell over region. Small streams came out of banks. Opequon Creek rose above critical 10' stage.</i></li> <li>• <i>May 2004: Flashflood in low lying areas of Mtnsbg. closing some roads for 3-5 hours.</i></li> <li>• <i>Sept. 2004: Flash flood in Back Creek. Several roads closed due to water covering the roads. Flash flood in Inwood impacting U.S. Routes 51 and 11 on 9/28.</i></li> <li>• <i>July 2005: Thunderstorm produced torrential rainfall flooding a few areas, sweeping away a young boy.</i></li> <li>• <i>Nov. 2005: Flash flood in City of Mtnsbg. covering several roads.</i></li> <li>• <i>June 2006: Flash flood in Inwood. Between 9: and 12: of water at intersection of US 11 and Route 51.</i></li> <li>• <i>April 2008: Tenn. Ave. near Mill Race Rd. closed when Tuscarora Creek overflowed its banks due to heavy rainfall.</i></li> <li>• <i>May 2008: Several roads flooded in Martinsburg area due to heavy rainfall.</i></li> </ul>
<p>Hailstorm</p>	<ul style="list-style-type: none"> <li>• Climatology reports</li> <li>• National Weather Service</li> </ul>	<ul style="list-style-type: none"> <li>• Thunderstorms and windstorms are often accompanied by hail.</li> </ul>

	<ul style="list-style-type: none"> <li>• NOAA Event Records</li> <li>• <i>Update: Review of climatology reports and National Weather Service records for updated information. (Official NOAA data only available thru June 2008.)</i></li> </ul>	<ul style="list-style-type: none"> <li>• According to a NOAA Event Record on May 25, 1995 ¾” hail was reported, as well as several trees and power lines being knocked down in Berkeley County. Potomac Edison reported 3,000 customers without power during the peak of the storm.</li> <li>• <i>Updated Information:</i></li> <li>• <i>May 2004: Nickel size hail reported in Martinsburg due to thunderstorm.</i></li> <li>• <i>June 2005: Hail (.88) reported due to thunderstorm.</i></li> <li>• <i>July 2005: Reports of large hail with thunderstorm. (Countywide).</i></li> <li>• <i>Aug. 2005: Large hail in higher terrain in county reported due to thunderstorm.</i></li> <li>• <i>July 2006: Nickel-sized (.88) hail in Martinsburg with a severe storm.</i></li> <li>• <i>Sept. 2007: Hail measuring between ¾” and 7/8ths inch in City of Martinsburg.</i></li> <li>• <i>June 2008: Penny-sized hail in Gerrardstown and Martinsburg. (.75 in.)</i></li> </ul>
<p style="text-align: center;">Infestation</p>	<ul style="list-style-type: none"> <li>• Review of online information from the West Virginia Division of Forestry</li> <li>• Review of online information from West Virginia Division of Natural Resources</li> <li>• <i>Review of online information from the West Virginia Department of Agriculture.</i></li> </ul>	<ul style="list-style-type: none"> <li>• An infestation can strike any area at any time.</li> <li>• Berkeley County may possibly encounter an infestation from gypsy moths, Asian long horned beetles, southern pine beetles, and mosquitoes.</li> <li>• Berkeley County contains several acres of agricultural and forestland.</li> <li>• <i>Update: As of January 23, 2009, the West Virginia Department of Agriculture is treating 51,400 acres of forest to protect against gypsy moth damage. Berkeley County is included in the targeted counties. Treatments are scheduled to begin between late April and the end of May of 2009.</i></li> </ul>
<p style="text-align: center;">Landslide and Sink Holes</p>	<ul style="list-style-type: none"> <li>• Review of US Geological Survey information online</li> <li>• Internet research</li> <li>• Public Input</li> </ul>	<ul style="list-style-type: none"> <li>• The majority of Berkeley County is located in a “moderate risk” area with regard to landslide occurrences according to a USGS</li> </ul>

		<p><i>Landslide Overview Map.</i></p> <ul style="list-style-type: none"> <li>• Areas located below the higher elevations are more susceptible to damage as a result of landslide occurrences.</li> <li>• Local officials report that sink holes are common throughout the county.</li> <li>• <i>This issue continues to be monitored.</i></li> </ul>
<p>Severe Thunderstorm</p>	<ul style="list-style-type: none"> <li>• NOAA Event Records</li> <li>• Public input</li> <li>• Information supplied by Region 9 PDC</li> <li>• <i>Update: Review of NOAA records for updated information. (Official data only available thru June 2008 at website.)</i></li> </ul>	<ul style="list-style-type: none"> <li>• Severe thunderstorms are frequently reported throughout Berkeley County.</li> <li>• A <i>NOAA Event Record</i> indicated that on July 25, 1999, several trees and power lines were downed as a thunderstorm moved across Berkeley and Jefferson Counties.</li> <li>• <i>Update:</i></li> <li>• <i>May 2004: Thunderstorm winds brought trees down in Martinsburg and in various areas of county.</i></li> <li>• <i>June 2004: Thunderstorm winds caused downed trees in City of Martinsburg.</i></li> <li>• <i>June 2005: Thunderstorms produced high winds with trees down. (Winds EG 50 kt).</i></li> <li>• <i>July 2005: Trees and power lines down to thunderstorm winds (EG 50 kt) impacting Hedgesville area.</i></li> <li>• <i>Aug. 2005: Scattered trees down in western portion of county due to storm. Winds (EG 50 kt).</i></li> <li>• <i>July 2006: Trees down in Bunker Hill and Hedgesville due to thunderstorm. Winds (EG 50 kt). A semi-tractor trailer overturned near I-81. Damage to local church near I-81.</i></li> <li>• <i>Aug. 2006: Trees downed in storm with winds (EG 50 kt) in City of Martinsburg.</i></li> <li>• <i>June 2007: Thunderstorm impacting Falling waters area with trees and power lines down. Winds (EG 50 kt).</i></li> <li>• <i>Aug. 2007: Thunderstorms developed some producing wind damage in county. (Wind EG 50 kt).</i></li> </ul>

		<ul style="list-style-type: none"> <li>• <i>Sept. 2007: Power lines down due to storm with excessive winds in Martinsburg. (Winds EG 50 kt). Loss of structure due to lightning strike in Hedgesville.</i></li> <li>• <i>Feb. 2008: Overnight showers and thunderstorms reported producing damaging winds and downed trees in county. (Winds EG 50 kt).</i></li> <li>• <i>June 2008: Trees uprooted and power poles down in Bunker Hill and Jones Springs. Some structural damages (house, barn). Power lines down in Martinsburg (Est. gusts between 50-609 kts.) Evening winds reported at 68 mph at airport.</i></li> </ul>
<p>Severe Wind and Tornado</p>	<ul style="list-style-type: none"> <li>• Review of ESRI GIS information on West Virginia</li> <li>• National Weather Service</li> <li>• NOAA Event Records</li> <li>• Information supplied by Region 9 PDC</li> <li>• <i>Update: Review of NOAA event records. (Official data only available through June 2008.)</i></li> </ul>	<ul style="list-style-type: none"> <li>• According to a map prepared by NOAA, West Virginia averages approximately 2 tornadoes every year.</li> <li>• Berkeley County has experienced seven (7) recorded incidences of tornado touchdowns. The most recent tornado occurred in 1989, which was an F1 category tornado that touched down in the Bunker Hill area of Berkeley County causing \$80,000 in property damage.</li> <li>• <i>Update:</i></li> <li>• <i>Jan. 2004: Extreme cold/wind chill. Minimum temps were in the lower teens and single digits with winds averaging 10 to 15 mph. Wind chills on the average of 10 degrees below zero.</i></li> <li>• <i>May 2004: A weak tornado (F0) damaged trees in Arden.</i></li> <li>• <i>(Disaster Declaration on Sept. 20, 2004, FEMA-1558-DR). F2 tornado touched down in Darkesville on Sept. 17<sup>th</sup>. Extensive structural damage to homes and businesses. The storm traveled north and toppled tractor trailers and vehicles on I-81. At least 6 people injured. No deaths.</i></li> <li>• <i>Dec. 2004: High winds (EG 50 kt). Trees and power lines downed.</i></li> </ul>

		<ul style="list-style-type: none"> <li>• <i>Jan. 2006: High winds with widespread damages and power outages. Winds EG 50 kt.</i></li> <li>• <i>Oct. 2006: Winds gusted to 45 mph. Downed trees and power lines.</i></li> <li>• <i>Dec. 2007: High winds with gusts reported between 50-60 mph. Downed trees and power lines.</i></li> <li>• <i>Jan. 2008: High winds with gusts reported between 40 and 60 mph.</i></li> <li>• <i>Feb. 2008: Gusty winds in excess of 60 mph. Downed trees and power lines. Some property damage across county.</i></li> </ul>
<p>Severe Winter Storm and Sleet</p>	<ul style="list-style-type: none"> <li>• NOAA Event Records</li> <li>• Public input</li> <li>• Review of past disaster declarations</li> <li>• Information supplied by Region 9 PDC</li> <li>• <i>Update: review of NOAA records. (Official data only available to June 2008.)</i></li> </ul>	<ul style="list-style-type: none"> <li>• Severe winter storms are frequently reported in Berkeley County.</li> <li>• As indicated by a <i>NOAA Event Record</i> on February 4, 1998, a powerful nor'easter, laden with tropical moisture from the Gulf of Mexico and the Caribbean, dumped moderate to heavy snow across all of eastern West Virginia beginning early on the 4<sup>th</sup>.</li> <li>• <i>Update:</i></li> <li>• <i>Jan. 2004: Winter storm with amounts of snow averaging 5" to 7".</i></li> <li>• <i>Feb. 2004: Winter storm with snow and freezing rain. Accumulations between 5" to 10" and ice averaged 1/4" to 1/2".</i></li> <li>• <i>Jan. 2005: Winter storm with 4" to 6" of snow.</i></li> <li>• <i>Feb. 2005: Winter storm with heavy snowfall.</i></li> <li>• <i>Dec. 2005: Winter weather/mix and heavy snow. Some power outages. Storm totals between 4" to 9". Mid-month ice storm with accumulations up to 1". Power outages reported.</i></li> <li>• <i>Feb. 2006: Heavy snow with amounts between 7" to 12". Isolated reports of power outages due to downed trees and power lines.</i></li> <li>• <i>Jan. 2007: Snow mixing with sleet</i></li> </ul>

		<p><i>and freezing rain and then changing to freezing drizzle.</i></p> <ul style="list-style-type: none"> <li>• <i>Feb. 2007: Winter storm with snow and sleet accumulations up to 7" and ice accumulations ranging from 1/10<sup>th</sup> to 3/4". Snow plows not equipped to handle conditions. Icy roads lead to vehicle accidents and closed schools. Heavy winds impacted a few days later with gusts up to 60 mph.</i></li> <li>• <i>March 2007: winter storm.</i></li> <li>• <i>Dec. 2007: Heavy snow. Began as a mixture of sleet/snow changing to mixture of sleet/freezing rain. Significant amounts of ice, snow and sleet reported across county.</i></li> <li>• <i>Jan. 2008: Snow which changed to sleet and freezing rain. Significant amounts of snow and sleet reported. In Berkeley approximately 5" reported.</i></li> <li>• <i>Feb. 2008: Light snow reported with snow mixing with and changing to sleet and freezing rain. Some minor property damage.</i></li> </ul>
Temperature Extreme – Heat Wave	<ul style="list-style-type: none"> <li>• National Weather Service</li> <li>• NOAA Event Records</li> </ul>	<ul style="list-style-type: none"> <li>• According to a July 21, 1998 NOAA Event Record, a singular heat wave affected the eastern panhandle of West Virginia during the climatological peak of the highest annual temperatures. The heat wave caused temperatures to soar into the mid and upper 90s. The heat 3 index, equaled or exceeded 100 each afternoon.</li> <li>• <i>Update: This issue continues to be a concern and is closely monitored.</i></li> </ul>
Wildfire	<ul style="list-style-type: none"> <li>• West Virginia Division of Natural Resources</li> <li>• West Virginia Division of Forestry</li> </ul>	<ul style="list-style-type: none"> <li>• Berkeley County contains several acres of forestland and agricultural areas.</li> <li>• Since 1985, approximately 9,000 homes have been lost to urban/wild land interface fires across the United States.</li> <li>• <i>Update: Due to excessive winds on March 9, 2009, Berkeley</i></li> </ul>

		<p><i>County had a brush fire outside of the Hedgesville area. Approximately 30 acres were impacted. No structures were lost or any injuries reported. Otherwise, this issue continues to be monitored pending local forecasts.</i></p>
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The following *additional hazards* have been considered and identified in the Berkeley County Hazard Mitigation Plan.

<i>Hazard</i>	<i>How Identified</i>	<i>Why Identified</i>
Terrorism	<ul style="list-style-type: none"> <li>Local officials and the public requested that terrorism be identified and evaluated</li> </ul>	<ul style="list-style-type: none"> <li>Berkeley County contains assets that could possibly be targeted for terrorist activity</li> <li>Berkeley County contains public water infrastructure</li> <li>WMD events in neighboring or nearby counties could potentially affect Berkeley County</li> </ul>
HAZMAT Incident	<ul style="list-style-type: none"> <li>Local officials and the public requested that terrorism be identified and evaluated</li> </ul>	<ul style="list-style-type: none"> <li>Berkeley County contains portions of Interstate 81 which is the most used route to transport hazardous materials through the county.</li> <li>Trucks carrying HAZMATs to large plants in the county must traverse through the county.</li> <li>Several water treatment facilities operate in the county that utilize chlorine.</li> </ul>

Several hazards were not identified in Berkeley County. Following are hazards that were not discovered to be significant risks in Berkeley County.

- Avalanche – Although Berkeley County does contain mountainous terrain, the general elevation is not high enough to cause snow to cap mountains year-round. Therefore, avalanches do not appear to be a significant hazard. Sliding rock and/or earth is considered a landslide for the purpose of this report. (see also *Landslide and Sink Holes*)



- Coastal Erosion –Berkeley County is located inland from the Atlantic Ocean and does not have any coastal boundaries.
- Coastal Storm –Berkeley County is located inland from the Atlantic Ocean. (see also *Hurricane* below)
- Hurricane – While Berkeley County sometimes receives precipitation as hurricanes hit the eastern and southern coastal states; the county does not experience intense hurricane conditions. The precipitation that is received can be classified as a severe thunderstorm or winter storm. (see also *Severe Thunderstorm* and *Severe Winter Storm and Sleet*)
- Land Subsidence – All cases of “natural” land subsidence are included in the landslide discussion. (see also *Landslides and Sink Holes*)
- Tsunami – Berkeley County is located inland from the Atlantic Ocean.
- Volcano – Research shows no volcanic activity in Berkeley County.

By virtue of their location in Berkeley County, the municipalities in the county can be said to be susceptible to the same hazards that are identified above. However, these municipalities may be more or less susceptible to some of the hazard events. The following table illustrates if the municipalities are affected by the hazard events more than the rest of the county, less than the rest of the county, or in the same manner as the rest of the county.

	Hedgesville	Martinsburg
<b>Drought</b>	=	<
<b>Earthquake</b>	=	=
<b>Epidemic</b>	>	>
<b>Flooding</b>	=	>
<b>Hailstorm</b>	=	=
<b>Infestation</b>	=	=
<b>Landslide</b>	=	=
<b>T. Storm</b>	=	=
<b>Tornado</b>	=	=
<b>Winter Storm</b>	=	=
<b>Heat Wave</b>	>	>
<b>Wildfire</b>	=	=
<b>HAZMAT</b>	>	>
<b>Terrorism</b>	>	>

**Key**

- = : Municipality affected by hazard same as county
- > : Municipality affected by hazard more than county
- < : Municipality affected by hazard less than county

## **PROFILING HAZARD EVENTS – BERKELEY COUNTY**

*As per requirement 44 CFR Part 201.6(c)(2)(i): [The risk assessment shall include a] description of the...location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future events.*

Berkeley County is subject to many natural hazard events. As discussed above, past newspaper research, reviews of existing plans that have previously been compiled, searches of multiple Internet sites, reviews of current FIRMs, and discussions with local emergency services and state personnel assisted in the identification of these hazards. Each hazard is defined, discussed, and profiled below in detail. Also, a GIS-based map has been developed for each one of these hazards, which illustrates the areas that are susceptible to the different hazards.

The hazard profiles for each hazard are included in this report under a section labeled by the hazard, which includes Worksheet #3a., Worksheet #3b., Worksheet #4, and the appropriate GIS-based mapping.

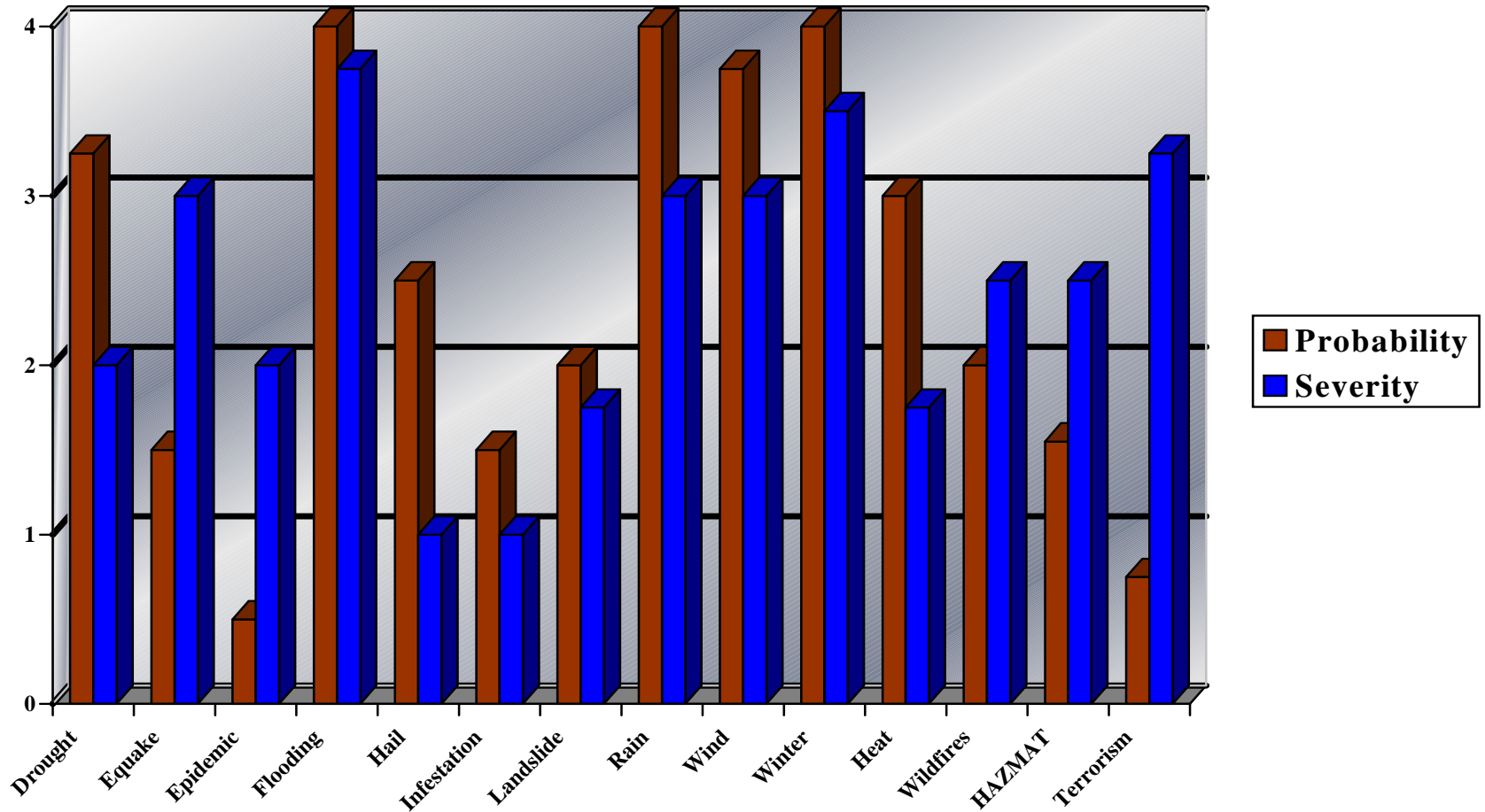
### **TOWN OF HEDGESVILLE**

Please see Appendix 1: Hazard Specific Information for a detailed profile of each of the above-listed hazards.

### **CITY OF MARTINSBURG**

Please see Appendix 1: Hazard Specific Information for a detailed profile of each of the above-listed hazards.

## Probability vs. Severity for Natural Hazards



0 = No Occurrence, 1 = Low, 2 = Moderate, 3 = High, 4 = Extreme High

(\*Update: Nothing has changed in relation to the above profiles.)

In the case of natural hazard risks it is not possible to eliminate the risks; they can only be reduced. When many risks exist at once or when resources are limited, the problem requires setting priorities. The classification of risk severity and probability for the natural hazard risks in Berkeley County are covered in the following Risk Assessment Decision Matrix:

**Hazard Probability Classification**

<b>Description</b>	<b>Specific Individual Item</b>	<b>Fleet or Inventory</b>
Frequent	Likely to occur frequently	Continuously experienced
Probable	Will occur several times in the life of an item	Will occur frequently
Occasional	Likely to occur sometime in the life of an item	Will occur several times
Remote	Unlikely but possible to occur I the life of an item	Unlikely but can reasonably be expected to occur
Improbable	So unlikely, it can be assumed occurrence may not be experienced	Unlikely to occur, but possible

**Hazard Severity Classification**

<b>Description</b>	<b>Mishap Definition</b>
Catastrophic	Death or major structural loss
Critical	Severe injury, severe illness or marginal structural damage
Marginal	Minor injury, minor illness or minor structural damage
Negligible	Less than minor injury, or illness, or structural damage

**RISK ASSESSMENT MATRIX**

<b>HAZARD SEVERITY</b>	<b>PROBABILITY</b>				
	Frequent	Probable	Occasional	Remote	Improbable
Catastrophic			<b>9</b>	<b>2, 14</b>	
Critical		<b>4</b>	<b>7</b>		
Marginal	<b>8</b>	<b>10</b>	<b>1, 3, 13</b>	<b>5, 12</b>	<b>6</b>
Negligible			<b>11</b>		

LEGEND	
<b>Risk reduction required</b>	
<b>Risk reduction recommended</b>	
<b>No risk reduction required</b>	

- |                           |                           |
|---------------------------|---------------------------|
| 1 – Drought               | 11 – Temperature Extremes |
| 2 – Earthquake            | 12 - Wildfires            |
| 3 – Epidemic              | 13 - HAZMAT               |
| 4 – Flooding              | 14 - Terrorism            |
| 5 – Hailstorm             |                           |
| 6 – Infestation           |                           |
| 7 – Landslide             |                           |
| 8 – Severe Thunderstorm   |                           |
| 9 – Severe Wind & Tornado |                           |
| 10 – Severe Winter Storm  |                           |

## ASSET INVENTORY – BERKELEY COUNTY

*As per requirement 44 CFR Part 201.6 (c)(2)(ii)(A): [The risk assessment shall include a] description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community. The plan should describe vulnerability in terms of: the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas.*

### METHODOLOGY

Several resources were used to inventory the assets in Berkeley County; both for the county as a whole and within designated hazard risk areas. For example, HAZUS and Census data were used.

The first task that was undertaken was to identify the number of residential, commercial, industrial, agricultural, religious/non-profit, government, education, and utility facilities throughout the county and municipalities. Each type of structure was further broken down into three (3) categories: # in Community or State, # in Hazard Area, and % in Hazard Area. (The hazard area was identified in the mapping generated during the hazard-profiling step.) The number of structures, value of structures, and number of people for each type of structure was listed, along with the three (3) sub-categories mentioned above.

The number of structures was determined by HAZUS, Census 2000 information, and the GIS-based mapping that was generated during the hazard-profiling step. HAZUS, Census 2000 information, and the generated GIS information also determined the value of structures. Finally, the number of people was determined by Census 2000 information. This was done by highlighting all of the affected census block groups in previously identified hazard areas on the GIS-based maps. (The census block group information had been loaded into a base map in ArcView 3.2 at the start of this project.) All of this information was marked on Worksheet #3a. from FEMA's *State and Local Mitigation Planning How-to Guide: Understanding Your Risks*. This information was listed and reanalyzed for the hazards that were profiled.

Next, a specific asset inventory was developed based on HAZUS, Census 2000 data, and information provided by local leaders in Berkeley County. Each of these specific assets was classified in categories such as critical facility, vulnerable population, economic asset, special consideration, or historic/other consideration. The size of each of the structures, as well as the replacement value, contents value, function use or value, displacement cost (should the asset be non-operational for a day or longer), occupancy or capacity, and other hazard specific information was compiled.

Following are the methods used to determine the above-categories for each of the county's assets.

- Size of buildings = square footage (for assets such as railroads and highways, length was used): This was usually determined by calling an official representative of the asset (e.g. the company president, utility manager, etc.).
- Replacement value of the structure: This was usually determined by calling an official representative of the asset (e.g. the company president, utility manager, etc.).
- Contents value, if not obtained by calling an official representative of the asset, was determined by HAZUS, which gave a table breaking each type (i.e. commercial or residential) of facility into a percentage by which to multiply the replacement value. (e.g. Contents Value of Schools/Libraries = Replacement Value X 100%)
- Function use or value was determined by total annual operational budget.
- Displacement cost (\$ per day) was determined by the function use or value divided by 365.
- Occupancy was determined by calling an official representative of the asset. (e.g. Occupancy of Schools = Total Students + Paid Staff)

A composite list of all of the county's assets was compiled. The assets were also listed based on their location in regard to a hazard area. For example, if a government facility was located in an area listed as highly susceptible to flood hazards, then that facility was also listed as such on a list for assets in flood areas. Worksheet #3b. from the *State and Local Mitigation Planning How-to Guide: Understanding Your Risks* was used to show these values and lists.

## ASSETS

Berkeley County's Hazard Mitigation Plan identifies specific assets located throughout the county and the hazards to which these facilities are susceptible. An asset is defined as a facility which is either in the public or private sector that provides essential products and services to the general public, is otherwise necessary to preserve the welfare and quality of life in Berkeley County, or fulfills important public safety, emergency response, and/or disaster recovery functions. Assets can be a critical facility, vulnerable population, economic asset, special consideration, or historic/other consideration.

The assets identified in the county are emergency services facilities (i.e. fire departments, EMS stations, police stations, etc.), hospitals, utility systems (i.e. water, sewer, gas, and electric), airports, government facilities, schools, historic sites, bridges and transportation systems, and large industrial or commercial facilities. (See attached "Berkeley County Asset Inventory" map.)

Each of these facilities, depending on their location and proximity to a hazard risk area, is susceptible to a variety of hazards. Please see the attached maps for a breakdown of which facilities are susceptible to which hazards.

In addition to critical facilities, an analysis of Census 2000 data indicates that the county contains at-risk populations that should be factored into the county's mitigation plan. Berkeley County and all of its municipalities contain elderly populations with limited mobility. This population is adversely affected during hazard events because of a lack of accessibility to emergency and other services. The county also contains youth populations that may be affected by certain hazard events. Hazards such as floods, winter storms, hail, etc. pose health and safety threats during hazard events.

A further analysis of Census 2000 data, coupled with historical census data, indicates that Berkeley County and all municipalities therein have experienced a significant increase in population over the past *fifteen (15)* years. Similar residential development trends are expected to continue. This may include development in the floodplain. Because of this development, changes in county and municipal building codes may have to be made to protect future assets from damage. *\*Update: Building codes are being amended as well as the floodplain ordinance. Berkeley County Planning Department expects the adoption of both in 2009.*

The following are major assets that are located in Berkeley County. Please see the attached charts that list the replacement value, contents value, function use or value, displacement cost, occupancy or capacity, and other hazard specific information for each of these assets.



- Back Creek Elementary – Critical Facility (Elementary School)
- Bedington Elementary – Critical Facility (Elementary School)
- *Berkeley Heights Elementary-Critical Facility (Elementary School)*
- Bunker Hill Elementary – Critical Facility (Elementary School)
- Burke Street Elementary – Critical Facility (Elementary School)
- Gerrardstown Elementary – Critical Facility (Elementary School)
- Hedgesville Elementary – Critical Facility (Elementary School)
- Inwood Primary School – Critical Facility (Primary School)
- Marlowe Elementary – Critical Facility (Elementary School)
- Opequon Elementary – Critical Facility (Elementary School)
- Rosemont Elementary – Critical Facility (Elementary School)
- Tomahawk Elementary – Critical Facility (Elementary School)
- Tuscarora Elementary – Critical Facility (Elementary School)
- Valley View Elementary – Critical Facility (Elementary School)
- Winchester Ave. Elementary – Critical Facility (Elementary School)
- Hedgesville Middle – Critical Facility (Middle School)
- Martinsburg North – Critical Facility (Middle School)
- Martinsburg South – Critical Facility (Middle School)
- Mussleman Middle – Critical Facility (Middle School)
- *Spring Mills Middle-Critical Facility (Middle School)*
- Eagle School Intermediate – Critical Facility (Intermediate School)
- Mill Creek Intermediate – Critical Facility (Intermediate School)
- Potomac Intermediate – Critical Facility (Intermediate School)
- *Mountain Ridge Intermediate-Critical Facility (Intermediate School)*
- Orchard View Intermediate – Critical Facility (Intermediate School)
- Hedgesville High – Critical Facility (High School)
- Martinsburg High – Critical Facility (High School)
- Mussleman High – Critical Facility (High School)
- James Rumsey Vo Tech Center – Critical Facility (Educational Facility)
- Pikeside Pre-Vocational – Critical Facility (Vocational School)
- Ramer Center – Critical Facility (Educational Facility)
- Administration Building – Critical Facility (Administration)
- Maintenance Building – Critical Facility (Maintenance Facility)

- Transportation Building – Critical Facility (Provides shelter for transportation equipment)
- Mussleman Athletic Facilities – Critical Facility (School Affiliated Facilities)
- Resa VIII Offices – Critical Facility (Office Complex)
- Martinsburg City Hall – Critical Facility (Home of Local Government)
- Martinsburg Central Fire Station – Critical Facility (Emergency Services)
- Martinsburg Westphal Hose Company – Economic Asset (Industrial or Commercial)
- Martinsburg Waterworks – Critical Facility (Water Treatment Facility)
- *Berkeley County Animal Control* – Critical Facility (County Animal Shelter)
- Martinsburg Sewer Plant – Critical Facility (Wastewater Plant)
- Capitol Cement – Economic Asset (Industrial or Commercial)
- Red Hill Storage Tank – Critical Facility (Water Storage)
- Capitol Heights Storage Tank – Critical Facility (Water Storage)
- *Delmar Orchard Road Storage Tank – Critical Facility (Water Storage)*
- Western Ave. Storage Tank – Critical Facility (Water Storage)
- Old Market House – Economic Asset (Industrial or Commercial)
- Old Armory Building – Economic Asst (Industrial or Commercial)
- Old Sanitation Building – Economic Asset (Industrial or Commercial)
- Martinsburg City Garage – Economic Asset (City Garage)
- Martinsburg Train Station – Economic Asset (Train Station)
- Adam Stephen Complex – Economic Asset (Industrial or Commercial)
- War Memorial Park – Economic Asset (Recreational Facility)
- Lambert Park – Economic Asset (Recreational Facility)
- P.O. Faulkner Park – Economic Asset (Recreational Facility)
- Oak Street Park – Economic Asset (Recreational Facility)
- Ambrose Park – Economic Asset (Recreational Facility)
- Parks and Recreation – Economic Asset (Recreational Facility)
- Historic County Court House – Critical Facility (Home of Local Government)
- *Dunn Building-Critical Facility (Home of Local Government)*
- *Crawford Building-Critical Facility (Local Government Building )*
- *Berkeley Building-Critical Facility (Judicial Center)*
- *Martin’s Building-Critical Facility (Local Government Storage)*
- *110 Building – Critical Facility (Home of Local Government)*

- *126 Building-Critical Facility (Home of Local Government)*
- Office of *Homeland Security and Emergency Management (formerly known as: Office of* Emergency Services) – Critical Facility (Emergency Services)
- Senior Center –Vulnerable Population (Senior Center)
- County Maintenance Facility/*Old CVS Building* – Economic Asset (County Operation)
- Central Dispatch – Critical Facility (Emergency Communications Center)
- Health Department – Critical Facility (Health Department)
- Transmitter – Critical Facility (Component of Communications Network)
- Poor House Farm – Economic Asset (Industrial or Commercial)
- Animal Control Center – Special Consideration (Provide animal control for the county)
- Morgan Cabin Museum – Special Consideration (Museum)
- Hedgesville Park – Economic Asset (Recreational Facility)
- South Berkeley Park – Economic Asset (Recreational Facility)
- Water Street Facilities – Historical Consideration (Listed on National Register of Historic Places)
- Historic Marker (Bender Property) – Historical Consideration (Listed on National Register of Historic Places)
- Historic Marker (Providence Quaker Cemetery) – Historical Consideration (Listed on National Register of Historic Places)
- Runnymede Road – Critical Facility (Water Storage/Essential Component of Transportation System)
- Kelly Island – Critical Facility (Water Storage/Essential Component of Transportation System)
- Old Quarry Road – Critical Facility (Water Storage/Essential Component of Transportation System)
- Route 51 West – Critical Facility (Water Storage/Essential Component of Transportation System)
- N/E Side Rt. 9 – Critical Facility (Water Storage/Essential Component of Transportation System)
- Glenwood Forest Subdivision – Critical Facility (Water Storage/Essential Component of Transportation System)

- Specks Run Road – Critical Facility (Water Storage/Essential Component of Transportation System)
- Liberty Business Park – Critical Facility (Water Storage/Essential Component of Transportation System, Industrial or Commercial)
- Rt. 11 Near Pikeside – Critical Facility (Water Storage/Essential Component of Transportation System)
- Rockefeller Science Center – Critical Facility (Water Storage/Scientific Research Facility)
- 768 Williamsport Pike – Critical Facility (Water Storage/Essential Component of Transportation System)
- General Motors – Critical Facility (Water Storage/Industrial or Commercial)
- Duke Road – Critical Facility (Water Storage/Essential Component of Transportation System)
- 268 Treat Water Road – Critical Facility (Water Storage/Essential Component of Transportation System, Right of Way to Water Treatment Facility)
- 207 Mary Street – Critical Facility (Water Storage/Essential Component of Transportation System)
- Ben Speck Road – Critical Facility (Water Storage/Essential Component of Transportation System)
- Church Street – Critical Facility (Water Storage/Essential Component of Transportation System)
- E/S Ridge Road – Critical Facility (Water Storage/Essential Component of Transportation System)
- Route 901 – Critical Facility (Water Storage/Essential Component of Transportation System)
- Rt. 9 East of Texaco – Critical Facility (Water Storage/Essential Component of Transportation System)
- Rt. 9 Near James Rumsey – Critical Facility (Water Storage/Essential Component of Transportation System)
- Rt. 9 Near Fort Hill Subdivision – Critical Facility (Water Storage/Essential Component of Transportation System)
- 71 and 83 Monroe Street – Critical Facility (Water Storage/Essential Component of Transportation System)

- *Morning Dove Treatment – Critical Facility (Water Storage/Essential Component of Transportation System)*
- *Springdale Farm Treatment – Critical Facility (Water Storage/Essential Component of Transportation System)*
- *Potomac River Treatment– Critical Facility (Water Storage/Essential Component of Transportation System)*
- Roads – Critical Facility (Essential Component of Transportation System)
- Railroads – Critical Facility (Essential Component of Transportation System)
- Bridges – Critical Facility (Essential Component of Transportation System)
- Airport Facilities – Critical Facility (Essential Component of Transportation System)
- Airport Runway – Critical Facility (Essential Component of Transportation System)
- West Virginia State Police – Critical Facility (Provide Emergency Services)
- Berkeley County Sheriff’s Department – Critical Facility (Provide Emergency Services)
- Martinsburg Police Department – Critical Facility (Provide Emergency Services)
- Back Creek Valley Fire Department – Critical Facility (Emergency Services)
- Baker Heights Volunteer Fire Department – Critical Facility (Emergency Services)
- Bedington Volunteer Fire Department – Critical Facility (Emergency Services)
- Hedgesville Volunteer Fire Department – Critical Facility (Emergency Services)
- Martinsburg Fire Department – Critical Facility (Emergency Services)
- South Berkeley Volunteer Fire Department – Critical Facility (Emergency Services)
- *Veterans Affairs Medical Center Fire Department– Critical Facility (Emergency Services)*
- *WV Air National Guard Fire Department-Critical Facility (Emergency Services)*
- Veterans Affairs Medical Center – Critical Facility (Health Care Provider)
- Shenandoah Health Services – Critical Facility (Health Care Provider)
- Martinsburg City Hospital – Critical Facility (County Hospital)
- Naylor Memorial Library – Special Consideration (Contains Historical Documents and Other Rare Materials)
- Martinsburg-Berkeley County Public Library – Special Consideration (Contains Historical Documents and Other Rare Materials)

## Berkeley County Assets

Name or Description of Asset	Drought	Earthquake	Epidemic	Flooding	Hailstorms	Infestation	Landslides	Severe Thunderstorms	Severe Wind - Tornadoes	Severe Winter Storms	Temp. Extreme - Heat Wave	Wildfire	HAZMAT Incident	Terrorism
Back Creek Elem	L	L	M	L	H	L	H	L	M	M	L	L	L	L
Bedington Elem	L	L	M	L	H	L	H	L	M	M	L	L	L	H
Berkeley Heights Elem	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Bunker Hill Elem	L	L	M	L	H	L	L	L	M	M	L	L	L	L
Burke Street Elem	L	L	M	L	H	L	L	L	M	M	L	L	L	L
Gerrardstown Elem	L	L	M	L	H	L	L	L	M	M	L	L	L	L
Hedgesville Elem	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Inwood Primary School	L	L	M	L	H	L	H	L	M	M	L	L	L	H
Marlowe Elem	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Opequon Elem	L	L	M	L	H	L	H	L	M	M	L	L	L	H
Rosemont Elem	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Tomahawk Elem	L	L	M	L	H	L	L	L	M	M	L	L	L	L
Tuscarora Elem	L	L	M	L	H	L	L	L	M	M	L	L	L	L
Valley View Elem	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Winchester Ave. Elem	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Hedgesville MS	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Martinsburg North MS	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Martinsburg South MS	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Musselman MS	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Spring Mills MS	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Mill Creek IS	L	L	M	L	H	L	L	L	M	M	L	L	L	L
Potomac IS	L	L	M	L	H	L	L	L	M	M	L	L	L	L
Eagle School IS	L	L	M	L	H	L	L	L	M	M	L	L	L	L
Mountain Ridge IS	L	L	M	L	H	L	L	L	M	M	L	L	L	L
Orchard View IS	L	L	M	L	H	L	L	L	M	M	L	L	L	L

Hedgesville HS	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Martinsburg HS	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Mussleman HS	L	L	M	L	H	L	L	L	M	M	L	L	L	H
James Rumsey Vo Tech Center	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Pikeside Pre-Vocational	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Ramer Center	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Administration Building	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Maintenance	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Transportation	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Mussleman Athletic Facilities	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Resa VIII Offices	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Martinsburg City Hall	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Martinsburg Central Fire Station	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Martinsburg Westphal Hose Co.	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Martinsburg Waterworks	L	L	L	H	H	L	L	L	M	M	L	L	L	H
Berkeley Co. Animal Control	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Martinsburg Sewer Plant	L	L	M	H	H	L	L	L	M	M	L	L	L	H
Capitol Cement	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Red Hill Storage Tank	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Capitol Heights Storage Tank	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Delmar Orchard Rd. Stg. Tank	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Western Ave. Storage Tank	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Old Market House	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Old Armory Building	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Old Sanitation Building	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Martinsburg City Garage	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Martinsburg Train Station	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Adam Stephen Complex	L	L	L	L	H	L	L	L	M	M	L	L	L	H
War Memorial Park	L	L	L	H	H	L	L	L	M	M	L	L	L	H
Lambert Park	L	L	L	L	H	L	L	L	M	M	L	L	L	H
P.O. Faulkner Park	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Oak Street Park	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Ambrose Park	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Parks and Recreation	L	L	L	L	H	L	L	L	M	M	L	L	L	H

Historic Co. Court House	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Dunn Building	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Crawford Building	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Berkeley Building	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Martin's Building	L	L	M	L	H	L	L	L	M	M	L	L	L	H
110 Building	L	L	M	L	H	L	L	L	M	M	L	L	L	H
126 Building	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Homeland Sec. & Emer. Mgt.	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Senior Center	L	L	L	L	H	L	L	L	M	M	L	L	L	H
County Maintenance Facility	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Central Dispatch	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Health Department	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Transmitter	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Poor House Farm	L	L	L	L	H	L	L	L	M	M	L	L	L	L
Animal Control Center	L	L	M	L	H	L	L	L	M	M	L	L	L	L
Morgan Cabin Museum	L	L	L	L	H	L	L	L	M	M	L	L	L	L
Hedgesville Park	L	L	L	L	H	L	L	L	M	M	L	L	L	H
South Berkeley Park	L	L	L	L	H	L	L	L	M	M	L	L	L	L
Water Street Facilities	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Historic Marker (Bender Property)	L	L	L	L	H	L	L	L	M	M	L	L	L	L
Historic Marker (Providence Quaker Cemetery)	L	L	L	L	H	L	L	L	M	M	L	L	L	L
Runnymede Road	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Kelly Island	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Old Quarry Road	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Route 51 West	L	L	L	L	H	L	L	L	M	M	L	L	H	H
N/E Side Rt. 9 Near Co. Line	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Glenwood Forest Subdivision	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Specks Run Road	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Liberty Buisness Park	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Rt. 11 Near Pikeside	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Rockefeller Science Center	L	L	L	L	H	L	L	L	M	M	L	L	H	H
768 Williamsport Pike	L	L	L	L	H	L	L	L	M	M	L	L	H	H
General Motors	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Duke Road	L	L	L	L	H	L	L	L	M	M	L	L	H	H
268 Treat Water Road	L	L	L	L	H	L	L	L	M	M	L	L	H	H



207 Mary Street	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Ben Speck Road	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Church Street	L	L	L	L	H	L	L	L	M	M	L	L	H	H
E/S Ridge Road	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Route 901, East of HMS	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Rt. 9, 1/2 Mile East of Texaco	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Rt.9, Near James Rumsey	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Rt. 9, Near Fort Hill Subdivision	L	L	L	L	H	L	L	L	M	M	L	L	H	H
71 and 83 Monroe Street	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Multiple Locations	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Roads	L	L	L	H	H	L	L	L	M	M	L	L	H	H
Railroads	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Bridges	L	L	L	H	H	L	L	L	M	M	L	L	H	H
Airport Facilities	L	L	L	L	H	L	L	L	M	M	L	L	H	H
Airport Runways	L	L	L	L	H	L	L	L	M	M	L	L	H	H
WV State Police	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Berkeley Sheriffs Dept.	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Martinsburg Police Dept.	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Back Creek Valley Fire Dept.	L	L	L	L	H	L	H	L	M	M	L	L	L	H
Baker Heights VFD	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Bedington VFD	L	L	L	L	H	L	H	L	M	M	L	L	L	H
Hedgesville VFD	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Martinsburg Fire Dept.	L	L	L	L	H	L	L	L	M	M	L	L	L	H
South Berkeley VFD	L	L	L	L	H	L	L	L	M	M	L	L	L	H
VA MC F.D.	L	L	L	L	H	L	L	L	M	M	L	L	L	H
WV Air Natl Guard F.D.	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Veterans Affairs Medical Center	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Shenandoah Health Services	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Martinsburg City Hospital	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Naylor Memorial Library	L	L	L	L	H	L	L	L	M	M	L	L	L	L
Martinsburg - Berkeley County Public Library	L	L	L	L	H	L	L	L	M	M	L	L	L	H

## ASSET INVENTORY – CITY OF MARTINSBURG

*As per requirement 44 CFR Part 201.6 (c)(2)(ii)(A): [The risk assessment shall include a] description of the jurisdiction’s vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community. The plan should describe vulnerability in terms of: the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas.*

### METHODOLOGY

The methodology for the asset inventory of the City of Martinsburg is exactly the same as for Berkeley County. In fact, the assets that are located within the corporate limits are listed on the composite asset lists and hazard lists that encompass the county assets. For the purpose of clarity, the following assets are located within the corporate limits of the City of Martinsburg.

### ASSETS

Berkeley County’s Hazard Mitigation Plan identifies specific assets located throughout the City of Martinsburg and the hazards to which these facilities are susceptible. An asset is defined as a facility, which is either in the public or private sector that provides essential products and services to the general public, is otherwise necessary to preserve the welfare and quality of life in the City of Martinsburg, or fulfills important public safety, emergency response, and/or disaster recovery functions. Assets can be a critical facility, vulnerable population, economic asset, special consideration, or historic/other consideration.

The following are assets within the City of Martinsburg.

- *Berkeley Heights Elementary-Critical Facility (Elementary School)*
- *Burke Street Elementary-Critical Facility (Elementary School)*
- *Rosemont Elementary-Critical Facility (Elementary School)*
- *Tuscarora Elementary-Critical Facility (Elementary School)*
- *Winchester Avenue-Critical Facility (Elementary School)*
- *Orchard View Intermediate-Critical Facility (Intermediate School)*
- Martinsburg North Middle – Critical Facility (Middle School)
- Martinsburg South Middle – Critical Facility (Middle School)
- Martinsburg High – Critical Facility (High School)
- *Berkeley County Animal Control Building-Critical Facility*
- Martinsburg City Hall – Critical Facility (Local Government)
- Martinsburg Central Fire Station – Critical Facility (Emergency Services)

- Martinsburg Westphal Hose Company – Critical Facility (Industrial or Commercial)
- *Martinsburg Waterworks-Critical Facility (Water Treatment Plant)*
- Martinsburg Sewer Plant – Critical Facility (Water Plant)
- Martinsburg City Garage – Critical Facility (City Garage)
- Martinsburg Train Station – Critical Facility (Train Station)
- Historical County Courthouse – Critical Facility (Home of Local Government)
- *Dunn Building-Critical Facility (Home of Local Government)*
- *Crawford Building-Critical Facility (Judicial Center)*
- *Berkeley Building-Critical Facility (Home of Local Government)*
- *Martin’s Building-Critical Facility (Warehousing for Local Government)*
- *110 Building-Critical Facility (Home of Local Government)*
- *126 Building-Critical Facility (Home of Local Government)*
- *Old CVS Building-Critical Facility (County Maintenance)*
- Berkeley County Office of *Homeland Security and Emergency Management* – Critical Facility (Emergency Services)
- Berkeley County Sheriff’s Department – Critical Facility (Emergency Services)
- Martinsburg Police Department – Critical Facility (Emergency Services)
- Martinsburg Fire Department – Critical Facility (Emergency Services)
- Martinsburg City Hospital – Critical Facility (Hospital)
- Martinsburg-Berkeley County Public Library – Special Consideration (Contains Historical Document and Other Rare Materials)
- Roads-Critical Facility (Essential Component of Transportation System)
- Railroads-Critical Facility (Essential Component of Transportation System)
- Bridges-Critical Facility (Essential Component of Transportation System)

### Martinsburg Assets

Name or Description of Asset	Drought	Earthquake	Epidemic	Flooding	Hailstorms	Infestation	Landslides	Severe Thunderstorms	Severe Wind - Tornadoes	Severe Winter Storms	Temp. Extreme - Heat Wave	Wildfire	HAZMAT Incident	Terrorism
<i>Berkeley Heights Ele.</i>	L	L	M	L	H	L	H	L	M	M	L	L	L	H
<i>Burke St. Ele.</i>	L	L	M	L	H	L	H	L	M	M	L	L	L	H
<i>Rosemont Ele.</i>	L	L	M	L	H	L	H	L	M	M	L	L	L	H
<i>Tuscarora Ele.</i>	L	L	M	L	H	L	H	L	M	M	L	L	L	H
<i>Winchester Ele.</i>	L	L	M	L	H	L	H	L	M	M	L	L	L	H
<i>Orchard View Interm.</i>	L	L	M	L	H	L	H	L	M	M	L	L	L	H
Martinsburg North MS	L	L	M	L	H	L	H	L	M	M	L	L	L	L
Martinsburg South MS	L	L	M	L	H	L	H	L	M	M	L	L	L	H
Martinsburg HS	L	L	M	L	H	L	L	L	M	M	L	L	L	H
<i>Berkeley Co. Animal Control</i>	L	L	M	L	H	L	H	L	M	M	L	L	L	H
Martinsburg City Hall	L	L	M	L	H	L	L	L	M	M	L	L	L	L
Martinsburg Central Fire Station	L	L	M	L	H	L	L	L	M	M	L	L	L	L
Martinsburg Westphal Hose Co.	L	L	M	L	H	L	L	L	M	M	L	L	L	L
Martinsburg Waterworks	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Martinsburg Sewer Plant	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Martinsburg City Garage	L	L	M	L	H	L	H	L	M	M	L	L	L	H
Martinsburg Train Station	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Historical Co. Court House	L	L	M	L	H	L	L	L	M	M	L	L	L	H
<i>Dunn Building</i>	L	L	M	L	H	L	L	L	M	M	L	L	L	H
<i>Crawford Building</i>	L	L	M	L	H	L	L	L	M	M	L	L	L	H
<i>Berkeley Building</i>	L	L	M	L	H	L	L	L	M	M	L	L	L	H
<i>Martin's Building</i>	L	L	M	L	H	L	L	L	M	M	L	L	L	H
<i>110 Building</i>	L	L	M	L	H	L	L	L	M	M	L	L	L	H

UPDATES NOTED IN BLUE ITALIC TEXT

<i>126 Building</i>	L	L	M	L	H	L	L	L	M	M	L	L	L	H
<i>Old CVS Building</i>	L	L	M	L	H	L	L	L	M	M	L	L	L	L
<i>Homeland Sec. &amp; Em. Mgt.</i>	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Berkeley Co. Sheriffs Dept.	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Martinsburg Police Dept.	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Martinsburg Fire Dept.	L	L	M	L	H	L	L	L	M	M	L	L	L	M
Martinsburg City Hospital	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Martinsburg - Berkeley County Public Library	L	L	M	L	H	L	L	L	M	M	L	L	L	L
Roads	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Railroads	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Bridges	L	L	M	L	H	L	L	L	M	M	L	L	L	H

## ASSET INVENTORY – TOWN OF HEDGESVILLE

*As per requirement 44 CFR Part 201.6 (c)(2)(ii)(A): [The risk assessment shall include a] description of the jurisdiction’s vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community. The plan should describe vulnerability in terms of: the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas.*

### METHODOLOGY

The methodology for the asset inventory of the Town of Hedgesville is exactly the same as for Berkeley County. In fact, the assets that are located within the corporate limits are listed on the composite asset lists and hazard lists that encompass the county assets. For the purpose of clarity, the following assets are located within the corporate limits of the Town of Hedgesville.

### ASSETS

Berkeley County’s Hazard Mitigation Plan identifies specific assets located throughout the Town of Hedgesville and the hazards to which these facilities are susceptible. An asset is defined as a facility, which is either in the public or private sector that provides essential products and services to the general public, is otherwise necessary to preserve the welfare and quality of life in the Town of Hedgesville, or fulfills important public safety, emergency response, and/or disaster recovery functions. Assets can be a critical facility, vulnerable population, economic asset, special consideration, or historic/other consideration.

The following are assets within the Town of Hedgesville.

- Hedgesville Park – Economic Asset (Recreational Facility)
- Hedgesville Volunteer Fire Department – Critical Facility (Emergency Services)
- Roads – Critical Facility (Essential Component of Transportation System)
- Railroads – Critical Facility (Essential Component of Transportation System)
- Bridges – Critical Facility (Essential Component of Transportation System)

*\*Update: Correction to the above asset listing. The removal of Hedgesville Middle and Hedgesville High Schools was done since they are not located within the corporate limits of the Town of Hedgesville.*

UPDATE: NO CHANGES TO THIS ASSET LIST

### Hedgesville Assets

Name or Description of Asset	Drought	Earthquake	Epidemic	Flooding	Hailstorms	Infestation	Landslides	Severe Thunderstorms	Severe Wind - Tornadoes	Severe Winter Storms	Temp. Extreme - Heat Wave	Wildfire	HAZMAT Incident	Terrorism
Hedgesville Park	L	L	M	L	H	L	L	L	M	M	L	L	L	H
Roads	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Railroads	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Bridges	L	L	L	L	H	L	L	L	M	M	L	L	L	H
Hedgesville VFD	L	L	M	L	H	L	L	L	M	M	L	L	L	H

## ESTIMATE LOSSES – BERKELEY COUNTY

*As per 44 CFR Part 201.6(c)(2)(ii)(B): [The plan should describe vulnerability in terms of an estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(ii)(A) of this section and a description of the methodology used to prepare the estimate.]*

Berkeley County used GIS-based mapping, HAZUS, and interviews with local representatives, as well as Worksheet #4 from the Federal Emergency Management Agency's *State and Local Mitigation Planning How-to Guide: Understanding Your Risks* to estimate the potential dollar losses if the county was to experience the hazard events that are profiled above.

The information that was gathered in the asset inventory stage of the risk assessment was used to determine the estimated losses. For example, Worksheet #4 makes use of the replacement value, contents value, functional use or value, displacement cost, and occupancy or capacity information from Worksheet #3b. Displacement time was estimated based on historical data of past hazard events. For example, historical data was reviewed to determine how long the average flooding event closes county schools.

Following, each hazard event is listed along with the estimated losses if the hazard event were to occur. Please note that these are *estimates for potential* hazard events. The percentage of damage was determined on a “per hazard” basis depending also on the physical location of the asset. For example, assets in high-hazard areas for winter storms received a higher damage percentage than assets in low hazard areas. The justification for such a determination is because winter storms are predicted to not only strike high hazard areas more frequently, but also be more severe (based on historical data). These dollar values do not represent actual losses from past hazard events.

*(Update: All changes noted in red italic text in this section.)*



## NATURAL HAZARDS

### Drought

It is very unlikely that drought would cause any damage to the county's structural assets. Drought would affect agricultural assets and the local water supply. Effects on the water supply can potentially disrupt service, especially in many residential areas that rely on private wells. However, there are no anticipated potential losses to structural assets due to drought conditions.

*Update: There are no changes to report at this time in relation to this issue.*

### Earthquake

Berkeley County is listed as an MMI IV area with respect to earthquakes. According to FEMA's *State and Local Mitigation Planning How-to Guide: Understanding Your Risks*, MMI IV areas will experience no damage as a result of earthquakes. As such, no damage from earthquakes is anticipated in Berkeley County.

*Update: There are no changes to report at this time in relation to this issue.*

### Epidemic

Losses to structural assets are relatively low, to non-existing when considering epidemic. This hazard primarily affects the human population. However, a large-scale epidemic could affect enough of the population to close an asset. Therefore no structural damage is expected in regards to an epidemic.

*Update: There are no changes to report at this time in relation to this issue.*

### Flooding

Flooding is perhaps the most prominent hazard in Berkeley County. Flood damage is reported often throughout the county, as a result of both flash flooding and riverine flooding. Further, floods affect both structures and the contents in those structures as water often enters them. Consequently, loss estimates for flooding events are high.

Potential structural losses due to flooding are estimated to be \$121,885,700; potential contents losses total \$3,900; and structure use and function loss estimates total \$0.00. The total potential loss due to a flooding event in Berkeley County is \$121,889,600.

*Update: Attached to this section is a listing of 67 repetitive loss properties. These properties are located within the floodplain map listed in the Flood section of the plan. Otherwise, there are no changes to this issue at this date.*

### Hailstorm

Hailstorms are a significant hazard throughout all of Berkeley County. However, these events cause little to no structural damage to the county's assets, except for a possible broken window or damaged heating/cooling equipment. As such, the potential losses per structure are anticipated to be low. As with many of these identified hazards, it is perhaps more pertinent to review the accompanying charts for an asset-by-asset listing of potential loss.

Total, countywide structural losses are estimated to be *\$260,400*. This damage would be broken windows, damaged HVAC equipment, etc. Contents losses due to hail would also be relatively low. Potential contents losses total *\$800*. Total potential losses in this category are estimated at \$0.00. Total potential losses due to a hailstorm are *\$261,200*.

### Infestation

Losses to structural assets are relatively low when considering infestation. This hazard primarily affects agricultural or forested assets. Therefore, there are no anticipated potential losses to structural assets due to an infestation.

*Update: There are no changes to report at this time in relation to this issue.*

### Landslide and Sink Holes

Landslides are natural hazards that have the potential to cause significant structural damage. As such, potential loss figures are extremely high, both countywide and structural asset-by-structural asset. However, while the severity of the potential hazard event is high, the actual probability of that event occurring is low. Consequently, it is especially stressed in this section that these figures are *estimates* of losses during *potential* hazard events. Further, please refer to the accompanying charts for a more detailed, asset-by-asset breakdown of potential losses due to landslides.

Potential structural losses due to landslides total *\$52,480,500*. Potential contents losses total *\$263,900*. Potential structure use and function loss estimates total \$16,650. The total potential losses for Berkeley County due to landslides are estimated at *\$52,761,050*.

### Severe Thunderstorm

Many of the structural damages associated with severe thunderstorms include downed power lines, fallen trees and other debris that causes structural damage, etc. Further, damage to contents is also potentially high, as in power surges due to lightning, etc.

Potential structural losses in Berkeley County total *\$66,997,100*; content losses total *\$248,200*; and structure use and function loss estimates total \$16,650. The total potential loss in Berkeley County due to a severe thunderstorm is *\$67,261,950*.

#### Severe Wind and Tornado

Strong windstorms, especially tornadoes, can cause significant damage to structural assets. The following estimates were developed based on historic hazard events as well as statewide wind zone designations. Again, these figures are representative of the potential losses of a hazard event if it were to occur. These figures in no way insinuate that the particular hazard event will occur.

Potential structural losses total *\$104,293,100*; potential contents losses total *\$494,500*; and structure use or function loss totals \$16,650. Total potential losses in Berkeley County due to severe wind and a possible tornado total *\$104,804,250*.

#### Severe Winter Storm and Sleet

Damage as a result of winter storms often is associated with snow weight, hazardous driving conditions, etc. Loss estimates from winter storms were calculated both by the probability and severity of a potential hazard event. For instance, damage to assets in a “Low Hazard Risk” areas are estimated lower than damage in “High Hazard Risk” areas, in part because not only are winter storm events more common in high hazard areas, but they are also more severe (because of the higher elevations associated with the “High Hazard Risk” areas).

Potential structural losses due to winter storms are estimated to be *\$104,293,100*; potential contents losses total *\$494,500*; and structure use and function loss estimates total \$16,650. The total potential loss due to a winter storm event in Berkeley County is *\$104,804,250*.

#### Temperature Extreme – Heat Wave

It is anticipated that extreme heat will not cause any damage to structural assets in Berkeley County. A heat wave can affect employees at the county’s assets. However the possibility of enough people getting sick as a result of heat wave to close the asset is relatively low.

*Update: There are no changes to report at this time in relation to this issue.*

### Wildfire

A large portion of Berkeley County is covered with vast wooded areas. Many of the structural assets in the county are within close proximity of those wooded areas. If a wildfire were to occur a large portion of structural assets could possibly be destroyed.

Potential structural losses due to wildfires total **\$52,147,100**. Potential contents losses total **\$248,200**. Potential structure use and function loss estimates total \$16,650. The total potential losses for Berkeley County due to wildfires are estimated at **\$52,411,950**.

## **ADDITIONAL HAZARDS**

### HAZMAT Incident

Berkeley County is susceptible to HAZMAT incidents because of the arterial routes and numerous railways in the county, as well as the number of hazardous materials shipments on Interstate 81.

Total loss to structures as a result of a HAZMAT incident is estimated to be \$142,499,000; total contents loss is estimated at \$240,800; total loss to structure use and function is anticipated to be as much as \$16,650. The total estimated losses as a result of a HAZMAT incident are \$142,756,450.

### Terrorist Event

Terrorist events, while extremely low in probability, would cause a significant amount of damage if an event did occur. Weapons of mass destruction will cause significant damage to structures, while chemical and biological events can have significant effects on the general population.

Total loss to structures as a result of terrorist events is estimated to be \$150,090,900; total contents loss is estimated at \$647,400; total loss to structure use and function is anticipated to be as much as \$49,950. The total estimated a loss as a result of terrorist events is \$150,788,250.

County Name	City	Mitigated?	Insured?	Occupancy	Zone	Firm
BERKELEY COUNTY	FALLING WATERS	NO	SDF	SINGLE FMLY		N
BERKELEY COUNTY	HEDGESVILLE W	NO	NO	SINGLE FMLY	AE	N
BERKELEY COUNTY	BEDDINGTON	NO	NO	SINGLE FMLY	AE	N
BERKELEY COUNTY	BEDDINGTON	NO	SDF	ASSMD CONDO	A	N
BERKELEY COUNTY	BEDINGTON	NO	SDF	SINGLE FMLY	AE	N
BERKELEY COUNTY	BEDINGTON	NO	NO	SINGLE FMLY	X	N
BERKELEY COUNTY	BEDINGTON	NO	NO	ASSMD CONDO	AE	N
BERKELEY COUNTY	BERKELEY	NO	NO	SINGLE FMLY	AE	N
BERKELEY COUNTY	BERKELEY	NO	YES	SINGLE FMLY	AE	N
BERKELEY COUNTY	BERKELEY CO WV	NO	NO	SINGLE FMLY	A	N
BERKELEY COUNTY	BERKELEY CO	NO	NO	SINGLE FMLY	EMG	N
BERKELEY COUNTY	BERKELY	NO	SDF	SINGLE FMLY	AE	N
BERKELEY COUNTY	EDGEWATER	NO	NO	SINGLE FMLY	EMG	N
BERKELEY COUNTY	FALL WATER	NO	NO	SINGLE FMLY	X	N
BERKELEY COUNTY	FALLING WATERS	NO	NO	SINGLE FMLY		N
BERKELEY COUNTY	FALLING WATERS	NO	NO	SINGLE FMLY	AE	N
BERKELEY COUNTY	FALLING WATERS	NO	NO	SINGLE FMLY	AE	N
BERKELEY COUNTY	FALLING WATERS	NO	YES	SINGLE FMLY	AE	N
BERKELEY COUNTY	FALLING WATERS	NO	NO	SINGLE FMLY	EMG	N
BERKELEY COUNTY	FALLING WATERS	NO	SDF	SINGLE FMLY	AE	N
BERKELEY COUNTY	FALLING WATERS	NO	NO	SINGLE FMLY	EMG	N
BERKELEY COUNTY	FALLING WATERS	NO	NO	SINGLE FMLY	AE	N
BERKELEY COUNTY	FALLING WATERS	NO	NO	SINGLE FMLY	AE	N
BERKELEY COUNTY	FALLING WATERS	NO	YES	SINGLE FMLY	AE	N
BERKELEY COUNTY	FALLING WATERS	NO	NO	SINGLE FMLY	A	N
BERKELEY COUNTY	FALLING WATERS	NO	SDF	SINGLE FMLY	AE	N
BERKELEY COUNTY	FALLING WATERS	NO	NO	SINGLE FMLY	A	N
BERKELEY COUNTY	FALLING WATERS	NO	NO	SINGLE FMLY	A	N
BERKELEY COUNTY	FALLING WATERS	NO	NO	SINGLE FMLY	X	N
BERKELEY COUNTY	FALLING WATERS	NO	SDF	SINGLE FMLY	A	N
BERKELEY COUNTY	FALLING WATERS	NO	NO	SINGLE FMLY	AE	N
BERKELEY COUNTY	FALLING WATERS	NO	NO	SINGLE FMLY	A	N
BERKELEY COUNTY	FALLING WATERS	NO	SDF	SINGLE FMLY	AE	N
BERKELEY COUNTY	FALLING WATERS	NO	NO	SINGLE FMLY	A	N
BERKELEY COUNTY	FALLING WATERS	NO	NO	SINGLE FMLY	AE	N
BERKELEY COUNTY	HEDGESVILLE	NO	SDF	SINGLE FMLY	AE	N
BERKELEY COUNTY	HEDGESVILLE	NO	YES	SINGLE FMLY	A	N
BERKELEY COUNTY	HEDGESVILLE	NO	NO	SINGLE FMLY	A	N
BERKELEY COUNTY	HEDGESVILLE	NO	YES	SINGLE FMLY	AE	N
BERKELEY COUNTY	HEDGESVILLE	NO	NO	SINGLE FMLY	X	N
BERKELEY COUNTY	HEDGESVILLE	NO	NO	SINGLE FMLY	X	N
BERKELEY COUNTY	HEDGESVILLE WV	NO	NO	SINGLE FMLY	AE	N
BERKELEY COUNTY	HEDGESVILLE WV	NO	NO	SINGLE FMLY	EMG	N
BERKELEY COUNTY	INWOOD	NO	NO	NON RESIDNT	X	N
BERKELEY COUNTY	MARTINSBURG	NO	NO	OTHER RESID	AE	N

County Name	City	Mitigated?	Insured?	Occupancy	Zone	Firm
BERKELEY COUNTY	MARTINSBURG	NO	NO	SINGLE FMLY	EMG	N
BERKELEY COUNTY	MARTINSBURG	NO	NO	SINGLE FMLY	EMG	N
BERKELEY COUNTY	MARTINSBURG	NO	NO	SINGLE FMLY	EMG	N
BERKELEY COUNTY	MARTINSBURG	NO	SDF	SINGLE FMLY	A02	N
BERKELEY COUNTY	MARTINSBURG	NO	YES	SINGLE FMLY	AE	N
BERKELEY COUNTY	MARTINSBURG	NO	YES	SINGLE FMLY	A	N
BERKELEY COUNTY	MARTINSBURG	NO	NO	OTHER RESID	AE	N
BERKELEY COUNTY	MARTINSBURG	NO	NO	OTHER RESID	AE	N
BERKELEY COUNTY	MARTINSBURG	NO	NO	SINGLE FMLY	X	N
BERKELEY COUNTY	MARTINSBURG	NO	SDF	SINGLE FMLY	A	N
BERKELEY COUNTY	MARTINSBURG	NO	NO	SINGLE FMLY	B	N
BERKELEY COUNTY	MARTINSBURG	NO	SDF	SINGLE FMLY	AE	N
BERKELEY COUNTY	MARTINSBURG	NO	NO	SINGLE FMLY	AE	N
BERKELEY COUNTY	MARTINSBURG	NO	SDF	SINGLE FMLY	A	N
BERKELEY COUNTY	MARTINSBURG WV	NO	NO	2-4 FAMILY	AE	N
BERKELEY COUNTY	NE OF HEDGESVIL	NO	NO	SINGLE FMLY	A	N
BERKELEY COUNTY	T 12/5	NO	NO	SINGLE FMLY	AE	N
BERKELEY COUNTY	TREES FARM	NO	NO	SINGLE FMLY	EMG	N
BERKELEY COUNTY	WATERS WV	NO	NO	SINGLE FMLY	EMG	N
BERKELEY COUNTY	WILLIAMSPORT	NO	NO	SINGLE FMLY	EMG	N
BERKELEY COUNTY	WINCHESTER	NO	NO	SINGLE FMLY	EMG	N

## **ANALYZING DEVELOPMENT TRENDS – BERKELEY COUNTY**

### ***Including the Town of Hedgesville, and the City of Martinsburg***

***As per 44 CFR Part 201.6(c)(2)(ii)(C): [The plan should describe vulnerability in terms of] providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.***

Berkeley County is situated in the eastern panhandle of the State of West Virginia. The county is bordered on the north by the Potomac River and Washington County, Maryland; on the south by Frederick County, Virginia; on the west by Morgan County, West Virginia; and on the east by Jefferson County, West Virginia. The county contains two (2) municipalities including the Town of Hedgesville, and the City of Martinsburg, which is positioned at the geographic center of the county approximately 70 miles from Washington, D.C. and 85 miles from Baltimore, Maryland. Martinsburg continues to be the focus of the business area of Berkeley County. The county is geographically conducive for residential, light industrial, and service economy sector developments primarily related to the influences of the Washington-Baltimore Metropolitan Area to the east. Berkeley County is a formal member-county in the Washington-Baltimore metropolitan Area and has maintained a relatively high rate of population growth over the past 30 years.

In the past, Berkeley County has been the home of several small industries. During the recent history of the county; however, these industries have changed. For instance, companies are bought and sold and old companies close, leaving facilities to be filled by new companies.

Other land uses in the county consist of the following:

- Industrial and commercial areas – The majority of the commercial and industrial areas in the county are located along the principle roadways, near the City of Martinsburg.
- Residential areas – Located in the municipalities and throughout the county, primarily along major roadways, approximately 96% (32,913) of the structures in the county are residential housing.
- Farmland – Agricultural land covers several acres throughout the county.
- Specialized land uses designations – (Harpers Ferry National Historical Park, three Golf Courses, Cumberland Tail, B&O Railroad).

The residential areas in the county have experienced a population increase as indicated by Census 2000 data. In Berkeley County, the old-fashioned American work ethic is alive and well.

The Eastern Panhandles economic growth over the last decade was not an accident. The Panhandle has taken a proactive stance to assure quality growth and development in the region.

*Below are economic changes within the County since 2003:*

***Berkeley County Economic Development Activity***

- *General Motors is moving approximately 300 jobs to Michigan.*
- *The Outlet Mall located in a renovated woolen mill in downtown Martinsburg closed as each tenant relocated to the new Prime Outlet Mall location in Hagerstown, Maryland.*
- *Royce Hosiery closed its contract socks manufacturing plant but its distribution operation will continue.*
- *Orgill, Inc. has an expansion underway.*
- *Associated Asphalt, Inc. is building a liquid asphalt distribution facility.*
- *The Berkeley County Development Authority has purchased 326 acres for the Tabler Station Business Park. A&S Warehouse has bought 2 plus acres in the park to add to its existing project with Schneider National.*
- *Federal Express has purchased Quad Graphics Parcel Direct distribution facility.*
- *The Shockey Company has purchased the former World Kitchen plant and is making portions of it available for lease to other companies.*
- *World Kitchen has ceased operations and now Norm Thompson Outfitters has taken 53,000 sq. ft. in the former World Kitchen building for warehousing.*
- *The 167<sup>th</sup> airlift Wing of the West Virginia Air National Guard has let large contracts for their construction related to the changeover from the C-130 aircraft to the C-5 planes.*
- *Berkeley County completed a major sewer expansion in South Berkeley County.*
- *The B & O Roundhouse Authority closed out 2 US Dept. of Commerce EDI grants for rehabilitation work that was completed.*
- *Completed a TCSP grant which produced a market study for the B & O Roundhouse complex and purchased a trolley bus.*
- *The Berkeley County Commission purchased the former outlet mall and initiated a major renovation to reuse the facility as a new judicial center and Berkeley County office space.*

Major national corporations, including General Motors, Dupont, Quebecor Printing, Quad/Graphics, and Guardian Fiberglass have found Berkeley County workers are among the most productive anywhere.

General Motors has been located in Berkeley County for over forty years. As an indication of GM's satisfaction with the area, the local facility has just undergone some major changes, which will insure the community of the General Motors SPO presence here for years to come.

Berkeley County provides several advantages for industry: low taxes, a low crime rate, a relatively low cost of living, a good school system, ample work force, and competitive wage



rates. Also several efforts are underway to provide the rural areas with public water and sewer services. Such facts present Berkeley County as being prime for future development.

*Update: Currently, the sewer and water systems within the region are at, or nearing capacities. The current rate of residential growth throughout the region and the general deterioration of some of the system results in a constant demand upon the service providers to find financial resources for upgrades, extensions and additional capacity. Furthermore, the environmental issues regulating the Shenandoah watershed basin and discharge issues on the Potomac River will require improved water treatment throughout the region. (Per the 2004-2008 Comprehensive Economic Development Strategy provided by the Region 9 Planning and Development Council.)*

Considerably heavier traffic on Interstate 81, increased air traffic, and more people living in areas of the county located several miles from the nearest emergency services facility, can all be attributed to the rapid growth of population into the county. Where emergency services will operate from in 10 to 20 years from the present time is an issue that may need to be addressed in the near future. The heavier traffic on Interstate 81, may lead to more frequent traffic accidents, which would ultimately result in more traffic delays. Emergency evacuations may also become a problem depending on what portion of the county needs to be evacuated.

*Update: There are several transportation related projects and issues that are important to mention in the context of this report. Since the last CEDS report was submitted, significant work has begun on two of the region's main transportation corridors. First, the widening of Interstate 81 from the Virginia to Maryland state lines was initiated. Once completed, this project will result a six lane cross section of the I-81 corridor throughout the region. This will increase the interstates capacity in an attempt to address the current and future demand. Secondly, work has also begun on the widening and realignment of the West Virginia State Route 9 highway corridor from I-81 east to the Virginia state line. These two projects, once completed, will greatly improve the safety of the traveling public and will enhance the region's economic development potential. Finally, long term plans have been proposed to widen and realign the WV SR 9 highway corridor from I-81 west to U.S. Route 522 at Berkeley Springs and the U.S. Route 522 highway corridor between the state lines of Virginia and Maryland.*

*Also worth mentioning is the fact that the Eastern West Virginia Regional Airport has initiated a significant expansion which includes runway expansions and the construction of a new terminal building. These improvements along with other highway and economic development projects in the vicinity will greatly benefit economic development within Berkeley County and the entire region.*

*Finally, as a result of the continued population explosion in the panhandle, the Eastern Panhandle Transit Authority (PanTran) has been designated as an urbanized public transportation provide. As such, they have been designated as a direct recipient of Federal Transit Administration funding. This designation is an exciting opportunity for the region to address key public transportation issues that will improve the quality of life for residents within the region as well as enhance the regions ability to attract investments for economic development*

*ventures. (Per the 2004-2008 Comprehensive Economic Development Strategy provided by the Region 9 Planning and Development Council.)*

Because much of the county's development is occurring in the municipalities, land use decisions and building codes may have to be amended when considering the severity of flooding in some of these areas. Communities along the Potomac River and its tributaries, as well as those along the Opequon Creek, and Tuscarora Creek are particularly susceptible to flooding. In the past, subdivision developments have been constructed with little regard for floodplain hazards or the possible impacts the fully developed subdivision would have on the local environment. For example some subdivisions may affect storm water runoff patterns and can actually contribute to flash flooding. As a result, all of the county's municipalities (and possibly the county government) may have to consider revised ordinances prohibiting or strongly regulating development in the floodplain.

*\*Update: Building codes are being amended as well as the floodplain ordinance.*

## LOCAL HAZARD MITIGATION GOALS – BERKELEY COUNTY

*Including the Town of Hedgesville and the City of Martinsburg*

*As per requirement 44 CFR 201.6(c)(3)(i): [The hazard mitigation strategy shall include: a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.*

### STAKEHOLDERS

The Berkeley County Commission and the Berkeley County *Office of Homeland Security and Emergency Management (BCOHSEM)* compiled a representative group of stakeholders to be known as the Hazard Mitigation Committee (HMC) and oversee the development of the hazard mitigation plan. The stakeholders group is composed of representatives from the following agencies and organizations:

- Berkeley County Commission,
- Berkeley County Office of *Homeland Security and Emergency Management*,
- City of Martinsburg,
- Town of Hedgesville,
- Berkeley County Development Authority,
- Berkeley County Fire Board,
- Berkeley County Ambulance Authority,
- The Journal (Local Newspaper),
- Herald-Mail (Local Newspaper), and
- *Stantec, Inc.*

### METHODOLOGY

The Berkeley County Commission, *BCOHSEM*, and the HMC identified several goals, objectives, and strategies to mitigate against the hazard risks that were identified in the Berkeley County Hazard Mitigation Plan. This identification process was completed through a series of stakeholders meetings and general public forums.

*Stakeholders Meeting #1 (October 15, 2003)*

The mitigation planning phase of the county's Hazard Mitigation Plan project began with Stakeholders Meeting #1. The meeting, held on October 15, 2003, was attended by several representatives of the agencies listed above. Even though it was a stakeholders meeting, members of the general public also attended the meeting. Two (2) items were addressed at meeting #1. First, the stakeholders discussed the hazard risk assessment. The county commission's contractor, R.D. Zande & Associates, Inc., detailed the hazards that were included and addressed any questions.

Secondly, stakeholders brainstormed baseline mitigation goals, objectives, and strategies. These baselines were used during the general public forums as a means of generating ideas. They were also analyzed by the general public and revised as necessary. The stakeholders represent a broad range of county interests and used that range to generate mitigation strategies for many of the hazards identified in the risk assessment. Flooding, drought, and winter storms were particularly addressed as hazards that could effectively be mitigated.

*General Public Meeting #1 (October 16, 2003)*

General Public Meeting #1 was held on Thursday October 16, 2003 at the Berkeley County Courthouse, in Martinsburg, West Virginia. The meeting was scheduled at 11:00 a.m., in an attempt to provide members of the general public unable to attend the previous night's evening meeting an opportunity to attend.

The majority of those attending the stakeholders meeting also attended the second meeting. Several issues were discussed concerning mitigation activities, including a possible upgrade or extension to the public service district system, acquisition and relocation projects in areas of the county, developing a list of facilities that could be used as emergency shelters in the event of a major disaster, and traffic problems on Interstate 81.

The county commission also discussed additional means of public involvement. It was agreed to allow the public to make comments directly to the county's contractor through October 24, 2003. Further, the commission intends to act on the adoption of the plan on November 6, 2003. Members of the general public are also being invited to that meeting. Acquisition and relocation is another topic in addition to the mitigation plan that will be discussed at the November 6<sup>th</sup> meeting. Such a discussion is reasoned appropriate as acquisition and relocation projects are identified as mitigation strategies in the Hazard Mitigation Plan.

*Update: The updated plan is posted on the Berkeley County Commission website, at [www.berkeleycountycomm.org](http://www.berkeleycountycomm.org). This is for public viewing/input.*

## GOALS, OBJECTIVES, AND STRATEGIES

The Berkeley County Commission, OHSEM, and HMC determined several goals, objectives, and strategies to mitigate the hazard risks identified in the county’s hazard mitigation plan. These mitigation actions were developed based on projects thought to be most feasible and beneficial to hazard reduction. The mitigation actions were also developed in accordance with the types of mitigation strategies identified at Hazard Mitigation Planning Workshop 2, which was sponsored by the West Virginia *Division of Homeland Security and Emergency Management (WVDHSEM)*.

*In addition, BCOHSEM plans on the development of a strategy for obtaining updated (current) data and information for use during the development of future updates during the next revision of the plan (due in 2014).*

The types of mitigation strategies are:

1. Prevention,
2. Property protection,
3. Natural resource protection,
4. Structural projects,
5. Emergency services, and
6. Public education and awareness.

Berkeley County’s goals, objectives, and strategies are as follows:

## NATURAL HAZARDS

### Goal 1: Reduce the negative effects of drought in Berkeley County.

**Objective 1.1:** Increase public awareness as to the agricultural effects of drought, as well as the ramifications of drought to the public water supply.

**Strategy 1.1.1:** Develop an informational brochure to distribute to local farmers and residents.

**Timeframe:** 6 months

**Funding:** USDA (if necessary)

**Coordinating Agency:** Farm Bureau, West Virginia University,  
Natural Resource Conservation Service

**Mitigation Type:** Public Education and Awareness

*Update: The West Virginia Department of Agriculture is the lead agency in relation to drought and agriculture. Through their efforts, a media campaign has been ongoing addressing water needs for livestock and crops.*

**Strategy 1.1.2:** Educate local residents on the benefits of conserving water at all times, not just during a drought.

**Timeframe:** 1 year

**Funding:** Local funding, PDM

**Coordinating Agency:** Local Public Service District, Health  
Department

**Mitigation Type:** Public Education and Awareness

*Update: Berkeley County (as well as the City of Martinsburg and Town of Hedgesville) undergoes media outreach during drought which emphasizes water conservation by all residents.*

**Objective 1.2:** Reduce or eliminate the affects of drought by undertaking public water infrastructure upgrades or extensions.

**Strategy 1.2.1:** Evaluate current system to identify the most feasible locations to construct upgrades.

**Timeframe:** 1 year

**Funding:** Local funding

**Coordinating Agency:** Local Public Service District

**Mitigation Type:** Prevention

*Update: The Berkeley County Public Service District and City of Martinsburg Water and Sewer Departments have and are currently upgrading their facilities for water management. The Town of Hedgesville utilizes the services of the Berkeley County PSD's.*

**Strategy 1.2.2:** Consider upgrades or extensions to the current public service district.

**Timeframe:** 5 years

**Funding:** CDBG, IJDC

**Coordinating Agency:** Local Public Service District, County  
Commission

**Mitigation Type:** Prevention, Structural Projects

*Update: The Berkeley County Public Service District and City of Martinsburg Water and Sewer Department have and are currently upgrading their facilities for water management. The above goals and strategies remain under consideration for future action as the need arises. Berkeley County joins efforts by the WV Department of Agriculture and the USDA in media awareness campaigns and the need for residents to conserve water appropriately.*

## Goal 2: Reduce the potential effects of earthquakes in Berkeley County.

**Objective 2.1:** Educate the public as to the potential for earthquakes in West Virginia, specifically Berkeley County.

**Strategy 2.1.1:** Develop an informational brochure explaining the potential for earthquakes, as well as the potential damages from those earthquakes. The brochure should include information on measures to take to safe-proof homes and other structures from the potential effects of earthquakes.

**Timeframe:** 6 months

**Funding:** PDM, Local funding

**Coordinating Agency:** Office of Homeland Security and  
Emergency Management

**Mitigation Type:** Public Education and Awareness

*Update: The Berkeley County Office of Homeland Security and Emergency Management provides literature about earthquakes and the need to safe-proofing homes and other structures to the public. The brochures are FEMA's "Are You Ready?" materials as well as referring residents to the FEMA website for any additional information. This includes the residents of the City of Martinsburg and the Town of Hedgesville.*

## Goal 3: Protect Berkeley County's populations from an epidemic.

**Objective 3.1:** Increase public awareness and knowledge after an epidemic has been declared.

**Strategy 3.1.1:** Produce public awareness campaigns on the local radio station and in newspapers.

**Timeframe:** 3 months

**Funding:** PDM, Local funding, Non-profit organizations

**Coordinating Agency:** OHSEM, Health Department

**Mitigation Type:** Public Education and Awareness

*Update: Berkeley County, as well as the City of Martinsburg and the Town of Hedgesville participated in several exercises conducted by State, regional and Berkeley County Health Departments, local hospitals and emergency responders in relation to a possible avian Influenza epidemic. Also, as part of the exercise, media contact and coverage of and during the event took place explaining the exercise and the potential which exists for epidemic outbreaks and preparedness plans for the public.*

**Strategy 3.1.2:** Coordinate with the local health department to warn the public of a declared epidemic and to identify and administer medicine(s) to reduce the spread of the epidemic.

**Timeframe:** 3 months

**Funding:** No additional funding necessary

**Coordinating Agency:** Local Health Department, OHSEM

**Mitigation Type:** Prevention, Public Education and Awareness

*Update: Exercises were conducted with the Health Department which included administering medicines (SNS) to the public, emergency responders, officials. Berkeley County, as well as the City of Martinsburg and the Town of Hedgesville participated.*

#### **Goal 4: Reduce the negative effects of flooding in Berkeley County.**

**Objective 4.1:** Minimize future flood damage in municipal areas through effective storm water management.



**Strategy 4.1.1:** Develop stringent storm water management codes for future development.

**Timeframe:** 3 months

**Funding:** No additional funding necessary; however, administrative costs may be associated with code enforcement

**Coordinating Agency:** County Commission

**Mitigation Type:** Prevention

*Update: The Berkeley County and the City of Martinsburg building codes have requirements for storm water management and the county and city's building inspection department (Engineering) oversees storm water management initiatives before construction.*

**Objective 4.2:** Minimize future flood damage throughout Berkeley County by increasing control over development in the floodplain.

**Strategy 4.2.1:** Instate or update a countywide permitting process, which will require residents and/or developers to file a permit with the county before beginning any new construction as a means of regulating floodplain development.

**Timeframe:** 1 year

**Funding:** No additional funding necessary; however, administrative costs may be associated with code enforcement

**Coordinating Agency:** County Commission

**Mitigation Type:** Prevention, Property Protection

*Update: Berkeley County and the City of Martinsburg now use digital flood insurance rating maps to prohibit building construction or requires elevation of structures within the floodplains.*

**Strategy 4.2.2:** Instate or update countywide building codes, which will regulate the number of buildings and the materials used in construction that occurs in a floodplain.

**Timeframe:** 1 year  
**Funding:** No additional funding necessary; however, administrative costs may be associated with code enforcement  
**Coordinating Agency:** County Commission  
**Mitigation Type:** Prevention, Property Protection

*Update: Berkeley County and the City of Martinsburg participate in the National Flood Insurance Program (NFIP). The original County Floodplain Ordinance was adopted in Aug. 4, 1988 and amended on Aug. 20, 1998. The Berkeley County Planning Commission is currently amending the plan with expected approval and adoption in July 2009. The Floodplain Ordinance can be viewed at the Berkeley County Commission website, at [www.berkeleycountycomm.org](http://www.berkeleycountycomm.org). Berkeley County also now uses digital flood insurance rating maps to prohibit building construction or requires elevation of structures within the flood plains.*

**Strategy 4.2.3:** Consider conducting acquisition and relocation projects (buyouts) in flood-prone areas.

**Timeframe:** 5 years  
**Funding:** HMGP  
**Coordinating Agency:** County Commission  
**Mitigation Type:** Prevention, Property Protection

*Update: Berkeley County has purchased 32 properties in the flood zone at Sportsman's Paradise through the FEMA mitigation strategies.*

**Objective 4.3:** Coordinate with other federal, state, and county agencies to facilitate flood mitigation activities.

**Strategy 4.3.1:** Work with the Natural Resource Conservation Service (NRCS) to facilitate studies in repeatedly flooded areas.

**Timeframe:** 2 years  
**Funding:** NRCS, PDM, Local funding  
**Coordinating Agency:** NRCS, OHSEM, County Commission  
**Mitigation Type:** Natural Resource Protection, Prevention

*Update: No action on this initiative has taken place to date. However, it is still under consideration.*

**Objective 4.4:** Participate in the Community Rating System (CRS) to help monitor hazard mitigation efforts and to improve the affordability of flood insurance for citizens.

**Strategy 4.4.1:** Coordinate county efforts to meet the requirements of becoming a participant in the CRS.

**Timeframe:** 6 months  
**Funding:** No additional funding necessary  
**Coordinating Agency:** County Commission  
**Mitigation Type:** Prevention, Property Protection, Public Education and Awareness

*Update: The Berkeley County Planning Department continues to strive for this effort. Therefore, at this time, it is ongoing.*

**Objective 4.5:** Minimize future flood damage in Berkeley County through structural projects.

**Strategy 4.5.1:** Assess the feasibility of erecting floodwalls in flood prone areas.

**Timeframe:** 2 years  
**Funding:** USACOE, WVDEP  
**Coordinating Agency:** USACOE, WVDEP  
**Mitigation Type:** Prevention, Structural Projects

*Update: Due to the unavailability of funds, this initiative is still ongoing.*

**Objective 4.6:** Reduce the potential for injury or loss of life due to severe flooding events.

**Strategy 4.6.1:** Develop a list of facilities that can be used as shelters during and following major flooding events.

**Timeframe:** 2 years  
**Funding:** No additional funding necessary

**Coordinating Agency:** Office of *Homeland Security and Emergency Management*, American Red Cross

**Mitigation Type:** Prevention

*Update: The American Red Cross has developed a list of facilities that can be used as shelters during major flooding events.*

### Goal 5: Lessen hail damage in Berkeley County.

**Objective 5.1:** Provide local residents with more advanced warning of impending hailstorms.

**Strategy 5.1.1:** Coordinate efforts with local media to post advance warnings of hailstorms.

**Timeframe:** 6 months

**Funding:** No additional funding necessary

**Coordinating Agency:** OHSEM, Local media outlets

**Mitigation Type:** Public Education and Awareness

*Update: The National Weather Service issues weather watches and warnings giving us advanced notice of the possibility of hailstorms. Media outlets use the information in issuing weather alerts for the general population.*

### Goal 6: Protect Berkeley County's populations and assets from an infestation.

**Objective 6.1:** Increase public awareness and knowledge after an infestation has been discovered.

**Strategy 6.1.1:** Develop an informational brochure to distribute to local farmers and residents concerning the potential effects of an infestation.

**Timeframe:** 6 months

**Funding:** USDA (if necessary), WVDNR

**Coordinating Agency:** Farm Bureau, Natural Resource Conservation Service, WVDNR

**Mitigation Type:** Public Education and Awareness

*Update: Gypsy Moth spraying is continuing through the 2009 (beginning late April through the end of May) season by the West Virginia Department of Agriculture. Also, Berkeley County continues to coordinate public awareness and inquiries with the West Virginia Department of Agriculture, Farm Bureau and National Resource Conservation Service.*

**Goal 7: Reduce the effects of landslides in Berkeley County.**

**Objective 7.1:** Minimize future damage from landslides throughout Berkeley County by increasing control over construction activities.

**Strategy 7.1.1:** Instate or update countywide building codes, which will regulate the number of buildings and the materials used in buildings that are constructed.

**Timeframe:** 1 year

**Funding:** No additional funding necessary; however, administrative costs may be associated with code enforcement

**Coordinating Agency:** County Commission

**Mitigation Type:** Prevention, Property Protection

*Update: Building codes are enacted to prohibit construction in the areas that are prone to landslides in Berkeley County.*

**Strategy 7.1.2:** Enforce existing building codes that are already in place.

**Timeframe:** 3 months

**Funding:** Local funding

**Coordinating Agency:** Municipal Building Departments

**Mitigation Type:** Prevention, Property Protection

*Update: The Berkeley County Planning Department has a building code in place and enforces the Berkeley County Engineering Department enforces the same.*

**Strategy 7.1.3:** Educate the public as to the benefits of building codes and advantages to mitigation planning.

**Timeframe:** 3 months  
**Funding:** Local funding  
**Coordinating Agency:** County Commission, Municipal Building Departments  
**Mitigation Type:** Public Education, Awareness

*Update: The Planning and Engineering departments use numerous codes in coordination of building construction and the exact codes used are listed on the County's Engineering website, [www.berkeleycountycomm.org](http://www.berkeleycountycomm.org).*

**Objective 7.2:** Reduce landslide occurrences through structural projects.

**Strategy 7.2.1:** Construct a stabilization wall or safety fence along roadways which pass through areas that are prone to landslides.

**Timeframe:** 3 years  
**Funding:** WVDOH  
**Coordinating Agency:** WVDOH  
**Mitigation Type:** Structural Projects

*Update: The WV Division of Highways maintains safe zones along areas that are prone to landslides.*

## Goal 8: Reduce damage from severe thunderstorms in Berkeley County.

**Objective 8.1:** Increase public awareness that a severe thunderstorm is imminent.

**Strategy 8.1.1:** Coordinate with the National Weather Service in Sterling, Virginia to warn residents of impending severe thunderstorm conditions.

**Timeframe:** 3 months  
**Funding:** No additional funding necessary  
**Coordinating Agency:** OHSEM, National Weather Service

**Mitigation Type:** Public Education and Awareness,  
Property Protection

*Update: The National Weather Service Office in Sterling, VA has an extensive website [www.erh.noaa.gov/lwx](http://www.erh.noaa.gov/lwx) for weather information for the public as well as emergency response and management organizations. In addition to the website, weather announcements are communicated to the media by means of the Emergency Alert System (EAS) and the National Warning System (NAWAS) is accessible to the E-911 Center. All types of severe weather watches and warnings are communicated to the local radio, television, and printed media outlets.*

### Goal 9: Reduce damage from severe wind and tornadoes in Berkeley County.

**Objective 9.1:** Increase public awareness that severe wind or a tornado is imminent.

**Strategy 9.1.1:** Coordinate with the National Weather Service in Sterling, Virginia to warn residents of impending severe wind or possible tornado conditions.

**Timeframe:** 3 months

**Funding:** No additional funding necessary

**Coordinating Agency:** OHSEM, National Weather Service

**Mitigation Type:** Public Education and Awareness,  
Property Protection

*Update: the National Weather Service issues weather watches and warnings giving us advanced notice of the possibility of severe winds and/or tornadoes. Media outlets use the information in issuing weather alerts for the general public.*

**Objective 9.2:** Minimize future damage from severe wind or tornadoes throughout Berkeley County by increasing control over construction activities.

**Strategy 9.2.1:** Instate or update countywide building codes, which will regulate the materials used in buildings that are constructed with respect to design wind speeds.

**Timeframe:** 1 year

**Funding:** No additional funding necessary; however, administrative costs may be associated with code enforcement

**Coordinating Agency:** County Commission

**Mitigation Type:** Property Protection

*Update: The Planning and Engineering departments use numerous codes in coordination of building construction and the exact codes used are listed on the County's Engineering website, [www.berkeleycountycomm.org](http://www.berkeleycountycomm.org).*

**Objective 9.3:** Increase public knowledge of what steps to take after a severe windstorm or tornado has occurred.

**Strategy 9.3.1:** Develop an informational brochure to distribute to local residents.

**Timeframe:** 6 months

**Funding:** Local funding, PDM

**Coordinating Agency:** OHSEM

**Mitigation Type:** Public Education and Awareness

*Update: Media outreach takes place when a severe storm or tornado has occurred. This outreach explains what steps the impacted population should take, as well as what the local officials are doing in response to the event. Each year, at the beginning of Hurricane and/or tornado season, media outreach is made. The Weather Service conducts awareness campaigns and the county joins the outreach.*

## Goal 10: Reduce the effects of severe winter storms in Berkeley County.

**Objective 10.1:** Minimize future damage from severe winter storms throughout Berkeley County by increasing control over construction activities.

**Strategy 10.1.1:** Instate or update countywide building codes, which will regulate the materials used in construction with respect to snow and ice weight.

**Timeframe:** 1 year



**Funding:** No additional funding necessary; however, administrative costs may be associated with code enforcement

**Coordinating Agency:** County Commission

**Mitigation Type:** Property Protection

*Update: The Planning and Engineering departments use numerous codes in coordination of building construction and the exact codes used are listed on the County's Engineering website, [www.berkeleycountycomm.org](http://www.berkeleycountycomm.org).*

**Strategy 10.1.2:** Enforce existing building codes that are already in place.

**Timeframe:** 3 months

**Funding:** Local funding

**Coordinating Agency:** County Commission, Municipal Building Departments

**Mitigation Type:** Property Protection

*Update: The Planning and Engineering departments use numerous codes in coordination of building construction and the exact codes used are listed on the County's Engineering website, [www.berkeleycountycomm.org](http://www.berkeleycountycomm.org).*

## Goal 11: Protect Berkeley County's populations from a heat wave.

**Objective 11.1:** Increase public knowledge of protective measures to take during a heat wave.

**Strategy 11.1.1:** Develop an informational brochure to distribute to local residents.

**Timeframe:** 6 months

**Funding:** Local funding, PDM

**Coordinating Agency:** Office of Homeland Security and Emergency Management

**Mitigation Type:** Public Education and Awareness

*Update: The National Weather Service will issue a severe weather warning for residents during heat waves. At the county level, we also do media outreach in terms of what residents can do and that resources are available, such as Red Cross shelters.*

**Strategy 11.1.2:** Educate local residents on the benefits of conserving water during a heat wave.

**Timeframe:** 1 year

**Funding:** Local funding, PDM

**Coordinating Agency:** Local Public Service District

**Mitigation Type:** Public Education and Awareness

*Update: When water conservation measures are needed, the county performs media outreach to let residents know of the status of the situation and what local officials are asking residents to do.*

**Goal 12: Protect Berkeley County populations and forests from wildfires.**

**Objective 12.1:** Educate the public on how to avoid starting wildfires.

**Strategy 12.1.1:** Distribute information concerning the leading causes of wildfires and steps the general public can take to avoid starting wildfires.

**Timeframe:** 1 year

**Funding:** WVDNR, State Parks Commission (if necessary)

**Coordinating Agency:** WVDNR, State Parks Commission

**Mitigation Type:** Public Education and Awareness

*Update: Each year at the beginning of fire season, the WV Division of Forestry begins a media campaign to remind residents of the dangers associated with forest fires. The County also conducts media outreach to reinforce the same. Part of the campaign includes a reminder to homeowners about living in rural areas and having trees and shrubs too close to structures and in keeping leaves raked and away from homes.*

**Goal 13: Identify the risk associated with additional hazards and ways in which to mitigate against those hazards.**

**Objective 13.1:** Reduce the potential for transportation accidents in Berkeley County.

**Strategy 13.1.1:** Monitor negotiations with the Maryland State Highway Administration and the Virginia Department of Transportation to resolve potential bottleneck problems surrounding the differing number of lanes along I-81 in the three (3) states.

**Timeframe:** 5 years  
**Funding:** WVDOT, MSHA, VDOT  
**Coordinating Agency:** WVDOT, MSHA, VDOT  
**Mitigation Type:** Prevention, Structural Project

*Update: Berkeley County now has three lanes of travel on north and south bound lanes of I-81 from Exit 12 to Exit 16. Barrier cables have also been installed along the same stretch of highway in the median.*

**Strategy 13.1.2:** Revise and publicize evacuation routes to points in the county and through the county, especially for traffic from points east (Washington D.C.).

**Timeframe:** 2 years  
**Funding:** Local funding  
**Coordinating Agency:** OHSEM, LEPC  
**Mitigation Type:** Prevention, Public Education and Awareness

*Update: The DOH has numerous mobile information (electronic) signage for posting at necessary points for emergencies. As well as the DOH also has trailers equipped with detour signage and safety equipment.*

**Strategy 13.1.3:** Work with airport safety officials to determine how best to respond to a crash involving larger planes.

**Timeframe:** 2 years  
**Funding:** Local funding  
**Coordinating Agency:** Office of *Homeland Security and Emergency Management*  
**Mitigation Type:** Prevention

*Update: Training and exercises (drills) with local emergency responders has and continues to take place. The WVU aircraft crash training unit has been procured at the WV ANG Base in Martinsburg for training of the local responders, as well. Plans for additional training activities are on-going.*

**Strategy 13.1.4:** Coordinate with railroad companies to provide more emergency access to railroad rights-of-way for emergency response activities in the event of a train wreck.

**Timeframe:** 3 years  
**Funding:** Local funding  
**Coordinating Agency:** County Commission, Railroad Companies  
**Mitigation Type:** Structural Project

*Update: Access to locations along rail right-of-ways are being studied by the Local Emergency Planning Committee and, as information is available; contact with the railroads will be made to request more access to the “inaccessible” areas.*

**Objective 13.2:** Reduce communication failures (dead spots) in Berkeley County

**Strategy 13.2.1:** Continue upgrades to existing radio systems and assess the feasibility of obtaining more capable cell towers.

**Timeframe:** 3 years  
**Funding:** County Commission  
**Coordinating Agency:** County Commission  
**Mitigation Type:** Prevention, Structural Projects

*Update: Berkeley County now operates solely on the West Virginia State Interoperable radio system. While the construction of the system has reduced many of the “dead spots” areas with coverage by portable radios, actions are on-going to reduce these areas.*

**Objective 13.3:** Identify and control hazardous materials within the county.

**Strategy 13.3.1:** Consider updating the existing Tier 2 report to include agricultural substances such as herbicides.

**Timeframe:** 2 years  
**Funding:** County Commission  
**Coordinating Agency:** OHSEM, LEPC  
**Mitigation Type:** Prevention

*Update: Current federal regulations prohibit the “mandatory” reporting of hazmat used for agricultural purposes, but the development of working agreements with the local agricultural industry is on-going to identify and promote the sharing of this information with the Local Emergency Planning Committee are gaining acceptance.*

**Strategy 13.3.2:** Assess the feasibility of constructing a protective barrier along Interstate 81 to reduce the effects of a chemical spill or release.

**Timeframe:** 3 years  
**Funding:** Local funding  
**Coordinating Agency:** WVDOT  
**Mitigation Type:** Prevention, Structural Projects

*Update: All of the above goals and strategies are still under consideration for future action.*

**IDENTIFICATION AND ANALYSIS OF MITIGATION *ACTIONS* – BERKELEY  
COUNTY**

*Including the Town of Hedgesville and the City of Martinsburg*

*As per requirement 44 CFR Part 201.6(c)(3)(ii): [The mitigation strategy shall include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.*

Berkeley County has identified several hazard mitigation projects that would benefit the county and are formalized in the county’s Hazard Mitigation Plan. These projects were identified in stakeholders meetings and general public forums, which included input from Office of *Homeland Security and Emergency Management* representatives, local governmental officials, first responders, the general public, and other interested parties.

Mitigation projects that have been identified for particularly hazard-prone areas are as follows.

- **Disabled Population** – There are approximately 15,000 people listed as disabled in Berkeley County, creating difficult evacuation operations. Recommend continued coordination with the National Guard to assist in evacuation procedures.
- **Horner Subdivision** – The majority of this subdivision is located in the floodplain. Recommend acquisition and relocation projects.
- **Little Georgetown Subdivision** – A large portion of this subdivision is located in the floodplain. Recommend acquisition and relocation projects.
- **Little Georgetown Subdivision** - A large portion of this subdivision is repeatedly flooded. Recommend assessing the feasibility of constructing a floodwall around the area.
- **Opequon** – The Opequon area is prone to sinkholes. Recommend performing studies to determine where soil conditions may lead to sinkhole.
- **Sportsman’s Paradise** – The Sportsman’s Paradise subdivision is located within the floodplain. Recommend acquisition and relocation projects in this area. *Update: Approximately 32 properties have been purchased through FEMA mitigation strategies.*

- **Trees Bottom Subdivision** – Portions of the Treesbottom Subdivision is located in the floodplain. Recommend conducting acquisition and relocation projects in this area.

Update:

*Other properties contained within the noted areas above, are still under consideration.*

**MITIGATION STRATEGIES (PROJECTS) PRIORITIZATION TABLE – BERKELEY COUNTY**

*Including the Town of Hedgesville and the City of Martinsburg*

<i>Hazard</i>	<i>Project</i>	<i>Funding</i>	<i>Responsible Agency</i>	<i>Priority</i>
Disabled Population	Coordinate with the National Guard to assist in evacuation procedures	N/A	<i>BCOHSEM</i> , National Guard	M
<i>Horners</i> Subdivision	Acquisition and relocation for portions of the subdivision	HMGP	County Commission	H
Little Georgetown Subdivision	Acquisition and relocation for portions of the subdivision	HMGP	County Commission	H
Little Georgetown Subdivision	Assess feasibility of constructing a floodwall.	ACOE	<i>BCOHSEM</i> , County Commission, ACOE	M
Opequon	Perform studies to determine where soil conditions may lead to sinkholes.	NRCS	NRCS	M
Sportsman Paradise Subdivision	Acquisition and relocation for portions of the subdivision.	HMGP	County Commission	H
Trees Bottom Subdivision	Acquisition and Relocation for portions of the subdivision.	HMGP	<i>County Commission</i>	H



## IMPLEMENTATION OF MITIGATION *ACTIONS* – BERKELEY COUNTY

*Including the Town of Hedgesville and the City of Martinsburg*

*As per requirement 44 CFR Part 201.6 (c)(3)(iii): [The mitigation strategy section shall include] an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs. As per Requirement 44CFR Part §201.6(c)(3)(iv): For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.*

### METHODOLOGY

Berkeley County identified several hazard mitigation projects to be included in the county's Hazard Mitigation Plan. These projects were developed through a series of stakeholders meetings and general public forums. Potential projects were analyzed by Office of *Homeland Security and Emergency Management* representatives and County Commissioners for technical and practical feasibility, financial feasibility, and overall benefit. When necessary, these representatives looked at historical hazard occurrences, coupled with the projects undertaken to mitigate against the hazard. For instance, projects that could be undertaken in areas that contain repetitive-loss structures (that have been repeatedly damaged in the past ten [10] years) received a higher priority than projects in areas that have not suffered repetitive damage. Further, areas in which the county has had past mitigation success assisted in prioritizing the projects that are listed below.

Berkeley County is a progressive county in terms of ordinances and development regulations. The county takes many steps to protect its residents. Consequently, those projects involving enforcement of codes received a high priority.

A final factor that was considered in the prioritization of projects was immediate positive impact. For example, although public education and awareness projects are of very little cost, they are projects that can be undertaken quickly and easily. These types of projects would have a broad benefit in a very short period of time. Consequently, public education and awareness projects received high priority.

Following is simply a list of Berkeley County's mitigation strategies in numerical order. Each strategy is assigned low, medium, or high priority. Specific mitigation projects appear elsewhere in the mitigation plan.

*Update: The attached chart outlining the Prioritization of Mitigation Strategies is still accurate and is still ongoing.*

## PRIORITIZATION OF MITIGATION STRATEGIES

The priority of each strategy is listed to its right.

<i>Hazard</i>	<i>Mitigation Strategy</i>	<i>Priority</i>
Drought	Strategy 1.1.1: Develop an informational brochure to distribute to local farmers and residents.	H
Drought	Strategy 1.1.2: Educate local residents on the benefits of conserving water at all times, not just during a drought.	H
Drought	Strategy 1.2.1: Evaluate current system to identify the most feasible locations to construct upgrades.	H
Drought	Strategy 1.2.2: Consider upgrades or extensions to the current public service district.	M
Earthquake	Strategy 2.1.1: Develop an informational brochure explaining the potential for earthquakes, as well as the potential damages from those earthquakes. The brochure should include information on measures to take to safe-proof homes and other structures from the potential effects of earthquakes.	M
Epidemic	Strategy 3.1.1: Produce public awareness campaigns on the local radio station and in newspapers.	M
Epidemic	Strategy 3.1.2: Coordinate with the local health department to warn the public of a declared epidemic and to identify and administer medicine(s) to reduce the spread of the epidemic.	H
Flooding	Strategy 4.1.1: Develop stringent storm water management codes for future development.	H
Flooding	Strategy 4.2.1: Instate or update a countywide permitting process, which will require residents and/or developers to file a permit with the county before beginning a new construction as a means of regulating floodplain development.	M
Flooding	Strategy 4.2.2: Instate or update countywide building codes, which will regulate the number of buildings and the materials used in construction that occurs in a floodplain.	M
Flooding	Strategy 4.2.3: Consider conducting acquisition and relocation projects (buyouts) in flood-prone areas.	H
Flooding	Strategy 4.3.1: Work with the Natural Resource Conservation Service (NRCS) to facilitate studies in repeatedly flooded areas.	M

Flooding	Strategy 4.4.1: Coordinate county efforts to meet the requirements of becoming a participant in the CRS.	<b>M</b>
Flooding	Strategy 4.5.1: Assess the feasibility of erecting floodwalls in flood prone areas.	<b>M</b>
Flooding	Strategy 4.6.1: Develop a list of facilities that can be used as shelters during and following a major flooding event.	<b>H</b>
Hail	Strategy 5.1.1: Coordinate efforts with local media to post advance warnings of hailstorms.	<b>H</b>
Infestation	Strategy 6.1.1: Develop an informational brochure to distribute to local farmers and residents concerning the potential effects of an infestation.	<b>M</b>
Landslide - Sink Hole Damage	Strategy 7.1.1: Instate or update countywide building codes, which will regulate the number of buildings and the materials used in buildings that are constructed.	<b>M</b>
Landslide - Sink Hole Damage	Strategy 7.1.2: Enforce existing building codes that are already in place.	<b>H</b>
Landslide - Sink Hole Damage	Strategy 7.1.3: Educate the public as to the benefits of building codes and advantages to mitigation planning.	<b>H</b>
Landslide - Sink Hole Damage	Strategy 7.2.1: Construct a stabilization wall or safety fence along roadways, which pass through areas that are prone to landslides.	<b>M</b>
Severe Thunderstorm	Strategy 8.1.1: Coordinate with the National Weather Service in Sterling, Virginia to warn residents of impending severe thunderstorm conditions.	<b>H</b>
Severe Wind and Tornado	Strategy 9.1.1: Coordinate with the National Weather Service in Sterling, Virginia to warn residents of impending severe wind or possible tornado conditions.	<b>H</b>
Severe Wind and Tornado	Strategy 9.2.1: Instate or update countywide building codes, which will regulate the materials used in buildings that are constructed with respect to design wind speeds.	<b>M</b>
Severe Wind and Tornado	Strategy 9.3.1: Develop an informational brochure to distribute to local residents.	<b>H</b>

Severe Winter Storm	Strategy 10.1.1: Instate or update countywide building codes, which will regulate the materials used in construction with respect to snow and ice weight.	<b>M</b>
Severe Winter Storm	Strategy 10.1.2: Enforce existing building codes that are already in place.	<b>H</b>
Temperature Extreme	Strategy 11.1.1: Develop an informational brochure to distribute to local residents.	<b>H</b>
Temperature Extreme	Strategy 11.1.2: Educate local residents on the benefits of conserving water during a heat wave.	<b>H</b>
Wildfire	Strategy 12.1.1: Distribute information concerning the leading causes of wildfires and steps the general public can take to avoid starting wildfires.	<b>H</b>
Other Hazards	Strategy 13.1.1: Monitor negotiations with the Maryland State Highway Administration and the Virginia Department of Transportation to resolve potential bottleneck problems surrounding the differing number of lanes along I-81 in the three (3) states.	<b>M</b>
Other Hazards	Strategy 13.1.2: Revise and publicize evacuation routes to points in the county and through the county, especially for traffic from points east (Washington D.C).	<b>H</b>
Other Hazards	Strategy 13.1.3: Work with airport safety officials to determine how best to respond to a crash involving larger planes.	<b>H</b>
Other Hazards	Strategy 13.1.4: Coordinate with railroad companies to provide more emergency access to railroad rights-of-way for emergency response activities in the event of a train wreck.	<b>H</b>
Other Hazards	Strategy 13.2.1: Continue upgrades to existing radio systems and assess the feasibility of obtaining more capable cell towers.	<b>H</b>
Other Hazards	Strategy 13.3.1: Consider updating the existing Tier 2 report to include agricultural substances such as herbicides.	<b>H</b>
Other Hazards	Strategy 13.3.2: Assess the feasibility of constructing a protective barrier along Interstate 81 to reduce the effects of a chemical spill or release.	<b>H</b>

## PLAN MAINTENANCE PROCEDURES - BERKELEY COUNTY

*Including the Town of Hedgesville and the City of Martinsburg*

*As per requirement 44 CFR Part 201.6(c)(4)(i): [The plan maintenance process shall include a section describing the] method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.*

*As per requirement 44 CFR Part 201.6(c)(4)(ii): [The plan shall include a] process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.*

*As per requirement 44 CFR Part 201.6(c)(4)(iii): [The plan maintenance process shall include a] discussion on how the community will continue public participation in the plan maintenance process.*

### MONITORING, EVALUATING, AND UPDATING THE PLAN

Berkeley County has developed a method to ensure that regular review and updating of the Berkeley County Multi-Jurisdictional Pre-Disaster Mitigation Plan occurs. The Berkeley County Commission, *Berkeley County Office of Homeland Security and Emergency Management (BCOHSEM)*, and Local Emergency Planning Committee will monitor the performance of the plan based on several criteria. For instance, these agencies will consider revising mitigation strategies if it appears that the plan is failing according to these criteria.

***Social:*** As mitigation strategies are implemented, are the procedures and outcomes well received by the general public?

***Technical:*** Are the mitigation strategies proving to be technically feasible?  
Are the mitigation strategies eliminating problems rather than creating, new different problems?

***Administrative/  
Legal:*** Do the mitigation strategies conform with local, state, and federal policies as they are implemented?

***Economic:*** Are implemented mitigation strategies stifling economic activity and growth?

***Environmental:*** Does implementing mitigation strategies create any adverse environmental conditions?  
Do mitigation strategies represent sound environmental practices?

Further, Berkeley County will need to evaluate potential mitigation strategies as chances to implement them arise. Documents such as Worksheet #4 from the *State and Local Mitigation Planning How-To Guide: Developing the Mitigation Plan* can be used to evaluate mitigation strategies on a case-by-case basis. A blank copy of Worksheet #4 accompanies this “Plan Maintenance Procedures” section.

The hazard mitigation committee has decided to hold an annual stakeholders and general public meeting to update the mitigation plan. The *BCOHSEM* will be responsible for contacting all project stakeholders prior to this annual meeting. Further, county representatives plan to meet more often throughout the year. Organizations such as the ambulance authority and LEPC have expressed interest in reviewing the plan more often.

At the annual stakeholders meeting, the HMC will review each goal and objective and determine its continued relevance to the county. The committee is aware that as the county develops and changes, some mitigation goals and objectives may no longer be relevant. Additionally, goals and objectives may need to be revised based on changing development trends in the county. For example, if an area of the county that was previously targeted for development is either fully developed or efforts in that area are abandoned, mitigation priorities may have to change. Also, Berkeley County is experiencing a development boon. Areas currently targeted for development may change and an effective hazard mitigation plan must address these changing areas. When reviewing the goals, the HMC will attempt to garner comment from the various coordinating agencies as to the status of projects identified in the mitigation plan. These efforts will assist the HMC in reassigning timeframes and funding considerations. Reassignments of coordinating agencies may also be necessary.

The HMC will also review the risk assessment portion of the plan. It is highly possible that development trends may impact an area greatly and actually change the hazards to which that area is susceptible. Identified hazards may have to be updated or modified. Also, the asset inventory may change, in that new facilities may be constructed, existing facilities torn down, new industry may move into the county, existing industry may leave the county, etc.

The HMC will also facilitate and conduct a public meeting in concert with the annual stakeholders meeting. The details of this meeting will be similar to those of the annual stakeholders meetings.

The county commission, or its contractor, will then make all revisions and updates internally. Documents within the plan that are changed will be redistributed to all pertinent agencies and/or organizations for replacement. The HMC understands that an updated plan will

need to be submitted to the West Virginia *Division of Homeland Security and Emergency Management* and the Federal Emergency Management Agency at a minimum of every five (5) years. The county commission, or its contractor, will submit the updated plan within one (1) month of the annual meeting of the appropriate year. The plan will be submitted as significant revisions are made.

## **IMPLEMENTATION THROUGH EXISTING PROGRAMS**

Several of the strategies identified in the Berkeley County Hazard Mitigation Plan address the need for enforcement of existing codes. At the encouragement of the county commission, current codes and enforcement policies that conform with the hazard mitigation plan should be strictly enforced. The Berkeley County Commission has been very proactive in passing development regulations. A storm water management and erosion control ordinance and comprehensive subdivision regulations are currently being developed and presented to the public. At the first annual HMC meeting, committee members will discuss steps taken by county and municipal jurisdictions to incorporate hazard mitigation strategies into other existing codes and regulations.

## **CONTINUED PUBLIC INVOLVEMENT**

As briefly mentioned above, the Hazard Mitigation Committee intends to hold, in addition to the annual stakeholders meeting, a yearly public meeting to review the comments of the stakeholders.

It is possible that both meetings will be held simultaneously, in an effort to include the public in the development of mitigation strategies. In either case, the public will be given the chance to review the county hazard mitigation plan on a yearly basis at this meeting.

The county commission, at a minimum, will maintain file copies of the hazard mitigation plan for perusal and review at any time. (It is also being considered to place copies at public libraries and municipal halls.) The county commission intends to log all comments received throughout the year for consideration at the annual HMC evaluation meeting.

### *Update:*

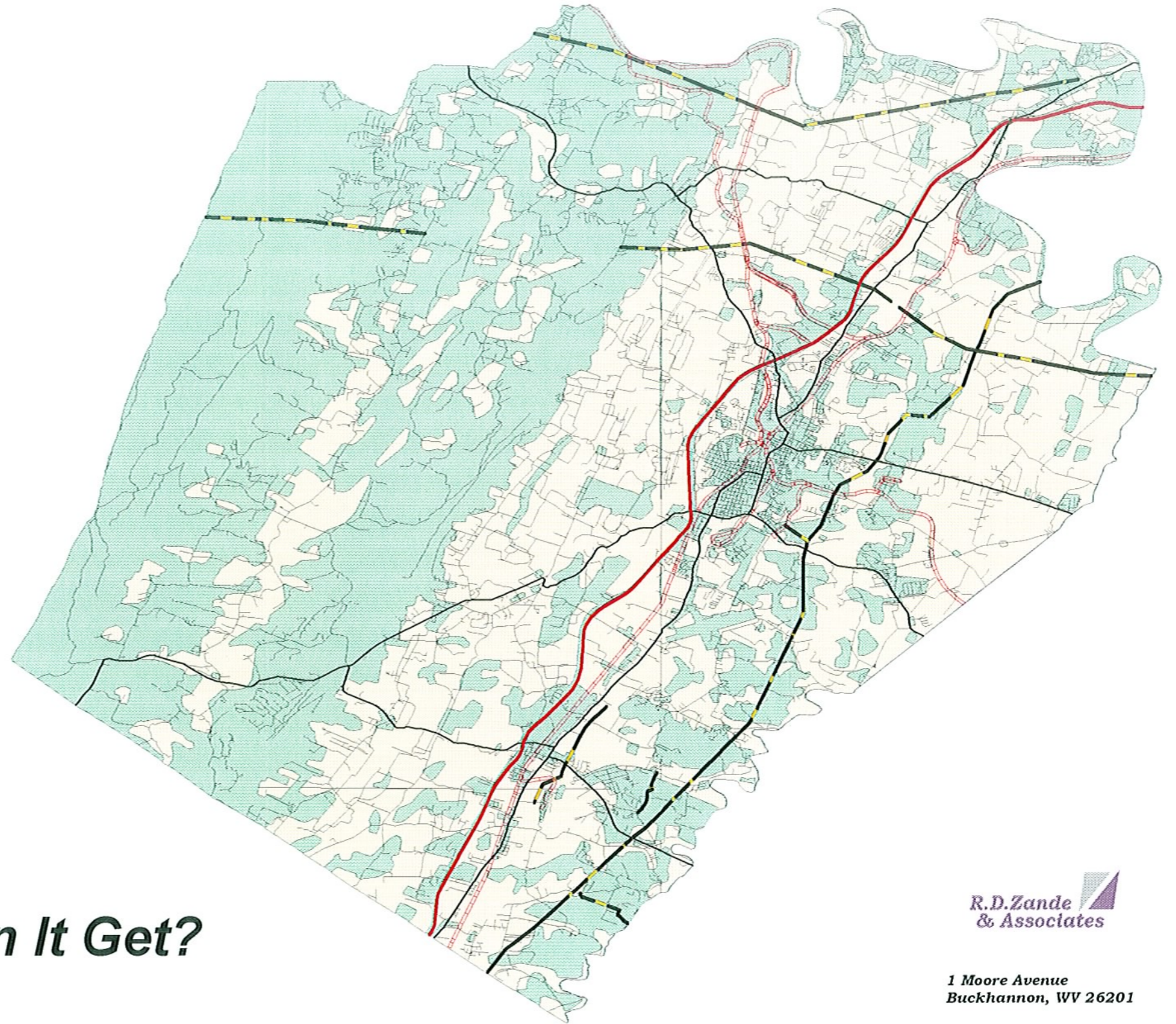
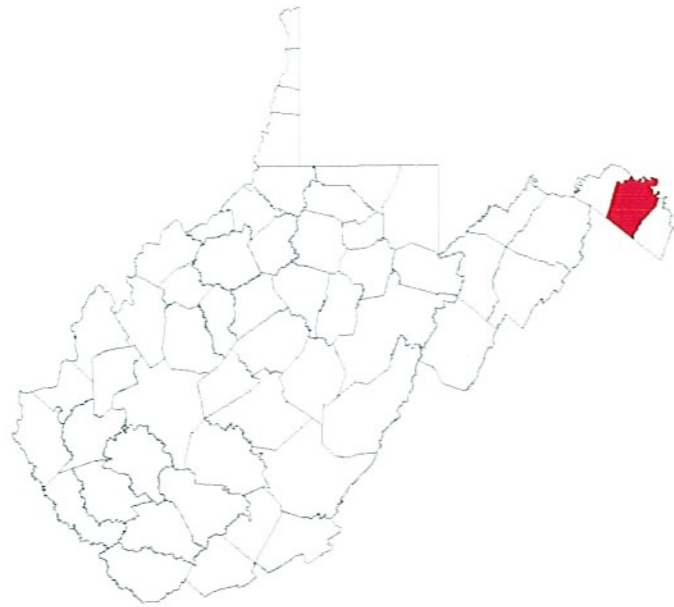
*A storm water management and erosion control ordinance and comprehensive subdivision regulations have been adopted by the county. Also, the County Commission will now have the hazard mitigation plan available for viewing on the county website which is [www.berkeleycountycomm.org](http://www.berkeleycountycomm.org). Having the plan on the County's website allows for the public to give input relating to the existing plan. Copies of the Hazard Mitigation Plan have been submitted to the Region 9 Planning and Development Council and will be utilized in future Regional Comprehensive Economic and Development Plans.*





Alternative Actions	Comments

# Drought



## MAP LEGEND

- Roads
- Highway
  - State Route
  - County Route
  - Railroad
  - Power Lines
- Moderate Hazard
- Low Hazard

*How Bad Can It Get?*

R.D.Zande  
& Associates

1 Moore Avenue  
Buckhannon, WV 26201



## NATURAL HAZARDS

### Drought

A drought is a period of abnormally dry weather, which persists long enough to produce a serious hydrologic imbalance.

Several methods of research identified drought as a hazard in Berkeley County, including a review of the Berkeley County Soil Survey, as well as various information provided by the Berkeley County Engineers Office. Also, drought information was obtained from the following Internet sites.

- United States Department of Agriculture  
<http://enso.unl.edu/monitor/monitor.html>
- United States Geological Survey  
<http://www.usgs.gov>
- West Virginia Division of Natural Resources  
<http://www.dnr.state.wv.us.html>
- National Oceanic Atmospheric Administration (NOAA)  
<http://www.noaa.gov>

Drought is a relative term and is used in relation to who or what is being affected by the lack of moisture. Droughts can be categorized into three (3) types – each one affecting the other.

***Agricultural Drought*** – Moisture deficiency seriously injurious to crops, livestock, or other agricultural commodities. Parched crops may wither and die. Pastures can become insufficient to support livestock. Effects of agricultural droughts are difficult to measure because there are many other variables that may impact production during the same growing season.

***Hydrological Drought*** – Reduction in stream flow, lake and reservoir levels, depletion of soil moisture and a lowering of the ground water table. Consequently, there is a decrease in ground-water discharge to streams and lakes. A prolonged hydrological drought will affect the water supply.

***Mathematical Drought*** – Computation in which rainfall deficiencies are expressed.

Extended, widespread droughts are fairly infrequent; however, brief local droughts are common and can be severe. When droughts occur, there is not enough water to supply all needs.

Berkeley County is susceptible to drought conditions during the summer and autumn months due to significant lack of rainfall and/or other precipitation. These drought conditions often affect local farmers (both commercial farmers and personal farmers) and the local water supply (wells often run dry, rivers run low forcing public water supplies to decrease).

Berkeley County’s agricultural sector is extremely susceptible to drought and could potentially suffer significant losses, as could the nature-based tourism businesses within the county. According to the Palmer Drought Severity Index for a period between 1985–1995, Berkeley County spent 5-10% of the summer and autumn months under drought conditions. According to figure 1.1 to the right, as of March 8, 2003, Berkeley County was four (4) inches above normal precipitation, which is considered to be extremely moist. Also, according to a

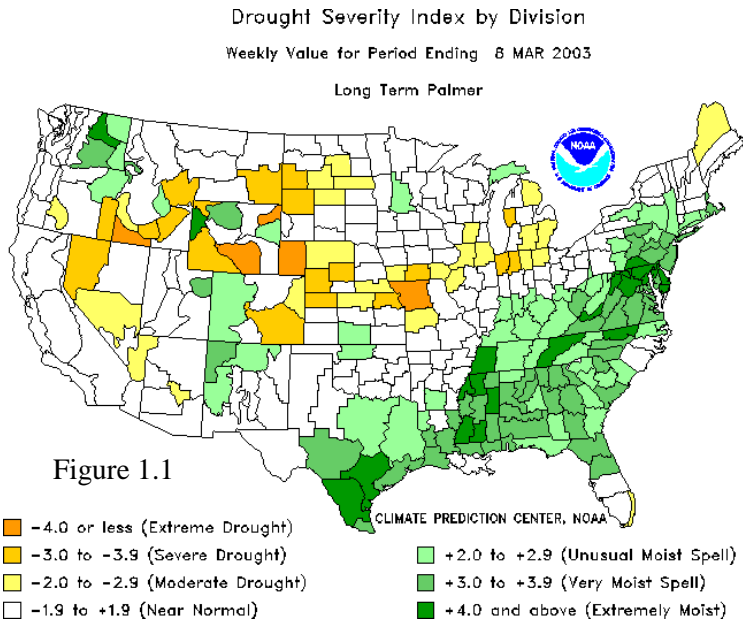


Figure 1.1

National Oceanic Atmospheric Administration (NOAA) Event Record, July 1997 was a very dry month containing one seven (7) day heat wave, exacerbating drought-like conditions across much of the fertile farmland of eastern West Virginia. The weather in July proved to be the death knell for much of the crop yields, including corn, hay, and pasture. The West Virginia Farm Service Agency reported the following damage statistics: corn, hay, and pasture yields were 40 to 50 percent of normal. Also on December 1, 1998, a NOAA event record stated that December was the sixth month in a row that drought conditions were seen across the eastern panhandle of West Virginia. A ban on open burning continued through mid December in Berkeley County.

## MAPPING

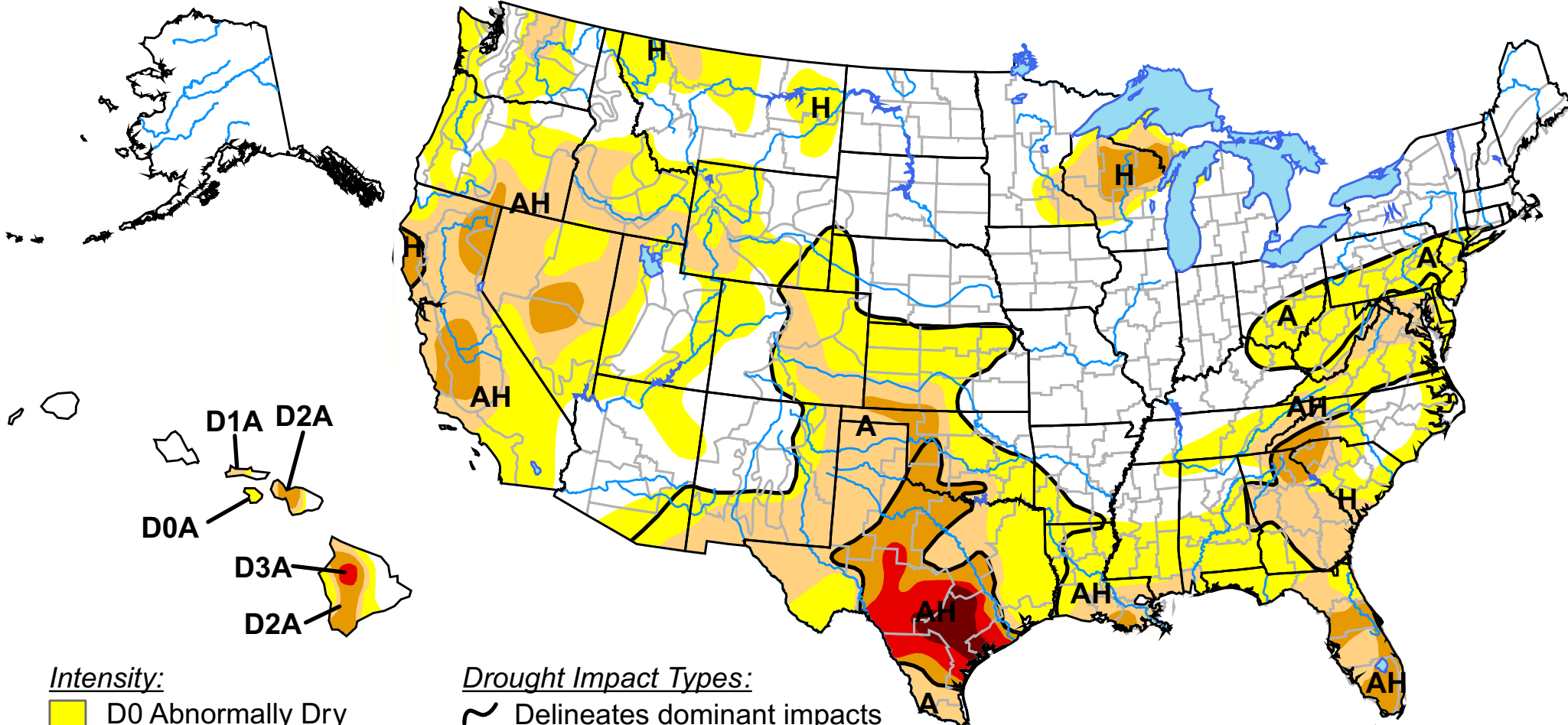
See the Berkeley County Drought Map for a graphical representation of the hazard areas with regard to drought conditions. The green areas represent “low hazard areas,” the yellow area represent “moderate hazard areas,” the orange areas represent “high hazard areas,” and the red areas represent “extreme high hazard areas.”

*Update: Updated map is on next page. All other information is still relevant and current.*






# U.S. Drought Monitor

March 24, 2009


Valid 8 a.m. EDT



## Intensity:

-  D0 Abnormally Dry
-  D1 Drought - Moderate
-  D2 Drought - Severe
-  D3 Drought - Extreme
-  D4 Drought - Exceptional

## Drought Impact Types:

-  Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



**Released Thursday, March 26, 2009**  
Author: Brad Rippey, U.S. Department of Agriculture

Data based on 2000 Census. Update not available until 2010 Census.

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

Hazard: Drought

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# In County	# In Hazard Area	% In Hazard Area	\$ In County	\$ In Hazard Area	% In Hazard Area	# In County	# In Hazard Area	% In Hazard Area
RESIDENTIAL	35,300	0	0	\$3,353,500,000.00	\$0.00	0	52,365	11,322	14
COMMERCIAL	1,380	0	0	\$158,700,000.00	\$0.00	0	17,648	3,816	5
INDUSTRIAL	57	0	0	\$28,500,000.00	\$0.00	0	4,281	926	1
AGRICULTURAL	39	0	0	\$7,193,600.00	\$0.00	0	366	79	0
RELIGIOUS	55	0	0	\$13,475,000.00	\$0.00	0	110	24	0
GOVERNMENT	76	0	0	\$11,400,000.00	\$0.00	0	6,262	1,354	2
EDUCATION	28	0	0	\$140,790,000.00	\$0.00	0	1,373	297	0
UTILITIES	6	0	0	\$7,500,000.00	\$0.00	0	95	21	0
<b>Total</b>	<b>36,941</b>	<b>0</b>	<b>0</b>	<b>\$3,721,058,600.0</b>	<b>\$0.00</b>	<b>0</b>	<b>82,500</b>	<b>17,838</b>	<b>22</b>

Task B. Determine whether (and where) you want to collect additional inventory data.

	YES	NO
1) Do you know where your greatest damages may occur in your hazard areas?	X	
2) Do you know whether your critical facilities will be operational after a hazard event?		X
3) Is there enough data to determine which assests are subject to the greatest potential damages?	X	
4) Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5) Is there enough data to determine whether certain areas are vulnerable to potential hazards?	X	
6) Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7) Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		

### ESTIMATE LOSSES

Hazard: Drought

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Back Creek Elem	\$1,599,000.00	X	0.00	=	\$0.00
Bedington Elem	\$1,685,000.00	X	0.00	=	\$0.00
Berkeley Heights Elem	\$3,637,000.00	X	0.00	=	\$0.00
Bunker Hill Elem	\$1,764,000.00	X	0.00	=	\$0.00
Burke Street Elem	\$1,425,000.00	X	0.00	=	\$0.00
Gerrardstown Elem	\$1,292,000.00	X	0.00	=	\$0.00
Hedgesville Elem	\$2,670,000.00	X	0.00	=	\$0.00
Inwood Primary School	\$1,525,000.00	X	0.00	=	\$0.00
Marlowe Elem	\$2,070,000.00	X	0.00	=	\$0.00
Opequon Elem	\$3,529,000.00	X	0.00	=	\$0.00
Rosemont Elem	\$3,138,000.00	X	0.00	=	\$0.00
Tomahawk Elem	\$4,295,000.00	X	0.00	=	\$0.00
Tuscarora Elem	\$3,459,000.00	X	0.00	=	\$0.00
Valley View Elem	\$3,475,000.00	X	0.00	=	\$0.00
Winchester Ave. Elem	\$2,140,000.00	X	0.00	=	\$0.00
Hedgesville MS	\$7,105,000.00	X	0.00	=	\$0.00
Martinsburg North MS	\$6,245,000.00	X	0.00	=	\$0.00
Martinsburg South MS	\$5,249,000.00	X	0.00	=	\$0.00
Mussleman MS	\$9,217,000.00	X	0.00	=	\$0.00
<b><i>Spring Mills MS</i></b>	<b><i>\$10,370,648.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Mill Creek IS	\$5,175,000.00	X	0.00	=	\$0.00
Potomac IS	\$4,295,000.00	X	0.00	=	\$0.00
Eagle School IS	\$5,100,000.00	X	0.00	=	\$0.00
<b><i>Mountain Ridge IS</i></b>	<b><i>\$7,500,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>#</i></b>	<b><i>\$0.00</i></b>
Orchard View IS	\$5,100,000.00	X	0.00	=	\$0.00
Hedgesville HS	\$13,049,000.00	X	0.00	=	\$0.00
Martinsburg HS	\$17,312,000.00	X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$144,000.00	X	0.00	=	\$0.00
\$152,000.00	X	0.00	=	\$0.00
\$356,000.00	X	0.00	=	\$0.00
\$158,000.00	X	0.00	=	\$0.00
\$129,000.00	X	0.00	=	\$0.00
\$117,000.00	X	0.00	=	\$0.00
\$241,000.00	X	0.00	=	\$0.00
\$129,000.00	X	0.00	=	\$0.00
\$186,000.00	X	0.00	=	\$0.00
\$355,000.00	X	0.00	=	\$0.00
\$297,000.00	X	0.00	=	\$0.00
\$388,000.00	X	0.00	=	\$0.00
\$322,000.00	X	0.00	=	\$0.00
\$314,000.00	X	0.00	=	\$0.00
\$139,000.00	X	0.00	=	\$0.00
\$626,000.00	X	0.00	=	\$0.00
\$550,000.00	X	0.00	=	\$0.00
\$467,000.00	X	0.00	=	\$0.00
\$507,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$419,000.00	X	0.00	=	\$0.00
\$452,000.00	X	0.00	=	\$0.00
\$500,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$500,000.00	X	0.00	=	\$0.00
\$1,167,800.00	X	0.00	=	\$0.00
\$1,538,000.00	X	0.00	=	\$0.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Mussleman HS	\$15,205,000.00	X	0.00	=	\$0.00
James Rumsey Vo Tech Center	\$8,270,000.00	X	0.00	=	\$0.00
Pikeside Pre-Vocational	\$1,765,000.00	X	0.00	=	\$0.00
Ramer Center	\$1,720,000.00	X	0.00	=	\$0.00
Administration Building	\$2,175,000.00	X	0.00	=	\$0.00
Maintenance	\$665,000.00	X	0.00	=	\$0.00
Transportation	\$1,975,000.00	X	0.00	=	\$0.00
Mussleman Athletic Facilities	\$1,300,000.00	X	0.00	=	\$0.00
Resa VIII Offices	\$770,000.00	X	0.00	=	\$0.00
Martinsburg City Hall	\$2,000,000.00	X	0.00	=	\$0.00
Martinsburg Central Fire Station	\$1,260,000.00	X	0.00	=	\$0.00
Martinsburg Westphal Hose Co.	\$350,000.00	X	0.00	=	\$0.00
Martinsburg Waterworks	\$5,103,000.00	X	0.00	=	\$0.00
Martinsburg Animal Shelter	\$54,000.00	X	0.00	=	\$0.00
Martinsburg Sewer Plant	\$6,508,000.00	X	0.00	=	\$0.00
Capitol Cement	\$5,149,000.00	X	0.00	=	\$0.00
Red Hill Storage Tank	\$1,030,000.00	X	0.00	=	\$0.00
Capitol Heights Storage Tank	\$464,000.00	X	0.00	=	\$0.00
Western Ave. Storage Tank	\$309,000.00	X	0.00	=	\$0.00
Old Market House	\$538,000.00	X	0.00	=	\$0.00
Old Armory Building	\$1,215,000.00	X	0.00	=	\$0.00
Olde Sanitation Building	\$279,000.00	X	0.00	=	\$0.00
Martinsburg City Garage	\$434,000.00	X	0.00	=	\$0.00
Martinsburg Train Station	\$1,082,000.00	X	0.00	=	\$0.00
Adam Stephen Complex	\$1,203,000.00	X	0.00	=	\$0.00
War Memorial Park	\$1,816,000.00	X	0.00	=	\$0.00
Lambert Park	\$1,644,000.00	X	0.00	=	\$0.00
P.O. Faulkner Park	\$59,000.00	X	0.00	=	\$0.00
Oak Street Park	\$25,000.00	X	0.00	=	\$0.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$1,341,000.00	X	0.00	=	\$0.00
\$3,430,000.00	X	0.00	=	\$0.00
\$156,000.00	X	0.00	=	\$0.00
\$177,000.00	X	0.00	=	\$0.00
\$210,000.00	X	0.00	=	\$0.00
\$140,000.00	X	0.00	=	\$0.00
\$450,000.00	X	0.00	=	\$0.00
\$20,000.00	X	0.00	=	\$0.00
\$1,931,000.00	X	0.00	=	\$0.00
\$250,000.00	X	0.00	=	\$0.00
\$200,000.00	X	0.00	=	\$0.00
\$5,000.00	X	0.00	=	\$0.00
\$79,000.00	X	0.00	=	\$0.00
\$1,000.00	X	0.00	=	\$0.00
\$5,000.00	X	0.00	=	\$0.00
\$24,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$30,000.00	X	0.00	=	\$0.00
\$10,000.00	X	0.00	=	\$0.00
\$25,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$43,000.00	X	0.00	=	\$0.00
\$100,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00



Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Ambrose Park	\$59,000.00	X	0.00	=	\$0.00
Parks and Recreation		X	0.00	=	\$0.00
Delmar Orchard Road	\$2,000,000.00	X	0.00	=	\$0.00
<b><i>Historic County Court House</i></b>	<b><i>\$4,175,400.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Dunn Building</i></b>	<b><i>\$13,949,800.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Homeland Sec. Emerg. Mngt.</i></b>	<b><i>\$1,714,200.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Crawford Building</i></b>	<b><i>\$5,517,100.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Senior Center</i></b>	<b><i>\$3,386,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>County Maintenance Facility</i></b>	<b><i>\$1,268,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Central Dispatch</i></b>	<b><i>\$37,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Health Department</i></b>	<b><i>\$573,800.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Transmitter</i></b>	<b><i>\$10,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Berkeley/Judicial Center</i></b>	<b><i>\$22,024,900.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Poor House Farm</i></b>	<b><i>\$1,784,600.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>110 Building</i></b>	<b><i>\$2,143,700.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>126 Building</i></b>	<b><i>\$1,518,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Animal Control Center</i></b>	<b><i>\$400,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Morgan Cabin Museum	\$50,000.00	X	0.00	=	\$0.00
<b><i>Hedgesville Park</i></b>	<b><i>\$45,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>South Berkeley Park</i></b>	<b><i>\$40,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Water Street Facilities	\$2,828,000.00	X	0.00	=	\$0.00
Historic Marker (Bender Property)	\$1,200.00	X	0.00	=	\$0.00
Historic Marker (Providence Quaker Cemetery)	\$1,200.00	X	0.00	=	\$0.00
Runnymede Road	\$2,045,300.00	X	0.00	=	\$0.00
Kelly Island	\$128,000.00	X	0.00	=	\$0.00
Old Quarry Road	\$53,000.00	X	0.00	=	\$0.00
Route 51 West	\$950,500.00	X	0.00	=	\$0.00
N/E Side Rt. 9 Near Co. Line	\$30,000.00	X	0.00	=	\$0.00
Glenwood Forest Subdivision	\$365,000.00	X	0.00	=	\$0.00
Specks Run Road	\$428,500.00	X	0.00	=	\$0.00
Liberty Buisness Park	\$582,500.00	X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.00	=	\$0.00
\$45,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
<b><i>\$255,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$366,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$431,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$105,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$25,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$90,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$10,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$1,265,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$23,595.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$75,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$75,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$34,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$6,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$56,500.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Rt. 11 Near Pikeside	\$52,500.00	X	0.00	=	\$0.00
Rockefeller Science Center	\$565,000.00	X	0.00	=	\$0.00
768 Williamsport Pike	\$1,000.00	X	0.00	=	\$0.00
General Motors	\$612,850.00	X	0.00	=	\$0.00
Duke Road	\$912,500.00	X	0.00	=	\$0.00
268 Treat Water Road	\$4,521,500.00	X	0.00	=	\$0.00
207 Mary Street	\$115,000.00	X	0.00	=	\$0.00
Ben Speck Road	\$170,250.00	X	0.00	=	\$0.00
Church Street	\$205,000.00	X	0.00	=	\$0.00
E/S Ridge Road	\$202,500.00	X	0.00	=	\$0.00
Route 901, East of HMS	\$12,800.00	X	0.00	=	\$0.00
Rt. 9, 1/2 Mile East of Texaco	\$12,800.00	X	0.00	=	\$0.00
Rt.9, Near James Rumsey	\$80,000.00	X	0.00	=	\$0.00
Rt. 9, Near Fort Hill Subdivision	\$14,000.00	X	0.00	=	\$0.00
71 and 83 Monroe Street	\$0.00	X	0.00	=	\$0.00
<i>Morning Dove Treatment</i>	<i>\$111,000.00</i>	X	<i>0.00</i>	=	<i>\$0.00</i>
<i>Springdale Farm Treatment</i>	<i>\$203,000.00</i>	X	<i>0.00</i>	=	<i>\$0.00</i>
<i>Potomac River Treatment</i>	<i>\$16,794,000.00</i>	X	<i>0.00</i>	=	<i>\$0.00</i>
Multiple Locations	\$125,000.00	X	0.00	=	\$0.00
Roads	\$1,715,000,000.00	X	0.00	=	\$0.00
Railroads	\$170,000,000.00	X	0.00	=	\$0.00
Bridges	\$303,000,000.00	X	0.00	=	\$0.00
Airport Facilities	\$18,000,000.00	X	0.00	=	\$0.00
Airport Runways	\$84,000,000.00	X	0.00	=	\$0.00
WV State Police	\$200,000.00	X	0.00	=	\$0.00
Berkeley Sheriffs Dept.	\$1,134,000.00	X	0.00	=	\$0.00
Martinsburg Police Dept.		X	0.00	=	\$0.00
Back Creek Valley Fire Dept.		X	0.00	=	\$0.00
Baker Heights VFD		X	0.00	=	\$0.00
Bedington VFD		X	0.00	=	\$0.00
Hedgesville VFD		X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$20,000.00	X	0.00	=	\$0.00
\$75,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$10,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$62,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$400,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Martinsburg Fire Dept.	\$1,600,000.00	X	0.00	=	\$0.00
South Berkeley VFD		X	0.00	=	\$0.00
<b><i>VA Med Ctr FD</i></b>		<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>WV ANG FD</i></b>		<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Veterans Affairs Medical Center		X	0.00	=	\$0.00
Shenandoah Health Services		X	0.00	=	\$0.00
Martinsburg City Hospital	\$2,361,000.00	X	0.00	=	\$0.00
Naylor Memorial Library	\$279,000.00	X	0.00	=	\$0.00
Martinsburg - Berkeley County Public Library	\$37,000.00	X	0.00	=	\$0.00
<b>Total Loss to Structure</b>					<b><i>\$0.00</i></b>

<b>Contents of Loss (Task A.2.)</b>					
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)	
\$1,500,000.00	X	0.00	=	\$0.00	
	X	0.00	=	\$0.00	
	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
	X	0.00	=	\$0.00	
	X	0.00	=	\$0.00	
\$965,640.00	X	0.00	=	\$0.00	
\$16,000.00	X	0.00	=	\$0.00	
\$43,000.00	X	0.00	=	\$0.00	
<b>Total Loss to Contents</b>					<b><i>\$0.00</i></b>

Structure Use and Function Loss (Task A.3.) Drought								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Elem		X	0	+		X	0	=	\$0.00	\$0.00
Bedington Elem		X	0	+		X	0	=	\$0.00	\$0.00
Berkeley Heights Elem		X	0	+		X	0	=	\$0.00	\$0.00
Bunker Hill Elem		X	0	+		X	0	=	\$0.00	\$0.00
Burke Street Elem		X	0	+		X	0	=	\$0.00	\$0.00
Gerrardstown Elem		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville Elem		X	0	+		X	0	=	\$0.00	\$0.00
Inwood Primary School		X	0	+		X	0	=	\$0.00	\$0.00
Marlowe Elem		X	0	+		X	0	=	\$0.00	\$0.00
Opequon Elem		X	0	+		X	0	=	\$0.00	\$0.00
Rosemont Elem		X	0	+		X	0	=	\$0.00	\$0.00
Tomahawk Elem		X	0	+		X	0	=	\$0.00	\$0.00
Tuscarora Elem		X	0	+		X	0	=	\$0.00	\$0.00
Valley View Elem		X	0	+		X	0	=	\$0.00	\$0.00
Winchester Ave. Elem		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville MS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg North MS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg South MS		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman MS		X	0	+		X	0	=	\$0.00	\$0.00
<b>Spring Mills MS</b>		X	0	+		X	0	=	\$0.00	\$0.00
Mill Creek IS		X	0	+		X	0	=	\$0.00	\$0.00
Potomac IS		X	0	+		X	0	=	\$0.00	\$0.00
Eagle School IS		X	0	+		X	0	=	\$0.00	\$0.00
<b>Mountain Ridge IS</b>		X	0	+		X	0	=	\$0.00	\$0.00
Orchard View IS		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville HS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg HS		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman HS		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Drought								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
James Rumsey Vo Tech Center		X	0	+		X	0	=	\$0.00	\$0.00
Pikeside Pre-Vocational		X	0	+		X	0	=	\$0.00	\$0.00
Ramer Center		X	0	+		X	0	=	\$0.00	\$0.00
Administration Building		X	0	+		X	0	=	\$0.00	\$0.00
Maintenance		X	0	+		X	0	=	\$0.00	\$0.00
Transportation		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman Athletic Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Resa VIII Offices		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hall		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Central Fire Station		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Westphal Hose Co.		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Waterworks		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Animal Shelter		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Sewer Plant		X	0	+		X	0	=	\$0.00	\$0.00
Capitol Cement		X	0	+		X	0	=	\$0.00	\$0.00
Red Hill Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Capitol Heights Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Western Ave. Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Old Market House		X	0	+		X	0	=	\$0.00	\$0.00
Old Armory Building		X	0	+		X	0	=	\$0.00	\$0.00
Olde Sanitation Building		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Garage		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Train Station		X	0	+		X	0	=	\$0.00	\$0.00
Adam Stephen Complex		X	0	+		X	0	=	\$0.00	\$0.00
War Memorial Park		X	0	+		X	0	=	\$0.00	\$0.00
Lambert Park		X	0	+		X	0	=	\$0.00	\$0.00
P.O. Faulkner Park		X	0	+		X	0	=	\$0.00	\$0.00
Oak Street Park		X	0	+		X	0	=	\$0.00	\$0.00

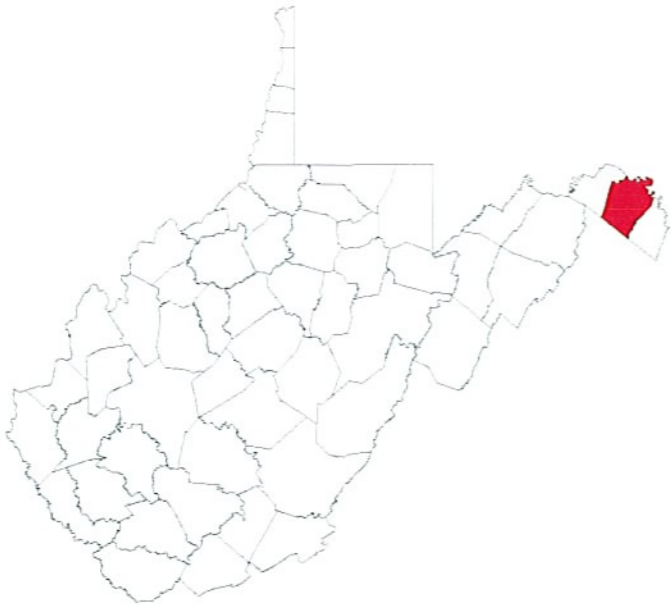
Structure Use and Function Loss (Task A.3.) Drought								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Ambrose Park		X	0	+		X	0	=	\$0.00	\$0.00
Parks and Recreation		X	0	+		X	0	=	\$0.00	\$0.00
Delmar Orchard Road		X	0	+		X	0	=	\$0.00	\$0.00
<i>Historic Co. Court House</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Dunn Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Homeland Sec/Emer Mgmt</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Crawford Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Senior Center</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>County Maintenance Facility</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Central Dispatch</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Health Department</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Transmitter</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Berkeley/Judicial Center</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Poor House Farm</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>110 Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>126 Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Animal Control Center</i>		X	0	+		X	0	=	\$0.00	\$0.00
Morgan Cabin Museum		X	0	+		X	0	=	\$0.00	\$0.00
<i>Hedgesville Park</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>South Berkeley Park</i>		X	0	+		X	0	=	\$0.00	\$0.00
Water Street Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Historic Marker (Bender Property)		X	0	+		X	0	=	\$0.00	\$0.00
Historic Marker (Providence Quaker Cemetery)		X	0	+		X	0	=	\$0.00	\$0.00
Court Complex.		X	0	+		X	0	=	\$0.00	\$0.00
Runnymede Road		X	0	+		X	0	=	\$0.00	\$0.00
Kelly Island		X	0	+		X	0	=	\$0.00	\$0.00
Old Quarry Road		X	0	+		X	0	=	\$0.00	\$0.00
Route 51 West		X	0	+		X	0	=	\$0.00	\$0.00
N/E Side Rt. 9 Near Co. Line		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Drought								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Glenwood Forest Subdivision		X	0	+		X	0	=	\$0.00	\$0.00
Specks Run Road		X	0	+		X	0	=	\$0.00	\$0.00
Liberty Buisness Park		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 11 Near Pikeside		X	0	+		X	0	=	\$0.00	\$0.00
Rockefeller Science Center		X	0	+		X	0	=	\$0.00	\$0.00
768 Williamsport Pike		X	0	+		X	0	=	\$0.00	\$0.00
General Motors		X	0	+		X	0	=	\$0.00	\$0.00
Duke Road		X	0	+		X	0	=	\$0.00	\$0.00
268 Treat Water Road		X	0	+		X	0	=	\$0.00	\$0.00
207 Mary Street		X	0	+		X	0	=	\$0.00	\$0.00
Ben Speck Road		X	0	+		X	0	=	\$0.00	\$0.00
Church Street		X	0	+		X	0	=	\$0.00	\$0.00
E/S Ridge Road		X	0	+		X	0	=	\$0.00	\$0.00
Route 901, East of HMS		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 9, 1/2 Mile East of Texaco		X	0	+		X	0	=	\$0.00	\$0.00
Rt.9, Near James Rumsey		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 9, Near Fort Hill Subdivision		X	0	+		X	0	=	\$0.00	\$0.00
71 and 83 Monroe Street		X	0	+		X	0	=	\$0.00	\$0.00
<i>Morning Dove Treatment</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Springdale Farm</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Potomac River Treatment</i>		X	0	+		X	0	=	\$0.00	\$0.00
Multiple Locations		X	0	+		X	0	=	\$0.00	\$0.00
Roads		X	0	+		X	0	=	\$0.00	\$0.00
Railroads		X	0	+		X	0	=	\$0.00	\$0.00
Bridges		X	0	+		X	0	=	\$0.00	\$0.00
Airport Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Airport Runways		X	0	+		X	0	=	\$0.00	\$0.00
WV State Police	\$1,800.00	X	0	+	\$1,800.00	X	0	=	\$0.00	\$0.00
Berkeley Sheriffs Dept.	\$5,900.00	X	0	+	\$5,900.00	X	0	=	\$0.00	\$0.00
Martinsburg Police Dept.		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Drought								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Valley Fire Dept.		X	0	+		X	0	=	\$0.00	\$0.00
Baker Heights VFD		X	0	+		X	0	=	\$0.00	\$0.00
Bedington VFD		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville VFD		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Fire Dept.	\$5,450.00	X	0	+	\$5,450.00	X	0	=	\$0.00	\$0.00
South Berkeley VFD		X	0	+		X	0	=	\$0.00	\$0.00
<i>VA Med Ctr FD</i>	0	X	0	+		X	0	=	\$0.00	\$0.00
<i>WV ANG FD</i>		X	0	+		X	0	=	\$0.00	\$0.00
Veterans Affairs Medical Center		X	0	+		X	0	=	\$0.00	\$0.00
Shenandoah Health Services		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hospital	\$3,500.00	X	0	+	\$3,500.00	X	0	=	\$0.00	\$0.00
Naylor Memorial Library		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg - Berkeley County Public Library		X	0	+		X	0	=	\$0.00	\$0.00
<b>Total Loss to Structure Use &amp; Function</b>									<b>\$0.00</b>	<b>\$0.00</b>



# Earthquake



## MAP LEGEND

- Roads
  - Highway
  - State Route
  - County Route
  - Railroad
  - Power Lines
- Moderate Hazard

*How Bad Can It Get?*



R.D.Zande & Associates

1 Moore Avenue  
Buckhannon, WV 26201

## Earthquake

An earthquake is a sudden motion or trembling that is caused by a release of strain accumulated within or along the edge of the Earth's tectonic plates. The severity of these effects is dependent on the amount of energy released from the fault or epicenter. The effects of an earthquake can be felt far beyond the site of its occurrence. They usually occur without warning and after just a few seconds can cause massive damage and extensive casualties. Common effects of earthquakes are ground motion and shaking, surface fault ruptures, and ground failure.

Although most people do not think of West Virginia as an earthquake-prone state, at least two (2) earthquakes with epicenters in West Virginia have been felt since 1906. Several methods of research identified earthquakes as a hazard in Berkeley County, including reviews of the FEMA-issued *State and Local Mitigation Planning How-To Guide: Understanding Your Risks* as well as reviews of several Internet sites, which are listed below.

- Building Seismic Safety Council  
<http://www.bssconline.org>
- Earthquake Hazard History by State  
<http://www.neic.cr.usgs.gov/neis/states.states.html>
- Earthquake map and Information  
<http://www.abag.ca.gov/bayare/eqmaps/eqmaps.html>
- FEMA HAZUS Homepage  
<http://www.fema.gov/hazus/>
- GIS data Available on Earthquakes  
<http://geohazars.cr.usgs.gov/eq/html/genmap.html>
- USGS Earthquake Homepage  
<http://quake.wr.usgs.gov/>
- USGS National and Regional Custom Earthquake Risk Maps  
<http://equint.cr.usgs.gov/eq/html/custom.shtml>

According to the USGS, Berkeley County is listed as an MMI IV in regards to earthquakes. Berkeley County's Peak Ground Acceleration (PGA) is 3.0 according to the USGS National Seismic Hazard Mapping Project, which is illustrated in figure 1.1 below. The map was dated November 1996. Because of the area's ranking as an MMI IV, earthquake hazards must be taken into consideration.

According to the FEMA *State and Local Mitigation Planning How-To Guide: Understanding Your Risk*, areas rated as an MMI IV (a PGA of 2.0-3.0 classifies an area as MMI IV) will not experience damage as a result of earthquakes. In these areas, perceived shaking is also light. Peak ground acceleration is partly determined by what soils and bedrocks are present in the area. In regard to Berkeley

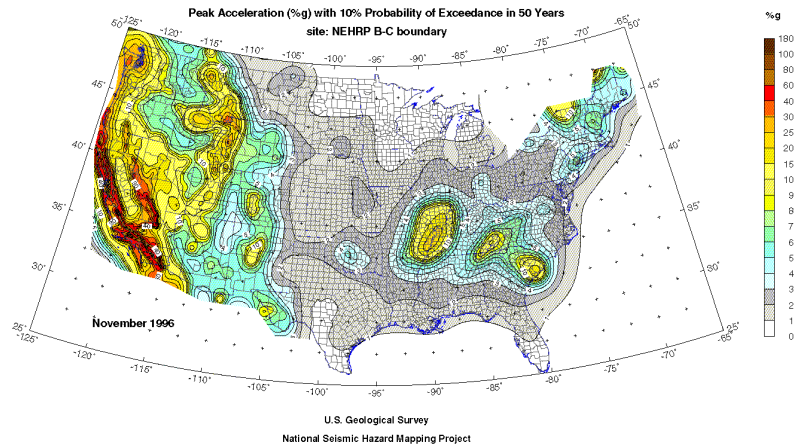


Figure 1.1

County, the peak ground acceleration is relatively low. According to the Geohazards Internet site and discussions with local regional officials, the eastern panhandle of West Virginia has felt slight tremors from minor earthquakes centered in West Virginia and elsewhere on the northern east coast.

The epicenters of multiple earthquakes have been recorded in West Virginia. Most recently, an earthquake centered in the southern portion of the state measuring approximately 2.0 on the Richter Scale occurred during the late spring of 2002. However, these earthquakes have caused little or no damage. None of the epicenters have been reported in Berkeley County.

The Richter magnitude scale (illustrated in the table below) was developed in 1935 by Charles F. Richter of the California Institute of Technology as a mathematical device to compare the size of earthquakes. The magnitude of an earthquake is determined from the logarithm of the amplitude of waves recorded between the various seismographs. Adjustments are located for the variation in the distance between the various seismographs and the epicenter of the earthquake. On the Richter Scale, magnitude is expressed in whole numbers and decimal fractions.

For example, a magnitude 5.3 might be computed for a moderate earthquake, and a strong earthquake might be rated as magnitude 6.3. Because of the logarithmic basis of the scale, each whole number increase in magnitude represents a tenfold increase in measured amplitude.

Severity	Scale	
	Magnitude	Mercalli
Mild	0-2.9	I-III
Moderate	2.9-4.1	IV-V
Intermediate	4.1-5.4	VI-VII
Severe	5.4-7.3	VIII-X
Catastrophic	7.3+	XI-XII

## MAPPING

See the Berkeley County Earthquake Map for a graphical representation of the hazard areas with regard to earthquakes. The green areas represent “low hazard areas,” the yellow areas represent “moderate hazard areas,” the orange areas represent “high hazard areas,” and the red areas represent “extreme high hazard areas.”

*Update: All information above is still relevant and under consideration.*

### ESTIMATE LOSSES

Hazard: Earthquake

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Back Creek Elem	\$1,599,000.00	X	0.00	=	\$0.00
Bedington Elem	\$1,685,000.00	X	0.00	=	\$0.00
Berkeley Heights Elem	\$3,637,000.00	X	0.00	=	\$0.00
Bunker Hill Elem	\$1,764,000.00	X	0.00	=	\$0.00
Burke Street Elem	\$1,425,000.00	X	0.00	=	\$0.00
Gerrardstown Elem	\$1,292,000.00	X	0.00	=	\$0.00
Hedgesville Elem	\$2,670,000.00	X	0.00	=	\$0.00
Inwood Primary School	\$1,525,000.00	X	0.00	=	\$0.00
Marlowe Elem	\$2,070,000.00	X	0.00	=	\$0.00
Opequon Elem	\$3,529,000.00	X	0.00	=	\$0.00
Rosemont Elem	\$3,138,000.00	X	0.00	=	\$0.00
Tomahawk Elem	\$4,295,000.00	X	0.00	=	\$0.00
Tuscarora Elem	\$3,459,000.00	X	0.00	=	\$0.00
Valley View Elem	\$3,475,000.00	X	0.00	=	\$0.00
Winchester Ave. Elem	\$2,140,000.00	X	0.00	=	\$0.00
Hedgesville MS	\$7,105,000.00	X	0.00	=	\$0.00
Martinsburg North MS	\$6,245,000.00	X	0.00	=	\$0.00
Martinsburg South MS	\$5,249,000.00	X	0.00	=	\$0.00
Mussleman MS	\$9,217,000.00	X	0.00	=	\$0.00
<b><i>Spring Mills MS</i></b>	<b><i>\$10,370,648.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Mill Creek IS	\$5,175,000.00	X	0.00	=	\$0.00
Potomac IS	\$4,295,000.00	X	0.00	=	\$0.00
Eagle School IS	\$5,100,000.00	X	0.00	=	\$0.00
<b><i>Mountain Ridge IS</i></b>	<b><i>\$7,500,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Orchard View IS	\$5,100,000.00	X	0.00	=	\$0.00
Hedgesville HS	\$13,049,000.00	X	0.00	=	\$0.00
Martinsburg HS	\$17,312,000.00	X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$144,000.00	X	0.00	=	\$0.00
\$152,000.00	X	0.00	=	\$0.00
\$356,000.00	X	0.00	=	\$0.00
\$158,000.00	X	0.00	=	\$0.00
\$129,000.00	X	0.00	=	\$0.00
\$117,000.00	X	0.00	=	\$0.00
\$241,000.00	X	0.00	=	\$0.00
\$129,000.00	X	0.00	=	\$0.00
\$186,000.00	X	0.00	=	\$0.00
\$355,000.00	X	0.00	=	\$0.00
\$297,000.00	X	0.00	=	\$0.00
\$388,000.00	X	0.00	=	\$0.00
\$322,000.00	X	0.00	=	\$0.00
\$314,000.00	X	0.00	=	\$0.00
\$139,000.00	X	0.00	=	\$0.00
\$626,000.00	X	0.00	=	\$0.00
\$550,000.00	X	0.00	=	\$0.00
\$467,000.00	X	0.00	=	\$0.00
\$507,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$419,000.00	X	0.00	=	\$0.00
\$452,000.00	X	0.00	=	\$0.00
\$500,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$500,000.00	X	0.00	=	\$0.00
\$1,167,800.00	X	0.00	=	\$0.00
\$1,538,000.00	X	0.00	=	\$0.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Mussleman HS	\$15,205,000.00	X	0.00	=	\$0.00
James Rumsey Vo Tech Center	\$8,270,000.00	X	0.00	=	\$0.00
Pikeside Pre-Vocational	\$1,765,000.00	X	0.00	=	\$0.00
Ramer Center	\$1,720,000.00	X	0.00	=	\$0.00
Administration Building	\$2,175,000.00	X	0.00	=	\$0.00
Maintenance	\$665,000.00	X	0.00	=	\$0.00
Transportation	\$1,975,000.00	X	0.00	=	\$0.00
Mussleman Athletic Facilities	\$1,300,000.00	X	0.00	=	\$0.00
Resa VIII Offices	\$770,000.00	X	0.00	=	\$0.00
Martinsburg City Hall	\$2,000,000.00	X	0.00	=	\$0.00
Martinsburg Central Fire Station	\$1,260,000.00	X	0.00	=	\$0.00
Martinsburg Westphal Hose Co.	\$350,000.00	X	0.00	=	\$0.00
Martinsburg Waterworks	\$5,103,000.00	X	0.00	=	\$0.00
Martinsburg Animal Shelter	\$54,000.00	X	0.00	=	\$0.00
Martinsburg Sewer Plant	\$6,508,000.00	X	0.00	=	\$0.00
Capitol Cement	\$5,149,000.00	X	0.00	=	\$0.00
Red Hill Storage Tank	\$1,030,000.00	X	0.00	=	\$0.00
Capitol Heights Storage Tank	\$464,000.00	X	0.00	=	\$0.00
Western Ave. Storage Tank	\$309,000.00	X	0.00	=	\$0.00
Old Market House	\$538,000.00	X	0.00	=	\$0.00
Old Armory Building	\$1,215,000.00	X	0.00	=	\$0.00
Olde Sanitation Building	\$279,000.00	X	0.00	=	\$0.00
Martinsburg City Garage	\$434,000.00	X	0.00	=	\$0.00
Martinsburg Train Station	\$1,082,000.00	X	0.00	=	\$0.00
Adam Stephen Complex	\$1,203,000.00	X	0.00	=	\$0.00
War Memorial Park	\$1,816,000.00	X	0.00	=	\$0.00
Lambert Park	\$1,644,000.00	X	0.00	=	\$0.00
P.O. Faulkner Park	\$59,000.00	X	0.00	=	\$0.00
Oak Street Park	\$25,000.00	X	0.00	=	\$0.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$1,341,000.00	X	0.00	=	\$0.00
\$3,430,000.00	X	0.00	=	\$0.00
\$156,000.00	X	0.00	=	\$0.00
\$177,000.00	X	0.00	=	\$0.00
\$210,000.00	X	0.00	=	\$0.00
\$140,000.00	X	0.00	=	\$0.00
\$450,000.00	X	0.00	=	\$0.00
\$20,000.00	X	0.00	=	\$0.00
\$1,931,000.00	X	0.00	=	\$0.00
\$250,000.00	X	0.00	=	\$0.00
\$200,000.00	X	0.00	=	\$0.00
\$5,000.00	X	0.00	=	\$0.00
\$79,000.00	X	0.00	=	\$0.00
\$1,000.00	X	0.00	=	\$0.00
\$5,000.00	X	0.00	=	\$0.00
\$24,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$30,000.00	X	0.00	=	\$0.00
\$10,000.00	X	0.00	=	\$0.00
\$25,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$43,000.00	X	0.00	=	\$0.00
\$100,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Ambrose Park	\$59,000.00	X	0.00	=	\$0.00
Parks and Recreation		X	0.00	=	\$0.00
Delmar Orchard Road	\$2,000,000.00	X	0.00	=	\$0.00
<b><i>Historic Co. Court House</i></b>	<b><i>\$4,175,400.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Dunn Building</i></b>	<b><i>\$13,949,800.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Homeland Sec Emer Mgmt</i></b>	<b><i>\$1,714,200.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Crawford Building</i></b>	<b><i>\$5,517,100.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Senior Center</i></b>	<b><i>\$3,386,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>County Maintenance Facility</i></b>	<b><i>\$1,268,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Central Dispatch</i></b>	<b><i>\$37,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Health Department</i></b>	<b><i>\$573,800.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Transmitter</i></b>	<b><i>\$10,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Berkeley Judicial Center</i></b>	<b><i>\$22,024,900.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Poor House Farm</i></b>	<b><i>\$1,784,600.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>110 Building</i></b>	<b><i>\$2,143,700.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>126 Building</i></b>	<b><i>\$1,518,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Animal Control Center</i></b>	<b><i>\$400,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Morgan Cabin Museum	\$50,000.00	X	0.00	=	\$0.00
<b><i>Hedgesville Park</i></b>	<b><i>\$45,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>South Berkeley Park</i></b>	<b><i>\$40,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Water Street Facilities	\$2,828,000.00	X	0.00	=	\$0.00
Historic Marker (Bender Property)	\$1,200.00	X	0.00	=	\$0.00
Historic Marker (Providence Quaker Cemetery)	\$1,200.00	X	0.00	=	\$0.00
Court Complex.	\$21,100,000.00	X	0.00	=	\$0.00
Runnymede Road	\$2,045,300.00	X	0.00	=	\$0.00
Kelly Island	\$128,000.00	X	0.00	=	\$0.00
Old Quarry Road	\$53,000.00	X	0.00	=	\$0.00
Route 51 West	\$950,500.00	X	0.00	=	\$0.00
N/E Side Rt. 9 Near Co. Line	\$30,000.00	X	0.00	=	\$0.00
Glenwood Forest Subdivision	\$365,000.00	X	0.00	=	\$0.00
Specks Run Road	\$428,500.00	X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.00	=	\$0.00
\$45,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
<b><i>\$255,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$366,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$431,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$105,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$25,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$90,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$10,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$1,265,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$23,595.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$75,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$75,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$34,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$6,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$56,500.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Liberty Buisness Park	\$582,500.00	X	0.00	=	\$0.00
Rt. 11 Near Pikeside	\$52,500.00	X	0.00	=	\$0.00
Rockefeller Science Center	\$565,000.00	X	0.00	=	\$0.00
768 Williamsport Pike	\$1,000.00	X	0.00	=	\$0.00
General Motors	\$612,850.00	X	0.00	=	\$0.00
Duke Road	\$912,500.00	X	0.00	=	\$0.00
268 Treat Water Road	\$4,521,500.00	X	0.00	=	\$0.00
207 Mary Street	\$115,000.00	X	0.00	=	\$0.00
Ben Speck Road	\$170,250.00	X	0.00	=	\$0.00
Church Street	\$205,000.00	X	0.00	=	\$0.00
E/S Ridge Road	\$202,500.00	X	0.00	=	\$0.00
Route 901, East of HMS	\$12,800.00	X	0.00	=	\$0.00
Rt. 9, 1/2 Mile East of Texaco	\$12,800.00	X	0.00	=	\$0.00
Rt.9, Near James Rumsey	\$80,000.00	X	0.00	=	\$0.00
Rt. 9, Near Fort Hill Subdivision	\$14,000.00	X	0.00	=	\$0.00
71 and 83 Monroe Street	\$0.00	X	0.00	=	\$0.00
<i>Morning Dove Treatment</i>	<i>\$111,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Springdale Farm Treatment</i>	<i>\$203,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Potomac River Treatment</i>	<i>\$16,794,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
Multiple Locations	\$125,000.00	X	0.00	=	\$0.00
Roads	\$1,715,000,000.00	X	0.00	=	\$0.00
Railroads	\$170,000,000.00	X	0.00	=	\$0.00
Bridges	\$303,000,000.00	X	0.00	=	\$0.00
Airport Facilities	\$18,000,000.00	X	0.00	=	\$0.00
Airport Runways	\$84,000,000.00	X	0.00	=	\$0.00
WV State Police	\$200,000.00	X	0.00	=	\$0.00
Berkeley Sheriffs Dept.	\$1,134,000.00	X	0.00	=	\$0.00
Martinsburg Police Dept.		X	0.00	=	\$0.00
Back Creek Valley Fire Dept.		X	0.00	=	\$0.00
Baker Heights VFD		X	0.00	=	\$0.00
Bedington VFD		X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$20,000.00	X	0.00	=	\$0.00
\$75,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$10,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$62,000.00	X	0.00	=	\$0.00
\$0.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$400,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00



Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Hedgesville VFD		X	0.00	=	\$0.00
Martinsburg Fire Dept.	\$1,600,000.00	X	0.00	=	\$0.00
South Berkeley VFD		X	0.00	=	\$0.00
<b><i>VA Med Ctr FD</i></b>		<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>WV ANG FD</i></b>		<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Veterans Affairs Medical Center		X	0.00	=	\$0.00
Shenandoah Health Services		X	0.00	=	\$0.00
Martinsburg City Hospital	\$2,361,000.00	X	0.00	=	\$0.00
Naylor Memorial Library	\$279,000.00	X	0.00	=	\$0.00
Martinsburg - Berkeley County Public Library	\$37,000.00	X	0.00	=	\$0.00
<b>Total Loss to Structure</b>					<b>\$0.00</b>

Contents of Loss (Task A.2.)					
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)	
	X	0.00	=	\$0.00	
\$1,500,000.00	X	0.00	=	\$0.00	
	X	0.00	=	\$0.00	
	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
	X	0.00	=	\$0.00	
	X	0.00	=	\$0.00	
\$965,640.00	X	0.00	=	\$0.00	
\$16,000.00	X	0.00	=	\$0.00	
\$43,000.00	X	0.00	=	\$0.00	
<b>Total Loss to Contents</b>					<b>\$0.00</b>

Structure Use and Function Loss (Task A.3.) Earthquake								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Elem		X	0	+		X	0	=	\$0.00	\$0.00
Bedington Elem		X	0	+		X	0	=	\$0.00	\$0.00
Berkeley Heights Elem		X	0	+		X	0	=	\$0.00	\$0.00
Bunker Hill Elem		X	0	+		X	0	=	\$0.00	\$0.00
Burke Street Elem		X	0	+		X	0	=	\$0.00	\$0.00
Gerrardstown Elem		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville Elem		X	0	+		X	0	=	\$0.00	\$0.00
Inwood Primary School		X	0	+		X	0	=	\$0.00	\$0.00
Marlowe Elem		X	0	+		X	0	=	\$0.00	\$0.00
Opequon Elem		X	0	+		X	0	=	\$0.00	\$0.00
Rosemont Elem		X	0	+		X	0	=	\$0.00	\$0.00
Tomahawk Elem		X	0	+		X	0	=	\$0.00	\$0.00
Tuscarora Elem		X	0	+		X	0	=	\$0.00	\$0.00
Valley View Elem		X	0	+		X	0	=	\$0.00	\$0.00
Winchester Ave. Elem		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville MS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg North MS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg South MS		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman MS		X	0	+		X	0	=	\$0.00	\$0.00
<b>Spring Mills MS</b>		<b>X</b>	<b>0</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$0.00</b>
Mill Creek IS		X	0	+		X	0	=	\$0.00	\$0.00
Potomac IS		X	0	+		X	0	=	\$0.00	\$0.00
Eagle School IS		X	0	+		X	0	=	\$0.00	\$0.00
<b>Mountain Ridge IS</b>		<b>X</b>	<b>0</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$0.00</b>
Orchard View IS		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville HS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg HS		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman HS		X	0	+		X	0	=	\$0.00	\$0.00

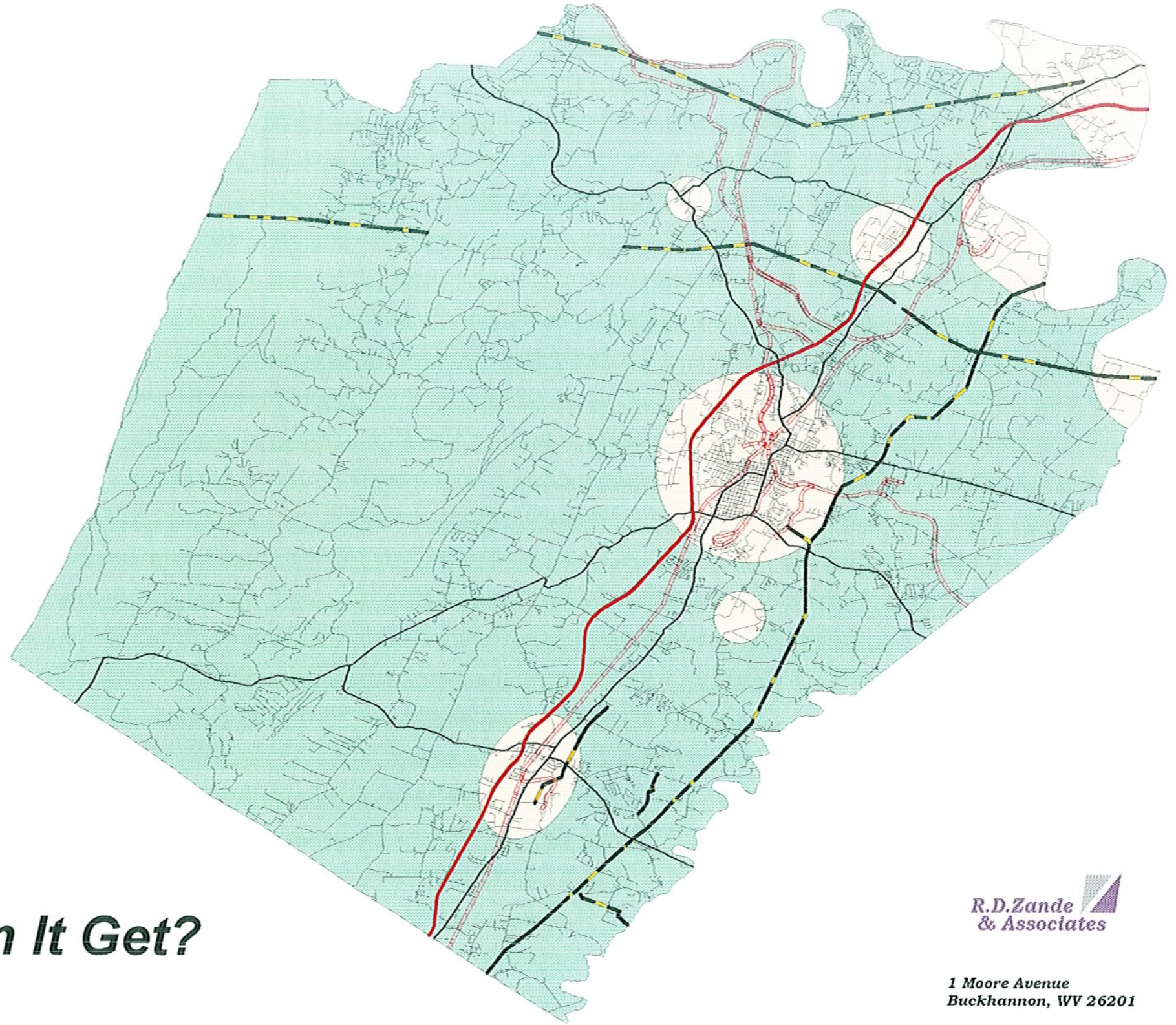
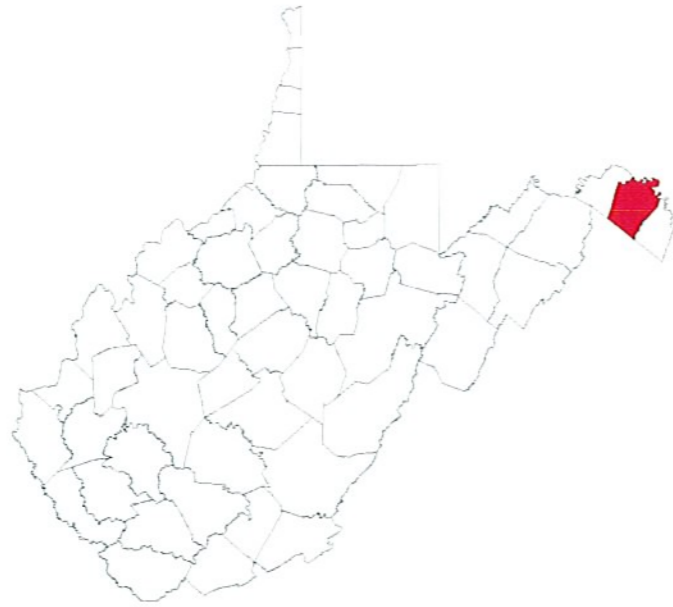
Structure Use and Function Loss (Task A.3.) Earthquake								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
James Rumsey Vo Tech Center		X	0	+		X	0	=	\$0.00	\$0.00
Pikeside Pre-Vocational		X	0	+		X	0	=	\$0.00	\$0.00
Ramer Center		X	0	+		X	0	=	\$0.00	\$0.00
Administration Building		X	0	+		X	0	=	\$0.00	\$0.00
Maintenance		X	0	+		X	0	=	\$0.00	\$0.00
Transportation		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman Athletic Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Resa VIII Offices		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hall		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Central Fire Station		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Westphal Hose Co.		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Waterworks		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Animal Shelter		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Sewer Plant		X	0	+		X	0	=	\$0.00	\$0.00
Capitol Cement		X	0	+		X	0	=	\$0.00	\$0.00
Red Hill Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Capitol Heights Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Western Ave. Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Old Market House		X	0	+		X	0	=	\$0.00	\$0.00
Old Armory Building		X	0	+		X	0	=	\$0.00	\$0.00
Olde Sanitation Building		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Garage		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Train Station		X	0	+		X	0	=	\$0.00	\$0.00
Adam Stephen Complex		X	0	+		X	0	=	\$0.00	\$0.00
War Memorial Park		X	0	+		X	0	=	\$0.00	\$0.00
Lambert Park		X	0	+		X	0	=	\$0.00	\$0.00
P.O. Faulkner Park		X	0	+		X	0	=	\$0.00	\$0.00
Oak Street Park		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Earthquake								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Ambrose Park		X	0	+		X	0	=	\$0.00	\$0.00
Parks and Recreation		X	0	+		X	0	=	\$0.00	\$0.00
Delmar Orchard Road		X	0	+		X	0	=	\$0.00	\$0.00
<i>Historic Co. Court House</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Dunn Building</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Homeland Sec. Emer. Mgmt</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Crawford Building</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Senior Center</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>County Maintenance Facility</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Central Dispatch</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Health Department</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Transmitter</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Berkeley/Judicial Center</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Poor House Farm</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>110 Building</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>126 Building</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Animal Control Center</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
Morgan Cabin Museum		X	0	+		X	0	=	\$0.00	\$0.00
<i>Hedgesville Park</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>South Berkeley Park</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
Water Street Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Historic Marker (Bender Property)		X	0	+		X	0	=	\$0.00	\$0.00
Historic Marker (Providence Quaker Cemetery)		X	0	+		X	0	=	\$0.00	\$0.00
Court Complex.		X	0	+		X	0	=	\$0.00	\$0.00
Runnymede Road		X	0	+		X	0	=	\$0.00	\$0.00
Kelly Island		X	0	+		X	0	=	\$0.00	\$0.00
Old Quarry Road		X	0	+		X	0	=	\$0.00	\$0.00
Route 51 West		X	0	+		X	0	=	\$0.00	\$0.00
N/E Side Rt. 9 Near Co. Line		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Earthquake								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Glenwood Forest Subdivision		X	0	+		X	0	=	\$0.00	\$0.00
Specks Run Road		X	0	+		X	0	=	\$0.00	\$0.00
Liberty Buisness Park		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 11 Near Pikeside		X	0	+		X	0	=	\$0.00	\$0.00
Rockefeller Science Center		X	0	+		X	0	=	\$0.00	\$0.00
768 Williamsport Pike		X	0	+		X	0	=	\$0.00	\$0.00
General Motors		X	0	+		X	0	=	\$0.00	\$0.00
Duke Road		X	0	+		X	0	=	\$0.00	\$0.00
268 Treat Water Road		X	0	+		X	0	=	\$0.00	\$0.00
207 Mary Street		X	0	+		X	0	=	\$0.00	\$0.00
Ben Speck Road		X	0	+		X	0	=	\$0.00	\$0.00
Church Street		X	0	+		X	0	=	\$0.00	\$0.00
E/S Ridge Road		X	0	+		X	0	=	\$0.00	\$0.00
Route 901, East of HMS		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 9, 1/2 Mile East of Texaco		X	0	+		X	0	=	\$0.00	\$0.00
Rt.9, Near James Rumsey		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 9, Near Fort Hill Subdivision		X	0	+		X	0	=	\$0.00	\$0.00
71 and 83 Monroe Street		X	0	+		X	0	=	\$0.00	\$0.00
<i>Morning Dove Treatment</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Springdale Farm Treatment</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Potomac River Treatment</i>		X	0	+		X	0	=	\$0.00	\$0.00
Multiple Locations		X	0	+		X	0	=	\$0.00	\$0.00
Roads		X	0	+		X	0	=	\$0.00	\$0.00
Railroads		X	0	+		X	0	=	\$0.00	\$0.00
Bridges		X	0	+		X	0	=	\$0.00	\$0.00
Airport Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Airport Runways		X	0	+		X	0	=	\$0.00	\$0.00
WV State Police	\$1,800.00	X	0	+	\$1,800.00	X	0	=	\$0.00	\$0.00
Berkeley Sheriffs Dept.	\$5,900.00	X	0	+	\$5,900.00	X	0	=	\$0.00	\$0.00
Martinsburg Police Dept.		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Earthquake								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Valley Fire Dept.		X	0	+		X	0	=	\$0.00	\$0.00
Baker Heights VFD		X	0	+		X	0	=	\$0.00	\$0.00
Bedington VFD		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville VFD		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Fire Dept.	\$5,450.00	X	0	+	\$5,450.00	X	0	=	\$0.00	\$0.00
South Berkeley VFD		X	0	+		X	0	=	\$0.00	\$0.00
<i>VA Med Ctr FD</i>		<i>X</i>	<i>0</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
<i>WV ANG FD</i>		<i>X</i>	<i>0</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
Veterans Affairs Medical Center		X	0	+		X	0	=	\$0.00	\$0.00
Shenandoah Health Services		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hospital	\$3,500.00	X	0	+	\$3,500.00	X	0	=	\$0.00	\$0.00
Naylor Memorial Library		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg - Berkeley County Public Library		X	0	+		X	0	=	\$0.00	\$0.00
<b>Total Loss to Structure Use &amp; Function</b>									<b>\$0.00</b>	<b>\$0.00</b>

# Epidemic



## MAP LEGEND

- Roads
- Highway
  - State Route
  - County Route
  - Railroad
  - Power Lines
  - Moderate Hazard
  - Low Hazard

*How Bad Can It Get?*

R.D.Zande  
& Associates

1 Moore Avenue  
Buckhannon, WV 26201



## Epidemic

**An epidemic is a disease, usually contagious, that recurs in a community and attacks a large number of people at the same time. The potential impacts of an epidemic are illness or fatalities, disruption or closing of schools, or the forced closure of businesses and industrial operations.**

Epidemic is a natural hazard risk in Berkeley County. The probability of an epidemic striking Berkeley County is relatively low. However, the risk associated with this hazard is very high.

An epidemic has the potential to affect the entire county, but is more probable to occur in the densely populated areas, such as the City of Martinsburg, especially at facilities containing a large work force. Many commercial and industrial sites throughout the county, for example, contain a large work force. A potential epidemic is of particular concern at these facilities.

Epidemics can develop with little or no warning and quickly erode the capacity of local medical care providers. A fast-developing epidemic can last several days and extend into several weeks. In some extreme cases, they can last for several months.

An epidemic can occur at any time of the year, but the warm summer months when bacteria and microorganism growth are at their highest present the greatest risk.

The West Nile Virus has created growing concern in West Virginia and the northeast, where widespread spraying to kill mosquitoes has not slowed the spread of the virus. While West Nile has primarily affected livestock, human cases and deaths have been reported.

## **MAPPING**

See the Berkeley County Epidemic Map for a graphical representation of high-risk areas with regard to epidemic. The green areas represent “low hazard areas,” the yellow areas represent “moderate hazard areas,” the orange areas represent “high hazard areas,” and the red areas represent “extreme high hazard areas.”

***Update: All information above is still relevant and under consideration.***



Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

**Hazard: Epidemic**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# In County	# In Hazard Area	% In Hazard Area	\$ In County	\$ In Hazard Area	% In Hazard Area	# In County	# In Hazard Area	% In Hazard Area
RESIDENTIAL	35,300	0	0	\$3,353,500,000.00	\$0.00	0	52,365	10,943	13
COMMERCIAL	1,380	0	0	\$158,700,000.00	\$0.00	0	17,648	3,688	4
INDUSTRIAL	57	0	0	\$28,500,000.00	\$0.00	0	4,281	895	1
AGRICULTURAL	39	0	0	\$7,193,600.00	\$0.00	0	366	76	0
RELIGIOUS	55	0	0	\$13,475,000.00	\$0.00	0	110	23	0
GOVERNMENT	76	0	0	\$11,400,000.00	\$0.00	0	6,262	1,309	2
EDUCATION	28	0	0	\$140,790,000.00	\$0.00	0	1,373	287	0
UTILITIES	6	0	0	\$7,500,000.00	\$0.00	0	95	20	0
<b>Total</b>	<b>36,941</b>	<b>0</b>	<b>0</b>	<b>\$3,721,058,600.0</b>	<b>\$0.00</b>	<b>0</b>	<b>82,500</b>	<b>17,240</b>	<b>21</b>

Task B. Determine whether (and where) you want to collect additional inventory data.

	YES	NO
1) Do you know where your greatest damages may occur in your hazard areas?	X	
2) Do you know whether your critical facilities will be operational after a hazard event?		X
3) Is there enough data to determine which assests are subject to the greatest potential damages?	X	
4) Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5) Is there enough data to determine whether certain areas are vulnerable to potential hazards?	X	
6) Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7) Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		

### ESTIMATE LOSSES

Hazard: Epidemic

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Back Creek Elem	\$1,599,000.00	X	0.00	=	\$0.00
Bedington Elem	\$1,685,000.00	X	0.00	=	\$0.00
Berkeley Heights Elem	\$3,637,000.00	X	0.00	=	\$0.00
Bunker Hill Elem	\$1,764,000.00	X	0.00	=	\$0.00
Burke Street Elem	\$1,425,000.00	X	0.00	=	\$0.00
Gerrardstown Elem	\$1,292,000.00	X	0.00	=	\$0.00
Hedgesville Elem	\$2,670,000.00	X	0.00	=	\$0.00
Inwood Primary School	\$1,525,000.00	X	0.00	=	\$0.00
Marlowe Elem	\$2,070,000.00	X	0.00	=	\$0.00
Opequon Elem	\$3,529,000.00	X	0.00	=	\$0.00
Rosemont Elem	\$3,138,000.00	X	0.00	=	\$0.00
Tomahawk Elem	\$4,295,000.00	X	0.00	=	\$0.00
Tuscarora Elem	\$3,459,000.00	X	0.00	=	\$0.00
Valley View Elem	\$3,475,000.00	X	0.00	=	\$0.00
Winchester Ave. Elem	\$2,140,000.00	X	0.00	=	\$0.00
Hedgesville MS	\$7,105,000.00	X	0.00	=	\$0.00
Martinsburg North MS	\$6,245,000.00	X	0.00	=	\$0.00
Martinsburg South MS	\$5,249,000.00	X	0.00	=	\$0.00
Mussleman MS	\$9,217,000.00	X	0.00	=	\$0.00
<b><i>Spring Mills MS</i></b>	<b><i>\$10,370,648.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Mill Creek IS	\$5,175,000.00	X	0.00	=	\$0.00
Potomac IS	\$4,295,000.00	X	0.00	=	\$0.00
Eagle School IS	\$5,100,000.00	X	0.00	=	\$0.00
<b><i>Mountain Rodge IS</i></b>	<b><i>\$7,500,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Orchard View IS	\$5,100,000.00	X	0.00	=	\$0.00
Hedgesville HS	\$13,049,000.00	X	0.00	=	\$0.00
Martinsburg HS	\$17,312,000.00	X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$144,000.00	X	0.00	=	\$0.00
\$152,000.00	X	0.00	=	\$0.00
\$356,000.00	X	0.00	=	\$0.00
\$158,000.00	X	0.00	=	\$0.00
\$129,000.00	X	0.00	=	\$0.00
\$117,000.00	X	0.00	=	\$0.00
\$241,000.00	X	0.00	=	\$0.00
\$129,000.00	X	0.00	=	\$0.00
\$186,000.00	X	0.00	=	\$0.00
\$355,000.00	X	0.00	=	\$0.00
\$297,000.00	X	0.00	=	\$0.00
\$388,000.00	X	0.00	=	\$0.00
\$322,000.00	X	0.00	=	\$0.00
\$314,000.00	X	0.00	=	\$0.00
\$139,000.00	X	0.00	=	\$0.00
\$626,000.00	X	0.00	=	\$0.00
\$550,000.00	X	0.00	=	\$0.00
\$467,000.00	X	0.00	=	\$0.00
\$507,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$419,000.00	X	0.00	=	\$0.00
\$452,000.00	X	0.00	=	\$0.00
\$500,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$500,000.00	X	0.00	=	\$0.00
\$1,167,800.00	X	0.00	=	\$0.00
\$1,538,000.00	X	0.00	=	\$0.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Mussleman HS	\$15,205,000.00	X	0.00	=	\$0.00
James Rumsey Vo Tech Center	\$8,270,000.00	X	0.00	=	\$0.00
Pikeside Pre-Vocational	\$1,765,000.00	X	0.00	=	\$0.00
Ramer Center	\$1,720,000.00	X	0.00	=	\$0.00
Administration Building	\$2,175,000.00	X	0.00	=	\$0.00
Maintenance	\$665,000.00	X	0.00	=	\$0.00
Transportation	\$1,975,000.00	X	0.00	=	\$0.00
Mussleman Athletic Facilities	\$1,300,000.00	X	0.00	=	\$0.00
Resa VIII Offices	\$770,000.00	X	0.00	=	\$0.00
Martinsburg City Hall	\$2,000,000.00	X	0.00	=	\$0.00
Martinsburg Central Fire Station	\$1,260,000.00	X	0.00	=	\$0.00
Martinsburg Westphal Hose Co.	\$350,000.00	X	0.00	=	\$0.00
Martinsburg Waterworks	\$5,103,000.00	X	0.00	=	\$0.00
Martinsburg Animal Shelter	\$54,000.00	X	0.00	=	\$0.00
Martinsburg Sewer Plant	\$6,508,000.00	X	0.00	=	\$0.00
Capitol Cement	\$5,149,000.00	X	0.00	=	\$0.00
Red Hill Storage Tank	\$1,030,000.00	X	0.00	=	\$0.00
Capitol Heights Storage Tank	\$464,000.00	X	0.00	=	\$0.00
Western Ave. Storage Tank	\$309,000.00	X	0.00	=	\$0.00
Old Market House	\$538,000.00	X	0.00	=	\$0.00
Old Armory Building	\$1,215,000.00	X	0.00	=	\$0.00
Olde Sanitation Building	\$279,000.00	X	0.00	=	\$0.00
Martinsburg City Garage	\$434,000.00	X	0.00	=	\$0.00
Martinsburg Train Station	\$1,082,000.00	X	0.00	=	\$0.00
Adam Stephen Complex	\$1,203,000.00	X	0.00	=	\$0.00
War Memorial Park	\$1,816,000.00	X	0.00	=	\$0.00
Lambert Park	\$1,644,000.00	X	0.00	=	\$0.00
P.O. Faulkner Park	\$59,000.00	X	0.00	=	\$0.00
Oak Street Park	\$25,000.00	X	0.00	=	\$0.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$1,341,000.00	X	0.00	=	\$0.00
\$3,430,000.00	X	0.00	=	\$0.00
\$156,000.00	X	0.00	=	\$0.00
\$177,000.00	X	0.00	=	\$0.00
\$210,000.00	X	0.00	=	\$0.00
\$140,000.00	X	0.00	=	\$0.00
\$450,000.00	X	0.00	=	\$0.00
\$20,000.00	X	0.00	=	\$0.00
\$1,931,000.00	X	0.00	=	\$0.00
\$250,000.00	X	0.00	=	\$0.00
\$200,000.00	X	0.00	=	\$0.00
\$5,000.00	X	0.00	=	\$0.00
\$79,000.00	X	0.00	=	\$0.00
\$1,000.00	X	0.00	=	\$0.00
\$5,000.00	X	0.00	=	\$0.00
\$24,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$30,000.00	X	0.00	=	\$0.00
\$10,000.00	X	0.00	=	\$0.00
\$25,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$43,000.00	X	0.00	=	\$0.00
\$100,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Ambrose Park	\$59,000.00	X	0.00	=	\$0.00
Parks and Recreation		X	0.00	=	\$0.00
Delmar Orchard Road	\$2,000,000.00	X	0.00	=	\$0.00
<i>Historic Co. Court House</i>	<i>\$4,175,400.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Dunn Building</i>	<i>\$13,949,800.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Homeland Sec. Emer.Mgmt.</i>	<i>\$1,714,200.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Crawford Building</i>	<i>\$5,517,100.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Senior Center</i>	<i>\$3,386,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>County Maintenance Facility</i>	<i>\$1,268,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Central Dispatch</i>	<i>\$37,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Health Department</i>	<i>\$573,800.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Transmitter</i>	<i>\$10,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Berkeley/Judicial Center</i>	<i>\$22,024,900.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Poor House Farm</i>	<i>\$1,784,600.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>110 Building</i>	<i>\$2,143,700.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>126 Building</i>	<i>\$1,518,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Animal Control Center</i>	<i>\$400,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
Morgan Cabin Museum	\$50,000.00	X	0.00	=	\$0.00
<i>Hedgesville Park</i>	<i>\$45,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>South Berkeley Park</i>	<i>\$40,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
Water Street Facilities	\$2,828,000.00	X	0.00	=	\$0.00
Historic Marker (Bender Property)	\$1,200.00	X	0.00	=	\$0.00
Historic Marker (Providence Quaker Cemetery)	\$1,200.00	X	0.00	=	\$0.00
Court Complex.	\$21,100,000.00	X	0.00	=	\$0.00
Runnymede Road	\$2,045,300.00	X	0.00	=	\$0.00
Kelly Island	\$128,000.00	X	0.00	=	\$0.00
Old Quarry Road	\$53,000.00	X	0.00	=	\$0.00
Route 51 West	\$950,500.00	X	0.00	=	\$0.00
N/E Side Rt. 9 Near Co. Line	\$30,000.00	X	0.00	=	\$0.00
Glenwood Forest Subdivision	\$365,000.00	X	0.00	=	\$0.00
Specks Run Road	\$428,500.00	X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.00	=	\$0.00
\$45,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
<i>\$255,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>\$366,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>\$431,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>\$0.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>\$105,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>\$0.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>\$25,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>\$90,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>\$10,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>\$1,265,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>\$23,595.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>\$75,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>\$75,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>\$34,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
\$6,000.00	X	0.00	=	\$0.00
<i>\$0.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>\$0.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$56,500.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Liberty Buisness Park	\$582,500.00	X	0.00	=	\$0.00
Rt. 11 Near Pikeside	\$52,500.00	X	0.00	=	\$0.00
Rockefeller Science Center	\$565,000.00	X	0.00	=	\$0.00
768 Williamsport Pike	\$1,000.00	X	0.00	=	\$0.00
General Motors	\$612,850.00	X	0.00	=	\$0.00
Duke Road	\$912,500.00	X	0.00	=	\$0.00
268 Treat Water Road	\$4,521,500.00	X	0.00	=	\$0.00
207 Mary Street	\$115,000.00	X	0.00	=	\$0.00
Ben Speck Road	\$170,250.00	X	0.00	=	\$0.00
Church Street	\$205,000.00	X	0.00	=	\$0.00
E/S Ridge Road	\$202,500.00	X	0.00	=	\$0.00
Route 901, East of HMS	\$12,800.00	X	0.00	=	\$0.00
Rt. 9, 1/2 Mile East of Texaco	\$12,800.00	X	0.00	=	\$0.00
Rt.9, Near James Rumsey	\$80,000.00	X	0.00	=	\$0.00
Rt. 9, Near Fort Hill Subdivision	\$14,000.00	X	0.00	=	\$0.00
71 and 83 Monroe Street		X	0.00	=	\$0.00
<b><i>Morning Dove Treatment</i></b>	<b><i>\$111,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Springdale Farm Treatment</i></b>	<b><i>\$203,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Potomac River Treatment</i></b>	<b><i>\$16,794,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Multiple Locations	\$125,000.00	X	0.00	=	\$0.00
Roads	\$1,715,000,000.00	X	0.00	=	\$0.00
Railroads	\$170,000,000.00	X	0.00	=	\$0.00
Bridges	\$303,000,000.00	X	0.00	=	\$0.00
Airport Facilities	\$18,000,000.00	X	0.00	=	\$0.00
Airport Runways	\$84,000,000.00	X	0.00	=	\$0.00
WV State Police	\$200,000.00	X	0.00	=	\$0.00
Berkeley Sheriffs Dept.	\$1,134,000.00	X	0.00	=	\$0.00
Martinsburg Police Dept.		X	0.00	=	\$0.00
Back Creek Valley Fire Dept.		X	0.00	=	\$0.00
Baker Heights VFD		X	0.00	=	\$0.00
Bedington VFD		X	0.00	=	\$0.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$20,000.00	X	0.00	=	\$0.00
\$75,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$10,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$62,000.00	X	0.00	=	\$0.00
\$0.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$400,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Hedgesville VFD		X	0.00	=	\$0.00
Martinsburg Fire Dept.	\$1,600,000.00	X	0.00	=	\$0.00
South Berkeley VFD		X	0.00	=	\$0.00
<i>VA Med Center FD</i>					
<i>WV ANG FD</i>					
Veterans Affairs Medical Center		X	0.00	=	\$0.00
Shenandoah Health Services		X	0.00	=	\$0.00
Martinsburg City Hospital	\$2,361,000.00	X	0.00	=	\$0.00
Naylor Memorial Library	\$279,000.00	X	0.00	=	\$0.00
Martinsburg - Berkeley County Public Library	\$37,000.00	X	0.00	=	\$0.00
<b>Total Loss to Structure</b>					<b>\$0.00</b>

<b>Contents of Loss (Task A.2.)</b>					
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)	
	X	0.00	=	\$0.00	
\$1,500,000.00	X	0.00	=	\$0.00	
	X	0.00	=	\$0.00	
	X	0.00	=	\$0.00	
	X	0.00	=	\$0.00	
\$965,640.00	X	0.00	=	\$0.00	
\$16,000.00	X	0.00	=	\$0.00	
\$43,000.00	X	0.00	=	\$0.00	
<b>Total Loss to Contents</b>					<b>\$0.00</b>

Structure Use and Function Loss (Task A.3.) Epidemic								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Elem		X	0	+		X	0	=	\$0.00	\$0.00
Bedington Elem		X	0	+		X	0	=	\$0.00	\$0.00
Berkeley Heights Elem		X	0	+		X	0	=	\$0.00	\$0.00
Bunker Hill Elem		X	0	+		X	0	=	\$0.00	\$0.00
Burke Street Elem		X	0	+		X	0	=	\$0.00	\$0.00
Gerrardstown Elem		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville Elem		X	0	+		X	0	=	\$0.00	\$0.00
Inwood Primary School		X	0	+		X	0	=	\$0.00	\$0.00
Marlowe Elem		X	0	+		X	0	=	\$0.00	\$0.00
Opequon Elem		X	0	+		X	0	=	\$0.00	\$0.00
Rosemont Elem		X	0	+		X	0	=	\$0.00	\$0.00
Tomahawk Elem		X	0	+		X	0	=	\$0.00	\$0.00
Tuscarora Elem		X	0	+		X	0	=	\$0.00	\$0.00
Valley View Elem		X	0	+		X	0	=	\$0.00	\$0.00
Winchester Ave. Elem		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville MS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg North MS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg South MS		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman MS		X	0	+		X	0	=	\$0.00	\$0.00
<b>Spring Mills MS</b>		<b>X</b>	<b>0</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$0.00</b>
Mill Creek IS		X	0	+		X	0	=	\$0.00	\$0.00
Potomac IS		X	0	+		X	0	=	\$0.00	\$0.00
Eagle School IS		X	0	+		X	0	=	\$0.00	\$0.00
<b>Mountain Ridge IS</b>		<b>X</b>	<b>0</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$0.00</b>
Orchard View IS		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville HS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg HS		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman HS		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Epidemic								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
James Rumsey Vo Tech Center		X	0	+		X	0	=	\$0.00	\$0.00
Pikeside Pre-Vocational		X	0	+		X	0	=	\$0.00	\$0.00
Ramer Center		X	0	+		X	0	=	\$0.00	\$0.00
Administration Building		X	0	+		X	0	=	\$0.00	\$0.00
Maintenance		X	0	+		X	0	=	\$0.00	\$0.00
Transportation		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman Athletic Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Resa VIII Offices		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hall		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Central Fire Station		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Westphal Hose Co.		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Waterworks		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Animal Shelter		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Sewer Plant		X	0	+		X	0	=	\$0.00	\$0.00
Capitol Cement		X	0	+		X	0	=	\$0.00	\$0.00
Red Hill Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Capitol Heights Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Western Ave. Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Old Market House		X	0	+		X	0	=	\$0.00	\$0.00
Old Armory Building		X	0	+		X	0	=	\$0.00	\$0.00
Olde Sanitation Building		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Garage		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Train Station		X	0	+		X	0	=	\$0.00	\$0.00
Adam Stephen Complex		X	0	+		X	0	=	\$0.00	\$0.00
War Memorial Park		X	0	+		X	0	=	\$0.00	\$0.00
Lambert Park		X	0	+		X	0	=	\$0.00	\$0.00
P.O. Faulkner Park		X	0	+		X	0	=	\$0.00	\$0.00
Oak Street Park		X	0	+		X	0	=	\$0.00	\$0.00

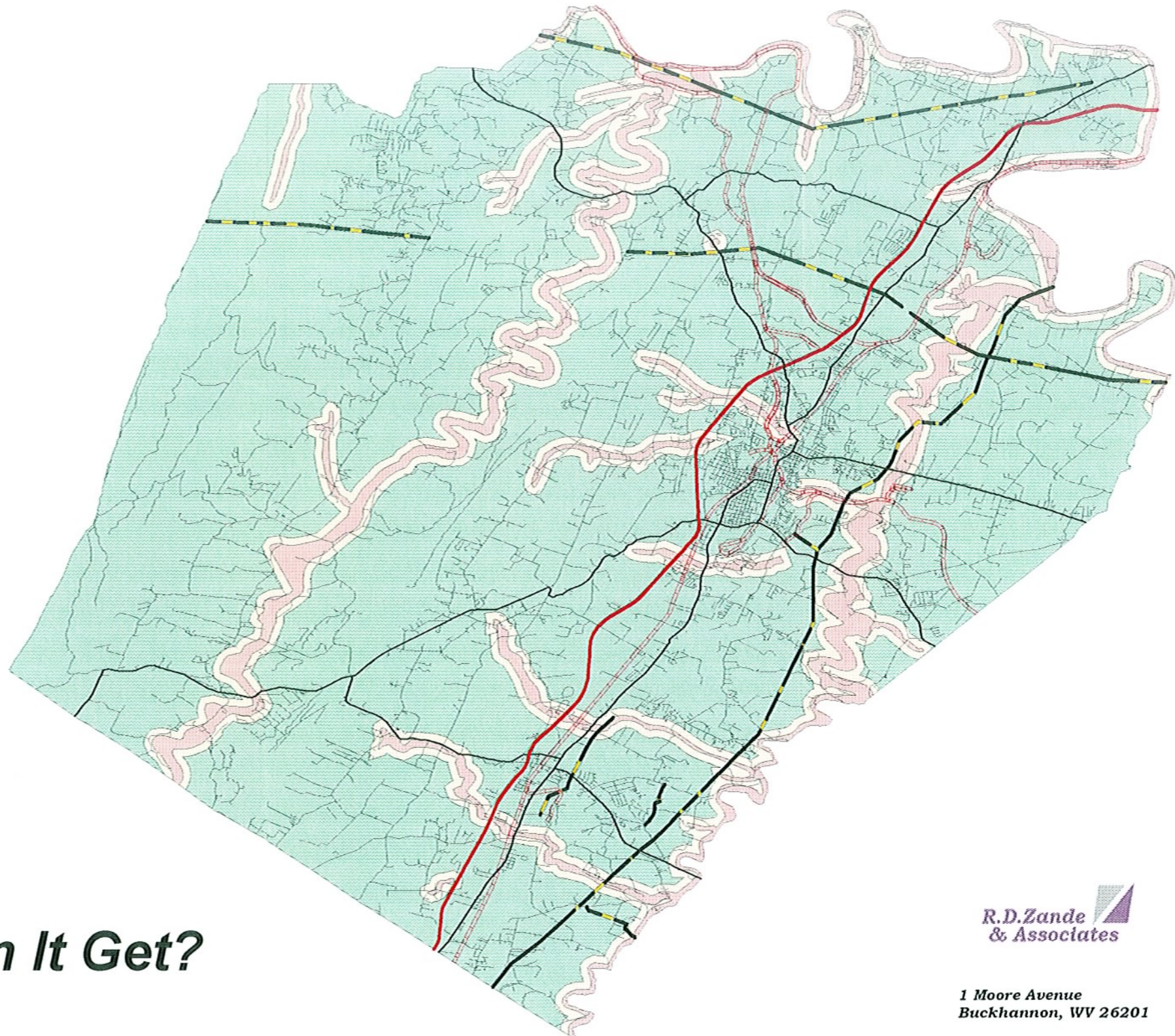
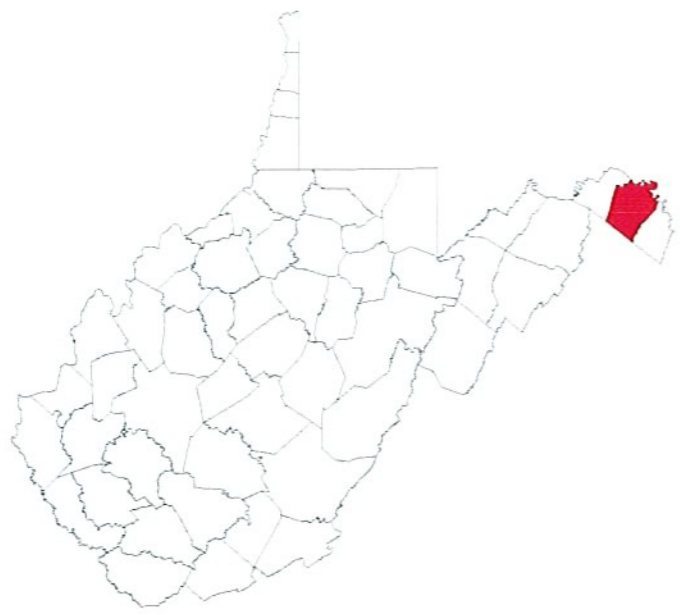


Structure Use and Function Loss (Task A.3.) Epidemic								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Ambrose Park		X	0	+		X	0	=	\$0.00	\$0.00
Parks and Recreation		X	0	+		X	0	=	\$0.00	\$0.00
Delmar Orchard Road		X	0	+		X	0	=	\$0.00	\$0.00
<i>Historic Co. Court House</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Dunn Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Homeland Sec. Emerg. Mgmt</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Crawford Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Senior Center</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>County Maintenance Facility</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Central Dispatch</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Health Department</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Transmitter</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Berkeley/Judicial Center</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Poor House Farm</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>110 Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>126 Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Animal Control Center</i>		X	0	+		X	0	=	\$0.00	\$0.00
Morgan Cabin Museum		X	0	+		X	0	=	\$0.00	\$0.00
<i>Hedgesville Park</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>South Berkeley Park</i>		X	0	+		X	0	=	\$0.00	\$0.00
Water Street Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Historic Marker (Bender Property)		X	0	+		X	0	=	\$0.00	\$0.00
Historic Marker (Providence Quaker Cemetery)		X	0	+		X	0	=	\$0.00	\$0.00
Court Complex.		X	0	+		X	0	=	\$0.00	\$0.00
Runnymede Road		X	0	+		X	0	=	\$0.00	\$0.00
Kelly Island		X	0	+		X	0	=	\$0.00	\$0.00
Old Quarry Road		X	0	+		X	0	=	\$0.00	\$0.00
Route 51 West		X	0	+		X	0	=	\$0.00	\$0.00
N/E Side Rt. 9 Near Co. Line		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Epidemic								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Glenwood Forest Subdivision		X	0	+		X	0	=	\$0.00	\$0.00
Specks Run Road		X	0	+		X	0	=	\$0.00	\$0.00
Liberty Buisness Park		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 11 Near Pikeside		X	0	+		X	0	=	\$0.00	\$0.00
Rockefeller Science Center		X	0	+		X	0	=	\$0.00	\$0.00
768 Williamsport Pike		X	0	+		X	0	=	\$0.00	\$0.00
General Motors		X	0	+		X	0	=	\$0.00	\$0.00
Duke Road		X	0	+		X	0	=	\$0.00	\$0.00
268 Treat Water Road		X	0	+		X	0	=	\$0.00	\$0.00
207 Mary Street		X	0	+		X	0	=	\$0.00	\$0.00
Ben Speck Road		X	0	+		X	0	=	\$0.00	\$0.00
Church Street		X	0	+		X	0	=	\$0.00	\$0.00
E/S Ridge Road		X	0	+		X	0	=	\$0.00	\$0.00
Route 901, East of HMS		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 9, 1/2 Mile East of Texaco		X	0	+		X	0	=	\$0.00	\$0.00
Rt.9, Near James Rumsey		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 9, Near Fort Hill Subdivision		X	0	+		X	0	=	\$0.00	\$0.00
71 and 83 Monroe Street		X	0	+		X	0	=	\$0.00	\$0.00
<i>Morning Dove Treatment</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Springdale Farm Treatment</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Potomac River Treatment</i>		X	0	+		X	0	=	\$0.00	\$0.00
Multiple Locations		X	0	+		X	0	=	\$0.00	\$0.00
Roads		X	0	+		X	0	=	\$0.00	\$0.00
Railroads		X	0	+		X	0	=	\$0.00	\$0.00
Bridges		X	0	+		X	0	=	\$0.00	\$0.00
Airport Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Airport Runways		X	0	+		X	0	=	\$0.00	\$0.00
WV State Police	\$1,800.00	X	0	+	\$1,800.00	X	0	=	\$0.00	\$0.00
Berkeley Sheriffs Dept.	\$5,900.00	X	0	+	\$5,900.00	X	0	=	\$0.00	\$0.00
Martinsburg Police Dept.		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Epidemic								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Valley Fire Dept.		X	0	+		X	0	=	\$0.00	\$0.00
Baker Heights VFD		X	0	+		X	0	=	\$0.00	\$0.00
Bedington VFD		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville VFD		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Fire Dept.	\$5,450.00	X	0	+	\$5,450.00	X	0	=	\$0.00	\$0.00
South Berkeley VFD		X	0	+		X	0	=	\$0.00	\$0.00
<b><i>VA Med. Center FD</i></b>		<b><i>X</i></b>	<b><i>0</i></b>			<b><i>X</i></b>	<b><i>0</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	<b><i>\$0.00</i></b>
<b><i>WV ANG FD</i></b>		<b><i>X</i></b>	<b><i>0</i></b>			<b><i>X</i></b>	<b><i>0</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	<b><i>\$0.00</i></b>
Veterans Affairs Medical Center		X	0	+		X	0	=	\$0.00	\$0.00
Shenandoah Health Services		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hospital	\$3,500.00	X	0	+	\$3,500.00	X	0	=	\$0.00	\$0.00
Naylor Memorial Library		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg - Berkeley County Public Library		X	0	+		X	0	=	\$0.00	\$0.00
<b>Total Loss to Structure Use &amp; Function</b>									<b>\$0.00</b>	<b>\$0.00</b>

# Flooding



## MAP LEGEND

- Roads
- Highway
- State Route
- County Route
- Railroad
- Power Lines
- High Hazard
- Moderate Hazard
- Low Hazard

*How Bad Can It Get?*



R.D.Zande & Associates  
1 Moore Avenue  
Buckhannon, WV 26201

## Flooding

**A flood is a general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of inland or tidal waters, (2) the unusual and rapid accumulation of runoff or surface waters from any source, or (3) mudflows or the sudden collapse of shoreline land.**

Each year, floods cause more property damage in the United States than any other type of natural disaster. The history of flooding within Berkeley County indicates that flooding can occur at any time of the year.

Several methods of research identified flooding as a hazard in Berkeley County, including: reviews of FIRM maps, reviews of past disaster declarations, discussions with local officials, and public input. The following Internet sites were also used to gain information on flooding.

- Association of Dam Safety Officials  
<http://crunch.tec.army.mil/nid/webpages/nid.cfm>
- Federal Emergency Management Agency  
<http://www.fema.gov/maps/>
- Flash-Flood Safety Rules  
<http://www.nws.noaa.gov/om/nh-flfd.htm>
- Flood Risk and Map Information  
<http://www.fema.gov/nfip/fmapinfo.htm>
- Flood Safety Rules  
<http://www.new.noaa.gov/om/nh-flood.html>
- Floodplain Management Association  
<http://www.foodplain.org>
- General Flood Information  
[http://www.nfpa.org/Education/Consumers\\_and\\_Families/Fire\\_Safety\\_Information/Talking\\_About\\_Disaster/Flood\\_and\\_Flash\\_Flood/flood\\_and\\_flash\\_flood.html](http://www.nfpa.org/Education/Consumers_and_Families/Fire_Safety_Information/Talking_About_Disaster/Flood_and_Flash_Flood/flood_and_flash_flood.html)
- Guide to Flood Maps on the Web  
<http://www.fema.gov/nfip/readmap>
- Latest Hydrological Information (Flooding, Droughts, Snow Conditions, and Water Supply)  
<http://www.nws.noaa.gov/oh/hic/current/>
- Real-Time Hydrologic Data Page

- <http://water.usgs.gov/realtime.html>
- Regional River Forecast Centers  
[http://www.srh.noaa.gov/abrffc.rfc\\_wfo.html](http://www.srh.noaa.gov/abrffc.rfc_wfo.html)
  - State Floodplain Managers  
<http://www.floods.org/stcoor.htm>
  - United States Army Corps of Engineers (USACOE)  
<http://www.wsace.army.mil/inet/functions/cw>
  - USGS Streamflow Data Historical  
<http://water.usgs.gov/usa/nwis/sw>
  - National Oceanic Atmospheric Administration (NOAA)  
<http://www.noaa.gov>

## **RIVERINE FLOODING**

Berkeley County is susceptible to riverine flooding along the paths of the Potomac River, tributaries of the Potomac River, Opequon Creek, and Tuscarora Creek, which run through or near many communities. Areas such as Hedgesville, Falling Waters, Inwood, and Bunker Hill are often affected by riverine flooding. Riverine flooding is usually caused by a significant amount of rainfall over a period of days and can be worsened by snowmelt conditions.

Major flooding events occurred in the county on January 21, 1996, and September 6, 1996. The largest Potomac River flood on record in Berkeley County occurred in 1936, creating \$180,000 (1936 dollars) damage, of which \$158,000 was agricultural as a result of the inundation of 7,030 acres. According to a *NOAA Storm Event Record* description, on January 19, 1996, high dew point temperatures melted most of the snow on the ground within 12 hours. The pack had a liquid equivalent of two (2) to three (3) inches. The snowmelt, combined with one (1) to three (3) inches of rainfall, produced the worst regional flooding since 1985. River flooding began during the flood/flash flood event along the headwaters of the basin and continued downstream through the 21<sup>st</sup>. Crests ranged from three (3) to 21 feet above flood stage. A flood of record was noted on Opequon Creek near Martinsburg. High water caused millions of dollars in damage, closed roads, destroyed homes and businesses, and caused several communities to be evacuated. The National Park Service at historic Harpers Ferry estimated damage to the park at \$3 million, comparable to the 1985 damage figures. Some of the subdivision developments along the Potomac River are subject to devastating floods. Sportsman's Paradise is one such area where buyout projects have been conducted as mitigation efforts.

Riverine flooding is very likely to continue striking these same areas. Areas near the path of the Potomac River basin are particularly low-lying areas. Local officials should consider strengthening building and/or development regulations in these areas.

*Update: A chart of repetitive loss properties is included with this section. There are 67 properties listed.*

## **FLASH FLOODING**

Areas located below the higher elevations that exist in Berkeley County are often susceptible to flash flooding, as short periods of intense rainfall can result in water flowing rapidly down hills and collecting in valley streams and creeks, which often overflow their banks. Flash floods also often result in mud or debris slides.

Because many of the higher elevations of the county are rural, emergency operations in these areas are difficult. Thus, these flash floods that often cause damage to homes and minor power outages can endanger the safety and health of those county residents.

According to a *NOAA Storm Event Record* description, on August 2, 1996 a slow-moving torrential rain producing thunderstorms caused several instances of flash flooding in southern Berkeley County. One home was partially under water; numerous roads were flooded, several streams rose out of their banks, and a few vehicles were flooded.

Flash flooding is difficult to mitigate against, as many structures in higher elevated areas are not subject to floodplain ordinances. However, residents and business owners in these areas should be warned of the potential for flash flooding.

## **MAPPING**

See the Berkeley County Flooding Map for a graphical representation of the high-risk areas with regard to flooding in the county. The green areas represent “low hazard areas,” the yellow areas represent “moderate hazard areas,” the orange areas represent “high hazard areas,” and the red areas represent “extreme high hazard areas.”

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

**Hazard: Flooding**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# In County	# In Hazard Area	% In Hazard Area	\$ In County	\$ In Hazard Area	% In Hazard Area	# In County	# In Hazard Area	% In Hazard Area
RESIDENTIAL	35,300	7632	21	\$3,353,500,000.00	\$725,047,000.00	19	52,365	11,322	14
COMMERCIAL	1,380	298	1	\$158,700,000.00	\$34,312,000.00	1	17,648	3,816	5
INDUSTRIAL	57	12	0	\$28,500,000.00	\$6,162,000.00	0	4,281	926	1
AGRICULTURAL	39	8	0	\$7,193,600.00	\$1,555,000.00	0	366	79	0
RELIGIOUS	55	12	0	\$13,475,000.00	\$2,913,000.00	0	110	24	0
GOVERNMENT	76	16	0	\$11,400,000.00	\$2,465,000.00	0	6,262	1,354	2
EDUCATION	28	6	0	\$140,790,000.00	\$30,440,000.00	1	1,373	297	0
UTILITIES	6	1	0	\$7,500,000.00	\$1,622,000.00	0	95	21	0
<b>Total</b>	<b>36,941</b>	<b>7,987</b>	<b>22</b>	<b>\$3,721,058,600.0</b>	<b>\$804,516,000.00</b>	<b>22</b>	<b>82,500</b>	<b>17,837</b>	<b>22</b>

Task B. Determine whether (and where) you want to collect additional inventory data.

	YES	NO
1) Do you know where your greatest damages may occur in your hazard areas?	X	
2) Do you know whether your critical facilities will be operational after a hazard event?		X
3) Is there enough data to determine which assets are subject to the greatest potential damages?	X	
4) Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5) Is there enough data to determine whether certain areas are vulnerable to potential hazards?	X	
6) Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7) Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		



**ESTIMATE LOSSES**

Hazard: Flooding

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Back Creek Elem	\$1,599,000.00	X	0.00	=	\$0.00
Bedington Elem	\$1,685,000.00	X	0.00	=	\$0.00
Berkeley Heights Elem	\$3,637,000.00	X	0.00	=	\$0.00
Bunker Hill Elem	\$1,764,000.00	X	0.00	=	\$0.00
Burke Street Elem	\$1,425,000.00	X	0.00	=	\$0.00
Gerrardstown Elem	\$1,292,000.00	X	0.00	=	\$0.00
Hedgesville Elem	\$2,670,000.00	X	0.00	=	\$0.00
Inwood Primary School	\$1,525,000.00	X	0.00	=	\$0.00
Marlowe Elem	\$2,070,000.00	X	0.00	=	\$0.00
Opequon Elem	\$3,529,000.00	X	0.00	=	\$0.00
Rosemont Elem	\$3,138,000.00	X	0.00	=	\$0.00
Tomahawk Elem	\$4,295,000.00	X	0.00	=	\$0.00
Tuscarora Elem	\$3,459,000.00	X	0.00	=	\$0.00
Valley View Elem	\$3,475,000.00	X	0.00	=	\$0.00
Winchester Ave. Elem	\$2,140,000.00	X	0.00	=	\$0.00
Hedgesville MS	\$7,105,000.00	X	0.00	=	\$0.00
Martinsburg North MS	\$6,245,000.00	X	0.00	=	\$0.00
Martinsburg South MS	\$5,249,000.00	X	0.00	=	\$0.00
Mussleman MS	\$9,217,000.00	X	0.00	=	\$0.00
<b><i>Spring Mills MS</i></b>	<b><i>\$10,370,648.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Mill Creek IS	\$5,175,000.00	X	0.00	=	\$0.00
Potomac IS	\$4,295,000.00	X	0.00	=	\$0.00
Eagle School IS	\$5,100,000.00	X	0.00	=	\$0.00
<b><i>Mountain Ridge IS</i></b>	<b><i>\$7,500,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Orchard View IS	\$5,100,000.00	X	0.00	=	\$0.00
Hedgesville HS	\$13,049,000.00	X	0.00	=	\$0.00
Martinsburg HS	\$17,312,000.00	X	0.00	=	\$0.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$144,000.00	X	0.00	=	\$0.00
\$152,000.00	X	0.00	=	\$0.00
\$356,000.00	X	0.00	=	\$0.00
\$158,000.00	X	0.00	=	\$0.00
\$129,000.00	X	0.00	=	\$0.00
\$117,000.00	X	0.00	=	\$0.00
\$241,000.00	X	0.00	=	\$0.00
\$129,000.00	X	0.00	=	\$0.00
\$186,000.00	X	0.00	=	\$0.00
\$355,000.00	X	0.00	=	\$0.00
\$297,000.00	X	0.00	=	\$0.00
\$388,000.00	X	0.00	=	\$0.00
\$322,000.00	X	0.00	=	\$0.00
\$314,000.00	X	0.00	=	\$0.00
\$139,000.00	X	0.00	=	\$0.00
\$626,000.00	X	0.00	=	\$0.00
\$550,000.00	X	0.00	=	\$0.00
\$467,000.00	X	0.00	=	\$0.00
\$507,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$419,000.00	X	0.00	=	\$0.00
\$452,000.00	X	0.00	=	\$0.00
\$500,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$500,000.00	X	0.00	=	\$0.00
\$1,167,800.00	X	0.00	=	\$0.00
\$1,538,000.00	X	0.00	=	\$0.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Mussleman HS	\$15,205,000.00	X	0.00	=	\$0.00
James Rumsey Vo Tech Center	\$8,270,000.00	X	0.00	=	\$0.00
Pikeside Pre-Vocational	\$1,765,000.00	X	0.00	=	\$0.00
Ramer Center	\$1,720,000.00	X	0.00	=	\$0.00
Administration Building	\$2,175,000.00	X	0.00	=	\$0.00
Maintenance	\$665,000.00	X	0.00	=	\$0.00
Transportation	\$1,975,000.00	X	0.00	=	\$0.00
Mussleman Athletic Facilities	\$1,300,000.00	X	0.00	=	\$0.00
Resa VIII Offices	\$770,000.00	X	0.00	=	\$0.00
Martinsburg City Hall	\$2,000,000.00	X	0.00	=	\$0.00
Martinsburg Central Fire Station	\$1,260,000.00	X	0.00	=	\$0.00
Martinsburg Westphal Hose Co.	\$350,000.00	X	0.00	=	\$0.00
Martinsburg Waterworks	\$5,103,000.00	X	6.00	=	\$306,200.00
Martinsburg Animal Shelter	\$54,000.00	X	0.00	=	\$0.00
Martinsburg Sewer Plant	\$6,508,000.00	X	6.00	=	\$390,500.00
Capitol Cement	\$5,149,000.00	X	0.00	=	\$0.00
Red Hill Storage Tank	\$1,030,000.00	X	0.00	=	\$0.00
Capitol Heights Storage Tank	\$464,000.00	X	0.00	=	\$0.00
Western Ave. Storage Tank	\$309,000.00	X	0.00	=	\$0.00
Old Market House	\$538,000.00	X	0.00	=	\$0.00
Old Armory Building	\$1,215,000.00	X	0.00	=	\$0.00
Olde Sanitation Building	\$279,000.00	X	0.00	=	\$0.00
Martinsburg City Garage	\$434,000.00	X	0.00	=	\$0.00
Martinsburg Train Station	\$1,082,000.00	X	0.00	=	\$0.00
Adam Stephen Complex	\$1,203,000.00	X	0.00	=	\$0.00
War Memorial Park	\$1,816,000.00	X	6.00	=	\$109,000.00
Lambert Park	\$1,644,000.00	X	0.00	=	\$0.00
P.O. Faulkner Park	\$59,000.00	X	0.00	=	\$0.00
Oak Street Park	\$25,000.00	X	0.00	=	\$0.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$1,341,000.00	X	0.00	=	\$0.00
\$3,430,000.00	X	0.00	=	\$0.00
\$156,000.00	X	0.00	=	\$0.00
\$177,000.00	X	0.00	=	\$0.00
\$210,000.00	X	0.00	=	\$0.00
\$140,000.00	X	0.00	=	\$0.00
\$450,000.00	X	0.00	=	\$0.00
\$20,000.00	X	0.00	=	\$0.00
\$1,931,000.00	X	0.00	=	\$0.00
\$250,000.00	X	0.00	=	\$0.00
\$200,000.00	X	0.00	=	\$0.00
\$5,000.00	X	0.00	=	\$0.00
\$79,000.00	X	3.00	=	\$2,400.00
\$1,000.00	X	0.00	=	\$0.00
\$5,000.00	X	3.00	=	\$200.00
\$24,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$30,000.00	X	0.00	=	\$0.00
\$10,000.00	X	0.00	=	\$0.00
\$25,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$43,000.00	X	3.00	=	\$1,300.00
\$100,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Ambrose Park	\$59,000.00	X	0.00	=	\$0.00
Parks and Recreation		X	0.00	=	\$0.00
Delmar Orchard Road	\$2,000,000.00	X	0.00	=	\$0.00
<b><i>Historic Co. Court House</i></b>	<b><i>\$4,175,400.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Dunn Building</i></b>	<b><i>\$13,949,800.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Homeland Sec. Emer. Mgmt</i></b>	<b><i>\$1,714,200.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Crawford Building</i></b>	<b><i>\$5,517,100.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Senior Center</i></b>	<b><i>\$3,386,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>County Maintenance Facility</i></b>	<b><i>\$1,268,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Central Dispatch</i></b>	<b><i>\$37,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Health Department</i></b>	<b><i>\$573,800.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Transmitter</i></b>	<b><i>\$10,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Berkeley/Judicial Building</i></b>	<b><i>\$22,024,900.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Poor House Farm</i></b>	<b><i>\$1,784,600.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>110 Building</i></b>	<b><i>\$2,143,700.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>126 Building</i></b>	<b><i>\$1,518,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Animal Control Center</i></b>	<b><i>\$400,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Morgan Cabin Museum	\$50,000.00	X	0.00	=	\$0.00
<b><i>Hedgesville Park</i></b>	<b><i>\$45,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>South Berkeley Park</i></b>	<b><i>\$40,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Water Street Facilities	\$2,828,000.00	X	0.00	=	\$0.00
Historic Marker (Bender Property)	\$1,200.00	X	0.00	=	\$0.00
Historic Marker (Providence Quaker Cemetery)	\$1,200.00	X	0.00	=	\$0.00
Court Complex.	\$21,100,000.00	X	0.00	=	\$0.00
Runnymede Road	\$2,045,300.00	X	0.00	=	\$0.00
Kelly Island	\$128,000.00	X	0.00	=	\$0.00
Old Quarry Road	\$53,000.00	X	0.00	=	\$0.00
Route 51 West	\$950,500.00	X	0.00	=	\$0.00
N/E Side Rt. 9 Near Co. Line	\$30,000.00	X	0.00	=	\$0.00
Glenwood Forest Subdivision	\$365,000.00	X	0.00	=	\$0.00
Specks Run Road	\$428,500.00	X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.00	=	\$0.00
\$45,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
<b><i>\$255,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$366,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$431,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$105,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$25,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$90,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$10,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$1,265,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$23,595.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$75,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$75,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$34,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$6,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$56,500.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Liberty Buisness Park	\$582,500.00	X	0.00	=	\$0.00
Rt. 11 Near Pikeside	\$52,500.00	X	0.00	=	\$0.00
Rockefeller Science Center	\$565,000.00	X	0.00	=	\$0.00
768 Williamsport Pike	\$1,000.00	X	0.00	=	\$0.00
General Motors	\$612,850.00	X	0.00	=	\$0.00
Duke Road	\$912,500.00	X	0.00	=	\$0.00
268 Treat Water Road	\$4,521,500.00	X	0.00	=	\$0.00
207 Mary Street	\$115,000.00	X	0.00	=	\$0.00
Ben Speck Road	\$170,250.00	X	0.00	=	\$0.00
Church Street	\$205,000.00	X	0.00	=	\$0.00
E/S Ridge Road	\$202,500.00	X	0.00	=	\$0.00
Route 901, East of HMS	\$12,800.00	X	0.00	=	\$0.00
Rt. 9, 1/2 Mile East of Texaco	\$12,800.00	X	0.00	=	\$0.00
Rt.9, Near James Rumsey	\$80,000.00	X	0.00	=	\$0.00
Rt. 9, Near Fort Hill Subdivision	\$14,000.00	X	0.00	=	\$0.00
71 and 83 Monroe Street		X	0.00	=	\$0.00
<i>Morning Dove Treatment</i>	<i>\$111,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	\$0.00
<i>Springdale Farm Treatment</i>	<i>\$203,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	\$0.00
<i>Potomac River Treatment</i>	<i>\$16,794,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	\$0.00
Multiple Locations	\$125,000.00	X	0.00	=	\$0.00
Roads	\$1,715,000,000.00	X	6.00	=	\$102,900,000.00
Railroads	\$170,000,000.00	X	0.00	=	\$0.00
Bridges	\$303,000,000.00	X	6.00	=	\$18,180,000.00
Airport Facilities	\$18,000,000.00	X	0.00	=	\$0.00
Airport Runways	\$84,000,000.00	X	0.00	=	\$0.00
WV State Police	\$200,000.00	X	0.00	=	\$0.00
Berkeley Sheriffs Dept.	\$1,134,000.00	X	0.00	=	\$0.00
Martinsburg Police Dept.		X	0.00	=	\$0.00
Back Creek Valley Fire Dept.		X	0.00	=	\$0.00
Baker Heights VFD		X	0.00	=	\$0.00
Bedington VFD		X	0.00	=	\$0.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$20,000.00	X	0.00	=	\$0.00
\$75,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$10,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$62,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	3.00	=	\$0.00
	X	0.00	=	\$0.00
	X	3.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$400,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Hedgesville VFD		X	0.00	=	\$0.00
Martinsburg Fire Dept.	\$1,600,000.00	X	0.00	=	\$0.00
South Berkeley VFD		X	0.00	=	\$0.00
<b><i>VA Med. Center FD</i></b>		<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>WV ANG FD</i></b>		<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Veterans Affairs Medical Center		X	0.00	=	\$0.00
Shenandoah Health Services		X	0.00	=	\$0.00
Martinsburg City Hospital	\$2,361,000.00	X	0.00	=	\$0.00
Naylor Memorial Library	\$279,000.00	X	0.00	=	\$0.00
Martinsburg - Berkeley County Public Library	\$37,000.00	X	0.00	=	\$0.00
<b>Total Loss to Structure</b>					<b>\$121,885,700.00</b>

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.00	=	\$0.00
\$1,500,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$965,640.00	X	0.00	=	\$0.00
\$16,000.00	X	0.00	=	\$0.00
\$43,000.00	X	0.00	=	\$0.00
<b>Total Loss to Contents</b>				<b>\$3,900.00</b>

Structure Use and Function Loss (Task A.3.) Flooding								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Elem		X	0	+		X	0	=	\$0.00	\$0.00
Bedington Elem		X	0	+		X	0	=	\$0.00	\$0.00
Berkeley Heights Elem		X	0	+		X	0	=	\$0.00	\$0.00
Bunker Hill Elem		X	0	+		X	0	=	\$0.00	\$0.00
Burke Street Elem		X	0	+		X	0	=	\$0.00	\$0.00
Gerrardstown Elem		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville Elem		X	0	+		X	0	=	\$0.00	\$0.00
Inwood Primary School		X	0	+		X	0	=	\$0.00	\$0.00
Marlowe Elem		X	0	+		X	0	=	\$0.00	\$0.00
Opequon Elem		X	0	+		X	0	=	\$0.00	\$0.00
Rosemont Elem		X	0	+		X	0	=	\$0.00	\$0.00
Tomahawk Elem		X	0	+		X	0	=	\$0.00	\$0.00
Tuscarora Elem		X	0	+		X	0	=	\$0.00	\$0.00
Valley View Elem		X	0	+		X	0	=	\$0.00	\$0.00
Winchester Ave. Elem		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville MS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg North MS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg South MS		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman MS		X	0	+		X	0	=	\$0.00	\$0.00
<b><i>Spring Mills MS</i></b>		<b><i>X</i></b>	<b><i>0</i></b>	<b><i>+</i></b>		<b><i>X</i></b>	<b><i>0</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	<b><i>\$0.00</i></b>
Mill Creek IS		X	0	+		X	0	=	\$0.00	\$0.00
Potomac IS		X	0	+		X	0	=	\$0.00	\$0.00
Eagle School IS		X	0	+		X	0	=	\$0.00	\$0.00
<b><i>Mountain Ridge IS</i></b>		<b><i>X</i></b>	<b><i>0</i></b>	<b><i>+</i></b>		<b><i>X</i></b>	<b><i>0</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	<b><i>\$0.00</i></b>
Orchard View IS		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville HS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg HS		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman HS		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Flooding								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
James Rumsey Vo Tech Center		X	0	+		X	0	=	\$0.00	\$0.00
Pikeside Pre-Vocational		X	0	+		X	0	=	\$0.00	\$0.00
Ramer Center		X	0	+		X	0	=	\$0.00	\$0.00
Administration Building		X	0	+		X	0	=	\$0.00	\$0.00
Maintenance		X	0	+		X	0	=	\$0.00	\$0.00
Transportation		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman Athletic Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Resa VIII Offices		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hall		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Central Fire Station		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Westphal Hose Co.		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Waterworks		X	2	+		X	0	=	\$0.00	\$308,600.00
Martinsburg Animal Shelter		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Sewer Plant		X	2	+		X	0	=	\$0.00	\$390,700.00
Capitol Cement		X	0	+		X	0	=	\$0.00	\$0.00
Red Hill Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Capitol Heights Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Western Ave. Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Old Market House		X	0	+		X	0	=	\$0.00	\$0.00
Old Armory Building		X	0	+		X	0	=	\$0.00	\$0.00
Olde Sanitation Building		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Garage		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Train Station		X	0	+		X	0	=	\$0.00	\$0.00
Adam Stephen Complex		X	0	+		X	0	=	\$0.00	\$0.00
War Memorial Park		X	2	+		X	0	=	\$0.00	\$110,300.00
Lambert Park		X	0	+		X	0	=	\$0.00	\$0.00
P.O. Faulkner Park		X	0	+		X	0	=	\$0.00	\$0.00
Oak Street Park		X	0	+		X	0	=	\$0.00	\$0.00

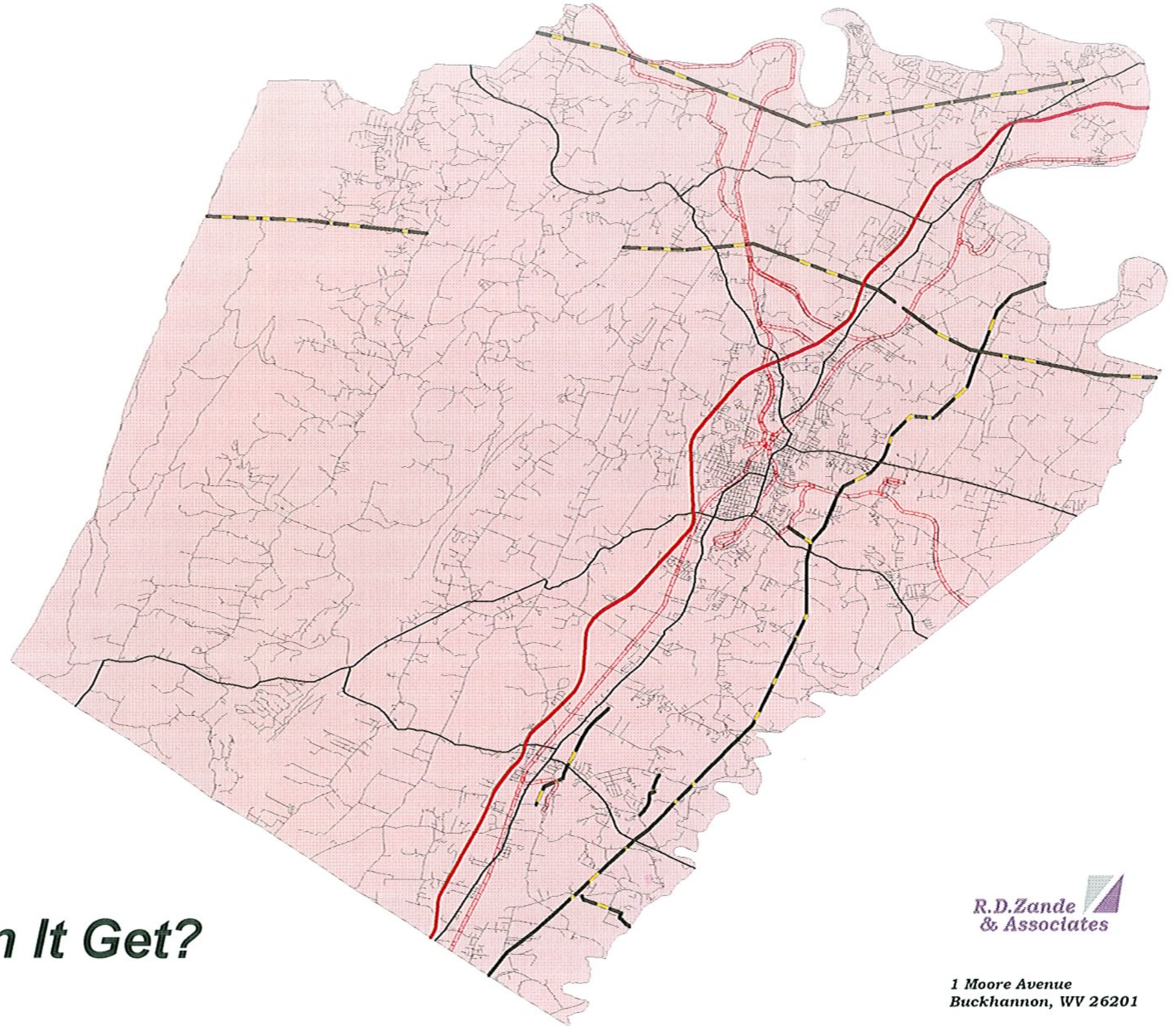
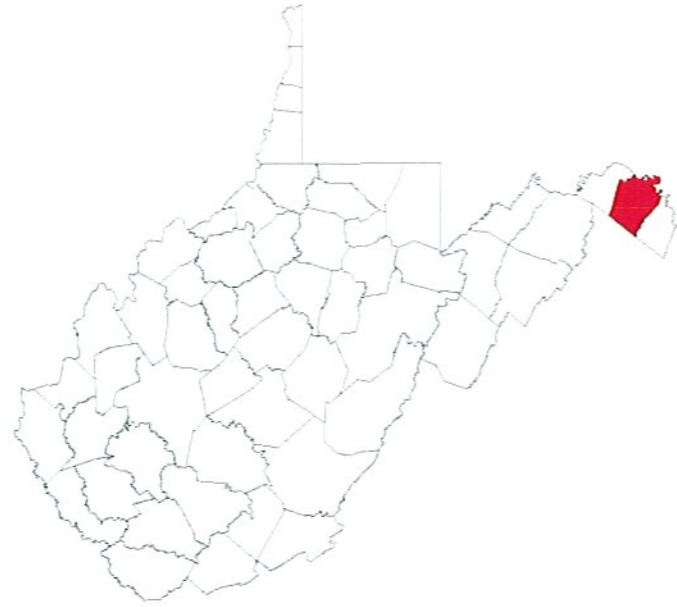
Structure Use and Function Loss (Task A.3.) Flooding								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Ambrose Park		X	0	+		X	0	=	\$0.00	\$0.00
Parks and Recreation		X	0	+		X	0	=	\$0.00	\$0.00
Delmar Orchard Road		X	0	+		X	0	=	\$0.00	\$0.00
<i>Historic County Court House</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Dunn Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Homeland Sec/Emer Mgmt</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Crawford Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Senior Center</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>County Maintenance Facility</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Central Dispatch</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Health Department</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Transmitter</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Berkeley/Judicial Center</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Poor House Farm</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>110 Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>126 Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Animal Control Center</i>		X	0	+		X	0	=	\$0.00	\$0.00
Morgan Cabin Museum		X	0	+		X	0	=	\$0.00	\$0.00
<i>Hedgesville Park</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>South Berkeley Park</i>		X	0	+		X	0	=	\$0.00	\$0.00
Water Street Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Historic Marker (Bender Property)		X	0	+		X	0	=	\$0.00	\$0.00
Historic Marker (Providence Quaker Cemetery)		X	0	+		X	0	=	\$0.00	\$0.00
Court Complex.		X	0	+		X	0	=	\$0.00	\$0.00
Runnymede Road		X	0	+		X	0	=	\$0.00	\$0.00
Kelly Island		X	0	+		X	0	=	\$0.00	\$0.00
Old Quarry Road		X	0	+		X	0	=	\$0.00	\$0.00
Route 51 West		X	0	+		X	0	=	\$0.00	\$0.00
N/E Side Rt. 9 Near Co. Line		X	0	+		X	0	=	\$0.00	\$0.00



Structure Use and Function Loss (Task A.3.) Flooding								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Glenwood Forest Subdivision		X	0	+		X	0	=	\$0.00	\$0.00
Specks Run Road		X	0	+		X	0	=	\$0.00	\$0.00
Liberty Buisness Park		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 11 Near Pikeside		X	0	+		X	0	=	\$0.00	\$0.00
Rockefeller Science Center		X	0	+		X	0	=	\$0.00	\$0.00
768 Williamsport Pike		X	0	+		X	0	=	\$0.00	\$0.00
General Motors		X	0	+		X	0	=	\$0.00	\$0.00
Duke Road		X	0	+		X	0	=	\$0.00	\$0.00
268 Treat Water Road		X	0	+		X	0	=	\$0.00	\$0.00
207 Mary Street		X	0	+		X	0	=	\$0.00	\$0.00
Ben Speck Road		X	0	+		X	0	=	\$0.00	\$0.00
Church Street		X	0	+		X	0	=	\$0.00	\$0.00
E/S Ridge Road		X	0	+		X	0	=	\$0.00	\$0.00
Route 901, East of HMS		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 9, 1/2 Mile East of Texaco		X	0	+		X	0	=	\$0.00	\$0.00
Rt.9, Near James Rumsey		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 9, Near Fort Hill Subdivision		X	0	+		X	0	=	\$0.00	\$0.00
71 and 83 Monroe Street		X	0	+		X	0	=	\$0.00	\$0.00
<i>Morning Dove Treatment</i>		<i>X</i>	<i>0</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
<i>Springdale Farm Treatment</i>		<i>X</i>	<i>0</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
<i>Potomac River Treatment</i>		<i>X</i>	<i>0</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
Multiple Locations		X	0	+		X	0	=	\$0.00	\$0.00
Roads		X	2	+		X	0	=	\$0.00	\$102,900,000.00
Railroads		X	0	+		X	0	=	\$0.00	\$0.00
Bridges		X	2	+		X	0	=	\$0.00	\$18,180,000.00
Airport Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Airport Runways		X	0	+		X	0	=	\$0.00	\$0.00
WV State Police	\$1,800.00	X	0	+	\$1,800.00	X	0	=	\$0.00	\$0.00
Berkeley Sheriffs Dept.	\$5,900.00	X	0	+	\$5,900.00	X	0	=	\$0.00	\$0.00
Martinsburg Police Dept.		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Flooding								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Valley Fire Dept.		X	0	+		X	0	=	\$0.00	\$0.00
Baker Heights VFD		X	0	+		X	0	=	\$0.00	\$0.00
Bedington VFD		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville VFD		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Fire Dept.	\$5,450.00	X	0	+	\$5,450.00	X	0	=	\$0.00	\$0.00
South Berkeley VFD		X	0	+		X	0	=	\$0.00	\$0.00
<i>VA Med Ctr FD</i>		<i>X</i>	<i>0</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	\$0.00
<i>WV ANG FD</i>		<i>X</i>	<i>0</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	\$0.00
Veterans Affairs Medical Center		X	0	+		X	0	=	\$0.00	\$0.00
Shenandoah Health Services		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hospital	\$3,500.00	X	0	+	\$3,500.00	X	0	=	\$0.00	\$0.00
Naylor Memorial Library		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg - Berkeley County Public Library		X	0	+		X	0	=	\$0.00	\$0.00
<b>Total Loss to Structure Use &amp; Function</b>									<b>\$0.00</b>	<b>\$121,889,600.00</b>

# Hailstorm



## MAP LEGEND

- Roads
- Highway
  - State Route
  - County Route
  - Railroad
  - Power Lines
  - High Hazard

*How Bad Can It Get?*



R.D.Zande  
& Associates

1 Moore Avenue  
Buckhannon, WV 26201

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

**Hazard: Hailstorms**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# In County	# In Hazard Area	% In Hazard Area	\$ In County	\$ In Hazard Area	% In Hazard Area	# In County	# In Hazard Area	% In Hazard Area
RESIDENTIAL	35,300	12991	35	\$3,353,500,000.00	\$1,234,169,000.00	33	52,365	19,272	23
COMMERCIAL	1,380	508	1	\$158,700,000.00	\$58,405,000.00	2	17,648	6,495	8
INDUSTRIAL	57	21	0	\$28,500,000.00	\$10,489,000.00	0	4,281	1,576	2
AGRICULTURAL	39	14	0	\$7,193,600.00	\$2,647,000.00	0	366	135	0
RELIGIOUS	55	20	0	\$13,475,000.00	\$4,959,000.00	0	110	40	0
GOVERNMENT	76	28	0	\$11,400,000.00	\$4,195,000.00	0	6,262	2,305	3
EDUCATION	28	10	0	\$140,790,000.00	\$51,814,000.00	1	1,373	505	1
UTILITIES	6	2	0	\$7,500,000.00	\$2,760,000.00	0	95	35	0
<b>Total</b>	<b>36,941</b>	<b>13,595</b>	<b>37</b>	<b>\$3,721,058,600.0</b>	<b>\$1,369,438,000.00</b>	<b>37</b>	<b>82,500</b>	<b>30,362</b>	<b>37</b>

Task B. Determine whether (and where) you want to collect additional inventory data.

	<b>YES</b>	<b>NO</b>
1) Do you know where your greatest damages may occur in your hazard areas?	<b>X</b>	
2) Do you know whether your critical facilities will be operational after a hazard event?		<b>X</b>
3) Is there enough data to determine which assests are subject to the greatest potential damages?	<b>X</b>	
4) Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	<b>X</b>	
5) Is there enough data to determine whether certain areas are vulnerable to potential hazards?	<b>X</b>	
6) Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	<b>X</b>	
7) Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		

**ESTIMATE LOSSES**

Hazard: Hailstorm

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Back Creek Elem	\$1,599,000.00	X	0.01	=	\$200.00
Bedington Elem	\$1,685,000.00	X	0.01	=	\$200.00
Berkeley Heights Elem	\$3,637,000.00	X	0.01	=	\$400.00
Bunker Hill Elem	\$1,764,000.00	X	0.01	=	\$200.00
Burke Street Elem	\$1,425,000.00	X	0.01	=	\$100.00
Gerrardstown Elem	\$1,292,000.00	X	0.01	=	\$100.00
Hedgesville Elem	\$2,670,000.00	X	0.01	=	\$300.00
Inwood Primary School	\$1,525,000.00	X	0.01	=	\$200.00
Marlowe Elem	\$2,070,000.00	X	0.01	=	\$200.00
Opequon Elem	\$3,529,000.00	X	0.01	=	\$400.00
Rosemont Elem	\$3,138,000.00	X	0.01	=	\$300.00
Tomahawk Elem	\$4,295,000.00	X	0.01	=	\$400.00
Tuscarora Elem	\$3,459,000.00	X	0.01	=	\$300.00
Valley View Elem	\$3,475,000.00	X	0.01	=	\$300.00
Winchester Ave. Elem	\$2,140,000.00	X	0.01	=	\$200.00
Hedgesville MS	\$7,105,000.00	X	0.01	=	\$700.00
Martinsburg North MS	\$6,245,000.00	X	0.01	=	\$600.00
Martinsburg South MS	\$5,249,000.00	X	0.01	=	\$500.00
Mussleman MS	\$9,217,000.00	X	0.01	=	\$900.00
<b><i>Spring Mills MS</i></b>	<b><i>\$10,370,648.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$1,000.00</i></b>
Mill Creek IS	\$5,175,000.00	X	0.01	=	\$500.00
Potomac IS	\$4,295,000.00	X	0.01	=	\$400.00
Eagle School IS	\$5,100,000.00	X	0.01	=	\$500.00
<b><i>Mountain Ridge IS</i></b>	<b><i>\$7,500,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$800.00</i></b>
Orchard View IS	\$5,100,000.00	X	0.01	=	\$500.00
Hedgesville HS	\$13,049,000.00	X	0.01	=	\$1,300.00
Martinsburg HS	\$17,312,000.00	X	0.01	=	\$1,700.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$144,000.00	X	0.01	=	\$0.00
\$152,000.00	X	0.01	=	\$0.00
\$356,000.00	X	0.01	=	\$0.00
\$158,000.00	X	0.01	=	\$0.00
\$129,000.00	X	0.01	=	\$0.00
\$117,000.00	X	0.01	=	\$0.00
\$241,000.00	X	0.01	=	\$0.00
\$129,000.00	X	0.01	=	\$0.00
\$186,000.00	X	0.01	=	\$0.00
\$355,000.00	X	0.01	=	\$0.00
\$297,000.00	X	0.01	=	\$0.00
\$388,000.00	X	0.01	=	\$0.00
\$322,000.00	X	0.01	=	\$0.00
\$314,000.00	X	0.01	=	\$0.00
\$139,000.00	X	0.01	=	\$0.00
\$626,000.00	X	0.01	=	\$0.00
\$550,000.00	X	0.01	=	\$0.00
\$467,000.00	X	0.01	=	\$0.00
\$507,000.00	X	0.01	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$419,000.00	X	0.01	=	\$0.00
\$452,000.00	X	0.01	=	\$0.00
\$500,000.00	X	0.01	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$500,000.00	X	0.01	=	\$0.00
\$1,167,800.00	X	0.01	=	\$100.00
\$1,538,000.00	X	0.01	=	\$100.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Mussleman HS	\$15,205,000.00	X	0.01	=	\$1,500.00
James Rumsey Vo Tech Center	\$8,270,000.00	X	0.01	=	\$800.00
Pikeside Pre-Vocational	\$1,765,000.00	X	0.01	=	\$200.00
Ramer Center	\$1,720,000.00	X	0.01	=	\$200.00
Administration Building	\$2,175,000.00	X	0.01	=	\$200.00
Maintenance	\$665,000.00	X	0.01	=	\$100.00
Transportation	\$1,975,000.00	X	0.01	=	\$200.00
Mussleman Athletic Facilities	\$1,300,000.00	X	0.01	=	\$100.00
Resa VIII Offices	\$770,000.00	X	0.01	=	\$100.00
Martinsburg City Hall	\$2,000,000.00	X	0.01	=	\$200.00
Martinsburg Central Fire Station	\$1,260,000.00	X	0.01	=	\$100.00
Martinsburg Westphal Hose Co.	\$350,000.00	X	0.01	=	\$0.00
Martinsburg Waterworks	\$5,103,000.00	X	0.01	=	\$500.00
Martinsburg Animal Shelter	\$54,000.00	X	0.01	=	\$0.00
Martinsburg Sewer Plant	\$6,508,000.00	X	0.01	=	\$700.00
Capitol Cement	\$5,149,000.00	X	0.01	=	\$500.00
Red Hill Storage Tank	\$1,030,000.00	X	0.01	=	\$100.00
Capitol Heights Storage Tank	\$464,000.00	X	0.01	=	\$0.00
Western Ave. Storage Tank	\$309,000.00	X	0.01	=	\$0.00
Old Market House	\$538,000.00	X	0.01	=	\$100.00
Old Armory Building	\$1,215,000.00	X	0.01	=	\$100.00
Olde Sanitation Building	\$279,000.00	X	0.01	=	\$0.00
Martinsburg City Garage	\$434,000.00	X	0.01	=	\$0.00
Martinsburg Train Station	\$1,082,000.00	X	0.01	=	\$100.00
Adam Stephen Complex	\$1,203,000.00	X	0.01	=	\$100.00
War Memorial Park	\$1,816,000.00	X	0.01	=	\$200.00
Lambert Park	\$1,644,000.00	X	0.01	=	\$200.00
P.O. Faulkner Park	\$59,000.00	X	0.01	=	\$0.00
Oak Street Park	\$25,000.00	X	0.01	=	\$0.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$1,341,000.00	X	0.01	=	\$100.00
\$3,430,000.00	X	0.01	=	\$200.00
\$156,000.00	X	0.01	=	\$0.00
\$177,000.00	X	0.01	=	\$0.00
\$210,000.00	X	0.01	=	\$0.00
\$140,000.00	X	0.01	=	\$0.00
\$450,000.00	X	0.01	=	\$0.00
\$20,000.00	X	0.01	=	\$0.00
\$1,931,000.00	X	0.01	=	\$100.00
\$250,000.00	X	0.01	=	\$0.00
\$200,000.00	X	0.01	=	\$0.00
\$5,000.00	X	0.01	=	\$0.00
\$79,000.00	X	0.01	=	\$0.00
\$1,000.00	X	0.01	=	\$0.00
\$5,000.00	X	0.01	=	\$0.00
\$24,000.00	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
\$30,000.00	X	0.01	=	\$0.00
\$10,000.00	X	0.01	=	\$0.00
\$25,000.00	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
\$43,000.00	X	0.01	=	\$0.00
\$100,000.00	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Ambrose Park	\$59,000.00	X	0.01	=	\$0.00
Parks and Recreation		X	0.01	=	\$0.00
Delmar Orchard Road	\$2,000,000.00	X	0.01	=	\$200.00
<b><i>Historic County Court House</i></b>	<b><i>\$4,175,400.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$400.00</i></b>
<b><i>Dunn Building</i></b>	<b><i>\$13,949,800.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$1,400.00</i></b>
<b><i>Homeland Sec. Emer. Mngt.</i></b>	<b><i>\$1,714,200.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$200.00</i></b>
<b><i>Crawford Building</i></b>	<b><i>\$5,517,100.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$600.00</i></b>
<b><i>Senior Center</i></b>	<b><i>\$3,386,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$300.00</i></b>
<b><i>County Maintenance Facility</i></b>	<b><i>\$1,268,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$100.00</i></b>
<b><i>Central Dispatch</i></b>	<b><i>\$37,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Health Department</i></b>	<b><i>\$573,800.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$100.00</i></b>
<b><i>Transmitter</i></b>	<b><i>\$10,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Berkeley/Judicial Center</i></b>	<b><i>\$22,024,900.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$2,200.00</i></b>
<b><i>Poor House Farm</i></b>	<b><i>\$1,784,600.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$200.00</i></b>
<b><i>110 Building</i></b>	<b><i>\$2,143,700.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$200.00</i></b>
<b><i>126 Building</i></b>	<b><i>\$1,518,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$200.00</i></b>
<b><i>Animal Control Center</i></b>	<b><i>\$400,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Morgan Cabin Museum	\$50,000.00	X	0.01	=	\$0.00
<b><i>Hedgesville Park</i></b>	<b><i>\$45,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>South Berkeley Park</i></b>	<b><i>\$40,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Water Street Facilities	\$2,828,000.00	X	0.01	=	\$300.00
Historic Marker (Bender Property)	\$1,200.00	X	0.01	=	\$0.00
Historic Marker (Providence Quaker Cemetery)	\$1,200.00	X	0.01	=	\$0.00
Court Complex.	\$21,100,000.00	X	0.01	=	\$2,100.00
Runnymede Road	\$2,045,300.00	X	0.01	=	\$200.00
Kelly Island	\$128,000.00	X	0.01	=	\$0.00
Old Quarry Road	\$53,000.00	X	0.01	=	\$0.00
Route 51 West	\$950,500.00	X	0.01	=	\$100.00
N/E Side Rt. 9 Near Co. Line	\$30,000.00	X	0.01	=	\$0.00
Glenwood Forest Subdivision	\$365,000.00	X	0.01	=	\$0.00
Specks Run Road	\$428,500.00	X	0.01	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.01	=	\$0.00
\$45,000.00	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
<b><i>\$255,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$366,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$431,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$105,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$25,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$90,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$10,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$1,265,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$100.00</i></b>
<b><i>\$23,595.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$75,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$75,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$34,000.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$6,000.00	X	0.01	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
\$56,500.00	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Liberty Buisness Park	\$582,500.00	X	0.01	=	\$100.00
Rt. 11 Near Pikeside	\$52,500.00	X	0.01	=	\$0.00
Rockefeller Science Center	\$565,000.00	X	0.01	=	\$100.00
768 Williamsport Pike	\$1,000.00	X	0.01	=	\$0.00
General Motors	\$612,850.00	X	0.01	=	\$100.00
Duke Road	\$912,500.00	X	0.01	=	\$100.00
268 Treat Water Road	\$4,521,500.00	X	0.01	=	\$500.00
207 Mary Street	\$115,000.00	X	0.01	=	\$0.00
Ben Speck Road	\$170,250.00	X	0.01	=	\$0.00
Church Street	\$205,000.00	X	0.01	=	\$0.00
E/S Ridge Road	\$202,500.00	X	0.01	=	\$0.00
Route 901, East of HMS	\$12,800.00	X	0.01	=	\$0.00
Rt. 9, 1/2 Mile East of Texaco	\$12,800.00	X	0.01	=	\$0.00
Rt.9, Near James Rumsey	\$80,000.00	X	0.01	=	\$0.00
Rt. 9, Near Fort Hill Subdivision	\$14,000.00	X	0.01	=	\$0.00
71 and 83 Monroe Street		X	0.01	=	\$0.00
<i>Morning Dove Treatment</i>	<i>\$111,000.00</i>	<i>X</i>	<i>0.01</i>	<i>=</i>	\$0.00
<i>Springdale Farm Treatment</i>	<i>\$203,000.00</i>	<i>X</i>	<i>0.01</i>	<i>=</i>	\$0.00
<i>Potomac River Treatment</i>	<i>\$16,794,000.00</i>	<i>X</i>	<i>0.01</i>	<i>=</i>	\$1,700.00
Multiple Locations	\$125,000.00	X	0.01	=	\$0.00
Roads	\$1,715,000,000.00	X	0.01	=	\$171,500.00
Railroads	\$170,000,000.00	X	0.01	=	\$17,000.00
Bridges	\$303,000,000.00	X	0.01	=	\$30,300.00
Airport Facilities	\$18,000,000.00	X	0.01	=	\$1,800.00
Airport Runways	\$84,000,000.00	X	0.01	=	\$8,400.00
WV State Police	\$200,000.00	X	0.01	=	\$0.00
Berkeley Sheriffs Dept.	\$1,134,000.00	X	0.01	=	\$100.00
Martinsburg Police Dept.		X	0.01	=	\$0.00
Back Creek Valley Fire Dept.		X	0.01	=	\$0.00
Baker Heights VFD		X	0.01	=	\$0.00
Bedington VFD		X	0.01	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
\$20,000.00	X	0.01	=	\$0.00
\$75,000.00	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
\$10,000.00	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
\$62,000.00	X	0.01	=	\$0.00
\$0.00	X	0.01	=	\$0.00
\$0.00	X	0.01	=	\$0.00
\$0.00	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
\$400,000.00	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00



Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Hedgesville VFD		X	0.01	=	\$0.00
Martinsburg Fire Dept.	\$1,600,000.00	X	0.01	=	\$200.00
South Berkeley VFD		X	0.01	=	\$0.00
<b><i>VA Med Cntr FD</i></b>		<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>WV ANG FD</i></b>		<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Veterans Affairs Medical Center		X	0.01	=	\$0.00
Shenandoah Health Services		X	0.01	=	\$0.00
Martinsburg City Hospital	\$2,361,000.00	X	0.01	=	\$200.00
Naylor Memorial Library	\$279,000.00	X	0.01	=	\$0.00
Martinsburg - Berkeley County Public Library	\$37,000.00	X	0.01	=	\$0.00
<b>Total Loss to Structure</b>					<b>\$260,400.00</b>

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.01	=	\$0.00
\$1,500,000.00	X	0.01	=	\$100.00
	X	0.01	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.01</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
	X	0.01	=	\$0.00
	X	0.01	=	\$0.00
\$965,640.00	X	0.01	=	\$0.00
\$16,000.00	X	0.01	=	\$0.00
\$43,000.00	X	0.01	=	\$0.00
<b>Total Loss to Contents</b>				<b>\$800.00</b>

Structure Use and Function Loss (Task A.3.) Hailstorm										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
Back Creek Elem		X	0	+		X	0	=	\$0.00	\$200.00
Bedington Elem		X	0	+		X	0	=	\$0.00	\$200.00
Berkeley Heights Elem		X	0	+		X	0	=	\$0.00	\$400.00
Bunker Hill Elem		X	0	+		X	0	=	\$0.00	\$200.00
Burke Street Elem		X	0	+		X	0	=	\$0.00	\$100.00
Gerrardstown Elem		X	0	+		X	0	=	\$0.00	\$100.00
Hedgesville Elem		X	0	+		X	0	=	\$0.00	\$300.00
Inwood Primary School		X	0	+		X	0	=	\$0.00	\$200.00
Marlowe Elem		X	0	+		X	0	=	\$0.00	\$200.00
Opequon Elem		X	0	+		X	0	=	\$0.00	\$400.00
Rosemont Elem		X	0	+		X	0	=	\$0.00	\$300.00
Tomahawk Elem		X	0	+		X	0	=	\$0.00	\$400.00
Tuscarora Elem		X	0	+		X	0	=	\$0.00	\$300.00
Valley View Elem		X	0	+		X	0	=	\$0.00	\$300.00
Winchester Ave. Elem		X	0	+		X	0	=	\$0.00	\$200.00
Hedgesville MS		X	0	+		X	0	=	\$0.00	\$700.00
Martinsburg North MS		X	0	+		X	0	=	\$0.00	\$600.00
Martinsburg South MS		X	0	+		X	0	=	\$0.00	\$500.00
Mussleman MS		X	0	+		X	0	=	\$0.00	\$900.00
<b>Spring Mills MS</b>		<b>X</b>	<b>0</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$1,000.00</b>
Mill Creek IS		X	0	+		X	0	=	\$0.00	\$500.00
Potomac IS		X	0	+		X	0	=	\$0.00	\$400.00
Eagle School IS		X	0	+		X	0	=	\$0.00	\$500.00
<b>Mountain Ridge IS</b>		<b>X</b>	<b>0</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$800.00</b>
Orchard View IS		X	0	+		X	0	=	\$0.00	\$500.00
Hedgesville HS		X	0	+		X	0	=	\$0.00	\$1,400.00

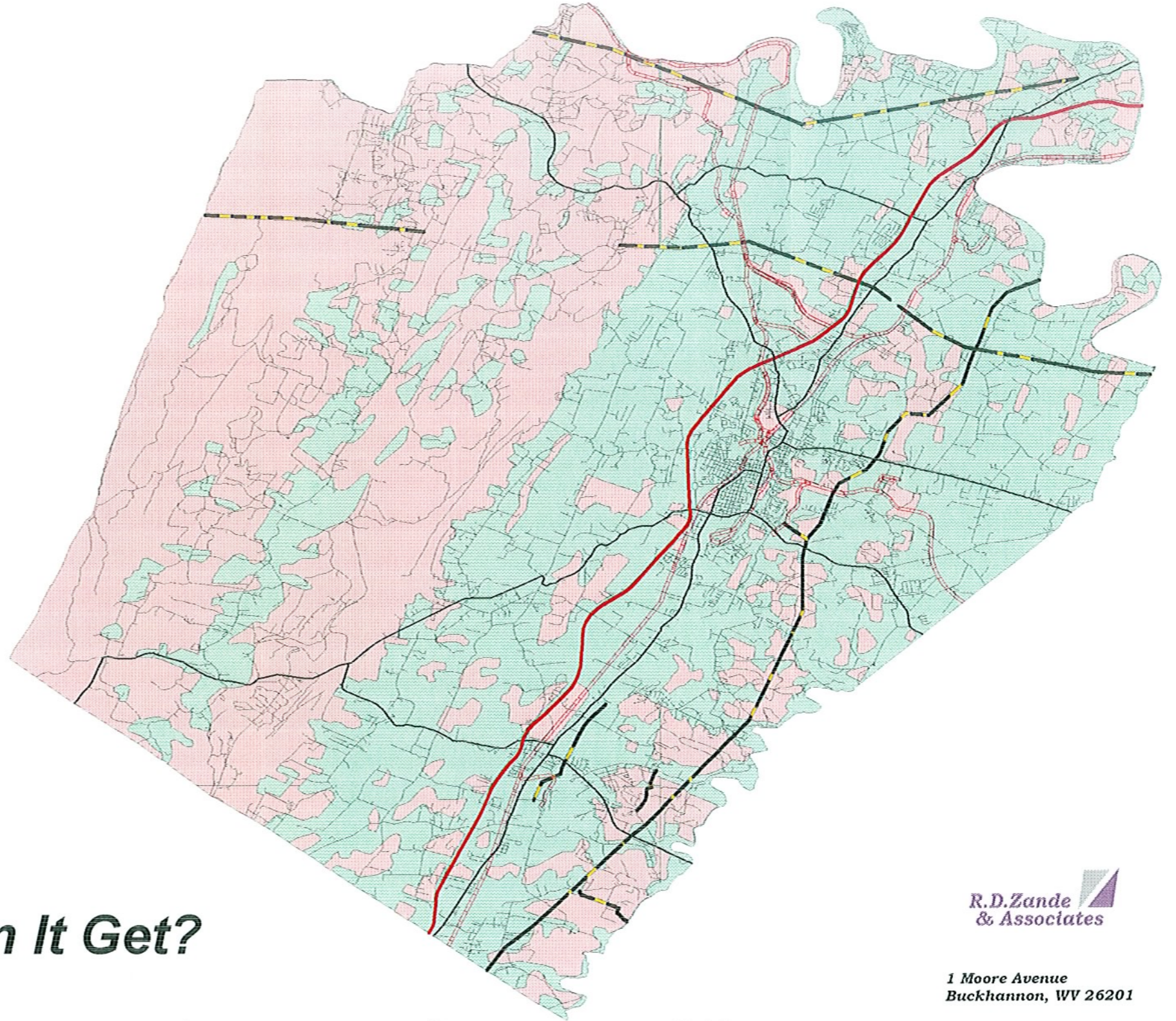
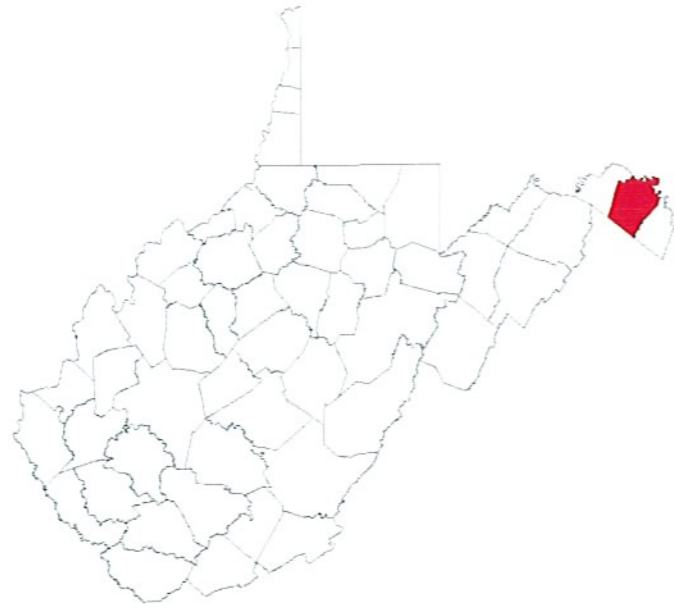
<b>Structure Use and Function Loss (Task A.3.) Hailstorm</b>										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacement Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
Martinsburg HS		X	0	+		X	0	=	\$0.00	\$1,800.00
Mussleman HS		X	0	+		X	0	=	\$0.00	\$1,600.00
James Rumsey Vo Tech Center		X	0	+		X	0	=	\$0.00	\$1,000.00
Pikeside Pre-Vocational		X	0	+		X	0	=	\$0.00	\$200.00
Ramer Center		X	0	+		X	0	=	\$0.00	\$200.00
Administration Building		X	0	+		X	0	=	\$0.00	\$200.00
Maintenance		X	0	+		X	0	=	\$0.00	\$100.00
Transportation		X	0	+		X	0	=	\$0.00	\$200.00
Mussleman Athletic Facilities		X	0	+		X	0	=	\$0.00	\$100.00
Resa VIII Offices		X	0	+		X	0	=	\$0.00	\$200.00
Martinsburg City Hall		X	0	+		X	0	=	\$0.00	\$200.00
Martinsburg Central Fire Station		X	0	+		X	0	=	\$0.00	\$100.00
Martinsburg Westphal Hose Co.		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Waterworks		X	0	+		X	0	=	\$0.00	\$500.00
Martinsburg Animal Shelter		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Sewer Plant		X	0	+		X	0	=	\$0.00	\$700.00
Capitol Cement		X	0	+		X	0	=	\$0.00	\$500.00
Red Hill Storage Tank		X	0	+		X	0	=	\$0.00	\$100.00
Capitol Heights Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Western Ave. Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Old Market House		X	0	+		X	0	=	\$0.00	\$100.00
Old Armory Building		X	0	+		X	0	=	\$0.00	\$100.00
Olde Sanitation Building		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Garage		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Train Station		X	0	+		X	0	=	\$0.00	\$100.00
Adam Stephen Complex		X	0	+		X	0	=	\$0.00	\$100.00

Structure Use and Function Loss (Task A.3.) Hailstorm										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
War Memorial Park		X	0	+		X	0	=	\$0.00	\$200.00
Lambert Park		X	0	+		X	0	=	\$0.00	\$200.00
P.O. Faulkner Park		X	0	+		X	0	=	\$0.00	\$0.00
Oak Street Park		X	0	+		X	0	=	\$0.00	\$0.00
Ambrose Park		X	0	+		X	0	=	\$0.00	\$0.00
Parks and Recreation		X	0	+		X	0	=	\$0.00	\$0.00
Delmar Orchard Road		X	0	+		X	0	=	\$0.00	\$200.00
<b>Historic County Court House</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$400.00</b>
<b>Dunn Building</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$1,400.00</b>
<b>Homeland Sec. Emer. Mngt.</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$200.00</b>
<b>Crawford Building</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$600.00</b>
<b>Senior Center</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$300.00</b>
<b>County Maintenance Facility</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$100.00</b>
<b>Central Dispatch</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$0.00</b>
<b>Health Department</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$100.00</b>
<b>Transmitter</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$0.00</b>
<b>Berkeley/Judicial Center</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$2,300.00</b>
<b>Poor House Farm</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$200.00</b>
<b>110 Building</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$200.00</b>
<b>126 Building</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$200.00</b>
<b>Animal Control Center</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$0.00</b>
Morgan Cabin Museum		X	0	+		X	0	=	\$0.00	\$0.00
<b>Hedgesville Park</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$0.00</b>
<b>South Berkeley Park</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$0.00</b>
Water Street Facilities		X	0	+		X	0	=	\$0.00	\$300.00
Historic Marker (Bender Property)		X	0	+		X	0	=	\$0.00	\$0.00
Historic Marker (Providence Quaker Cemetery)		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Hailstorm										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
Court Complex.		X	0	+		X	0	=	\$0.00	\$2,100.00
Runnymede Road		X	0	+		X	0	=	\$0.00	\$200.00
Kelly Island		X	0	+		X	0	=	\$0.00	\$0.00
Old Quarry Road		X	0	+		X	0	=	\$0.00	\$0.00
Route 51 West		X	0	+		X	0	=	\$0.00	\$100.00
N/E Side Rt. 9 Near Co. Line		X	0	+		X	0	=	\$0.00	\$0.00
Glenwood Forest Subdivision		X	0	+		X	0	=	\$0.00	\$0.00
Specks Run Road		X	0	+		X	0	=	\$0.00	\$0.00
Liberty Buisness Park		X	0	+		X	0	=	\$0.00	\$100.00
Rt. 11 Near Pikeside		X	0	+		X	0	=	\$0.00	\$0.00
Rockefeller Science Center		X	0	+		X	0	=	\$0.00	\$100.00
768 Williamsport Pike		X	0	+		X	0	=	\$0.00	\$0.00
General Motors		X	0	+		X	0	=	\$0.00	\$100.00
Duke Road		X	0	+		X	0	=	\$0.00	\$100.00
268 Treat Water Road		X	0	+		X	0	=	\$0.00	\$500.00
207 Mary Street		X	0	+		X	0	=	\$0.00	\$0.00
Ben Speck Road		X	0	+		X	0	=	\$0.00	\$0.00
Church Street		X	0	+		X	0	=	\$0.00	\$0.00
E/S Ridge Road		X	0	+		X	0	=	\$0.00	\$0.00
Route 901, East of HMS		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 9, 1/2 Mile East of Texaco		X	0	+		X	0	=	\$0.00	\$0.00
Rt.9, Near James Rumsey		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 9, Near Fort Hill Subdivision		X	0	+		X	0	=	\$0.00	\$0.00
71 and 83 Monroe Street		X	0	+		X	0	=	\$0.00	\$0.00
<b>Morning Dove Treatment</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$0.00</b>
<b>Springdale Farm</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$0.00</b>
<b>Potomac River Treatment</b>		X	0	+		X	0	=	<b>\$0.00</b>	<b>\$1,700.00</b>
Multiple Locations		X	0	+		X	0	=	\$0.00	\$0.00

<b>Structure Use and Function Loss (Task A.3.) Hailstorm</b>										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
Roads		X	0	+		X	0	=	\$0.00	\$171,500.00
Railroads		X	0	+		X	0	=	\$0.00	\$17,000.00
Bridges		X	0	+		X	0	=	\$0.00	\$30,300.00
Airport Facilities		X	0	+		X	0	=	\$0.00	\$1,800.00
Airport Runways		X	0	+		X	0	=	\$0.00	\$8,400.00
WV State Police	\$1,800.00	X	0	+	\$1,800.00	X	0	=	\$0.00	\$0.00
Berkeley Sheriffs Dept.	\$5,900.00	X	0	+	\$5,900.00	X	0	=	\$0.00	\$100.00
Martinsburg Police Dept.		X	0	+		X	0	=	\$0.00	\$0.00
Back Creek Valley Fire Dept.		X	0	+		X	0	=	\$0.00	\$0.00
Baker Heights VFD		X	0	+		X	0	=	\$0.00	\$0.00
Bedington VFD		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville VFD		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Fire Dept.	\$5,450.00	X	0	+	\$5,450.00	X	0	=	\$0.00	\$300.00
South Berkeley VFD		X	0	+		X	0	=	\$0.00	\$0.00
<b>VA Med Cntr FD</b>		<b>X</b>	<b>0</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>WV ANG FD</b>		<b>X</b>	<b>0</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$0.00</b>
Veterans Affairs Medical Center		X	0	+		X	0	=	\$0.00	\$0.00
Shenandoah Health Services		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hospital	\$3,500.00	X	0	+	\$3,500.00	X	0	=	\$0.00	\$200.00
Naylor Memorial Library		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg - Berkeley County Public Library		X	0	+		X	0	=	\$0.00	\$0.00
<b>Total Loss to Structure Use &amp; Function</b>									<b>\$0.00</b>	<b>\$261,200.00</b>

# Infestation



## MAP LEGEND

- Roads
-  Highway
  -  State Route
  -  County Route
  -  Railroad
  -  Power Lines
-  High Hazard
-  Low Hazard

***How Bad Can It Get?***



**R.D.Zande  
& Associates**

1 Moore Avenue  
Buckhannon, WV 26201

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

**Hazard: Infestation**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# In County	# In Hazard Area	% In Hazard Area	\$ In County	\$ In Hazard Area	% In Hazard Area	# In County	# In Hazard Area	% In Hazard Area
RESIDENTIAL	35,300	0	0	\$3,353,500,000.00	\$0.00	0	52,365	16,622	20
COMMERCIAL	1,380	0	0	\$158,700,000.00	\$0.00	0	17,648	5,602	7
INDUSTRIAL	57	0	0	\$28,500,000.00	\$0.00	0	4,281	1,359	2
AGRICULTURAL	39	0	0	\$7,193,600.00	\$0.00	0	366	116	0
RELIGIOUS	55	0	0	\$13,475,000.00	\$0.00	0	110	35	0
GOVERNMENT	76	0	0	\$11,400,000.00	\$0.00	0	6,262	1,988	2
EDUCATION	28	0	0	\$140,790,000.00	\$0.00	0	1,373	436	1
UTILITIES	6	0	0	\$7,500,000.00	\$0.00	0	95	30	0
<b>Total</b>	<b>36,941</b>	<b>0</b>	<b>0</b>	<b>\$3,721,058,600.0</b>	<b>\$0.00</b>	<b>0</b>	<b>82,500</b>	<b>26,187</b>	<b>32</b>

Task B. Determine whether (and where) you want to collect additional inventory data.

	YES	NO
1) Do you know where your greatest damages may occur in your hazard areas?	X	
2) Do you know whether your critical facilities will be operational after a hazard event?		X
3) Is there enough data to determine which assests are subject to the greatest potential damages?	X	
4) Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5) Is there enough data to determine whether certain areas are vulnerable to potential hazards?	X	
6) Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7) Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		



**ESTIMATE LOSSES**

**Hazard: Infestation**

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Back Creek Elem	\$1,599,000.00	X	0.00	=	\$0.00
Bedington Elem	\$1,685,000.00	X	0.00	=	\$0.00
Berkeley Heights Elem	\$3,637,000.00	X	0.00	=	\$0.00
Bunker Hill Elem	\$1,764,000.00	X	0.00	=	\$0.00
Burke Street Elem	\$1,425,000.00	X	0.00	=	\$0.00
Gerrardstown Elem	\$1,292,000.00	X	0.00	=	\$0.00
Hedgesville Elem	\$2,670,000.00	X	0.00	=	\$0.00
Inwood Primary School	\$1,525,000.00	X	0.00	=	\$0.00
Marlowe Elem	\$2,070,000.00	X	0.00	=	\$0.00
Opequon Elem	\$3,529,000.00	X	0.00	=	\$0.00
Rosemont Elem	\$3,138,000.00	X	0.00	=	\$0.00
Tomahawk Elem	\$4,295,000.00	X	0.00	=	\$0.00
Tuscarora Elem	\$3,459,000.00	X	0.00	=	\$0.00
Valley View Elem	\$3,475,000.00	X	0.00	=	\$0.00
Winchester Ave. Elem	\$2,140,000.00	X	0.00	=	\$0.00
Hedgesville MS	\$7,105,000.00	X	0.00	=	\$0.00
Martinsburg North MS	\$6,245,000.00	X	0.00	=	\$0.00
Martinsburg South MS	\$5,249,000.00	X	0.00	=	\$0.00
Mussleman MS	\$9,217,000.00	X	0.00	=	\$0.00
<b><i>Spring Mills MS</i></b>	<b><i>\$10,370,648.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Mill Creek IS	\$5,175,000.00	X	0.00	=	\$0.00
Potomac IS	\$4,295,000.00	X	0.00	=	\$0.00
Eagle School IS	\$5,100,000.00	X	0.00	=	\$0.00
<b><i>Mountain Ridge IS</i></b>	<b><i>\$7,500,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Orchard View IS	\$5,100,000.00	X	0.00	=	\$0.00
Hedgesville HS	\$13,049,000.00	X	0.00	=	\$0.00
Martinsburg HS	\$17,312,000.00	X	0.00	=	\$0.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$144,000.00	X	0.00	=	\$0.00
\$152,000.00	X	0.00	=	\$0.00
\$356,000.00	X	0.00	=	\$0.00
\$158,000.00	X	0.00	=	\$0.00
\$129,000.00	X	0.00	=	\$0.00
\$117,000.00	X	0.00	=	\$0.00
\$241,000.00	X	0.00	=	\$0.00
\$129,000.00	X	0.00	=	\$0.00
\$186,000.00	X	0.00	=	\$0.00
\$355,000.00	X	0.00	=	\$0.00
\$297,000.00	X	0.00	=	\$0.00
\$388,000.00	X	0.00	=	\$0.00
\$322,000.00	X	0.00	=	\$0.00
\$314,000.00	X	0.00	=	\$0.00
\$139,000.00	X	0.00	=	\$0.00
\$626,000.00	X	0.00	=	\$0.00
\$550,000.00	X	0.00	=	\$0.00
\$467,000.00	X	0.00	=	\$0.00
\$507,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>		<b><i>0.00</i></b>		<b><i>\$0.00</i></b>
\$419,000.00	X	0.00	=	\$0.00
\$452,000.00	X	0.00	=	\$0.00
\$500,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$500,000.00	X	0.00	=	\$0.00
\$1,167,800.00	X	0.00	=	\$0.00
\$1,538,000.00	X	0.00	=	\$0.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Mussleman HS	\$15,205,000.00	X	0.00	=	\$0.00
James Rumsey Vo Tech Center	\$8,270,000.00	X	0.00	=	\$0.00
Pikeside Pre-Vocational	\$1,765,000.00	X	0.00	=	\$0.00
Ramer Center	\$1,720,000.00	X	0.00	=	\$0.00
Administration Building	\$2,175,000.00	X	0.00	=	\$0.00
Maintenance	\$665,000.00	X	0.00	=	\$0.00
Transportation	\$1,975,000.00	X	0.00	=	\$0.00
Mussleman Athletic Facilities	\$1,300,000.00	X	0.00	=	\$0.00
Resa VIII Offices	\$770,000.00	X	0.00	=	\$0.00
Martinsburg City Hall	\$2,000,000.00	X	0.00	=	\$0.00
Martinsburg Central Fire Station	\$1,260,000.00	X	0.00	=	\$0.00
Martinsburg Westphal Hose Co.	\$350,000.00	X	0.00	=	\$0.00
Martinsburg Waterworks	\$5,103,000.00	X	0.00	=	\$0.00
Martinsburg Animal Shelter	\$54,000.00	X	0.00	=	\$0.00
Martinsburg Sewer Plant	\$6,508,000.00	X	0.00	=	\$0.00
Capitol Cement	\$5,149,000.00	X	0.00	=	\$0.00
Red Hill Storage Tank	\$1,030,000.00	X	0.00	=	\$0.00
Capitol Heights Storage Tank	\$464,000.00	X	0.00	=	\$0.00
Western Ave. Storage Tank	\$309,000.00	X	0.00	=	\$0.00
Old Market House	\$538,000.00	X	0.00	=	\$0.00
Old Armory Building	\$1,215,000.00	X	0.00	=	\$0.00
Olde Sanitation Building	\$279,000.00	X	0.00	=	\$0.00
Martinsburg City Garage	\$434,000.00	X	0.00	=	\$0.00
Martinsburg Train Station	\$1,082,000.00	X	0.00	=	\$0.00
Adam Stephen Complex	\$1,203,000.00	X	0.00	=	\$0.00
War Memorial Park	\$1,816,000.00	X	0.00	=	\$0.00
Lambert Park	\$1,644,000.00	X	0.00	=	\$0.00
P.O. Faulkner Park	\$59,000.00	X	0.00	=	\$0.00
Oak Street Park	\$25,000.00	X	0.00	=	\$0.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$1,341,000.00	X	0.00	=	\$0.00
\$3,430,000.00	X	0.00	=	\$0.00
\$156,000.00	X	0.00	=	\$0.00
\$177,000.00	X	0.00	=	\$0.00
\$210,000.00	X	0.00	=	\$0.00
\$140,000.00	X	0.00	=	\$0.00
\$450,000.00	X	0.00	=	\$0.00
\$20,000.00	X	0.00	=	\$0.00
\$1,931,000.00	X	0.00	=	\$0.00
\$250,000.00	X	0.00	=	\$0.00
\$200,000.00	X	0.00	=	\$0.00
\$5,000.00	X	0.00	=	\$0.00
\$79,000.00	X	0.00	=	\$0.00
\$1,000.00	X	0.00	=	\$0.00
\$5,000.00	X	0.00	=	\$0.00
\$24,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$30,000.00	X	0.00	=	\$0.00
\$10,000.00	X	0.00	=	\$0.00
\$25,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$43,000.00	X	0.00	=	\$0.00
\$100,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Ambrose Park	\$59,000.00	X	0.00	=	\$0.00
Parks and Recreation		X	0.00	=	\$0.00
Delmar Orchard Road	\$2,000,000.00	X	0.00	=	\$0.00
<b><i>Historic County Court House</i></b>	<b><i>\$4,175,400.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Dunn Building</i></b>	<b><i>\$13,949,800.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Homeland Sec Emerg. Mngt</i></b>	<b><i>\$1,714,200.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Crawford Building</i></b>	<b><i>\$5,517,100.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Senior Center</i></b>	<b><i>\$3,386,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>County Maintenance Facility</i></b>	<b><i>\$1,268,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Central Dispatch</i></b>	<b><i>\$37,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Health Department</i></b>	<b><i>\$573,800.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Transmitter</i></b>	<b><i>\$10,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Berkeley/Judicial Center</i></b>	<b><i>\$22,024,900.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Poor House Farm</i></b>	<b><i>\$1,784,600.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>110 Building</i></b>	<b><i>\$2,143,700.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>126 Building</i></b>	<b><i>\$1,518,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Animal Control Center</i></b>	<b><i>\$400,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Morgan Cabin Museum	\$50,000.00	X	0.00	=	\$0.00
<b><i>Hedgesville Park</i></b>	<b><i>\$45,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>South Berkeley Park</i></b>	<b><i>\$40,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Water Street Facilities	\$2,828,000.00	X	0.00	=	\$0.00
Historic Marker (Bender Property)	\$1,200.00	X	0.00	=	\$0.00
Historic Marker (Providence Quaker Cemetery)	\$1,200.00	X	0.00	=	\$0.00
Court Complex.	\$21,100,000.00	X	0.00	=	\$0.00
Runnymede Road	\$2,045,300.00	X	0.00	=	\$0.00
Kelly Island	\$128,000.00	X	0.00	=	\$0.00
Old Quarry Road	\$53,000.00	X	0.00	=	\$0.00
Route 51 West	\$950,500.00	X	0.00	=	\$0.00
N/E Side Rt. 9 Near Co. Line	\$30,000.00	X	0.00	=	\$0.00
Glenwood Forest Subdivision	\$365,000.00	X	0.00	=	\$0.00
Specks Run Road	\$428,500.00	X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.00	=	\$0.00
\$45,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
<b><i>\$255,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$366,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$431,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$105,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$25,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$90,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$10,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$1,265,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$23,595.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$75,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$75,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$34,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$6,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$56,500.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Liberty Buisness Park	\$582,500.00	X	0.00	=	\$0.00
Rt. 11 Near Pikeside	\$52,500.00	X	0.00	=	\$0.00
Rockefeller Science Center	\$565,000.00	X	0.00	=	\$0.00
768 Williamsport Pike	\$1,000.00	X	0.00	=	\$0.00
General Motors	\$612,850.00	X	0.00	=	\$0.00
Duke Road	\$912,500.00	X	0.00	=	\$0.00
268 Treat Water Road	\$4,521,500.00	X	0.00	=	\$0.00
207 Mary Street	\$115,000.00	X	0.00	=	\$0.00
Ben Speck Road	\$170,250.00	X	0.00	=	\$0.00
Church Street	\$205,000.00	X	0.00	=	\$0.00
E/S Ridge Road	\$202,500.00	X	0.00	=	\$0.00
Route 901, East of HMS	\$12,800.00	X	0.00	=	\$0.00
Rt. 9, 1/2 Mile East of Texaco	\$12,800.00	X	0.00	=	\$0.00
Rt.9, Near James Rumsey	\$80,000.00	X	0.00	=	\$0.00
Rt. 9, Near Fort Hill Subdivision	\$14,000.00	X	0.00	=	\$0.00
71 and 83 Monroe Street		X	0.00	=	\$0.00
<b><i>Morning Dove Treatment</i></b>	<b><i>\$111,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Springdale Farm Treatment</i></b>	<b><i>\$203,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Potomac River Treatment</i></b>	<b><i>\$16,794,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Multiple Locations	\$125,000.00	X	0.00	=	\$0.00
Roads	\$1,715,000,000.00	X	0.00	=	\$0.00
Railroads	\$170,000,000.00	X	0.00	=	\$0.00
Bridges	\$303,000,000.00	X	0.00	=	\$0.00
Airport Facilities	\$18,000,000.00	X	0.00	=	\$0.00
Airport Runways	\$84,000,000.00	X	0.00	=	\$0.00
WV State Police	\$200,000.00	X	0.00	=	\$0.00
Berkeley Sheriffs Dept.	\$1,134,000.00	X	0.00	=	\$0.00
Martinsburg Police Dept.		X	0.00	=	\$0.00
Back Creek Valley Fire Dept.		X	0.00	=	\$0.00
Baker Heights VFD		X	0.00	=	\$0.00
Bedington VFD		X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$20,000.00	X	0.00	=	\$0.00
\$75,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$10,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$62,000.00	X	0.00	=	\$0.00
\$0.00	X	0.00	=	\$0.00
\$0.00	X	0.00	=	\$0.00
\$0.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$400,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Hedgesville VFD		X	0.00	=	\$0.00
Martinsburg Fire Dept.	\$1,600,000.00	X	0.00	=	\$0.00
South Berkeley VFD		X	0.00	=	\$0.00
<b><i>VA Med Cntr FD</i></b>		<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>WV ANG FD</i></b>		<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Veterans Affairs Medical Center		X	0.00	=	\$0.00
Shenandoah Health Services		X	0.00	=	\$0.00
Martinsburg City Hospital	\$2,361,000.00	X	0.00	=	\$0.00
Naylor Memorial Library	\$279,000.00	X	0.00	=	\$0.00
Martinsburg - Berkeley County Public Library	\$37,000.00	X	0.00	=	\$0.00
<b>Total Loss to Structure</b>					<b>\$0.00</b>

Contents of Loss (Task A.2.)					
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)	
	X	0.00	=	\$0.00	
\$1,500,000.00	X	0.00	=	\$0.00	
	X	0.00	=	\$0.00	
	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
	X	0.00	=	\$0.00	
	X	0.00	=	\$0.00	
\$965,640.00	X	0.00	=	\$0.00	
\$16,000.00	X	0.00	=	\$0.00	
\$43,000.00	X	0.00	=	\$0.00	
<b>Total Loss to Contents</b>					<b>\$0.00</b>

Structure Use and Function Loss (Task A.3.) Infestation								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Elem		X	0	+		X	0	=	\$0.00	\$0.00
Bedington Elem		X	0	+		X	0	=	\$0.00	\$0.00
Berkeley Heights Elem		X	0	+		X	0	=	\$0.00	\$0.00
Bunker Hill Elem		X	0	+		X	0	=	\$0.00	\$0.00
Burke Street Elem		X	0	+		X	0	=	\$0.00	\$0.00
Gerrardstown Elem		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville Elem		X	0	+		X	0	=	\$0.00	\$0.00
Inwood Primary School		X	0	+		X	0	=	\$0.00	\$0.00
Marlowe Elem		X	0	+		X	0	=	\$0.00	\$0.00
Opequon Elem		X	0	+		X	0	=	\$0.00	\$0.00
Rosemont Elem		X	0	+		X	0	=	\$0.00	\$0.00
Tomahawk Elem		X	0	+		X	0	=	\$0.00	\$0.00
Tuscarora Elem		X	0	+		X	0	=	\$0.00	\$0.00
Valley View Elem		X	0	+		X	0	=	\$0.00	\$0.00
Winchester Ave. Elem		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville MS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg North MS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg South MS		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman MS		X	0	+		X	0	=	\$0.00	\$0.00
<b>Spring Mills MS</b>		<b>X</b>	<b>0</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$0.00</b>
Mill Creek IS		X	0	+		X	0	=	\$0.00	\$0.00
Potomac IS		X	0	+		X	0	=	\$0.00	\$0.00
Eagle School IS		X	0	+		X	0	=	\$0.00	\$0.00
<b>Mountain Ridge IS</b>		<b>X</b>	<b>0</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$0.00</b>
Orchard View IS		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville HS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg HS		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman HS		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Infestation								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
James Rumsey Vo Tech Center		X	0	+		X	0	=	\$0.00	\$0.00
Pikeside Pre-Vocational		X	0	+		X	0	=	\$0.00	\$0.00
Ramer Center		X	0	+		X	0	=	\$0.00	\$0.00
Administration Building		X	0	+		X	0	=	\$0.00	\$0.00
Maintenance		X	0	+		X	0	=	\$0.00	\$0.00
Transportation		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman Athletic Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Resa VIII Offices		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hall		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Central Fire Station		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Westphal Hose Co.		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Waterworks		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Animal Shelter		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Sewer Plant		X	0	+		X	0	=	\$0.00	\$0.00
Capitol Cement		X	0	+		X	0	=	\$0.00	\$0.00
Red Hill Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Capitol Heights Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Western Ave. Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Old Market House		X	0	+		X	0	=	\$0.00	\$0.00
Old Armory Building		X	0	+		X	0	=	\$0.00	\$0.00
Olde Sanitation Building		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Garage		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Train Station		X	0	+		X	0	=	\$0.00	\$0.00
Adam Stephen Complex		X	0	+		X	0	=	\$0.00	\$0.00
War Memorial Park		X	0	+		X	0	=	\$0.00	\$0.00
Lambert Park		X	0	+		X	0	=	\$0.00	\$0.00
P.O. Faulkner Park		X	0	+		X	0	=	\$0.00	\$0.00
Oak Street Park		X	0	+		X	0	=	\$0.00	\$0.00

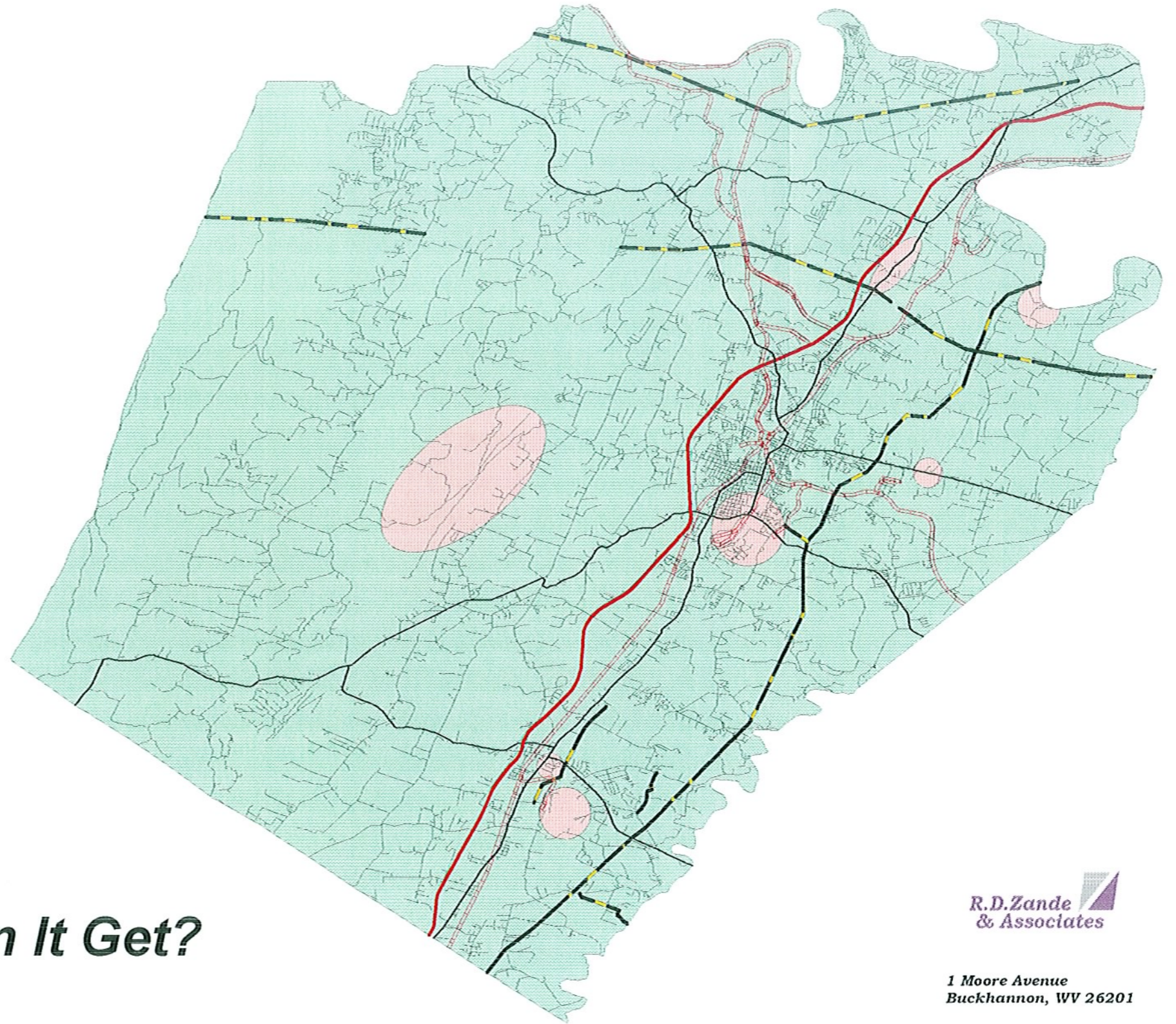
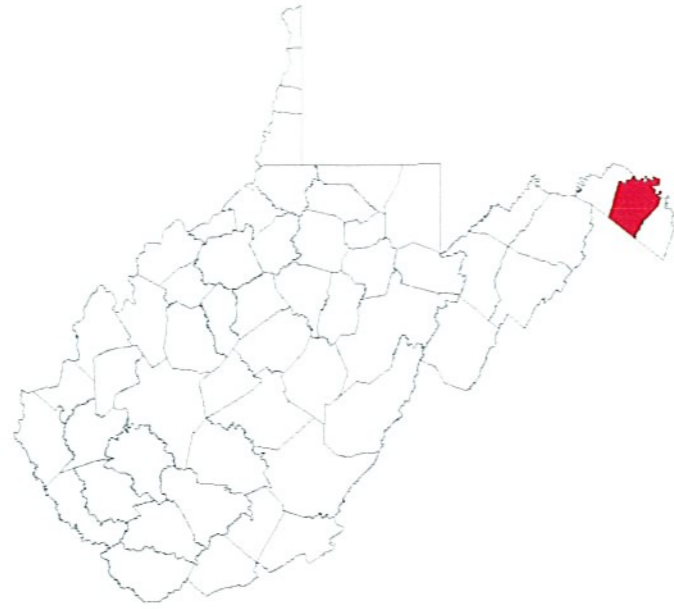
Structure Use and Function Loss (Task A.3.) Infestation								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Ambrose Park		X	0	+		X	0	=	\$0.00	\$0.00
Parks and Recreation		X	0	+		X	0	=	\$0.00	\$0.00
Delmar Orchard Road		X	0	+		X	0	=	\$0.00	\$0.00
<i>Historic County Court House</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Dunn Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Homeland Sec Emer. Mngt.</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Crawford Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Senior Center</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>County Maintenance Facility</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Central Dispatch</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Health Department</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Transmitter</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Berkeley/Judicial Center</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Poor House Farm</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>110 Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>126 Building</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Animal Control Center</i>		X	0	+		X	0	=	\$0.00	\$0.00
Morgan Cabin Museum		X	0	+		X	0	=	\$0.00	\$0.00
<i>Hedgesville Park</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>South Berkeley Park</i>		X	0	+		X	0	=	\$0.00	\$0.00
Water Street Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Historic Marker (Bender Property)		X	0	+		X	0	=	\$0.00	\$0.00
Historic Marker (Providence Quaker Cemetery)		X	0	+		X	0	=	\$0.00	\$0.00
Court Complex.		X	0	+		X	0	=	\$0.00	\$0.00
Runnymede Road		X	0	+		X	0	=	\$0.00	\$0.00
Kelly Island		X	0	+		X	0	=	\$0.00	\$0.00
Old Quarry Road		X	0	+		X	0	=	\$0.00	\$0.00
Route 51 West		X	0	+		X	0	=	\$0.00	\$0.00
N/E Side Rt. 9 Near Co. Line		X	0	+		X	0	=	\$0.00	\$0.00



Structure Use and Function Loss (Task A.3.) Infestation								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Glenwood Forest Subdivision		X	0	+		X	0	=	\$0.00	\$0.00
Specks Run Road		X	0	+		X	0	=	\$0.00	\$0.00
Liberty Buisness Park		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 11 Near Pikeside		X	0	+		X	0	=	\$0.00	\$0.00
Rockefeller Science Center		X	0	+		X	0	=	\$0.00	\$0.00
768 Williamsport Pike		X	0	+		X	0	=	\$0.00	\$0.00
General Motors		X	0	+		X	0	=	\$0.00	\$0.00
Duke Road		X	0	+		X	0	=	\$0.00	\$0.00
268 Treat Water Road		X	0	+		X	0	=	\$0.00	\$0.00
207 Mary Street		X	0	+		X	0	=	\$0.00	\$0.00
Ben Speck Road		X	0	+		X	0	=	\$0.00	\$0.00
Church Street		X	0	+		X	0	=	\$0.00	\$0.00
E/S Ridge Road		X	0	+		X	0	=	\$0.00	\$0.00
Route 901, East of HMS		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 9, 1/2 Mile East of Texaco		X	0	+		X	0	=	\$0.00	\$0.00
Rt.9, Near James Rumsey		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 9, Near Fort Hill Subdivision		X	0	+		X	0	=	\$0.00	\$0.00
71 and 83 Monroe Street		X	0	+		X	0	=	\$0.00	\$0.00
<i>Morning Dove Treatment</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Springdale Farm</i>		X	0	+		X	0	=	\$0.00	\$0.00
<i>Potomac River Treatment</i>		X	0	+		X	0	=	\$0.00	\$0.00
Multiple Locations		X	0	+		X	0	=	\$0.00	\$0.00
Roads		X	0	+		X	0	=	\$0.00	\$0.00
Railroads		X	0	+		X	0	=	\$0.00	\$0.00
Bridges		X	0	+		X	0	=	\$0.00	\$0.00
Airport Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Airport Runways		X	0	+		X	0	=	\$0.00	\$0.00
WV State Police	\$1,800.00	X	0	+	\$1,800.00	X	0	=	\$0.00	\$0.00
Berkeley Sheriffs Dept.	\$5,900.00	X	0	+	\$5,900.00	X	0	=	\$0.00	\$0.00
Martinsburg Police Dept.		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Infestation								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Valley Fire Dept.		X	0	+		X	0	=	\$0.00	\$0.00
Baker Heights VFD		X	0	+		X	0	=	\$0.00	\$0.00
Bedington VFD		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville VFD		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Fire Dept.	\$5,450.00	X	0	+	\$5,450.00	X	0	=	\$0.00	\$0.00
South Berkeley VFD		X	0	+		X	0	=	\$0.00	\$0.00
<i>VA Med Cntr FD</i>		<i>X</i>	<i>0</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
<i>WV ANG FD</i>		<i>X</i>	<i>0</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
Veterans Affairs Medical Center		X	0	+		X	0	=	\$0.00	\$0.00
Shenandoah Health Services		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hospital	\$3,500.00	X	0	+	\$3,500.00	X	0	=	\$0.00	\$0.00
Naylor Memorial Library		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg - Berkeley County Public Library		X	0	+		X	0	=	\$0.00	\$0.00
<b>Total Loss to Structure Use &amp; Function</b>									<b>\$0.00</b>	<b>\$0.00</b>

# Landslide-Sink Hole



## MAP LEGEND

- Roads
- County Route
  - State Route
  - Highway
  - Railroad
  - Power Lines
  - High Hazard
  - Low Hazard

***How Bad Can It Get?***



**R.D.Zande  
& Associates**

1 Moore Avenue  
Buckhannon, WV 26201

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

**Hazard: Landslide - Sink Hole Damage**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# In County	# In Hazard Area	% In Hazard Area	\$ In County	\$ In Hazard Area	% In Hazard Area	# In County	# In Hazard Area	% In Hazard Area
RESIDENTIAL	35,300	4642	13	\$3,353,500,000.00	\$440,955,000.00	12	52,365	6,886	8
COMMERCIAL	1,380	181	0	\$158,700,000.00	\$20,868,000.00	1	17,648	2,321	3
INDUSTRIAL	57	7	0	\$28,500,000.00	\$3,747,000.00	0	4,281	563	1
AGRICULTURAL	39	5	0	\$7,193,600.00	\$946,000.00	0	366	48	0
RELIGIOUS	55	7	0	\$13,475,000.00	\$1,772,000.00	0	110	14	0
GOVERNMENT	76	10	0	\$11,400,000.00	\$1,499,000.00	0	6,262	823	1
EDUCATION	28	4	0	\$140,790,000.00	\$18,513,000.00	0	1,373	181	0
UTILITIES	6	1	0	\$7,500,000.00	\$986,000.00	0	95	12	0
<b>Total</b>	<b>36,941</b>	<b>4,857</b>	<b>13</b>	<b>\$3,721,058,600.0</b>	<b>\$489,286,000.00</b>	<b>13</b>	<b>82,500</b>	<b>10,848</b>	<b>13</b>

Task B. Determine whether (and where) you want to collect additional inventory data.

	YES	NO
1) Do you know where your greatest damages may occur in your hazard areas?	X	
2) Do you know whether your critical facilities will be operational after a hazard event?		X
3) Is there enough data to determine which assets are subject to the greatest potential damages?	X	
4) Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5) Is there enough data to determine whether certain areas are vulnerable to potential hazards?	X	
6) Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7) Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		

### ESTIMATE LOSSES

Hazard: Landslide

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Back Creek Elem	\$1,599,000.00	X	6.00	=	\$95,900.00
Bedington Elem	\$1,685,000.00	X	6.00	=	\$101,100.00
Berkeley Heights Elem	\$3,637,000.00	X	2.00	=	\$72,700.00
Bunker Hill Elem	\$1,764,000.00	X	2.00	=	\$35,300.00
Burke Street Elem	\$1,425,000.00	X	2.00	=	\$28,500.00
Gerrardstown Elem	\$1,292,000.00	X	2.00	=	\$25,800.00
Hedgesville Elem	\$2,670,000.00	X	2.00	=	\$53,400.00
Inwood Primary School	\$1,525,000.00	X	6.00	=	\$91,500.00
Marlowe Elem	\$2,070,000.00	X	2.00	=	\$41,400.00
Opequon Elem	\$3,529,000.00	X	6.00	=	\$211,700.00
Rosemont Elem	\$3,138,000.00	X	2.00	=	\$62,800.00
Tomahawk Elem	\$4,295,000.00	X	2.00	=	\$85,900.00
Tuscarora Elem	\$3,459,000.00	X	2.00	=	\$69,200.00
Valley View Elem	\$3,475,000.00	X	2.00	=	\$69,500.00
Winchester Ave. Elem	\$2,140,000.00	X	2.00	=	\$42,800.00
Hedgesville MS	\$7,105,000.00	X	2.00	=	\$142,100.00
Martinsburg North MS	\$6,245,000.00	X	2.00	=	\$124,900.00
Martinsburg South MS	\$5,249,000.00	X	2.00	=	\$105,000.00
Mussleman MS	\$9,217,000.00	X	2.00	=	\$184,300.00
<b><i>Spring Mills MS</i></b>	<b><i>\$10,370,648.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$207,400.00</i></b>
Mill Creek IS	\$5,175,000.00	X	2.00	=	\$103,500.00
Potomac IS	\$4,295,000.00	X	2.00	=	\$85,900.00
Eagle School IS	\$5,100,000.00	X	2.00	=	\$102,000.00
<b><i>Mountain Ridge IS</i></b>	<b><i>\$7,500,000.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$150,000.00</i></b>
Orchard View IS	\$5,100,000.00	X	2.00	=	\$102,000.00
Hedgesville HS	\$13,049,000.00	X	2.00	=	\$261,000.00
Martinsburg HS	\$17,312,000.00	X	2.00	=	\$346,200.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$144,000.00	X	3.00	=	\$4,300.00
\$152,000.00	X	3.00	=	\$4,600.00
\$356,000.00	X	1.00	=	\$3,600.00
\$158,000.00	X	1.00	=	\$1,600.00
\$129,000.00	X	1.00	=	\$1,300.00
\$117,000.00	X	1.00	=	\$1,200.00
\$241,000.00	X	1.00	=	\$2,400.00
\$129,000.00	X	3.00	=	\$3,900.00
\$186,000.00	X	1.00	=	\$1,900.00
\$355,000.00	X	3.00	=	\$10,700.00
\$297,000.00	X	1.00	=	\$3,000.00
\$388,000.00	X	1.00	=	\$3,900.00
\$322,000.00	X	1.00	=	\$3,200.00
\$314,000.00	X	1.00	=	\$3,100.00
\$139,000.00	X	1.00	=	\$1,400.00
\$626,000.00	X	1.00	=	\$6,300.00
\$550,000.00	X	1.00	=	\$5,500.00
\$467,000.00	X	1.00	=	\$4,700.00
\$507,000.00	X	1.00	=	\$5,100.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>1.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$419,000.00	X	1.00	=	\$4,200.00
\$452,000.00	X	1.00	=	\$4,500.00
\$500,000.00	X	1.00	=	\$5,000.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>1.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$500,000.00	X	1.00	=	\$5,000.00
\$1,167,800.00	X	1.00	=	\$11,700.00
\$1,538,000.00	X	1.00	=	\$15,400.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Mussleman HS	\$15,205,000.00	X	2.00	=	\$304,100.00
James Rumsey Vo Tech Center	\$8,270,000.00	X	2.00	=	\$165,400.00
Pikeside Pre-Vocational	\$1,765,000.00	X	2.00	=	\$35,300.00
Ramer Center	\$1,720,000.00	X	2.00	=	\$34,400.00
Administration Building	\$2,175,000.00	X	2.00	=	\$43,500.00
Maintenance	\$665,000.00	X	2.00	=	\$13,300.00
Transportation	\$1,975,000.00	X	2.00	=	\$39,500.00
Mussleman Athletic Facilities	\$1,300,000.00	X	2.00	=	\$26,000.00
Resa VIII Offices	\$770,000.00	X	2.00	=	\$15,400.00
Martinsburg City Hall	\$2,000,000.00	X	2.00	=	\$40,000.00
Martinsburg Central Fire Station	\$1,260,000.00	X	2.00	=	\$25,200.00
Martinsburg Westphal Hose Co.	\$350,000.00	X	2.00	=	\$7,000.00
Martinsburg Waterworks	\$5,103,000.00	X	2.00	=	\$102,100.00
Martinsburg Animal Shelter	\$54,000.00	X	2.00	=	\$1,100.00
Martinsburg Sewer Plant	\$6,508,000.00	X	2.00	=	\$130,200.00
Capitol Cement	\$5,149,000.00	X	2.00	=	\$103,000.00
Red Hill Storage Tank	\$1,030,000.00	X	2.00	=	\$20,600.00
Capitol Heights Storage Tank	\$464,000.00	X	2.00	=	\$9,300.00
Western Ave. Storage Tank	\$309,000.00	X	2.00	=	\$6,200.00
Old Market House	\$538,000.00	X	2.00	=	\$10,800.00
Old Armory Building	\$1,215,000.00	X	2.00	=	\$24,300.00
Olde Sanitation Building	\$279,000.00	X	2.00	=	\$5,600.00
Martinsburg City Garage	\$434,000.00	X	2.00	=	\$8,700.00
Martinsburg Train Station	\$1,082,000.00	X	2.00	=	\$21,600.00
Adam Stephen Complex	\$1,203,000.00	X	2.00	=	\$24,100.00
War Memorial Park	\$1,816,000.00	X	2.00	=	\$36,300.00
Lambert Park	\$1,644,000.00	X	2.00	=	\$32,900.00
P.O. Faulkner Park	\$59,000.00	X	2.00	=	\$1,200.00
Oak Street Park	\$25,000.00	X	2.00	=	\$500.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$1,341,000.00	X	1.00	=	\$13,400.00
\$3,430,000.00	X	1.00	=	\$34,300.00
\$156,000.00	X	1.00	=	\$1,600.00
\$177,000.00	X	1.00	=	\$1,800.00
\$210,000.00	X	1.00	=	\$2,100.00
\$140,000.00	X	1.00	=	\$1,400.00
\$450,000.00	X	1.00	=	\$4,500.00
\$20,000.00	X	1.00	=	\$200.00
\$1,931,000.00	X	1.00	=	\$19,300.00
\$250,000.00	X	1.00	=	\$2,500.00
\$200,000.00	X	1.00	=	\$2,000.00
\$5,000.00	X	1.00	=	\$100.00
\$79,000.00	X	1.00	=	\$800.00
\$1,000.00	X	1.00	=	\$0.00
\$5,000.00	X	1.00	=	\$100.00
\$24,000.00	X	1.00	=	\$200.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
\$30,000.00	X	1.00	=	\$300.00
\$10,000.00	X	1.00	=	\$100.00
\$25,000.00	X	1.00	=	\$300.00
	X	1.00	=	\$0.00
\$43,000.00	X	1.00	=	\$400.00
\$100,000.00	X	1.00	=	\$1,000.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Ambrose Park	\$59,000.00	X	2.00	=	\$1,200.00
Parks and Recreation		X	2.00	=	\$0.00
Delmar Orchard Road	\$2,000,000.00	X	2.00	=	\$40,000.00
<b>Historic County Court House</b>	<b>\$4,175,400.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$83,500.00</b>
<b>Dunn Building</b>	<b>\$13,949,800.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$279,000.00</b>
<b>Homeland Sec. Emerg. Mngt.</b>	<b>\$1,714,200.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$34,300.00</b>
<b>Crawford Building</b>	<b>\$5,517,100.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$110,300.00</b>
<b>Senior Center</b>	<b>\$3,386,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$67,700.00</b>
<b>County Maintenance Facility</b>	<b>\$1,268,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$25,400.00</b>
<b>Central Dispatch</b>	<b>\$37,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$700.00</b>
<b>Health Department</b>	<b>\$573,800.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$11,500.00</b>
<b>Transmitter</b>	<b>\$10,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$200.00</b>
<b>Berkeley/Judicial Center</b>	<b>\$22,024,900.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$440,500.00</b>
<b>Poor House Farm</b>	<b>\$1,784,600.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$35,700.00</b>
<b>110 Building</b>	<b>\$2,143,700.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$42,900.00</b>
<b>126 Building</b>	<b>\$1,518,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$30,400.00</b>
<b>Animal Control Center</b>	<b>\$400,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$8,000.00</b>
Morgan Cabin Museum	\$50,000.00	X	2.00	=	\$1,000.00
<b>Hedgesville Park</b>	<b>\$45,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$900.00</b>
<b>South Berkeley Park</b>	<b>\$40,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$800.00</b>
Water Street Facilities	\$2,828,000.00	X	2.00	=	\$56,600.00
Historic Marker (Bender Property)	\$1,200.00	X	2.00	=	\$0.00
Historic Marker (Providence Quaker Cemetery)	\$1,200.00	X	2.00	=	\$0.00
Court Complex.	\$21,100,000.00	X	2.00	=	\$422,000.00
Runnymede Road	\$2,045,300.00	X	2.00	=	\$40,900.00
Kelly Island	\$128,000.00	X	2.00	=	\$2,600.00
Old Quarry Road	\$53,000.00	X	2.00	=	\$1,100.00
Route 51 West	\$950,500.00	X	2.00	=	\$19,000.00
N/E Side Rt. 9 Near Co. Line	\$30,000.00	X	2.00	=	\$600.00
Glenwood Forest Subdivision	\$365,000.00	X	2.00	=	\$7,300.00
Specks Run Road	\$428,500.00	X	2.00	=	\$8,600.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	1.00	=	\$0.00
\$45,000.00	X	1.00	=	\$500.00
	X	1.00	=	\$0.00
<b>\$255,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$2,600.00</b>
<b>\$366,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$3,700.00</b>
<b>\$431,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$4,300.00</b>
<b>\$0.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$0.00</b>
<b>\$105,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$1,100.00</b>
<b>\$0.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$0.00</b>
<b>\$25,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$300.00</b>
<b>\$90,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$900.00</b>
<b>\$10,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$100.00</b>
<b>\$1,265,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$12,700.00</b>
<b>\$23,595.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$200.00</b>
<b>\$75,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$800.00</b>
<b>\$75,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$800.00</b>
<b>\$34,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$300.00</b>
\$6,000.00	X	1.00	=	\$100.00
<b>\$0.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$0.00</b>
<b>\$0.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$0.00</b>
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
\$56,500.00	X	1.00	=	\$600.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Liberty Buisness Park	\$582,500.00	X	2.00	=	\$11,700.00
Rt. 11 Near Pikeside	\$52,500.00	X	2.00	=	\$1,100.00
Rockefeller Science Center	\$565,000.00	X	2.00	=	\$11,300.00
768 Williamsport Pike	\$1,000.00	X	2.00	=	\$0.00
General Motors	\$612,850.00	X	2.00	=	\$12,300.00
Duke Road	\$912,500.00	X	2.00	=	\$18,300.00
268 Treat Water Road	\$4,521,500.00	X	2.00	=	\$90,400.00
207 Mary Street	\$115,000.00	X	2.00	=	\$2,300.00
Ben Speck Road	\$170,250.00	X	2.00	=	\$3,400.00
Church Street	\$205,000.00	X	2.00	=	\$4,100.00
E/S Ridge Road	\$202,500.00	X	2.00	=	\$4,100.00
Route 901, East of HMS	\$12,800.00	X	2.00	=	\$300.00
Rt. 9, 1/2 Mile East of Texaco	\$12,800.00	X	2.00	=	\$300.00
Rt.9, Near James Rumsey	\$80,000.00	X	2.00	=	\$1,600.00
Rt. 9, Near Fort Hill Subdivision	\$14,000.00	X	2.00	=	\$300.00
71 and 83 Monroe Street		X	2.00	=	\$0.00
<i>Morning Dove Treatment</i>	<i>\$111,000.00</i>	<i>X</i>	<i>2.00</i>	<i>=</i>	<i>\$2,200.00</i>
<i>Sprindale Farm Treatment</i>	<i>\$203,000.00</i>	<i>X</i>	<i>2.00</i>	<i>=</i>	<i>\$4,100.00</i>
<i>Potomac River Treatment</i>	<i>\$16,794,000.00</i>	<i>X</i>	<i>2.00</i>	<i>=</i>	<i>\$335,900.00</i>
Multiple Locations	\$125,000.00	X	2.00	=	\$2,500.00
Roads	\$1,715,000,000.00	X	2.00	=	\$34,300,000.00
Railroads	\$170,000,000.00	X	2.00	=	\$3,400,000.00
Bridges	\$303,000,000.00	X	2.00	=	\$6,060,000.00
Airport Facilities	\$18,000,000.00	X	2.00	=	\$360,000.00
Airport Runways	\$84,000,000.00	X	2.00	=	\$1,680,000.00
WV State Police	\$200,000.00	X	2.00	=	\$4,000.00
Berkeley Sheriffs Dept.	\$1,134,000.00	X	2.00	=	\$22,700.00
Martinsburg Police Dept.		X	2.00	=	\$0.00
Back Creek Valley Fire Dept.		X	6.00	=	\$0.00
Baker Heights VFD		X	2.00	=	\$0.00
Bedington VFD		X	6.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
\$20,000.00	X	1.00	=	\$200.00
\$75,000.00	X	1.00	=	\$800.00
	X	1.00	=	\$0.00
\$10,000.00	X	1.00	=	\$100.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
\$62,000.00	X	1.00	=	\$600.00
\$0.00	X	1.00	=	\$0.00
\$0.00	X	1.00	=	\$0.00
\$0.00	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
\$400,000.00	X	1.00	=	\$4,000.00
	X	1.00	=	\$0.00
	X	3.00	=	\$0.00
	X	1.00	=	\$0.00
	X	3.00	=	\$0.00



<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Hedgesville VFD		X	2.00	=	\$0.00
Martinsburg Fire Dept.	\$1,600,000.00	X	2.00	=	\$32,000.00
South Berkeley VFD		X	2.00	=	\$0.00
<b><i>VA Med Cntr FD</i></b>	<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>WV ANG FD</i></b>	<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Veterans Affairs Medical Center		X	2.00	=	\$0.00
Shenandoah Health Services		X	2.00	=	\$0.00
Martinsburg City Hospital	\$2,361,000.00	X	2.00	=	\$47,200.00
Naylor Memorial Library	\$279,000.00	X	2.00	=	\$5,600.00
Martinsburg - Berkeley County Public Library	\$37,000.00	X	2.00	=	\$700.00
<b>Total Loss to Structure</b>					<b><i>\$52,480,500.00</i></b>

<b>Contents of Loss (Task A.2.)</b>					
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)	
	X	1.00	=	\$0.00	
\$1,500,000.00	X	1.00	=	\$15,000.00	
	X	1.00	=	\$0.00	
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>1.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>1.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
	X	1.00	=	\$0.00	
	X	1.00	=	\$0.00	
\$965,640.00	X	1.00	=	\$9,700.00	
\$16,000.00	X	1.00	=	\$200.00	
\$43,000.00	X	1.00	=	\$400.00	
<b>Total Loss to Contents</b>					<b><i>\$263,900.00</i></b>

Structure Use and Function Loss (Task A.3.) Landslides								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Elem		X	1	+		X	0	=	\$0.00	\$100,200.00
Bedington Elem		X	1	+		X	0	=	\$0.00	\$105,700.00
Berkeley Heights Elem		X	1	+		X	0	=	\$0.00	\$76,300.00
Bunker Hill Elem		X	1	+		X	0	=	\$0.00	\$36,900.00
Burke Street Elem		X	1	+		X	0	=	\$0.00	\$29,800.00
Gerrardstown Elem		X	1	+		X	0	=	\$0.00	\$27,000.00
Hedgesville Elem		X	1	+		X	0	=	\$0.00	\$55,800.00
Inwood Primary School		X	1	+		X	0	=	\$0.00	\$95,400.00
Marlowe Elem		X	1	+		X	0	=	\$0.00	\$43,300.00
Opequon Elem		X	1	+		X	0	=	\$0.00	\$222,400.00
Rosemont Elem		X	1	+		X	0	=	\$0.00	\$65,800.00
Tomahawk Elem		X	1	+		X	0	=	\$0.00	\$89,800.00
Tuscarora Elem		X	1	+		X	0	=	\$0.00	\$72,400.00
Valley View Elem		X	1	+		X	0	=	\$0.00	\$72,600.00
Winchester Ave. Elem		X	1	+		X	0	=	\$0.00	\$44,200.00
Hedgesville MS		X	1	+		X	0	=	\$0.00	\$148,400.00
Martinsburg North MS		X	1	+		X	0	=	\$0.00	\$130,400.00
Martinsburg South MS		X	1	+		X	0	=	\$0.00	\$109,700.00
Mussleman MS		X	1	+		X	0	=	\$0.00	\$189,400.00
<b>Spring Mills MS</b>		<b>X</b>	<b>1</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>+</b>	<b>\$0.00</b>	<b>\$207,400.00</b>
Mill Creek IS		X	1	+		X	0	=	\$0.00	\$107,700.00
Potomac IS		X	1	+		X	0	=	\$0.00	\$90,400.00
Eagle School IS		X	1	+		X	0	=	\$0.00	\$107,000.00
<b>Mountain Ridge IS</b>		<b>X</b>	<b>1</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$150,000.00</b>
Orchard View IS		X	1	+		X	0	=	\$0.00	\$107,000.00
Hedgesville HS		X	1	+		X	0	=	\$0.00	\$272,700.00
Martinsburg HS		X	1	+		X	0	=	\$0.00	\$361,600.00
Mussleman HS		X	1	+		X	0	=	\$0.00	\$317,500.00

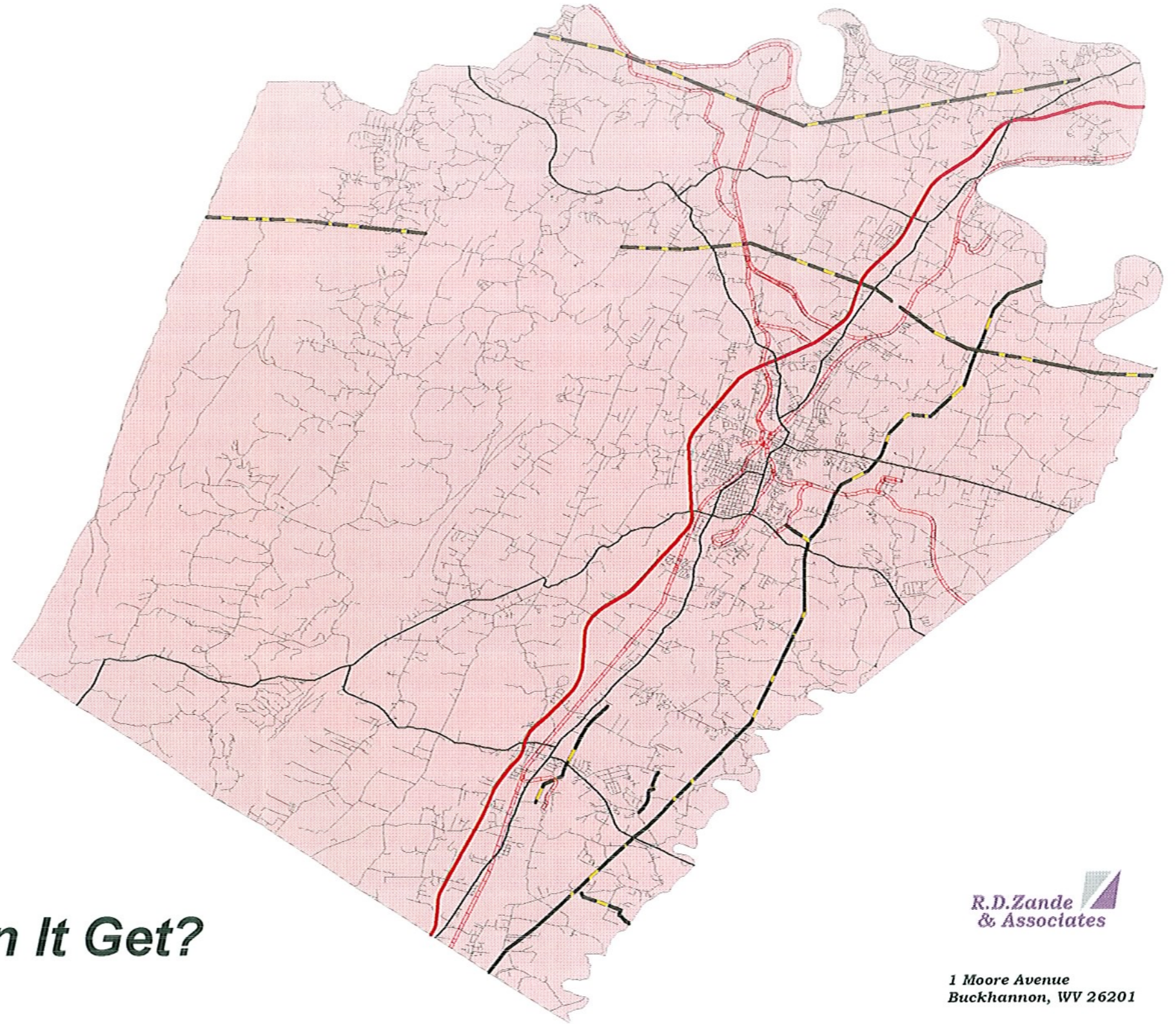
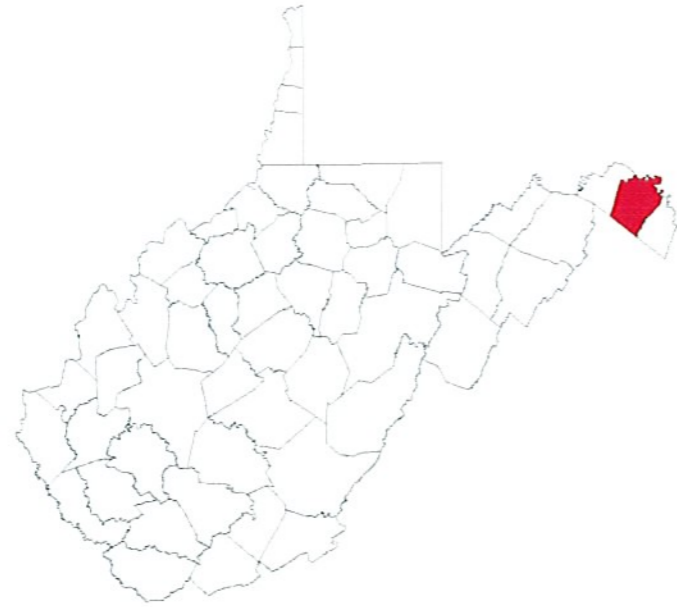
Structure Use and Function Loss (Task A.3.) Landslides								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
James Rumsey Vo Tech Center		X	1	+		X	0	=	\$0.00	\$199,700.00
Pikeside Pre-Vocational		X	1	+		X	0	=	\$0.00	\$36,900.00
Ramer Center		X	1	+		X	0	=	\$0.00	\$36,200.00
Administration Building		X	1	+		X	0	=	\$0.00	\$45,600.00
Maintenance		X	1	+		X	0	=	\$0.00	\$14,700.00
Transportation		X	1	+		X	0	=	\$0.00	\$44,000.00
Mussleman Athletic Facilities		X	1	+		X	0	=	\$0.00	\$26,200.00
Resa VIII Offices		X	1	+		X	0	=	\$0.00	\$34,700.00
Martinsburg City Hall		X	1	+		X	0	=	\$0.00	\$42,500.00
Martinsburg Central Fire Station		X	1	+		X	0	=	\$0.00	\$27,200.00
Martinsburg Westphal Hose Co.		X	1	+		X	0	=	\$0.00	\$7,100.00
Martinsburg Waterworks		X	1	+		X	0	=	\$0.00	\$102,900.00
Martinsburg Animal Shelter		X	1	+		X	0	=	\$0.00	\$1,100.00
Martinsburg Sewer Plant		X	1	+		X	0	=	\$0.00	\$130,300.00
Capitol Cement		X	1	+		X	0	=	\$0.00	\$103,200.00
Red Hill Storage Tank		X	1	+		X	0	=	\$0.00	\$20,600.00
Capitol Heights Storage Tank		X	1	+		X	0	=	\$0.00	\$9,300.00
Western Ave. Storage Tank		X	1	+		X	0	=	\$0.00	\$6,200.00
Old Market House		X	1	+		X	0	=	\$0.00	\$10,800.00
Old Armory Building		X	1	+		X	0	=	\$0.00	\$24,300.00
Olde Sanitation Building		X	1	+		X	0	=	\$0.00	\$5,900.00
Martinsburg City Garage		X	1	+		X	0	=	\$0.00	\$8,800.00
Martinsburg Train Station		X	1	+		X	0	=	\$0.00	\$21,900.00
Adam Stephen Complex		X	1	+		X	0	=	\$0.00	\$24,100.00
War Memorial Park		X	1	+		X	0	=	\$0.00	\$36,700.00
Lambert Park		X	1	+		X	0	=	\$0.00	\$33,900.00
P.O. Faulkner Park		X	1	+		X	0	=	\$0.00	\$1,200.00
Oak Street Park		X	1	+		X	0	=	\$0.00	\$500.00

Structure Use and Function Loss (Task A.3.) Landslides								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Ambrose Park		X	1	+		X	0	=	\$0.00	\$1,200.00
Parks and Recreation		X	1	+		X	0	=	\$0.00	\$500.00
Delmar Orchard Road		X	1	+		X	0	=	\$0.00	\$40,000.00
<i>Historic County Court House</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$86,100.00</i>
<i>Dunn Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$282,700.00</i>
<i>Homeland Sec. Emerg. Mngt.</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$38,600.00</i>
<i>Crawford Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$110,300.00</i>
<i>Senior Center</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$68,800.00</i>
<i>County Maintenance Facility</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$25,400.00</i>
<i>Central Dispatch</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$1,000.00</i>
<i>Health Department</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$12,400.00</i>
<i>Transmitter</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$300.00</i>
<i>Berkeley/Judicial Center</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$453,200.00</i>
<i>Poor House Farm</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$35,900.00</i>
<i>110 Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$43,700.00</i>
<i>126 Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$31,200.00</i>
<i>Animal Control Center</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$8,300.00</i>
Morgan Cabin Museum		X	1	+		X	0	=	\$0.00	\$1,100.00
<i>Hedgesville Park</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$900.00</i>
<i>South Berkeley Park</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$800.00</i>
Water Street Facilities		X	1	+		X	0	=	\$0.00	\$56,600.00
Historic Marker (Bender Property)		X	1	+		X	0	=	\$0.00	\$0.00
Historic Marker (Providence Quaker Cemetery)		X	1	+		X	0	=	\$0.00	\$0.00
Court Complex.		X	1	+		X	0	=	\$0.00	\$422,000.00
Runnymede Road		X	1	+		X	0	=	\$0.00	\$41,500.00
Kelly Island		X	1	+		X	0	=	\$0.00	\$2,600.00
Old Quarry Road		X	1	+		X	0	=	\$0.00	\$1,100.00
Route 51 West		X	1	+		X	0	=	\$0.00	\$19,000.00
N/E Side Rt. 9 Near Co. Line		X	1	+		X	0	=	\$0.00	\$600.00

Structure Use and Function Loss (Task A.3.) Landslides								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Glenwood Forest Subdivision		X	1	+		X	0	=	\$0.00	\$7,300.00
Specks Run Road		X	1	+		X	0	=	\$0.00	\$8,600.00
Liberty Buisness Park		X	1	+		X	0	=	\$0.00	\$11,700.00
Rt. 11 Near Pikeside		X	1	+		X	0	=	\$0.00	\$1,100.00
Rockefeller Science Center		X	1	+		X	0	=	\$0.00	\$11,300.00
768 Williamsport Pike		X	1	+		X	0	=	\$0.00	\$0.00
General Motors		X	1	+		X	0	=	\$0.00	\$12,300.00
Duke Road		X	1	+		X	0	=	\$0.00	\$18,500.00
268 Treat Water Road		X	1	+		X	0	=	\$0.00	\$91,200.00
207 Mary Street		X	1	+		X	0	=	\$0.00	\$2,300.00
Ben Speck Road		X	1	+		X	0	=	\$0.00	\$3,500.00
Church Street		X	1	+		X	0	=	\$0.00	\$4,100.00
E/S Ridge Road		X	1	+		X	0	=	\$0.00	\$4,100.00
Route 901, East of HMS		X	1	+		X	0	=	\$0.00	\$300.00
Rt. 9, 1/2 Mile East of Texaco		X	1	+		X	0	=	\$0.00	\$300.00
Rt.9, Near James Rumsey		X	1	+		X	0	=	\$0.00	\$1,600.00
Rt. 9, Near Fort Hill Subdivision		X	1	+		X	0	=	\$0.00	\$300.00
71 and 83 Monroe Street		X	1	+		X	0	=	\$0.00	\$600.00
<b><i>Morning Dove Treatment</i></b>		X	<b><i>1</i></b>	<b><i>+</i></b>		X	<b><i>0</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	<b><i>\$2,200.00</i></b>
<b><i>Springdale Farm</i></b>		X	<b><i>1</i></b>	<b><i>+</i></b>		X	<b><i>0</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	<b><i>\$4,100.00</i></b>
<b><i>Potomac River Treatment</i></b>		X	<b><i>0</i></b>	<b><i>+</i></b>		X	<b><i>0</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	<b><i>\$335,900.00</i></b>
Multiple Locations		X	1	+		X	0	=	\$0.00	\$2,500.00
Roads		X	1	+		X	0	=	\$0.00	\$34,300,000.00
Railroads		X	1	+		X	0	=	\$0.00	\$3,400,000.00
Bridges		X	1	+		X	0	=	\$0.00	\$6,060,000.00
Airport Facilities		X	1	+		X	0	=	\$0.00	\$360,000.00
Airport Runways		X	1	+		X	0	=	\$0.00	\$1,680,000.00
WV State Police	\$1,800.00	X	1	+	\$1,800.00	X	0	=	\$1,800.00	\$5,800.00
Berkeley Sheriffs Dept.	\$5,900.00	X	1	+	\$5,900.00	X	0	=	\$5,900.00	\$32,600.00
Martinsburg Police Dept.		X	1	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Landslides										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
Back Creek Valley Fire Dept.		X	1	+		X	0	=	\$0.00	\$0.00
Baker Heights VFD		X	1	+		X	0	=	\$0.00	\$0.00
Bedington VFD		X	1	+		X	0	=	\$0.00	\$0.00
Hedgesville VFD		X	1	+		X	0	=	\$0.00	\$0.00
Martinsburg Fire Dept.	\$5,450.00	X	1	+	\$5,450.00	X	0	=	\$5,450.00	\$52,450.00
South Berkeley VFD		X	1	+		X	0	=	\$0.00	\$0.00
<i>WV Med Cntr. FD</i>	<i>0</i>	<i>X</i>	<i>1</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
<i>WV ANG FD</i>	<i>0</i>	<i>X</i>	<i>1</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
Veterans Affairs Medical Center		X	1	+		X	0	=	\$0.00	\$0.00
Shenandoah Health Services		X	1	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hospital	\$3,500.00	X	1	+	\$3,500.00	X	0	=	\$3,500.00	\$60,400.00
Naylor Memorial Library		X	1	+		X	0	=	\$0.00	\$5,800.00
Martinsburg - Berkeley County Public Library		X	1	+		X	0	=	\$0.00	\$1,100.00
<b>Total Loss to Structure Use &amp; Function</b>									<b>\$16,650.00</b>	<b>\$52,761,050.00</b>

# Severe Thunderstorm



## MAP LEGEND

- Roads
- Highway
  - State Route
  - County Route
  - Railroad
  - Power Lines
  - High Hazard

***How Bad Can It Get?***



R.D.Zande  
& Associates

1 Moore Avenue  
Buckhannon, WV 26201

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

**Hazard: Severe Thunderstorm**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# In County	# In Hazard Area	% In Hazard Area	\$ In County	\$ In Hazard Area	% In Hazard Area	# In County	# In Hazard Area	% In Hazard Area
RESIDENTIAL	35,300	12991	35	\$3,353,500,000.00	\$1,234,169,000.00	33	52,365	19,272	23
COMMERCIAL	1,380	508	1	\$158,700,000.00	\$58,405,000.00	2	17,648	6,495	8
INDUSTRIAL	57	21	0	\$28,500,000.00	\$10,489,000.00	0	4,281	1,576	2
AGRICULTURAL	39	14	0	\$7,193,600.00	\$2,647,000.00	0	366	135	0
RELIGIOUS	55	20	0	\$13,475,000.00	\$4,959,000.00	0	110	40	0
GOVERNMENT	76	28	0	\$11,400,000.00	\$4,195,000.00	0	6,262	2,305	3
EDUCATION	28	10	0	\$140,790,000.00	\$51,814,000.00	1	1,373	505	1
UTILITIES	6	2	0	\$7,500,000.00	\$2,760,000.00	0	95	35	0
<b>Total</b>	<b>36,941</b>	<b>13,595</b>	<b>37</b>	<b>\$3,721,058,600.0</b>	<b>\$1,369,438,000.00</b>	<b>37</b>	<b>82,500</b>	<b>30,362</b>	<b>37</b>

Task B. Determine whether (and where) you want to collect additional inventory data.

	YES	NO
1) Do you know where your greatest damages may occur in your hazard areas?	X	
2) Do you know whether your critical facilities will be operational after a hazard event?		X
3) Is there enough data to determine which assets are subject to the greatest potential damages?	X	
4) Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5) Is there enough data to determine whether certain areas are vulnerable to potential hazards?	X	
6) Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7) Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		



### ESTIMATE LOSSES

Hazard: Severe Thunderstorm

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Back Creek Elem	\$1,599,000.00	X	2.00	=	\$32,000.00
Bedington Elem	\$1,685,000.00	X	2.00	=	\$33,700.00
Berkeley Heights Elem	\$3,637,000.00	X	2.00	=	\$72,700.00
Bunker Hill Elem	\$1,764,000.00	X	2.00	=	\$35,300.00
Burke Street Elem	\$1,425,000.00	X	2.00	=	\$28,500.00
Gerrardstown Elem	\$1,292,000.00	X	2.00	=	\$25,800.00
Hedgesville Elem	\$2,670,000.00	X	2.00	=	\$53,400.00
Inwood Primary School	\$1,525,000.00	X	2.00	=	\$30,500.00
Marlowe Elem	\$2,070,000.00	X	2.00	=	\$41,400.00
Opequon Elem	\$3,529,000.00	X	2.00	=	\$70,600.00
Rosemont Elem	\$3,138,000.00	X	2.00	=	\$62,800.00
Tomahawk Elem	\$4,295,000.00	X	2.00	=	\$85,900.00
Tuscarora Elem	\$3,459,000.00	X	2.00	=	\$69,200.00
Valley View Elem	\$3,475,000.00	X	2.00	=	\$69,500.00
Winchester Ave. Elem	\$2,140,000.00	X	2.00	=	\$42,800.00
Hedgesville MS	\$7,105,000.00	X	2.00	=	\$142,100.00
Martinsburg North MS	\$6,245,000.00	X	2.00	=	\$124,900.00
Martinsburg South MS	\$5,249,000.00	X	2.00	=	\$105,000.00
Mussleman MS	\$9,217,000.00	X	2.00	=	\$184,300.00
<b>Spring Mills MS</b>	<b>\$10,370,648.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$207,400.00</b>
Mill Creek IS	\$5,175,000.00	X	2.00	=	\$103,500.00
Potomac IS	\$4,295,000.00	X	2.00	=	\$85,900.00
Eagle School IS	\$5,100,000.00	X	2.00	=	\$102,000.00
<b>Mountain Ridge IS</b>	<b>\$7,500,000.00</b>	<b>X</b>	<b>200.00</b>	<b>=</b>	<b>\$15,000,000.00</b>
Orchard View IS	\$5,100,000.00	X	2.00	=	\$102,000.00
Hedgesville HS	\$13,049,000.00	X	2.00	=	\$261,000.00
Martinsburg HS	\$17,312,000.00	X	2.00	=	\$346,200.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$144,000.00	X	1.00	=	\$1,400.00
\$152,000.00	X	1.00	=	\$1,500.00
\$356,000.00	X	1.00	=	\$3,600.00
\$158,000.00	X	1.00	=	\$1,600.00
\$129,000.00	X	1.00	=	\$1,300.00
\$117,000.00	X	1.00	=	\$1,200.00
\$241,000.00	X	1.00	=	\$2,400.00
\$129,000.00	X	1.00	=	\$1,300.00
\$186,000.00	X	1.00	=	\$1,900.00
\$355,000.00	X	1.00	=	\$3,600.00
\$297,000.00	X	1.00	=	\$3,000.00
\$388,000.00	X	1.00	=	\$3,900.00
\$322,000.00	X	1.00	=	\$3,200.00
\$314,000.00	X	1.00	=	\$3,100.00
\$139,000.00	X	1.00	=	\$1,400.00
\$626,000.00	X	1.00	=	\$6,300.00
\$550,000.00	X	1.00	=	\$5,500.00
\$467,000.00	X	1.00	=	\$4,700.00
\$507,000.00	X	1.00	=	\$5,100.00
<b>\$0.00</b>	<b>x</b>	<b>1.00</b>	<b>=</b>	<b>\$0.00</b>
\$419,000.00	X	1.00	=	\$4,200.00
\$452,000.00	X	1.00	=	\$4,500.00
\$500,000.00	X	1.00	=	\$5,000.00
<b>\$0.00</b>	<b>X</b>	<b>100.00</b>	<b>=</b>	<b>\$0.00</b>
\$500,000.00	X	1.00	=	\$5,000.00
\$1,167,800.00	X	1.00	=	\$11,700.00
\$1,538,000.00	X	1.00	=	\$15,400.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Mussleman HS	\$15,205,000.00	X	2.00	=	\$304,100.00
James Rumsey Vo Tech Center	\$8,270,000.00	X	2.00	=	\$165,400.00
Pikeside Pre-Vocational	\$1,765,000.00	X	2.00	=	\$35,300.00
Ramer Center	\$1,720,000.00	X	2.00	=	\$34,400.00
Administration Building	\$2,175,000.00	X	2.00	=	\$43,500.00
Maintenance	\$665,000.00	X	2.00	=	\$13,300.00
Transportation	\$1,975,000.00	X	2.00	=	\$39,500.00
Mussleman Athletic Facilities	\$1,300,000.00	X	2.00	=	\$26,000.00
Resa VIII Offices	\$770,000.00	X	2.00	=	\$15,400.00
Martinsburg City Hall	\$2,000,000.00	X	2.00	=	\$40,000.00
Martinsburg Central Fire Station	\$1,260,000.00	X	2.00	=	\$25,200.00
Martinsburg Westphal Hose Co.	\$350,000.00	X	2.00	=	\$7,000.00
Martinsburg Waterworks	\$5,103,000.00	X	2.00	=	\$102,100.00
Martinsburg Animal Shelter	\$54,000.00	X	2.00	=	\$1,100.00
Martinsburg Sewer Plant	\$6,508,000.00	X	2.00	=	\$130,200.00
Capitol Cement	\$5,149,000.00	X	2.00	=	\$103,000.00
Red Hill Storage Tank	\$1,030,000.00	X	2.00	=	\$20,600.00
Capitol Heights Storage Tank	\$464,000.00	X	2.00	=	\$9,300.00
Western Ave. Storage Tank	\$309,000.00	X	2.00	=	\$6,200.00
Old Market House	\$538,000.00	X	2.00	=	\$10,800.00
Old Armory Building	\$1,215,000.00	X	2.00	=	\$24,300.00
Olde Sanitation Building	\$279,000.00	X	2.00	=	\$5,600.00
Martinsburg City Garage	\$434,000.00	X	2.00	=	\$8,700.00
Martinsburg Train Station	\$1,082,000.00	X	2.00	=	\$21,600.00
Adam Stephen Complex	\$1,203,000.00	X	2.00	=	\$24,100.00
War Memorial Park	\$1,816,000.00	X	2.00	=	\$36,300.00
Lambert Park	\$1,644,000.00	X	2.00	=	\$32,900.00
P.O. Faulkner Park	\$59,000.00	X	2.00	=	\$1,200.00
Oak Street Park	\$25,000.00	X	2.00	=	\$500.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$1,341,000.00	X	1.00	=	\$13,400.00
\$3,430,000.00	X	1.00	=	\$34,300.00
\$156,000.00	X	1.00	=	\$1,600.00
\$177,000.00	X	1.00	=	\$1,800.00
\$210,000.00	X	1.00	=	\$2,100.00
\$140,000.00	X	1.00	=	\$1,400.00
\$450,000.00	X	1.00	=	\$4,500.00
\$20,000.00	X	1.00	=	\$200.00
\$1,931,000.00	X	1.00	=	\$19,300.00
\$250,000.00	X	1.00	=	\$2,500.00
\$200,000.00	X	1.00	=	\$2,000.00
\$5,000.00	X	1.00	=	\$100.00
\$79,000.00	X	1.00	=	\$800.00
\$1,000.00	X	1.00	=	\$0.00
\$5,000.00	X	1.00	=	\$100.00
\$24,000.00	X	1.00	=	\$200.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
\$30,000.00	X	1.00	=	\$300.00
\$10,000.00	X	1.00	=	\$100.00
\$25,000.00	X	1.00	=	\$300.00
	X	1.00	=	\$0.00
\$43,000.00	X	1.00	=	\$400.00
\$100,000.00	X	1.00	=	\$1,000.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Ambrose Park	\$59,000.00	X	2.00	=	\$1,200.00
Parks and Recreation		X	2.00	=	\$0.00
Delmar Orchard Road	\$2,000,000.00	X	2.00	=	\$40,000.00
<b>Historic County Court House</b>	<b>\$4,175,400.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$83,500.00</b>
<b>Dunn Building</b>	<b>\$13,949,800.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$279,000.00</b>
<b>Homeland Sec. Emerg. Mngt.</b>	<b>\$1,714,200.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$34,300.00</b>
<b>Crawford Building</b>	<b>\$5,517,100.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$110,300.00</b>
<b>Senior Center</b>	<b>\$3,386,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$67,700.00</b>
<b>County Maintenance Facility</b>	<b>\$1,268,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$25,400.00</b>
<b>Central Dispatch</b>	<b>\$37,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$700.00</b>
<b>Health Department</b>	<b>\$573,800.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$11,500.00</b>
<b>Transmitter</b>	<b>\$10,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$200.00</b>
<b>Berkeley/Judicial Center</b>	<b>\$22,024,900.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$440,500.00</b>
<b>Poor House Farm</b>	<b>\$1,784,600.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$35,700.00</b>
<b>110 Building</b>	<b>\$2,143,700.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$42,900.00</b>
<b>126 Building</b>	<b>\$1,518,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$30,400.00</b>
<b>Animal Control Center</b>	<b>\$400,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$8,000.00</b>
Morgan Cabin Museum	\$50,000.00	X	2.00	=	\$1,000.00
<b>Hedgesville Park</b>	<b>\$45,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$900.00</b>
<b>South Berkeley Park</b>	<b>\$40,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$800.00</b>
Water Street Facilities	\$2,828,000.00	X	2.00	=	\$56,600.00
Historic Marker (Bender Property)	\$1,200.00	X	2.00	=	\$0.00
Historic Marker (Providence Quaker Cemetery)	\$1,200.00	X	2.00	=	\$0.00
Court Complex.	\$21,100,000.00	X	2.00	=	\$422,000.00
Runnymede Road	\$2,045,300.00	X	2.00	=	\$40,900.00
Kelly Island	\$128,000.00	X	2.00	=	\$2,600.00
Old Quarry Road	\$53,000.00	X	2.00	=	\$1,100.00
Route 51 West	\$950,500.00	X	2.00	=	\$19,000.00
N/E Side Rt. 9 Near Co. Line	\$30,000.00	X	2.00	=	\$600.00
Glenwood Forest Subdivision	\$365,000.00	X	2.00	=	\$7,300.00
Specks Run Road	\$428,500.00	X	2.00	=	\$8,600.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	1.00	=	\$0.00
\$45,000.00	X	1.00	=	\$500.00
	X	1.00	=	\$0.00
<b>\$255,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$2,600.00</b>
<b>\$366,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$3,700.00</b>
<b>\$431,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$4,300.00</b>
<b>\$0.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$0.00</b>
<b>\$105,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$1,100.00</b>
<b>\$0.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$0.00</b>
<b>\$25,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$300.00</b>
<b>\$90,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$900.00</b>
<b>\$10,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$100.00</b>
<b>\$1,265,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$12,700.00</b>
<b>\$23,595.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$200.00</b>
<b>\$75,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$800.00</b>
<b>\$75,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$800.00</b>
<b>\$34,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$300.00</b>
\$6,000.00	X	1.00	=	\$100.00
<b>\$0.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$0.00</b>
<b>\$0.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$0.00</b>
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
\$56,500.00	X	1.00	=	\$600.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Liberty Buisness Park	\$582,500.00	X	2.00	=	\$11,700.00
Rt. 11 Near Pikeside	\$52,500.00	X	2.00	=	\$1,100.00
Rockefeller Science Center	\$565,000.00	X	2.00	=	\$11,300.00
768 Williamsport Pike	\$1,000.00	X	2.00	=	\$0.00
General Motors	\$612,850.00	X	2.00	=	\$12,300.00
Duke Road	\$912,500.00	X	2.00	=	\$18,300.00
268 Treat Water Road	\$4,521,500.00	X	2.00	=	\$90,400.00
207 Mary Street	\$115,000.00	X	2.00	=	\$2,300.00
Ben Speck Road	\$170,250.00	X	2.00	=	\$3,400.00
Church Street	\$205,000.00	X	2.00	=	\$4,100.00
E/S Ridge Road	\$202,500.00	X	2.00	=	\$4,100.00
Route 901, East of HMS	\$12,800.00	X	2.00	=	\$300.00
Rt. 9, 1/2 Mile East of Texaco	\$12,800.00	X	2.00	=	\$300.00
Rt.9, Near James Rumsey	\$80,000.00	X	2.00	=	\$1,600.00
Rt. 9, Near Fort Hill Subdivision	\$14,000.00	X	2.00	=	\$300.00
71 and 83 Monroe Street		X	2.00	=	\$0.00
<i>Morning Dove Treatment</i>	<i>\$111,000.00</i>	<i>X</i>	<i>2.00</i>	<i>=</i>	<i>\$2,200.00</i>
<i>Springdale Farm Treatment</i>	<i>\$203,000.00</i>	<i>X</i>	<i>2.00</i>	<i>=</i>	<i>\$4,100.00</i>
<i>Potomac River Treatment</i>	<i>\$16,794,000.00</i>	<i>X</i>	<i>2.00</i>	<i>=</i>	<i>\$335,900.00</i>
Multiple Locations	\$125,000.00	X	2.00	=	\$2,500.00
Roads	\$1,715,000,000.00	X	2.00	=	\$34,300,000.00
Railroads	\$170,000,000.00	X	2.00	=	\$3,400,000.00
Bridges	\$303,000,000.00	X	2.00	=	\$6,060,000.00
Airport Facilities	\$18,000,000.00	X	2.00	=	\$360,000.00
Airport Runways	\$84,000,000.00	X	2.00	=	\$1,680,000.00
WV State Police	\$200,000.00	X	2.00	=	\$4,000.00
Berkeley Sheriffs Dept.	\$1,134,000.00	X	2.00	=	\$22,700.00
Martinsburg Police Dept.		X	2.00	=	\$0.00
Back Creek Valley Fire Dept.		X	2.00	=	\$0.00
Baker Heights VFD		X	2.00	=	\$0.00
Bedington VFD		X	2.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
\$20,000.00	X	1.00	=	\$200.00
\$75,000.00	X	1.00	=	\$800.00
	X	1.00	=	\$0.00
\$10,000.00	X	1.00	=	\$100.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
\$62,000.00	X	1.00	=	\$600.00
\$0.00	X	1.00	=	\$0.00
\$0.00	X	1.00	=	\$0.00
\$0.00	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
\$400,000.00	X	1.00	=	\$4,000.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Hedgesville VFD		X	2.00	=	\$0.00
Martinsburg Fire Dept.	\$1,600,000.00	X	2.00	=	\$32,000.00
South Berkeley VFD		X	2.00	=	\$0.00
<b><i>VA Med Cntr FD</i></b>	<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>WV ANG FD</i></b>	<b><i>\$0.00</i></b>	<b><i>x</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Veterans Affairs Medical Center		X	2.00	=	\$0.00
Shenandoah Health Services		X	2.00	=	\$0.00
Martinsburg City Hospital	\$2,361,000.00	X	2.00	=	\$47,200.00
Naylor Memorial Library	\$279,000.00	X	2.00	=	\$5,600.00
Martinsburg - Berkeley County Public Library	\$37,000.00	X	2.00	=	\$700.00
<b>Total Loss to Structure</b>					<b>\$66,997,100.00</b>

Contents of Loss (Task A.2.)					
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)	
	X	1.00	=	\$0.00	
\$1,500,000.00	X	1.00	=	\$15,000.00	
	X	1.00	=	\$0.00	
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>1.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>1.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
	X	1.00	=	\$0.00	
	X	1.00	=	\$0.00	
\$965,640.00	X	1.00	=	\$9,700.00	
\$16,000.00	X	1.00	=	\$200.00	
\$43,000.00	X	1.00	=	\$400.00	
<b>Total Loss to Contents</b>					<b>\$248,200.00</b>

Structure Use and Function Loss (Task A.3.) Severe Thunderstorms								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Elem		X	1	+		X	0	=	\$0.00	\$33,400.00
Bedington Elem		X	1	+		X	0	=	\$0.00	\$35,200.00
Berkeley Heights Elem		X	1	+		X	0	=	\$0.00	\$76,300.00
Bunker Hill Elem		X	1	+		X	0	=	\$0.00	\$36,900.00
Burke Street Elem		X	1	+		X	0	=	\$0.00	\$29,800.00
Gerrardstown Elem		X	1	+		X	0	=	\$0.00	\$27,000.00
Hedgesville Elem		X	1	+		X	0	=	\$0.00	\$55,800.00
Inwood Primary School		X	1	+		X	0	=	\$0.00	\$31,800.00
Marlowe Elem		X	1	+		X	0	=	\$0.00	\$43,300.00
Opequon Elem		X	1	+		X	0	=	\$0.00	\$74,200.00
Rosemont Elem		X	1	+		X	0	=	\$0.00	\$65,800.00
Tomahawk Elem		X	1	+		X	0	=	\$0.00	\$89,800.00
Tuscarora Elem		X	1	+		X	0	=	\$0.00	\$72,400.00
Valley View Elem		X	1	+		X	0	=	\$0.00	\$72,600.00
Winchester Ave. Elem		X	1	+		X	0	=	\$0.00	\$44,200.00
Hedgesville MS		X	1	+		X	0	=	\$0.00	\$148,400.00
Martinsburg North MS		X	1	+		X	0	=	\$0.00	\$130,400.00
Martinsburg South MS		X	1	+		X	0	=	\$0.00	\$109,700.00
Mussleman MS		X	1	+		X	0	=	\$0.00	\$189,400.00
<b>Spring Mills MS</b>		<b>X</b>	<b>1</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$207,400.00</b>
Mill Creek IS		X	1	+		X	0	=	\$0.00	\$107,700.00
Potomac IS		X	1	+		X	0	=	\$0.00	\$90,400.00
Eagle School IS		X	1	+		X	0	=	\$0.00	\$107,000.00
<b>Mountain Ridge IS</b>		<b>X</b>	<b>1</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$15,000,000.00</b>
Orchard View IS		X	1	+		X	0	=	\$0.00	\$107,000.00
Hedgesville HS		X	1	+		X	0	=	\$0.00	\$272,700.00
Martinsburg HS		X	1	+		X	0	=	\$0.00	\$361,600.00
Mussleman HS		X	1	+		X	0	=	\$0.00	\$317,500.00

Structure Use and Function Loss (Task A.3.) Severe Thunderstorms								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
James Rumsey Vo Tech Center		X	1	+		X	0	=	\$0.00	\$199,700.00
Pikeside Pre-Vocational		X	1	+		X	0	=	\$0.00	\$36,900.00
Ramer Center		X	1	+		X	0	=	\$0.00	\$36,200.00
Administration Building		X	1	+		X	0	=	\$0.00	\$45,600.00
Maintenance		X	1	+		X	0	=	\$0.00	\$14,700.00
Transportation		X	1	+		X	0	=	\$0.00	\$44,000.00
Mussleman Athletic Facilities		X	1	+		X	0	=	\$0.00	\$26,200.00
Resa VIII Offices		X	1	+		X	0	=	\$0.00	\$34,700.00
Martinsburg City Hall		X	1	+		X	0	=	\$0.00	\$42,500.00
Martinsburg Central Fire Station		X	1	+		X	0	=	\$0.00	\$27,200.00
Martinsburg Westphal Hose Co.		X	1	+		X	0	=	\$0.00	\$7,100.00
Martinsburg Waterworks		X	1	+		X	0	=	\$0.00	\$102,900.00
Martinsburg Animal Shelter		X	1	+		X	0	=	\$0.00	\$1,100.00
Martinsburg Sewer Plant		X	1	+		X	0	=	\$0.00	\$130,300.00
Capitol Cement		X	1	+		X	0	=	\$0.00	\$103,200.00
Red Hill Storage Tank		X	1	+		X	0	=	\$0.00	\$20,600.00
Capitol Heights Storage Tank		X	1	+		X	0	=	\$0.00	\$9,300.00
Western Ave. Storage Tank		X	1	+		X	0	=	\$0.00	\$6,200.00
Old Market House		X	1	+		X	0	=	\$0.00	\$10,800.00
Old Armory Building		X	1	+		X	0	=	\$0.00	\$24,300.00
Olde Sanitation Building		X	1	+		X	0	=	\$0.00	\$5,900.00
Martinsburg City Garage		X	1	+		X	0	=	\$0.00	\$8,800.00
Martinsburg Train Station		X	1	+		X	0	=	\$0.00	\$21,900.00
Adam Stephen Complex		X	1	+		X	0	=	\$0.00	\$24,100.00
War Memorial Park		X	1	+		X	0	=	\$0.00	\$36,700.00
Lambert Park		X	1	+		X	0	=	\$0.00	\$33,900.00
P.O. Faulkner Park		X	1	+		X	0	=	\$0.00	\$1,200.00
Oak Street Park		X	1	+		X	0	=	\$0.00	\$500.00

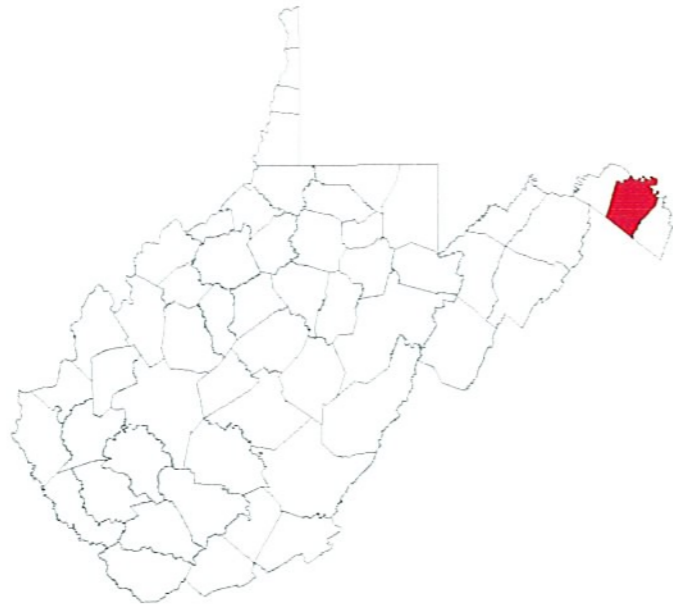
Structure Use and Function Loss (Task A.3.) Severe Thunderstorms								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Ambrose Park		X	1	+		X	0	=	\$0.00	\$1,200.00
Parks and Recreation		X	1	+		X	0	=	\$0.00	\$500.00
Delmar Orchard Road		X	1	+		X	0	=	\$0.00	\$40,000.00
<i>Historic County Court House</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$86,100.00</i>
<i>Dunn Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$282,700.00</i>
<i>Homeland Sec. Emerg. Mngt.</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$38,600.00</i>
<i>Crawford Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$110,300.00</i>
<i>Senior Center</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$68,800.00</i>
<i>County Maintenance Facility</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$25,400.00</i>
<i>Central Dispatch</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$1,000.00</i>
<i>Health Department</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$12,400.00</i>
<i>Transmitter</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$300.00</i>
<i>Berkeley/Judicial Center</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$453,200.00</i>
<i>Poor House Farm</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$35,900.00</i>
<i>110 Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$43,700.00</i>
<i>126 Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$31,200.00</i>
<i>Animal Control Center</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$8,300.00</i>
Morgan Cabin Museum		X	1	+		X	0	=	\$0.00	\$1,100.00
<i>Hedgesville Park</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$900.00</i>
<i>South Berkeley Park</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$800.00</i>
Water Street Facilities		X	1	+		X	0	=	\$0.00	\$56,600.00
Historic Marker (Bender Property)		X	1	+		X	0	=	\$0.00	\$0.00
Historic Marker (Providence Quaker Cemetery)		X	1	+		X	0	=	\$0.00	\$0.00
Court Complex.		X	1	+		X	0	=	\$0.00	\$422,000.00
Runnymede Road		X	1	+		X	0	=	\$0.00	\$41,500.00
Kelly Island		X	1	+		X	0	=	\$0.00	\$2,600.00
Old Quarry Road		X	1	+		X	0	=	\$0.00	\$1,100.00
Route 51 West		X	1	+		X	0	=	\$0.00	\$19,000.00
N/E Side Rt. 9 Near Co. Line		X	1	+		X	0	=	\$0.00	\$600.00



Structure Use and Function Loss (Task A.3.) Severe Thunderstorms								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Glenwood Forest Subdivision		X	1	+		X	0	=	\$0.00	\$7,300.00
Specks Run Road		X	1	+		X	0	=	\$0.00	\$8,600.00
Liberty Buisness Park		X	1	+		X	0	=	\$0.00	\$11,700.00
Rt. 11 Near Pikeside		X	1	+		X	0	=	\$0.00	\$1,100.00
Rockefeller Science Center		X	1	+		X	0	=	\$0.00	\$11,300.00
768 Williamsport Pike		X	1	+		X	0	=	\$0.00	\$0.00
General Motors		X	1	+		X	0	=	\$0.00	\$12,300.00
Duke Road		X	1	+		X	0	=	\$0.00	\$18,500.00
268 Treat Water Road		X	1	+		X	0	=	\$0.00	\$91,200.00
207 Mary Street		X	1	+		X	0	=	\$0.00	\$2,300.00
Ben Speck Road		X	1	+		X	0	=	\$0.00	\$3,500.00
Church Street		X	1	+		X	0	=	\$0.00	\$4,100.00
E/S Ridge Road		X	1	+		X	0	=	\$0.00	\$4,100.00
Route 901, East of HMS		X	1	+		X	0	=	\$0.00	\$300.00
Rt. 9, 1/2 Mile East of Texaco		X	1	+		X	0	=	\$0.00	\$300.00
Rt.9, Near James Rumsey		X	1	+		X	0	=	\$0.00	\$1,600.00
Rt. 9, Near Fort Hill Subdivision		X	1	+		X	0	=	\$0.00	\$300.00
71 and 83 Monroe Street		X	1	+		X	0	=	\$0.00	\$600.00
<b><i>Morning Dove Treatment</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$2,200.00</i></b>
<b><i>Springdale Farm</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$4,100.00</i></b>
<b><i>Potomac River Treatment</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$335,900.00</i></b>
Multiple Locations		X	1	+		X	0	=	\$0.00	\$2,500.00
Roads		X	1	+		X	0	=	\$0.00	\$34,300,000.00
Railroads		X	1	+		X	0	=	\$0.00	\$3,400,000.00
Bridges		X	1	+		X	0	=	\$0.00	\$6,060,000.00
Airport Facilities		X	1	+		X	0	=	\$0.00	\$360,000.00
Airport Runways		X	1	+		X	0	=	\$0.00	\$1,680,000.00
WV State Police	\$1,800.00	X	1	+	\$1,800.00	X	0	=	\$1,800.00	\$5,800.00
Berkeley Sheriffs Dept.	\$5,900.00	X	1	+	\$5,900.00	X	0	=	\$5,900.00	\$32,600.00
Martinsburg Police Dept.		X	1	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Severe Thunderstorms										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
Back Creek Valley Fire Dept.		X	1	+		X	0	=	\$0.00	\$0.00
Baker Heights VFD		X	1	+		X	0	=	\$0.00	\$0.00
Bedington VFD		X	1	+		X	0	=	\$0.00	\$0.00
Hedgesville VFD		X	1	+		X	0	=	\$0.00	\$0.00
Martinsburg Fire Dept.	\$5,450.00	X	1	+	\$5,450.00	X	0	=	\$5,450.00	\$52,450.00
South Berkeley VFD		X	1	+		X	0	=	\$0.00	\$0.00
<i>WV Med Ctr. FD</i>		<i>X</i>	<i>1</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
<i>WV ANG FD</i>		<i>X</i>	<i>1</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
Veterans Affairs Medical Center		X	1	+		X	0	=	\$0.00	\$0.00
Shenandoah Health Services		X	1	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hospital	\$3,500.00	X	1	+	\$3,500.00	X	0	=	\$3,500.00	\$60,400.00
Naylor Memorial Library		X	1	+		X	0	=	\$0.00	\$5,800.00
Martinsburg - Berkeley County Public Library		X	1	+		X	0	=	\$0.00	\$1,100.00
<b>Total Loss to Structure Use &amp; Function</b>									<b>\$16,650.00</b>	<b>\$67,261,950.00</b>

# Severe Wind/Tornado



## MAP LEGEND

- Roads
- Highway
  - State Route
  - County Route
  - Railroad
  - Power Lines
  - Moderate Hazard

***How Bad Can It Get?***

R.D.Zande  
& Associates

1 Moore Avenue  
Buckhannon, WV 26201

6 0 6 12 18 Miles

Severe Wind and Tornado

A windstorm is a storm with high winds or violent gusts, sometimes called wind shears or microbursts, but with little or no rain.

A tornado is a violently rotating column of air extending from a thunderstorm to the ground. The most violent tornadoes are capable of tremendous destruction with wind speeds of 250 mph or more. Damage paths can be in excess of one (1) mile wide and 50 miles long.

Several methods of research identified severe wind and tornadoes as natural hazards in Berkeley County. General severe wind and tornado information was obtained from the following sources:

- The FEMA *State and Local Mitigation Planning How-To-Guide: Understanding Your Risks*
- The National Oceanic & Atmospheric Administration web site  
<http://www4.ncdc.noaa.gov/cgi-win/wwwcgi.d11?wwdevent~ShowEvent>

Berkeley County is in a Zone III wind zone according to the *Design Wind Speed for Community Shelters Map* illustrated in figure 1.1 below. This wind zone places Berkeley County

in a category with the potential for severe damaging tornadoes with 158-206 mph wind speeds, which indicates that moderate damage will be sustained to structures with weak foundations. Although mountainous terrain often serves to break up tornadoes that actually form and touch down in Berkeley County, tornadoes and other wind hazards are present in the flat open areas of the county.

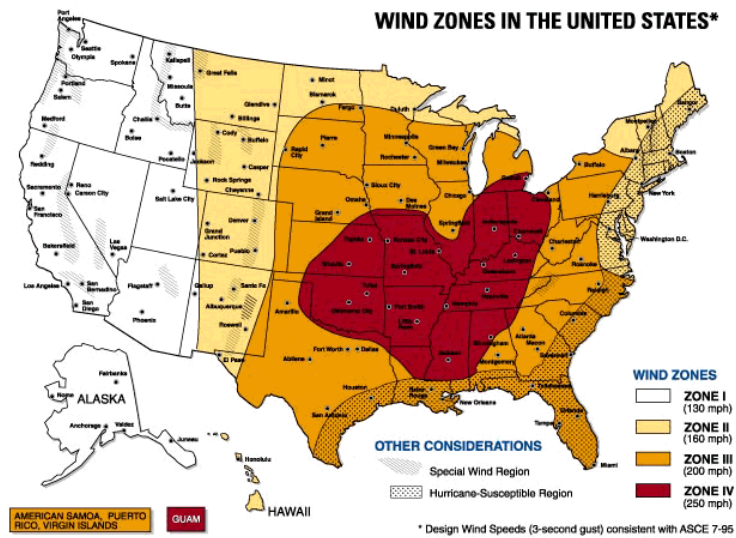


Figure 1.2 Wind zones in the United States

Figure 1.1

While tornadoes are relatively short lived in duration, they are intensely focused, making them one of the most destructive of the natural hazards. According to a map prepared by NOAA, the State of West Virginia averages two (2) tornadoes per year.

As indicated by a *Storm Event Record* description from the NOAA website, on July 30<sup>th</sup> 1998, a pulse-severe mini-supercell thunderstorm rapidly developed near the border of Frederick County, Virginia and Berkeley County during the late afternoon. Shortly after the storm exhibited strong low-and mid-level rotation, a combination of large hail, damaging straight-line winds, and a tornado occurred in the Bunker Hill area. The most impressive event was a brief tornado, witnessed for much of its path by a local resident. The twister touched down along Tory Town Road and continued east-southeast along Sam Mason Road, crossing Interstate 81. The tornado had multiple vortices. The eyewitness noted at least five (5) spinning finer-shaped tendrils as the twister passed. Allegheny Power estimated between 500 and 1,000 customers lost electricity during the storms. The storm resulted in \$50,000 in property damage and \$10,000 crop damage.

## **MAPPING**

See the Berkeley County Severe Wind and Tornado Map for a graphical representation of hazard risk areas with regard to tornadoes and windstorms. The areas shaded in green represent “low hazard areas,” the yellow areas represent “moderate hazard areas,” the areas shaded in orange represent “high hazard areas,” and the red areas represent “extreme high hazard areas.”

*Update: All information above is still relevant and under consideration.*

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

**Hazard: Severe Wind - Tornado**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# In County	# In Hazard Area	% In Hazard Area	\$ In County	\$ In Hazard Area	% In Hazard Area	# In County	# In Hazard Area	% In Hazard Area
RESIDENTIAL	35,300	12991	35	\$3,353,500,000.00	\$1,234,169,000.00	33	52,365	19,272	23
COMMERCIAL	1,380	508	1	\$158,700,000.00	\$58,405,000.00	2	17,648	6,495	8
INDUSTRIAL	57	21	0	\$28,500,000.00	\$10,489,000.00	0	4,281	1,576	2
AGRICULTURAL	39	14	0	\$7,193,600.00	\$2,647,000.00	0	366	135	0
RELIGIOUS	55	20	0	\$13,475,000.00	\$4,959,000.00	0	110	40	0
GOVERNMENT	76	28	0	\$11,400,000.00	\$4,195,000.00	0	6,262	2,305	3
EDUCATION	28	10	0	\$140,790,000.00	\$51,814,000.00	1	1,373	505	1
UTILITIES	6	2	0	\$7,500,000.00	\$2,760,000.00	0	95	35	0
<b>Total</b>	<b>36,941</b>	<b>13,595</b>	<b>37</b>	<b>\$3,721,058,600.0</b>	<b>\$1,369,438,000.00</b>	<b>37</b>	<b>82,500</b>	<b>30,362</b>	<b>37</b>

Task B. Determine whether (and where) you want to collect additional inventory data.

	YES	NO
1) Do you know where your greatest damages may occur in your hazard areas?	X	
2) Do you know whether your critical facilities will be operational after a hazard event?		X
3) Is there enough data to determine which assets are subject to the greatest potential damages?	X	
4) Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5) Is there enough data to determine whether certain areas are vulnerable to potential hazards?	X	
6) Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7) Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		

### ESTIMATE LOSSES

Hazard: Severe Wind - Tornado

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Back Creek Elem	\$1,599,000.00	X	4.00	=	\$64,000.00
Bedington Elem	\$1,685,000.00	X	4.00	=	\$67,400.00
Berkeley Heights Elem	\$3,637,000.00	X	4.00	=	\$145,500.00
Bunker Hill Elem	\$1,764,000.00	X	4.00	=	\$70,600.00
Burke Street Elem	\$1,425,000.00	X	4.00	=	\$57,000.00
Gerrardstown Elem	\$1,292,000.00	X	4.00	=	\$51,700.00
Hedgesville Elem	\$2,670,000.00	X	4.00	=	\$106,800.00
Inwood Primary School	\$1,525,000.00	X	4.00	=	\$61,000.00
Marlowe Elem	\$2,070,000.00	X	4.00	=	\$82,800.00
Opequon Elem	\$3,529,000.00	X	4.00	=	\$141,200.00
Rosemont Elem	\$3,138,000.00	X	4.00	=	\$125,500.00
Tomahawk Elem	\$4,295,000.00	X	4.00	=	\$171,800.00
Tuscarora Elem	\$3,459,000.00	X	4.00	=	\$138,400.00
Valley View Elem	\$3,475,000.00	X	4.00	=	\$139,000.00
Winchester Ave. Elem	\$2,140,000.00	X	4.00	=	\$85,600.00
Hedgesville MS	\$7,105,000.00	X	4.00	=	\$284,200.00
Martinsburg North MS	\$6,245,000.00	X	4.00	=	\$249,800.00
Martinsburg South MS	\$5,249,000.00	X	4.00	=	\$210,000.00
Mussleman MS	\$9,217,000.00	X	4.00	=	\$368,700.00
<b><i>Spring Mills IS</i></b>	<b><i>\$10,370,648.00</i></b>	<b><i>X</i></b>	<b><i>4.00</i></b>	<b><i>=</i></b>	<b><i>\$414,800.00</i></b>
Mill Creek IS	\$5,175,000.00	X	4.00	=	\$207,000.00
Potomac IS	\$4,295,000.00	X	4.00	=	\$171,800.00
Eagle School IS	\$5,100,000.00	X	4.00	=	\$204,000.00
<b><i>Mountain Ridge IS</i></b>	<b><i>\$7,500,000.00</i></b>	<b><i>X</i></b>	<b><i>4.00</i></b>	<b><i>=</i></b>	<b><i>\$300,000.00</i></b>
Orchard View IS	\$5,100,000.00	X	4.00	=	\$204,000.00
Hedgesville HS	\$13,049,000.00	X	4.00	=	\$522,000.00
Martinsburg HS	\$17,312,000.00	X	4.00	=	\$692,500.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$144,000.00	X	2.00	=	\$2,900.00
\$152,000.00	X	2.00	=	\$3,000.00
\$356,000.00	X	2.00	=	\$7,100.00
\$158,000.00	X	2.00	=	\$3,200.00
\$129,000.00	X	2.00	=	\$2,600.00
\$117,000.00	X	2.00	=	\$2,300.00
\$241,000.00	X	2.00	=	\$4,800.00
\$129,000.00	X	2.00	=	\$2,600.00
\$186,000.00	X	2.00	=	\$3,700.00
\$355,000.00	X	2.00	=	\$7,100.00
\$297,000.00	X	2.00	=	\$5,900.00
\$388,000.00	X	2.00	=	\$7,800.00
\$322,000.00	X	2.00	=	\$6,400.00
\$314,000.00	X	2.00	=	\$6,300.00
\$139,000.00	X	2.00	=	\$2,800.00
\$626,000.00	X	2.00	=	\$12,500.00
\$550,000.00	X	2.00	=	\$11,000.00
\$467,000.00	X	2.00	=	\$9,300.00
\$507,000.00	X	2.00	=	\$10,100.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$419,000.00	X	2.00	=	\$8,400.00
\$452,000.00	X	2.00	=	\$9,000.00
\$500,000.00	X	2.00	=	\$10,000.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$500,000.00	X	2.00	=	\$10,000.00
\$1,167,800.00	X	2.00	=	\$23,400.00
\$1,538,000.00	X	2.00	=	\$30,800.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Mussleman HS	\$15,205,000.00	X	4.00	=	\$608,200.00
James Rumsey Vo Tech Center	\$8,270,000.00	X	4.00	=	\$330,800.00
Pikeside Pre-Vocational	\$1,765,000.00	X	4.00	=	\$70,600.00
Ramer Center	\$1,720,000.00	X	4.00	=	\$68,800.00
Administration Building	\$2,175,000.00	X	4.00	=	\$87,000.00
Maintenance	\$665,000.00	X	4.00	=	\$26,600.00
Transportation	\$1,975,000.00	X	4.00	=	\$79,000.00
Mussleman Athletic Facilities	\$1,300,000.00	X	4.00	=	\$52,000.00
Resa VIII Offices	\$770,000.00	X	4.00	=	\$30,800.00
Martinsburg City Hall	\$2,000,000.00	X	4.00	=	\$80,000.00
Martinsburg Central Fire Station	\$1,260,000.00	X	4.00	=	\$50,400.00
Martinsburg Westphal Hose Co.	\$350,000.00	X	4.00	=	\$14,000.00
Martinsburg Waterworks	\$5,103,000.00	X	4.00	=	\$204,100.00
Martinsburg Animal Shelter	\$54,000.00	X	4.00	=	\$2,200.00
Martinsburg Sewer Plant	\$6,508,000.00	X	4.00	=	\$260,300.00
Capitol Cement	\$5,149,000.00	X	4.00	=	\$206,000.00
Red Hill Storage Tank	\$1,030,000.00	X	4.00	=	\$41,200.00
Capitol Heights Storage Tank	\$464,000.00	X	4.00	=	\$18,600.00
Western Ave. Storage Tank	\$309,000.00	X	4.00	=	\$12,400.00
Old Market House	\$538,000.00	X	4.00	=	\$21,500.00
Old Armory Building	\$1,215,000.00	X	4.00	=	\$48,600.00
Olde Sanitation Building	\$279,000.00	X	4.00	=	\$11,200.00
Martinsburg City Garage	\$434,000.00	X	4.00	=	\$17,400.00
Martinsburg Train Station	\$1,082,000.00	X	4.00	=	\$43,300.00
Adam Stephen Complex	\$1,203,000.00	X	4.00	=	\$48,100.00
War Memorial Park	\$1,816,000.00	X	4.00	=	\$72,600.00
Lambert Park	\$1,644,000.00	X	4.00	=	\$65,800.00
P.O. Faulkner Park	\$59,000.00	X	4.00	=	\$2,400.00
Oak Street Park	\$25,000.00	X	4.00	=	\$1,000.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$1,341,000.00	X	2.00	=	\$26,800.00
\$3,430,000.00	X	2.00	=	\$68,600.00
\$156,000.00	X	2.00	=	\$3,100.00
\$177,000.00	X	2.00	=	\$3,500.00
\$210,000.00	X	2.00	=	\$4,200.00
\$140,000.00	X	2.00	=	\$2,800.00
\$450,000.00	X	2.00	=	\$9,000.00
\$20,000.00	X	2.00	=	\$400.00
\$1,931,000.00	X	2.00	=	\$38,600.00
\$250,000.00	X	2.00	=	\$5,000.00
\$200,000.00	X	2.00	=	\$4,000.00
\$5,000.00	X	2.00	=	\$100.00
\$79,000.00	X	2.00	=	\$1,600.00
\$1,000.00	X	2.00	=	\$0.00
\$5,000.00	X	2.00	=	\$100.00
\$24,000.00	X	2.00	=	\$500.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
\$30,000.00	X	2.00	=	\$600.00
\$10,000.00	X	2.00	=	\$200.00
\$25,000.00	X	2.00	=	\$500.00
	X	2.00	=	\$0.00
\$43,000.00	X	2.00	=	\$900.00
\$100,000.00	X	2.00	=	\$2,000.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00



Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Ambrose Park	\$59,000.00	X	4.00	=	\$2,400.00
Parks and Recreation		X	4.00	=	\$0.00
Delmar Orchard Road	\$2,000,000.00	X	4.00	=	\$80,000.00
<b>Historic County Court House</b>	<b>\$4,175,400.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$167,000.00</b>
<b>Dunn Building</b>	<b>\$13,949,800.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$558,000.00</b>
<b>Homeland Sec. Emerg. Mngt.</b>	<b>\$1,714,200.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$68,600.00</b>
<b>Crawford Building</b>	<b>\$5,517,100.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$220,700.00</b>
<b>Senior Center</b>	<b>\$3,386,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$135,400.00</b>
<b>County Maintenance Facility</b>	<b>\$1,268,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$50,700.00</b>
<b>Central Dispatch</b>	<b>\$37,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$1,500.00</b>
<b>Health Department</b>	<b>\$573,800.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$23,000.00</b>
<b>Transmitter</b>	<b>\$10,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$400.00</b>
<b>Berkeley/Judicial Center</b>	<b>\$22,024,900.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$881,000.00</b>
<b>Poor House Farm</b>	<b>\$1,784,600.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$71,400.00</b>
<b>110 Building</b>	<b>\$2,143,700.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$85,700.00</b>
<b>126 Building</b>	<b>\$1,518,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$60,700.00</b>
<b>Animal Control Center</b>	<b>\$400,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$16,000.00</b>
Morgan Cabin Museum	\$50,000.00	X	4.00	=	\$2,000.00
<b>Hedgesville Park</b>	<b>\$45,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$1,800.00</b>
<b>South Berkeley Park</b>	<b>\$40,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$1,600.00</b>
Water Street Facilities	\$2,828,000.00	X	4.00	=	\$113,100.00
Historic Marker (Bender Property)	\$1,200.00	X	4.00	=	\$0.00
Historic Marker (Providence Quaker Cemetery)	\$1,200.00	X	4.00	=	\$0.00
Court Complex.	\$21,100,000.00	X	4.00	=	\$844,000.00
Runnymede Road	\$2,045,300.00	X	4.00	=	\$81,800.00
Kelly Island	\$128,000.00	X	4.00	=	\$5,100.00
Old Quarry Road	\$53,000.00	X	4.00	=	\$2,100.00
Route 51 West	\$950,500.00	X	4.00	=	\$38,000.00
N/E Side Rt. 9 Near Co. Line	\$30,000.00	X	4.00	=	\$1,200.00
Glenwood Forest Subdivision	\$365,000.00	X	4.00	=	\$14,600.00
Specks Run Road	\$428,500.00	X	4.00	=	\$17,100.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	2.00	=	\$0.00
\$45,000.00	X	2.00	=	\$900.00
	X	2.00	=	\$0.00
<b>\$255,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$5,100.00</b>
<b>\$366,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$7,300.00</b>
<b>\$431,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$8,600.00</b>
\$0.00	X	2.00	=	\$0.00
\$105,000.00	X	2.00	=	\$2,100.00
\$0.00	X	2.00	=	\$0.00
\$25,000.00	X	2.00	=	\$500.00
\$90,000.00	X	2.00	=	\$1,800.00
\$10,000.00	X	2.00	=	\$200.00
\$1,265,000.00	X	2.00	=	\$25,300.00
\$23,595.00	X	2.00	=	\$500.00
\$75,000.00	X	2.00	=	\$1,500.00
\$75,000.00	X	2.00	=	\$1,500.00
\$34,000.00	X	2.00	=	\$700.00
\$6,000.00	X	2.00	=	\$100.00
\$0.00	X	2.00	=	\$0.00
\$0.00	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
\$56,500.00	X	2.00	=	\$1,100.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Liberty Buisness Park	\$582,500.00	X	4.00	=	\$23,300.00
Rt. 11 Near Pikeside	\$52,500.00	X	4.00	=	\$2,100.00
Rockefeller Science Center	\$565,000.00	X	4.00	=	\$22,600.00
768 Williamsport Pike	\$1,000.00	X	4.00	=	\$0.00
General Motors	\$612,850.00	X	4.00	=	\$24,500.00
Duke Road	\$912,500.00	X	4.00	=	\$36,500.00
268 Treat Water Road	\$4,521,500.00	X	4.00	=	\$180,900.00
207 Mary Street	\$115,000.00	X	4.00	=	\$4,600.00
Ben Speck Road	\$170,250.00	X	4.00	=	\$6,800.00
Church Street	\$205,000.00	X	4.00	=	\$8,200.00
E/S Ridge Road	\$202,500.00	X	4.00	=	\$8,100.00
Route 901, East of HMS	\$12,800.00	X	4.00	=	\$500.00
Rt. 9, 1/2 Mile East of Texaco	\$12,800.00	X	4.00	=	\$500.00
Rt.9, Near James Rumsey	\$80,000.00	X	4.00	=	\$3,200.00
Rt. 9, Near Fort Hill Subdivision	\$14,000.00	X	4.00	=	\$600.00
71 and 83 Monroe Street		X	4.00	=	\$0.00
<b><i>Morning Dove Treatment</i></b>	<b><i>\$111,000.00</i></b>	<b><i>X</i></b>	<b><i>4.00</i></b>	<b><i>=</i></b>	<b><i>\$4,400.00</i></b>
<b><i>Springdale Farm Treatment</i></b>	<b><i>\$203,000.00</i></b>	<b><i>X</i></b>	<b><i>4.00</i></b>	<b><i>=</i></b>	<b><i>\$8,100.00</i></b>
<b><i>Potomac River Treatment</i></b>	<b><i>\$16,794,000.00</i></b>	<b><i>X</i></b>	<b><i>4.00</i></b>	<b><i>=</i></b>	<b><i>\$671,800.00</i></b>
Multiple Locations	\$125,000.00	X	4.00	=	\$5,000.00
Roads	\$1,715,000,000.00	X	4.00	=	\$68,600,000.00
Railroads	\$170,000,000.00	X	4.00	=	\$6,800,000.00
Bridges	\$303,000,000.00	X	4.00	=	\$12,120,000.00
Airport Facilities	\$18,000,000.00	X	4.00	=	\$720,000.00
Airport Runways	\$84,000,000.00	X	4.00	=	\$3,360,000.00
WV State Police	\$200,000.00	X	4.00	=	\$8,000.00
Berkeley Sheriffs Dept.	\$1,134,000.00	X	4.00	=	\$45,400.00
Martinsburg Police Dept.		X	4.00	=	\$0.00
Back Creek Valley Fire Dept.		X	4.00	=	\$0.00
Baker Heights VFD		X	4.00	=	\$0.00
Bedington VFD		X	4.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
\$20,000.00	X	2.00	=	\$400.00
\$75,000.00	X	2.00	=	\$1,500.00
	X	2.00	=	\$0.00
\$10,000.00	X	2.00	=	\$200.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
\$62,000.00	X	2.00	=	\$1,200.00
\$0.00	X	2.00	=	\$0.00
\$0.00	X	2.00	=	\$0.00
\$0.00	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
\$400,000.00	X	2.00	=	\$8,000.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Hedgesville VFD		X	4.00	=	\$0.00
Martinsburg Fire Dept.	\$1,600,000.00	X	4.00	=	\$64,000.00
South Berkeley VFD		X	4.00	=	\$0.00
<i>VA Med Cntr. FD</i>	<i>\$0.00</i>	<i>X</i>	<i>4.00</i>	<i>=</i>	<i>\$0.00</i>
<i>WV ANG FD</i>	<i>\$0.00</i>	<i>X</i>	<i>4.00</i>	<i>=</i>	<i>\$0.00</i>
Veterans Affairs Medical Center		X	4.00	=	\$0.00
Shenandoah Health Services		X	4.00	=	\$0.00
Martinsburg City Hospital	\$2,361,000.00	X	4.00	=	\$94,400.00
Naylor Memorial Library	\$279,000.00	X	4.00	=	\$11,200.00
Martinsburg - Berkeley County Public Library	\$37,000.00	X	4.00	=	\$1,500.00
<b>Total Loss to Structure</b>					<b>\$104,293,100.00</b>

Contents of Loss (Task A.2.)					
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)	
	X	2.00	=	\$0.00	
\$1,500,000.00	X	2.00	=	\$30,000.00	
	X	2.00	=	\$0.00	
<i>\$0.00</i>	<i>X</i>	<i>2.00</i>	<i>=</i>	<i>\$0.00</i>	
<i>\$0.00</i>	<i>X</i>	<i>2.00</i>	<i>=</i>	<i>\$0.00</i>	
	X	2.00	=	\$0.00	
	X	2.00	=	\$0.00	
\$965,640.00	X	2.00	=	\$19,300.00	
\$16,000.00	X	2.00	=	\$300.00	
\$43,000.00	X	2.00	=	\$900.00	
<b>Total Loss to Contents</b>					<b>\$494,500.00</b>

Structure Use and Function Loss (Task A.3.) Winds - Tornado										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemnt Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
Back Creek Elem		X	1	+		X	0	=	\$0.00	\$66,900.00
Bedington Elem		X	1	+		X	0	=	\$0.00	\$70,400.00
Berkeley Heights Elem		X	1	+		X	0	=	\$0.00	\$152,600.00
Bunker Hill Elem		X	1	+		X	0	=	\$0.00	\$73,800.00
Burke Street Elem		X	1	+		X	0	=	\$0.00	\$59,600.00
Gerrardstown Elem		X	1	+		X	0	=	\$0.00	\$54,000.00
Hedgesville Elem		X	1	+		X	0	=	\$0.00	\$111,600.00
Inwood Primary School		X	1	+		X	0	=	\$0.00	\$63,600.00
Marlowe Elem		X	1	+		X	0	=	\$0.00	\$86,500.00
Opequon Elem		X	1	+		X	0	=	\$0.00	\$148,300.00
Rosemont Elem		X	1	+		X	0	=	\$0.00	\$131,400.00
Tomahawk Elem		X	1	+		X	0	=	\$0.00	\$179,600.00
Tuscarora Elem		X	1	+		X	0	=	\$0.00	\$144,800.00
Valley View Elem		X	1	+		X	0	=	\$0.00	\$145,300.00
Winchester Ave. Elem		X	1	+		X	0	=	\$0.00	\$88,400.00
Hedgesville MS		X	1	+		X	0	=	\$0.00	\$296,700.00
Martinsburg North MS		X	1	+		X	0	=	\$0.00	\$260,800.00
Martinsburg South MS		X	1	+		X	0	=	\$0.00	\$219,300.00
Mussleman MS		X	1	+		X	0	=	\$0.00	\$378,800.00
<b><i>Spring Mills MS</i></b>		<b><i>X</i></b>	<b><i>1</i></b>	<b><i>+</i></b>		<b><i>X</i></b>	<b><i>0</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	<b><i>\$414,800.00</i></b>
Mill Creek IS		X	1	+		X	0	=	\$0.00	\$215,400.00
Potomac IS		X	1	+		X	0	=	\$0.00	\$180,800.00
Eagle School IS		X	1	+		X	0	=	\$0.00	\$214,000.00
<b><i>Mountain Ridge IS</i></b>		<b><i>X</i></b>	<b><i>1</i></b>	<b><i>+</i></b>		<b><i>X</i></b>	<b><i>0</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	<b><i>\$300,000.00</i></b>
Orchard View IS		X	1	+		X	0	=	\$0.00	\$214,000.00
Hedgesville HS		X	1	+		X	0	=	\$0.00	\$545,400.00

<b>Structure Use and Function Loss (Task A.3.) Winds - Tornado</b>										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
Martinsburg HS		X	1	+		X	0	=	\$0.00	\$723,300.00
Mussleman HS		X	1	+		X	0	=	\$0.00	\$635,000.00
James Rumsey Vo Tech Center		X	1	+		X	0	=	\$0.00	\$399,400.00
Pikeside Pre-Vocational		X	1	+		X	0	=	\$0.00	\$73,700.00
Ramer Center		X	1	+		X	0	=	\$0.00	\$72,300.00
Administration Building		X	1	+		X	0	=	\$0.00	\$91,200.00
Maintenance		X	1	+		X	0	=	\$0.00	\$29,400.00
Transportation		X	1	+		X	0	=	\$0.00	\$88,000.00
Mussleman Athletic Facilities		X	1	+		X	0	=	\$0.00	\$52,400.00
Resa VIII Offices		X	1	+		X	0	=	\$0.00	\$69,400.00
Martinsburg City Hall		X	1	+		X	0	=	\$0.00	\$85,000.00
Martinsburg Central Fire Station		X	1	+		X	0	=	\$0.00	\$54,400.00
Martinsburg Westphal Hose Co.		X	1	+		X	0	=	\$0.00	\$14,100.00
Martinsburg Waterworks		X	1	+		X	0	=	\$0.00	\$205,700.00
Martinsburg Animal Shelter		X	1	+		X	0	=	\$0.00	\$2,200.00
Martinsburg Sewer Plant		X	1	+		X	0	=	\$0.00	\$260,400.00
Capitol Cement		X	1	+		X	0	=	\$0.00	\$206,500.00
Red Hill Storage Tank		X	1	+		X	0	=	\$0.00	\$41,200.00
Capitol Heights Storage Tank		X	1	+		X	0	=	\$0.00	\$18,600.00
Western Ave. Storage Tank		X	1	+		X	0	=	\$0.00	\$12,400.00
Old Market House		X	1	+		X	0	=	\$0.00	\$21,500.00
Old Armory Building		X	1	+		X	0	=	\$0.00	\$48,600.00
Olde Sanitation Building		X	1	+		X	0	=	\$0.00	\$11,800.00
Martinsburg City Garage		X	1	+		X	0	=	\$0.00	\$17,600.00
Martinsburg Train Station		X	1	+		X	0	=	\$0.00	\$43,800.00
Adam Stephen Complex		X	1	+		X	0	=	\$0.00	\$48,100.00

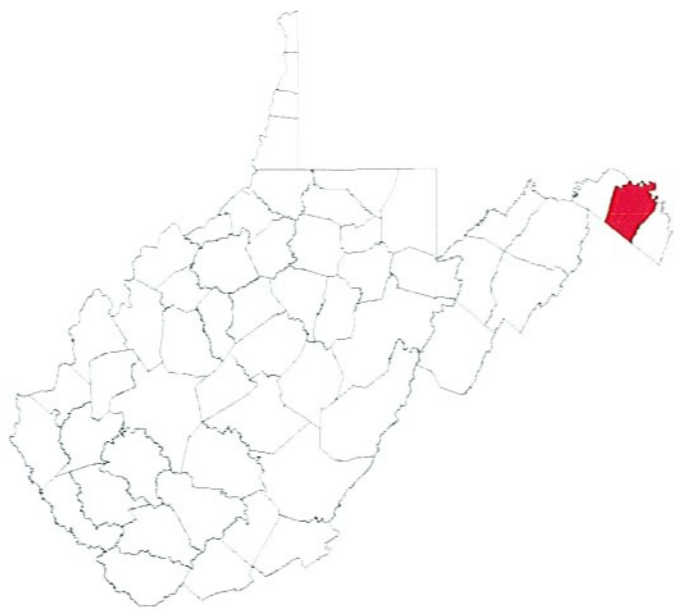
<b>Structure Use and Function Loss (Task A.3.) Winds - Tornado</b>										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
War Memorial Park		X	1	+		X	0	=	\$0.00	\$73,500.00
Lambert Park		X	1	+		X	0	=	\$0.00	\$67,800.00
P.O. Faulkner Park		X	1	+		X	0	=	\$0.00	\$2,400.00
Oak Street Park		X	1	+		X	0	=	\$0.00	\$1,000.00
Ambrose Park		X	1	+		X	0	=	\$0.00	\$2,400.00
Parks and Recreation		X	1	+		X	0	=	\$0.00	\$900.00
Delmar Orchard Road		X	1	+		X	0	=	\$0.00	\$80,000.00
<b><i>Historic County Court House</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$172,100.00</i></b>
<b><i>Dunn Building</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$565,300.00</i></b>
<b><i>Homeland Sec. Emerg. Mngt.</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$77,200.00</i></b>
<b><i>Crawford Building</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$220,700.00</i></b>
<b><i>Senior Center</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$137,500.00</i></b>
<b><i>County Maintenance Facility</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$50,700.00</i></b>
<b><i>Central Dispatch</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$2,000.00</i></b>
<b><i>Health Department</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$24,800.00</i></b>
<b><i>Transmitter</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$600.00</i></b>
<b><i>Berkeley/Judicial Center</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$906,300.00</i></b>
<b><i>Poor House Farm</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$71,900.00</i></b>
<b><i>110 Building</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$87,200.00</i></b>
<b><i>126 Building</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$62,200.00</i></b>
<b><i>Animal Control Center</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$16,700.00</i></b>
Morgan Cabin Museum		X	1	+		X	0	=	\$0.00	\$2,100.00
<b><i>Hedgesville Park</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$1,800.00</i></b>
<b><i>South Berkeley Park</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$1,600.00</i></b>
Water Street Facilities		X	1	+		X	0	=	\$0.00	\$113,100.00
Historic Marker (Bender Property)		X	1	+		X	0	=	\$0.00	\$0.00
Historic Marker (Providence Quaker Cemetery)		X	1	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Winds - Tornado										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
Court Complex.		X	1	+		X	0	=	\$0.00	\$844,000.00
Runnymede Road		X	1	+		X	0	=	\$0.00	\$82,900.00
Kelly Island		X	1	+		X	0	=	\$0.00	\$5,100.00
Old Quarry Road		X	1	+		X	0	=	\$0.00	\$2,100.00
Route 51 West		X	1	+		X	0	=	\$0.00	\$38,000.00
N/E Side Rt. 9 Near Co. Line		X	1	+		X	0	=	\$0.00	\$1,200.00
Glenwood Forest Subdivision		X	1	+		X	0	=	\$0.00	\$14,600.00
Specks Run Road		X	1	+		X	0	=	\$0.00	\$17,100.00
Liberty Buisness Park		X	1	+		X	0	=	\$0.00	\$23,300.00
Rt. 11 Near Pikeside		X	1	+		X	0	=	\$0.00	\$2,100.00
Rockefeller Science Center		X	1	+		X	0	=	\$0.00	\$22,600.00
768 Williamsport Pike		X	1	+		X	0	=	\$0.00	\$0.00
General Motors		X	1	+		X	0	=	\$0.00	\$24,500.00
Duke Road		X	1	+		X	0	=	\$0.00	\$36,900.00
268 Treat Water Road		X	1	+		X	0	=	\$0.00	\$182,400.00
207 Mary Street		X	1	+		X	0	=	\$0.00	\$4,600.00
Ben Speck Road		X	1	+		X	0	=	\$0.00	\$7,000.00
Church Street		X	1	+		X	0	=	\$0.00	\$8,200.00
E/S Ridge Road		X	1	+		X	0	=	\$0.00	\$8,100.00
Route 901, East of HMS		X	1	+		X	0	=	\$0.00	\$500.00
Rt. 9, 1/2 Mile East of Texaco		X	1	+		X	0	=	\$0.00	\$500.00
Rt.9, Near James Rumsey		X	1	+		X	0	=	\$0.00	\$3,200.00
Rt. 9, Near Fort Hill Subdivision		X	1	+		X	0	=	\$0.00	\$600.00
71 and 83 Monroe Street		X	1	+		X	0	=	\$0.00	\$1,200.00
<b><i>Morning Dove Treatment</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$4,400.00</i></b>
<b><i>Springdale Farm</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$8,100.00</i></b>
<b><i>Potomac River Treatment</i></b>		X	1	+		X	0	=	<b><i>\$0.00</i></b>	<b><i>\$671,800.00</i></b>
Multiple Locations		X	1	+		X	0	=	\$0.00	\$5,000.00

Structure Use and Function Loss (Task A.3.) Winds - Tornado										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
Roads		X	1	+		X	0	=	\$0.00	\$68,600,000.00
Railroads		X	1	+		X	0	=	\$0.00	\$6,800,000.00
Bridges		X	1	+		X	0	=	\$0.00	\$12,120,000.00
Airport Facilities		X	1	+		X	0	=	\$0.00	\$720,000.00
Airport Runways		X	1	+		X	0	=	\$0.00	\$3,360,000.00
WV State Police	\$1,800.00	X	1	+	\$1,800.00	X	0	=	\$1,800.00	\$9,800.00
Berkeley Sheriffs Dept.	\$5,900.00	X	1	+	\$5,900.00	X	0	=	\$5,900.00	\$59,300.00
Martinsburg Police Dept.		X	1	+		X	0	=	\$0.00	\$0.00
Back Creek Valley Fire Dept.		X	1	+		X	0	=	\$0.00	\$0.00
Baker Heights VFD		X	1	+		X	0	=	\$0.00	\$0.00
Bedington VFD		X	1	+		X	0	=	\$0.00	\$0.00
Hedgesville VFD		X	1	+		X	0	=	\$0.00	\$0.00
Martinsburg Fire Dept.	\$5,450.00	X	1	+	\$5,450.00	X	0	=	\$5,450.00	\$99,450.00
South Berkeley VFD		X	1	+		X	0	=	\$0.00	\$0.00
<b>VA Med Ctr. FD</b>		<b>X</b>	<b>1</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>WV ANG FD</b>		<b>X</b>	<b>1</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$0.00</b>
Veterans Affairs Medical Center		X	1	+		X	0	=	\$0.00	\$0.00
Shenandoah Health Services		X	1	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hospital	\$3,500.00	X	1	+	\$3,500.00	X	0	=	\$3,500.00	\$117,200.00
Naylor Memorial Library		X	1	+		X	0	=	\$0.00	\$11,500.00
Martinsburg - Berkeley County Public Library		X	1	+		X	0	=	\$0.00	\$2,400.00
<b>Total Loss to Structure Use &amp; Function</b>									<b>\$16,650.00</b>	<b>\$104,804,250.00</b>



# Severe Winter Storm



## MAP LEGEND

- Roads
  - Highway
  - State Route
  - County Route
- Railroad
- Power Lines
- Moderate Hazard

*How Bad Can It Get?*



R.D.Zande & Associates

1 Moore Avenue  
Buckhannon, WV 26201

### Severe Winter Storms-Sleet

**One or more of the following characterizes a winter storm: heavy snow, ice storms, strong winds, extreme cold, and, in certain areas, coastal flooding and beach erosion.**

Several methods of research identified winter storms as a hazard in Berkeley County, including reviews of newspaper coverage, reviews of past disaster declarations, and interviews with local officials. General winter storm information was also gathered at [http://www.nfpa.org/Education/Consumers\\_and\\_Families/Fire\\_Safety\\_Information/Talking/About\\_Disaster/Winter\\_Storm/winter\\_storm.html](http://www.nfpa.org/Education/Consumers_and_Families/Fire_Safety_Information/Talking/About_Disaster/Winter_Storm/winter_storm.html), as well as the NOAA web site <http://www4.ncdc.noaa.gov/cgi-win/wwcgi.d11?wwevent~storms>.

Winter Storms often affect the entire county at the same time. Berkeley County is highly vulnerable to the wide-ranging effects of snowstorms, blizzards, ice storms and severe cold snaps. Emergency response efforts during these types of hazards are extremely difficult due to road conditions, which impede or prohibit vehicle movement. The higher elevations of the county appear to be more susceptible to severe winter storms.

Driving is treacherous during winter storms as roadways freeze and become covered with snow and slush. During severe winter storms, heavy snow may cause property damage and power outages. Also, the aforementioned adverse driving conditions may lead to additional property damage. Roads are sometimes blocked, stranding some rural residents from the incorporated areas.

According to a *NOAA Storm Event Record* description, on February 4, 1998, a powerful nor'easter laden with tropical moisture from the Gulf of Mexico and Caribbean, dumped moderate to heavy snow across all of eastern West Virginia beginning early on the fourth. In the eastern panhandle, the snow changed to rain by midday over most areas, with the exceptions being locations above 1,500 feet, where a mix of snow and freezing rain continued well into the fifth. In the Potomac Highlands, precipitation remained a mix of rain, sleet, and snow, even at lower elevations throughout the event. Accumulations were highly dependent on elevation. One resident, living at an elevation of around 600 feet, reported six (6) inches, a nearby neighbor whose elevation was closer to 1,000 feet reported 10 inches.

A *NOAA Event Record* dated January 14, 1999 indicated that a strong arctic cold front moved slowly southeast across the Mid-Atlantic region from late on the 13<sup>th</sup> to midday on the 15<sup>th</sup>. This front brought a thin layer of sub-freezing air to the lowest levels of the atmosphere, but just off the surface, warmer air moved in. The precipitation started as snow but melted into rain as it fell through the warm layer of air in the middle levels of the atmosphere. Unfortunately, the

ground was below freezing during the period, so the rain froze on every surface it come in contact with. This created ice accumulations of one quarter to one half inch through early afternoon on the 14<sup>th</sup>. Several car accidents, slip and fall injuries, downed trees, and power outages were reported.

## **MAPPING**

See the Berkeley County Severe Winter Storm and Sleet Map for a graphical representation of the hazard risk areas associated with winter storms. The areas shaded in green represent “low hazard areas,” the yellow areas represent “moderate hazard areas,” the areas shaded in orange represent “high hazard areas,” and the areas in red represent “extreme high hazard areas.”

*Update: All information above is still relevant and under consideration.*

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

**Hazard: Severe Winter Storm**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# In County	# In Hazard Area	% In Hazard Area	\$ In County	\$ In Hazard Area	% In Hazard Area	# In County	# In Hazard Area	% In Hazard Area
RESIDENTIAL	35,300	7632	21	\$3,353,500,000.00	\$725,047,000.00	19	52,365	11,322	14
COMMERCIAL	1,380	298	1	\$158,700,000.00	\$34,312,000.00	1	17,648	3,816	5
INDUSTRIAL	57	12	0	\$28,500,000.00	\$6,162,000.00	0	4,281	926	1
AGRICULTURAL	39	8	0	\$7,193,600.00	\$1,555,000.00	0	366	79	0
RELIGIOUS	55	12	0	\$13,475,000.00	\$2,913,000.00	0	110	24	0
GOVERNMENT	76	16	0	\$11,400,000.00	\$2,465,000.00	0	6,262	1,354	2
EDUCATION	28	6	0	\$140,790,000.00	\$30,440,000.00	1	1,373	297	0
UTILITIES	6	1	0	\$7,500,000.00	\$1,622,000.00	0	95	21	0
<b>Total</b>	<b>36,941</b>	<b>7,987</b>	<b>22</b>	<b>\$3,721,058,600.0</b>	<b>\$804,516,000.00</b>	<b>22</b>	<b>82,500</b>	<b>17,837</b>	<b>22</b>

Task B. Determine whether (and where) you want to collect additional inventory data.

	YES	NO
1) Do you know where your greatest damages may occur in your hazard areas?	X	
2) Do you know whether your critical facilities will be operational after a hazard event?		X
3) Is there enough data to determine which assets are subject to the greatest potential damages?	X	
4) Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5) Is there enough data to determine whether certain areas are vulnerable to potential hazards?	X	
6) Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7) Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		

### ESTIMATE LOSSES

Hazard: Severe Winter Storm

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Back Creek Elem	\$1,599,000.00	X	4.00	=	\$64,000.00
Bedington Elem	\$1,685,000.00	X	4.00	=	\$67,400.00
Berkeley Heights Elem	\$3,637,000.00	X	4.00	=	\$145,500.00
Bunker Hill Elem	\$1,764,000.00	X	4.00	=	\$70,600.00
Burke Street Elem	\$1,425,000.00	X	4.00	=	\$57,000.00
Gerrardstown Elem	\$1,292,000.00	X	4.00	=	\$51,700.00
Hedgesville Elem	\$2,670,000.00	X	4.00	=	\$106,800.00
Inwood Primary School	\$1,525,000.00	X	4.00	=	\$61,000.00
Marlowe Elem	\$2,070,000.00	X	4.00	=	\$82,800.00
Opequon Elem	\$3,529,000.00	X	4.00	=	\$141,200.00
Rosemont Elem	\$3,138,000.00	X	4.00	=	\$125,500.00
Tomahawk Elem	\$4,295,000.00	X	4.00	=	\$171,800.00
Tuscarora Elem	\$3,459,000.00	X	4.00	=	\$138,400.00
Valley View Elem	\$3,475,000.00	X	4.00	=	\$139,000.00
Winchester Ave. Elem	\$2,140,000.00	X	4.00	=	\$85,600.00
Hedgesville MS	\$7,105,000.00	X	4.00	=	\$284,200.00
Martinsburg North MS	\$6,245,000.00	X	4.00	=	\$249,800.00
Martinsburg South MS	\$5,249,000.00	X	4.00	=	\$210,000.00
Mussleman MS	\$9,217,000.00	X	4.00	=	\$368,700.00
<b><i>Spring Mills MS</i></b>	<b><i>\$10,370,648.00</i></b>	<b><i>X</i></b>	<b><i>4.00</i></b>	<b><i>=</i></b>	<b><i>\$414,800.00</i></b>
Mill Creek IS	\$5,175,000.00	X	4.00	=	\$207,000.00
Potomac IS	\$4,295,000.00	X	4.00	=	\$171,800.00
Eagle School IS	\$5,100,000.00	X	4.00	=	\$204,000.00
<b><i>Mountain Ridge IS</i></b>	<b><i>\$7,500,000.00</i></b>	<b><i>X</i></b>	<b><i>4.00</i></b>	<b><i>=</i></b>	<b><i>\$300,000.00</i></b>
Orchard View IS	\$5,100,000.00	X	4.00	=	\$204,000.00
Hedgesville HS	\$13,049,000.00	X	4.00	=	\$522,000.00
Martinsburg HS	\$17,312,000.00	X	4.00	=	\$692,500.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$144,000.00	X	2.00	=	\$2,900.00
\$152,000.00	X	2.00	=	\$3,000.00
\$356,000.00	X	2.00	=	\$7,100.00
\$158,000.00	X	2.00	=	\$3,200.00
\$129,000.00	X	2.00	=	\$2,600.00
\$117,000.00	X	2.00	=	\$2,300.00
\$241,000.00	X	2.00	=	\$4,800.00
\$129,000.00	X	2.00	=	\$2,600.00
\$186,000.00	X	2.00	=	\$3,700.00
\$355,000.00	X	2.00	=	\$7,100.00
\$297,000.00	X	2.00	=	\$5,900.00
\$388,000.00	X	2.00	=	\$7,800.00
\$322,000.00	X	2.00	=	\$6,400.00
\$314,000.00	X	2.00	=	\$6,300.00
\$139,000.00	X	2.00	=	\$2,800.00
\$626,000.00	X	2.00	=	\$12,500.00
\$550,000.00	X	2.00	=	\$11,000.00
\$467,000.00	X	2.00	=	\$9,300.00
\$507,000.00	X	2.00	=	\$10,100.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$419,000.00	X	2.00	=	\$8,400.00
\$452,000.00	X	2.00	=	\$9,000.00
\$500,000.00	X	2.00	=	\$10,000.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$500,000.00	X	2.00	=	\$10,000.00
\$1,167,800.00	X	2.00	=	\$23,400.00
\$1,538,000.00	X	2.00	=	\$30,800.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Mussleman HS	\$15,205,000.00	X	4.00	=	\$608,200.00
James Rumsey Vo Tech Center	\$8,270,000.00	X	4.00	=	\$330,800.00
Pikeside Pre-Vocational	\$1,765,000.00	X	4.00	=	\$70,600.00
Ramer Center	\$1,720,000.00	X	4.00	=	\$68,800.00
Administration Building	\$2,175,000.00	X	4.00	=	\$87,000.00
Maintenance	\$665,000.00	X	4.00	=	\$26,600.00
Transportation	\$1,975,000.00	X	4.00	=	\$79,000.00
Mussleman Athletic Facilities	\$1,300,000.00	X	4.00	=	\$52,000.00
Resa VIII Offices	\$770,000.00	X	4.00	=	\$30,800.00
Martinsburg City Hall	\$2,000,000.00	X	4.00	=	\$80,000.00
Martinsburg Central Fire Station	\$1,260,000.00	X	4.00	=	\$50,400.00
Martinsburg Westphal Hose Co.	\$350,000.00	X	4.00	=	\$14,000.00
Martinsburg Waterworks	\$5,103,000.00	X	4.00	=	\$204,100.00
Martinsburg Animal Shelter	\$54,000.00	X	4.00	=	\$2,200.00
Martinsburg Sewer Plant	\$6,508,000.00	X	4.00	=	\$260,300.00
Capitol Cement	\$5,149,000.00	X	4.00	=	\$206,000.00
Red Hill Storage Tank	\$1,030,000.00	X	4.00	=	\$41,200.00
Capitol Heights Storage Tank	\$464,000.00	X	4.00	=	\$18,600.00
Western Ave. Storage Tank	\$309,000.00	X	4.00	=	\$12,400.00
Old Market House	\$538,000.00	X	4.00	=	\$21,500.00
Old Armory Building	\$1,215,000.00	X	4.00	=	\$48,600.00
Olde Sanitation Building	\$279,000.00	X	4.00	=	\$11,200.00
Martinsburg City Garage	\$434,000.00	X	4.00	=	\$17,400.00
Martinsburg Train Station	\$1,082,000.00	X	4.00	=	\$43,300.00
Adam Stephen Complex	\$1,203,000.00	X	4.00	=	\$48,100.00
War Memorial Park	\$1,816,000.00	X	4.00	=	\$72,600.00
Lambert Park	\$1,644,000.00	X	4.00	=	\$65,800.00
P.O. Faulkner Park	\$59,000.00	X	4.00	=	\$2,400.00
Oak Street Park	\$25,000.00	X	4.00	=	\$1,000.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$1,341,000.00	X	2.00	=	\$26,800.00
\$3,430,000.00	X	2.00	=	\$68,600.00
\$156,000.00	X	2.00	=	\$3,100.00
\$177,000.00	X	2.00	=	\$3,500.00
\$210,000.00	X	2.00	=	\$4,200.00
\$140,000.00	X	2.00	=	\$2,800.00
\$450,000.00	X	2.00	=	\$9,000.00
\$20,000.00	X	2.00	=	\$400.00
\$1,931,000.00	X	2.00	=	\$38,600.00
\$250,000.00	X	2.00	=	\$5,000.00
\$200,000.00	X	2.00	=	\$4,000.00
\$5,000.00	X	2.00	=	\$100.00
\$79,000.00	X	2.00	=	\$1,600.00
\$1,000.00	X	2.00	=	\$0.00
\$5,000.00	X	2.00	=	\$100.00
\$24,000.00	X	2.00	=	\$500.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
\$30,000.00	X	2.00	=	\$600.00
\$10,000.00	X	2.00	=	\$200.00
\$25,000.00	X	2.00	=	\$500.00
	X	2.00	=	\$0.00
\$43,000.00	X	2.00	=	\$900.00
\$100,000.00	X	2.00	=	\$2,000.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Ambrose Park	\$59,000.00	X	4.00	=	\$2,400.00
Parks and Recreation		X	4.00	=	\$0.00
Delmar Orchard Road	\$2,000,000.00	X	4.00	=	\$80,000.00
<b>Historic County Court House</b>	<b>\$4,175,400.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$167,000.00</b>
<b>Dunn Building</b>	<b>\$13,949,800.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$558,000.00</b>
<b>Homeland Sec. Emerg. Mngt.</b>	<b>\$1,714,200.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$68,600.00</b>
<b>Crawford Building</b>	<b>\$5,517,100.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$220,700.00</b>
<b>Senior Center</b>	<b>\$3,386,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$135,400.00</b>
<b>County Maintenance Facility</b>	<b>\$1,268,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$50,700.00</b>
<b>Central Dispatch</b>	<b>\$37,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$1,500.00</b>
<b>Health Department</b>	<b>\$573,800.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$23,000.00</b>
<b>Transmitter</b>	<b>\$10,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$400.00</b>
<b>Berkeley/Judicial Center</b>	<b>\$22,024,900.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$881,000.00</b>
<b>Poor House Farm</b>	<b>\$1,784,600.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$71,400.00</b>
<b>110 Building</b>	<b>\$2,143,700.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$85,700.00</b>
<b>126 Building</b>	<b>\$1,518,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$60,700.00</b>
<b>Animal Control Center</b>	<b>\$400,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$16,000.00</b>
Morgan Cabin Museum	\$50,000.00	X	4.00	=	\$2,000.00
<b>Hedgesville Park</b>	<b>\$45,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$1,800.00</b>
<b>South Berkeley Park</b>	<b>\$40,000.00</b>	<b>X</b>	<b>4.00</b>	<b>=</b>	<b>\$1,600.00</b>
Water Street Facilities	\$2,828,000.00	X	4.00	=	\$113,100.00
Historic Marker (Bender Property)	\$1,200.00	X	4.00	=	\$0.00
Historic Marker (Providence Quaker Cemetery)	\$1,200.00	X	4.00	=	\$0.00
Court Complex.	\$21,100,000.00	X	4.00	=	\$844,000.00
Runnymede Road	\$2,045,300.00	X	4.00	=	\$81,800.00
Kelly Island	\$128,000.00	X	4.00	=	\$5,100.00
Old Quarry Road	\$53,000.00	X	4.00	=	\$2,100.00
Route 51 West	\$950,500.00	X	4.00	=	\$38,000.00
N/E Side Rt. 9 Near Co. Line	\$30,000.00	X	4.00	=	\$1,200.00
Glenwood Forest Subdivision	\$365,000.00	X	4.00	=	\$14,600.00
Specks Run Road	\$428,500.00	X	4.00	=	\$17,100.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	2.00	=	\$0.00
\$45,000.00	X	2.00	=	\$900.00
	X	2.00	=	\$0.00
<b>\$255,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$5,100.00</b>
<b>\$366,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$7,300.00</b>
<b>\$431,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$8,600.00</b>
<b>\$0.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$0.00</b>
<b>\$105,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$2,100.00</b>
<b>\$0.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$0.00</b>
<b>\$25,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$500.00</b>
<b>\$90,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$1,800.00</b>
<b>\$10,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$200.00</b>
<b>\$1,265,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$25,300.00</b>
<b>\$23,595.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$500.00</b>
<b>\$75,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$1,500.00</b>
<b>\$75,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$1,500.00</b>
<b>\$34,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$700.00</b>
\$6,000.00	X	2.00	=	\$100.00
<b>\$0.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$0.00</b>
<b>\$0.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$0.00</b>
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
\$56,500.00	X	2.00	=	\$1,100.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Liberty Buisness Park	\$582,500.00	X	4.00	=	\$23,300.00
Rt. 11 Near Pikeside	\$52,500.00	X	4.00	=	\$2,100.00
Rockefeller Science Center	\$565,000.00	X	4.00	=	\$22,600.00
768 Williamsport Pike	\$1,000.00	X	4.00	=	\$0.00
General Motors	\$612,850.00	X	4.00	=	\$24,500.00
Duke Road	\$912,500.00	X	4.00	=	\$36,500.00
268 Treat Water Road	\$4,521,500.00	X	4.00	=	\$180,900.00
207 Mary Street	\$115,000.00	X	4.00	=	\$4,600.00
Ben Speck Road	\$170,250.00	X	4.00	=	\$6,800.00
Church Street	\$205,000.00	X	4.00	=	\$8,200.00
E/S Ridge Road	\$202,500.00	X	4.00	=	\$8,100.00
Route 901, East of HMS	\$12,800.00	X	4.00	=	\$500.00
Rt. 9, 1/2 Mile East of Texaco	\$12,800.00	X	4.00	=	\$500.00
Rt.9, Near James Rumsey	\$80,000.00	X	4.00	=	\$3,200.00
Rt. 9, Near Fort Hill Subdivision	\$14,000.00	X	4.00	=	\$600.00
71 and 83 Monroe Street		X	4.00	=	\$0.00
<i>Morning Dove Treatment</i>	<i>\$111,000.00</i>	<i>X</i>	<i>4.00</i>	<i>=</i>	<i>\$4,400.00</i>
<i>Springdale Farm Treatment</i>	<i>\$203,000.00</i>	<i>X</i>	<i>4.00</i>	<i>=</i>	<i>\$8,100.00</i>
<i>Potomac River Treatment</i>	<i>\$16,794,000.00</i>	<i>X</i>	<i>4.00</i>	<i>=</i>	<i>\$671,800.00</i>
Multiple Locations	\$125,000.00	X	4.00	=	\$5,000.00
Roads	\$1,715,000,000.00	X	4.00	=	\$68,600,000.00
Railroads	\$170,000,000.00	X	4.00	=	\$6,800,000.00
Bridges	\$303,000,000.00	X	4.00	=	\$12,120,000.00
Airport Facilities	\$18,000,000.00	X	4.00	=	\$720,000.00
Airport Runways	\$84,000,000.00	X	4.00	=	\$3,360,000.00
WV State Police	\$200,000.00	X	4.00	=	\$8,000.00
Berkeley Sheriffs Dept.	\$1,134,000.00	X	4.00	=	\$45,400.00
Martinsburg Police Dept.		X	4.00	=	\$0.00
Back Creek Valley Fire Dept.		X	4.00	=	\$0.00
Baker Heights VFD		X	4.00	=	\$0.00
Bedington VFD		X	4.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
\$20,000.00	X	2.00	=	\$400.00
\$75,000.00	X	2.00	=	\$1,500.00
	X	2.00	=	\$0.00
\$10,000.00	X	2.00	=	\$200.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
\$62,000.00	X	2.00	=	\$1,200.00
\$0.00	X	2.00	=	\$0.00
\$0.00	X	2.00	=	\$0.00
\$0.00	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
\$400,000.00	X	2.00	=	\$8,000.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00
	X	2.00	=	\$0.00



Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Hedgesville VFD		X	4.00	=	\$0.00
Martinsburg Fire Dept.	\$1,600,000.00	X	4.00	=	\$64,000.00
South Berkeley VFD		X	4.00	=	\$0.00
<b><i>VA Med Ctr. FD</i></b>	<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>4.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>WV ANG FD</i></b>	<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>4.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Veterans Affairs Medical Center		X	4.00	=	\$0.00
Shenandoah Health Services		X	4.00	=	\$0.00
Martinsburg City Hospital	\$2,361,000.00	X	4.00	=	\$94,400.00
Naylor Memorial Library	\$279,000.00	X	4.00	=	\$11,200.00
Martinsburg - Berkeley County Public Library	\$37,000.00	X	4.00	=	\$1,500.00
<b>Total Loss to Structure</b>					<b>\$104,293,100.00</b>

Contents of Loss (Task A.2.)					
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)	
	X	2.00	=	\$0.00	
\$1,500,000.00	X	2.00	=	\$30,000.00	
	X	2.00	=	\$0.00	
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
	X	2.00	=	\$0.00	
	X	2.00	=	\$0.00	
\$965,640.00	X	2.00	=	\$19,300.00	
\$16,000.00	X	2.00	=	\$300.00	
\$43,000.00	X	2.00	=	\$900.00	
<b>Total Loss to Contents</b>					<b>\$494,500.00</b>

Structure Use and Function Loss (Task A.3.) Severe Winter Storm								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Elem		X	1	+		X	0	=	\$0.00	\$66,900.00
Bedington Elem		X	1	+		X	0	=	\$0.00	\$70,400.00
Berkeley Heights Elem		X	1	+		X	0	=	\$0.00	\$152,600.00
Bunker Hill Elem		X	1	+		X	0	=	\$0.00	\$73,800.00
Burke Street Elem		X	1	+		X	0	=	\$0.00	\$59,600.00
Gerrardstown Elem		X	1	+		X	0	=	\$0.00	\$54,000.00
Hedgesville Elem		X	1	+		X	0	=	\$0.00	\$111,600.00
Inwood Primary School		X	1	+		X	0	=	\$0.00	\$63,600.00
Marlowe Elem		X	1	+		X	0	=	\$0.00	\$86,500.00
Opequon Elem		X	1	+		X	0	=	\$0.00	\$148,300.00
Rosemont Elem		X	1	+		X	0	=	\$0.00	\$131,400.00
Tomahawk Elem		X	1	+		X	0	=	\$0.00	\$179,600.00
Tuscarora Elem		X	1	+		X	0	=	\$0.00	\$144,800.00
Valley View Elem		X	1	+		X	0	=	\$0.00	\$145,300.00
Winchester Ave. Elem		X	1	+		X	0	=	\$0.00	\$88,400.00
Hedgesville MS		X	1	+		X	0	=	\$0.00	\$296,700.00
Martinsburg North MS		X	1	+		X	0	=	\$0.00	\$260,800.00
Martinsburg South MS		X	1	+		X	0	=	\$0.00	\$219,300.00
Mussleman MS		X	1	+		X	0	=	\$0.00	\$378,800.00
<b>Spring Mills MS</b>		<b>X</b>	<b>1</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$414,800.00</b>
Mill Creek IS		X	1	+		X	0	=	\$0.00	\$215,400.00
Potomac IS		X	1	+		X	0	=	\$0.00	\$180,800.00
Eagle School IS		X	1	+		X	0	=	\$0.00	\$214,000.00
<b>Mountain Ridge IS</b>		<b>X</b>	<b>1</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$300,000.00</b>
Orchard View IS		X	1	+		X	0	=	\$0.00	\$214,000.00
Hedgesville HS		X	1	+		X	0	=	\$0.00	\$545,400.00
Martinsburg HS		X	1	+		X	0	=	\$0.00	\$723,300.00
Mussleman HS		X	1	+		X	0	=	\$0.00	\$635,000.00

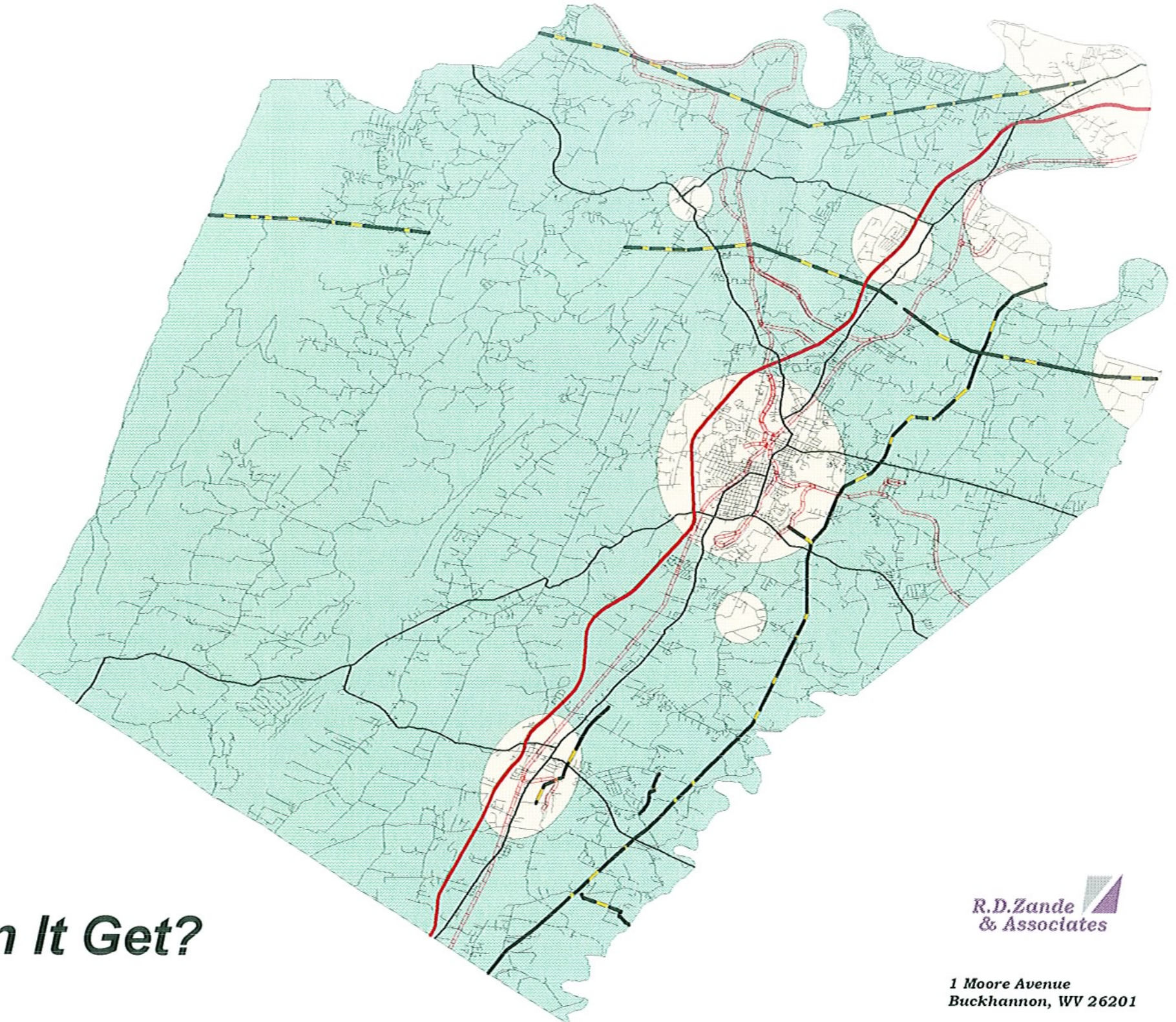
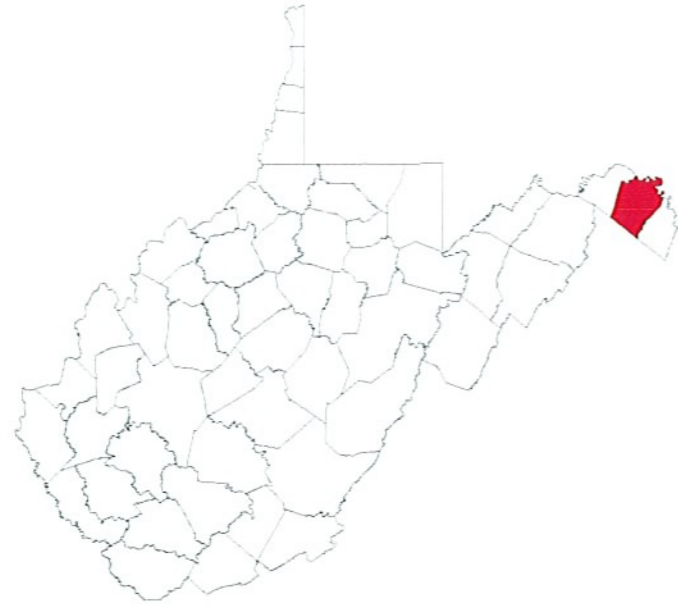
Structure Use and Function Loss (Task A.3.) Severe Winter Storm								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
James Rumsey Vo Tech Center		X	1	+		X	0	=	\$0.00	\$399,400.00
Pikeside Pre-Vocational		X	1	+		X	0	=	\$0.00	\$73,700.00
Ramer Center		X	1	+		X	0	=	\$0.00	\$72,300.00
Administration Building		X	1	+		X	0	=	\$0.00	\$91,200.00
Maintenance		X	1	+		X	0	=	\$0.00	\$29,400.00
Transportation		X	1	+		X	0	=	\$0.00	\$88,000.00
Mussleman Athletic Facilities		X	1	+		X	0	=	\$0.00	\$52,400.00
Resa VIII Offices		X	1	+		X	0	=	\$0.00	\$69,400.00
Martinsburg City Hall		X	1	+		X	0	=	\$0.00	\$85,000.00
Martinsburg Central Fire Station		X	1	+		X	0	=	\$0.00	\$54,400.00
Martinsburg Westphal Hose Co.		X	1	+		X	0	=	\$0.00	\$14,100.00
Martinsburg Waterworks		X	1	+		X	0	=	\$0.00	\$205,700.00
Martinsburg Animal Shelter		X	1	+		X	0	=	\$0.00	\$2,200.00
Martinsburg Sewer Plant		X	1	+		X	0	=	\$0.00	\$260,400.00
Capitol Cement		X	1	+		X	0	=	\$0.00	\$206,500.00
Red Hill Storage Tank		X	1	+		X	0	=	\$0.00	\$41,200.00
Capitol Heights Storage Tank		X	1	+		X	0	=	\$0.00	\$18,600.00
Western Ave. Storage Tank		X	1	+		X	0	=	\$0.00	\$12,400.00
Old Market House		X	1	+		X	0	=	\$0.00	\$21,500.00
Old Armory Building		X	1	+		X	0	=	\$0.00	\$48,600.00
Olde Sanitation Building		X	1	+		X	0	=	\$0.00	\$11,800.00
Martinsburg City Garage		X	1	+		X	0	=	\$0.00	\$17,600.00
Martinsburg Train Station		X	1	+		X	0	=	\$0.00	\$43,800.00
Adam Stephen Complex		X	1	+		X	0	=	\$0.00	\$48,100.00
War Memorial Park		X	1	+		X	0	=	\$0.00	\$73,500.00
Lambert Park		X	1	+		X	0	=	\$0.00	\$67,800.00
P.O. Faulkner Park		X	1	+		X	0	=	\$0.00	\$2,400.00
Oak Street Park		X	1	+		X	0	=	\$0.00	\$1,000.00

Structure Use and Function Loss (Task A.3.) Severe Winter Storm								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Ambrose Park		X	1	+		X	0	=	\$0.00	\$2,400.00
Parks and Recreation		X	1	+		X	0	=	\$0.00	\$900.00
Delmar Orchard Road		X	1	+		X	0	=	\$0.00	\$80,000.00
<i>Historic County Court House</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$172,100.00</i>
<i>Dunn Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$565,300.00</i>
<i>Homeland Sec. Emerg. Mngt.</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$77,200.00</i>
<i>Crawford Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$220,700.00</i>
<i>Senior Center</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$137,500.00</i>
<i>County Maintenance Facility</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$50,700.00</i>
<i>Central Dispatch</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$2,000.00</i>
<i>Health Department</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$24,800.00</i>
<i>Transmitter</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$600.00</i>
<i>Berkeley/Judicial Center</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$906,300.00</i>
<i>Poor House Farm</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$71,900.00</i>
<i>110 Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$87,200.00</i>
<i>126 Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$62,200.00</i>
<i>Animal Control Center</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$16,700.00</i>
Morgan Cabin Museum		X	1	+		X	0	=	\$0.00	\$2,100.00
<i>Hedgesville Park</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$1,800.00</i>
<i>South Berkeley Park</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$1,600.00</i>
Water Street Facilities		X	1	+		X	0	=	\$0.00	\$113,100.00
Historic Marker (Bender Property)		X	1	+		X	0	=	\$0.00	\$0.00
Historic Marker (Providence Quaker Cemetery)		X	1	+		X	0	=	\$0.00	\$0.00
Court Complex.		X	1	+		X	0	=	\$0.00	\$844,000.00
Runnymede Road		X	1	+		X	0	=	\$0.00	\$82,900.00
Kelly Island		X	1	+		X	0	=	\$0.00	\$5,100.00
Old Quarry Road		X	1	+		X	0	=	\$0.00	\$2,100.00
Route 51 West		X	1	+		X	0	=	\$0.00	\$38,000.00
N/E Side Rt. 9 Near Co. Line		X	1	+		X	0	=	\$0.00	\$1,200.00

Structure Use and Function Loss (Task A.3.) Severe Winter Storm								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Glenwood Forest Subdivision		X	1	+		X	0	=	\$0.00	\$14,600.00
Specks Run Road		X	1	+		X	0	=	\$0.00	\$17,100.00
Liberty Buisness Park		X	1	+		X	0	=	\$0.00	\$23,300.00
Rt. 11 Near Pikeside		X	1	+		X	0	=	\$0.00	\$2,100.00
Rockefeller Science Center		X	1	+		X	0	=	\$0.00	\$22,600.00
768 Williamsport Pike		X	1	+		X	0	=	\$0.00	\$0.00
General Motors		X	1	+		X	0	=	\$0.00	\$24,500.00
Duke Road		X	1	+		X	0	=	\$0.00	\$36,900.00
268 Treat Water Road		X	1	+		X	0	=	\$0.00	\$182,400.00
207 Mary Street		X	1	+		X	0	=	\$0.00	\$4,600.00
Ben Speck Road		X	1	+		X	0	=	\$0.00	\$7,000.00
Church Street		X	1	+		X	0	=	\$0.00	\$8,200.00
E/S Ridge Road		X	1	+		X	0	=	\$0.00	\$8,100.00
Route 901, East of HMS		X	1	+		X	0	=	\$0.00	\$500.00
Rt. 9, 1/2 Mile East of Texaco		X	1	+		X	0	=	\$0.00	\$500.00
Rt.9, Near James Rumsey		X	1	+		X	0	=	\$0.00	\$3,200.00
Rt. 9, Near Fort Hill Subdivision		X	1	+		X	0	=	\$0.00	\$600.00
71 and 83 Monroe Street		X	1	+		X	0	=	\$0.00	\$1,200.00
<i>Morning Dove Treatment</i>		<i>X</i>	<i>1</i>	<i>+</i>		<i>X</i>	<i>1</i>	<i>=</i>	<i>\$0.00</i>	<i>\$4,400.00</i>
<i>Springdale Farm</i>		<i>X</i>	<i>1</i>	<i>+</i>		<i>X</i>	<i>1</i>	<i>=</i>	<i>\$0.00</i>	<i>\$8,100.00</i>
<i>Potomac River Treatment</i>		<i>X</i>	<i>1</i>	<i>+</i>		<i>X</i>	<i>1</i>	<i>=</i>	<i>\$0.00</i>	<i>\$671,800.00</i>
Multiple Locations		X	1	+		X	0	=	\$0.00	\$5,000.00
Roads		X	1	+		X	0	=	\$0.00	\$68,600,000.00
Railroads		X	1	+		X	0	=	\$0.00	\$6,800,000.00
Bridges		X	1	+		X	0	=	\$0.00	\$12,120,000.00
Airport Facilities		X	1	+		X	0	=	\$0.00	\$720,000.00
Airport Runways		X	1	+		X	0	=	\$0.00	\$3,360,000.00
WV State Police	\$1,800.00	X	1	+	\$1,800.00	X	0	=	\$1,800.00	\$9,800.00
Berkeley Sheriffs Dept.	\$5,900.00	X	1	+	\$5,900.00	X	0	=	\$5,900.00	\$59,300.00
Martinsburg Police Dept.		X	1	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Severe Winter Storm										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
Back Creek Valley Fire Dept.		X	1	+		X	0	=	\$0.00	\$0.00
Baker Heights VFD		X	1	+		X	0	=	\$0.00	\$0.00
Bedington VFD		X	1	+		X	0	=	\$0.00	\$0.00
Hedgesville VFD		X	1	+		X	0	=	\$0.00	\$0.00
Martinsburg Fire Dept.	\$5,450.00	X	1	+	\$5,450.00	X	0	=	\$5,450.00	\$99,450.00
South Berkeley VFD		X	1	+		X	0	=	\$0.00	\$0.00
<i>VA Med Cntr. FD</i>		<i>X</i>	<i>1</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
<i>WV ANG FD</i>		<i>X</i>	<i>1</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
Veterans Affairs Medical Center		X	1	+		X	0	=	\$0.00	\$0.00
Shenandoah Health Services		X	1	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hospital	\$3,500.00	X	1	+	\$3,500.00	X	0	=	\$3,500.00	\$117,200.00
Naylor Memorial Library		X	1	+		X	0	=	\$0.00	\$11,500.00
Martinsburg - Berkeley County Public Library		X	1	+		X	0	=	\$0.00	\$2,400.00
<b>Total Loss to Structure Use &amp; Function</b>									<b>\$16,650.00</b>	<b>\$104,804,250.00</b>

# Heat Wave



## MAP LEGEND

- Roads
- Highway
  - State Route
  - County Route
  - Railroad
  - Power Lines
  - Moderate Hazard
  - Low Hazard

### How Bad Can It Get?



R.D.Zande  
& Associates

1 Moore Avenue  
Buckhannon, WV 26201

### Temperature Extreme – Heat Wave

Extreme heat is defined as three (3) or more consecutive days with day-time temperatures of 90 degrees F or higher and nighttime temperatures no lower than 85 degrees F accompanied by high humidity and causing a significant amount of medically treated, heat-related illnesses or deaths.

Several methods of research identified extreme heat as a minor hazard in Berkeley County, including searches of Internet sites such as:

- Extreme Heat Fact Sheet  
<http://www.fema.gov/library/heat.html>
- General Heat Wave Information  
[http://www.nfpa.org/Education/Consumers\\_and\\_Families/Fire\\_Safety\\_Information/Talking\\_About\\_Disaster/Heat\\_Heat\\_Wave/heat\\_heat\\_wave.html](http://www.nfpa.org/Education/Consumers_and_Families/Fire_Safety_Information/Talking_About_Disaster/Heat_Heat_Wave/heat_heat_wave.html)
- The National Oceanic & Atmospheric Administration web site  
<http://www4.ncdc.noaa.gov/cgi-win/wwcgi.d11?wwevent~storms>

Extreme heat is a hazard usually found in more desert regions than Berkeley County, West Virginia. However, extreme heat can be a hazard in West Virginia, causing heat strokes to occur in residents and proving detrimental to crops. The highest reported temperature in West Virginia through the year 2000 was 112 degrees Fahrenheit, and was reported in the eastern panhandle of the state near Berkeley County.

According to a *NOAA Storm Event Record* description, on August 16, 1997, west winds circulating around a “Bermuda” high pressure system allowed temperatures to soar over the weekend of the 16<sup>th</sup> and 17<sup>th</sup>. Maximum temperatures were near the century mark across the eastern panhandle of West Virginia. Heat Index values ranged from 105 to 110 each day. Maximum temperatures at Martinsburg airport were 101 degrees on the 16<sup>th</sup> and 100 on the 17<sup>th</sup>.

### **MAPPING**

See the Berkeley County Temperature Extreme – Heat Wave Map for a graphical representation of hazard areas with regard to extreme heat. The areas shaded in green represent “low hazard areas,” the yellow areas represent “moderate hazard areas,” the areas shaded in orange represent “high hazard areas,” and the red areas represent “extreme high hazard areas.”

*Update: All information above is still relevant and under consideration.*



Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

**Hazard: Temperature Extreme**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# In County	# In Hazard Area	% In Hazard Area	\$ In County	\$ In Hazard Area	% In Hazard Area	# In County	# In Hazard Area	% In Hazard Area
RESIDENTIAL	35,300	0	0	\$3,353,500,000.00	\$0.00	0	52,365	10,943	13
COMMERCIAL	1,380	0	0	\$158,700,000.00	\$0.00	0	17,648	3,688	4
INDUSTRIAL	57	0	0	\$28,500,000.00	\$0.00	0	4,281	895	1
AGRICULTURAL	39	0	0	\$7,193,600.00	\$0.00	0	366	76	0
RELIGIOUS	55	0	0	\$13,475,000.00	\$0.00	0	110	23	0
GOVERNMENT	76	0	0	\$11,400,000.00	\$0.00	0	6,262	1,309	2
EDUCATION	28	0	0	\$140,790,000.00	\$0.00	0	1,373	287	0
UTILITIES	6	0	0	\$7,500,000.00	\$0.00	0	95	20	0
<b>Total</b>	<b>36,941</b>	<b>0</b>	<b>0</b>	<b>\$3,721,058,600.0</b>	<b>\$0.00</b>	<b>0</b>	<b>82,500</b>	<b>17,240</b>	<b>21</b>

Task B. Determine whether (and where) you want to collect additional inventory data.

	YES	NO
1) Do you know where your greatest damages may occur in your hazard areas?	X	
2) Do you know whether your critical facilities will be operational after a hazard event?		X
3) Is there enough data to determine which assets are subject to the greatest potential damages?	X	
4) Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5) Is there enough data to determine whether certain areas are vulnerable to potential hazards?	X	
6) Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7) Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		

### ESTIMATE LOSSES

Hazard: Temperature Extreme

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Back Creek Elem	\$1,599,000.00	X	0.00	=	\$0.00
Bedington Elem	\$1,685,000.00	X	0.00	=	\$0.00
Berkeley Heights Elem	\$3,637,000.00	X	0.00	=	\$0.00
Bunker Hill Elem	\$1,764,000.00	X	0.00	=	\$0.00
Burke Street Elem	\$1,425,000.00	X	0.00	=	\$0.00
Gerrardstown Elem	\$1,292,000.00	X	0.00	=	\$0.00
Hedgesville Elem	\$2,670,000.00	X	0.00	=	\$0.00
Inwood Primary School	\$1,525,000.00	X	0.00	=	\$0.00
Marlowe Elem	\$2,070,000.00	X	0.00	=	\$0.00
Opequon Elem	\$3,529,000.00	X	0.00	=	\$0.00
Rosemont Elem	\$3,138,000.00	X	0.00	=	\$0.00
Tomahawk Elem	\$4,295,000.00	X	0.00	=	\$0.00
Tuscarora Elem	\$3,459,000.00	X	0.00	=	\$0.00
Valley View Elem	\$3,475,000.00	X	0.00	=	\$0.00
Winchester Ave. Elem	\$2,140,000.00	X	0.00	=	\$0.00
Hedgesville MS	\$7,105,000.00	X	0.00	=	\$0.00
Martinsburg North MS	\$6,245,000.00	X	0.00	=	\$0.00
Martinsburg South MS	\$5,249,000.00	X	0.00	=	\$0.00
Mussleman MS	\$9,217,000.00	X	0.00	=	\$0.00
<b><i>Spring Mills MS</i></b>	<b><i>\$10,370,648.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Mill Creek IS	\$5,175,000.00	X	0.00	=	\$0.00
Potomac IS	\$4,295,000.00	X	0.00	=	\$0.00
Eagle School IS	\$5,100,000.00	X	0.00	=	\$0.00
<b><i>Mountain Ridge IS</i></b>	<b><i>\$7,500,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Orchard View IS	\$5,100,000.00	X	0.00	=	\$0.00
Hedgesville HS	\$13,049,000.00	X	0.00	=	\$0.00
Martinsburg HS	\$17,312,000.00	X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$144,000.00	X	0.00	=	\$0.00
\$152,000.00	X	0.00	=	\$0.00
\$356,000.00	X	0.00	=	\$0.00
\$158,000.00	X	0.00	=	\$0.00
\$129,000.00	X	0.00	=	\$0.00
\$117,000.00	X	0.00	=	\$0.00
\$241,000.00	X	0.00	=	\$0.00
\$129,000.00	X	0.00	=	\$0.00
\$186,000.00	X	0.00	=	\$0.00
\$355,000.00	X	0.00	=	\$0.00
\$297,000.00	X	0.00	=	\$0.00
\$388,000.00	X	0.00	=	\$0.00
\$322,000.00	X	0.00	=	\$0.00
\$314,000.00	X	0.00	=	\$0.00
\$139,000.00	X	0.00	=	\$0.00
\$626,000.00	X	0.00	=	\$0.00
\$550,000.00	X	0.00	=	\$0.00
\$467,000.00	X	0.00	=	\$0.00
\$507,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$419,000.00	X	0.00	=	\$0.00
\$452,000.00	X	0.00	=	\$0.00
\$500,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$500,000.00	X	0.00	=	\$0.00
\$1,167,800.00	X	0.00	=	\$0.00
\$1,538,000.00	X	0.00	=	\$0.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Mussleman HS	\$15,205,000.00	X	0.00	=	\$0.00
James Rumsey Vo Tech Center	\$8,270,000.00	X	0.00	=	\$0.00
Pikeside Pre-Vocational	\$1,765,000.00	X	0.00	=	\$0.00
Ramer Center	\$1,720,000.00	X	0.00	=	\$0.00
Administration Building	\$2,175,000.00	X	0.00	=	\$0.00
Maintenance	\$665,000.00	X	0.00	=	\$0.00
Transportation	\$1,975,000.00	X	0.00	=	\$0.00
Mussleman Athletic Facilities	\$1,300,000.00	X	0.00	=	\$0.00
Resa VIII Offices	\$770,000.00	X	0.00	=	\$0.00
Martinsburg City Hall	\$2,000,000.00	X	0.00	=	\$0.00
Martinsburg Central Fire Station	\$1,260,000.00	X	0.00	=	\$0.00
Martinsburg Westphal Hose Co.	\$350,000.00	X	0.00	=	\$0.00
Martinsburg Waterworks	\$5,103,000.00	X	0.00	=	\$0.00
Martinsburg Animal Shelter	\$54,000.00	X	0.00	=	\$0.00
Martinsburg Sewer Plant	\$6,508,000.00	X	0.00	=	\$0.00
Capitol Cement	\$5,149,000.00	X	0.00	=	\$0.00
Red Hill Storage Tank	\$1,030,000.00	X	0.00	=	\$0.00
Capitol Heights Storage Tank	\$464,000.00	X	0.00	=	\$0.00
Western Ave. Storage Tank	\$309,000.00	X	0.00	=	\$0.00
Old Market House	\$538,000.00	X	0.00	=	\$0.00
Old Armory Building	\$1,215,000.00	X	0.00	=	\$0.00
Olde Sanitation Building	\$279,000.00	X	0.00	=	\$0.00
Martinsburg City Garage	\$434,000.00	X	0.00	=	\$0.00
Martinsburg Train Station	\$1,082,000.00	X	0.00	=	\$0.00
Adam Stephen Complex	\$1,203,000.00	X	0.00	=	\$0.00
War Memorial Park	\$1,816,000.00	X	0.00	=	\$0.00
Lambert Park	\$1,644,000.00	X	0.00	=	\$0.00
P.O. Faulkner Park	\$59,000.00	X	0.00	=	\$0.00
Oak Street Park	\$25,000.00	X	0.00	=	\$0.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$1,341,000.00	X	0.00	=	\$0.00
\$3,430,000.00	X	0.00	=	\$0.00
\$156,000.00	X	0.00	=	\$0.00
\$177,000.00	X	0.00	=	\$0.00
\$210,000.00	X	0.00	=	\$0.00
\$140,000.00	X	0.00	=	\$0.00
\$450,000.00	X	0.00	=	\$0.00
\$20,000.00	X	0.00	=	\$0.00
\$1,931,000.00	X	0.00	=	\$0.00
\$250,000.00	X	0.00	=	\$0.00
\$200,000.00	X	0.00	=	\$0.00
\$5,000.00	X	0.00	=	\$0.00
\$79,000.00	X	0.00	=	\$0.00
\$1,000.00	X	0.00	=	\$0.00
\$5,000.00	X	0.00	=	\$0.00
\$24,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$30,000.00	X	0.00	=	\$0.00
\$10,000.00	X	0.00	=	\$0.00
\$25,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$43,000.00	X	0.00	=	\$0.00
\$100,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Ambrose Park	\$59,000.00	X	0.00	=	\$0.00
Parks and Recreation		X	0.00	=	\$0.00
Delmar Orchard Road	\$2,000,000.00	X	0.00	=	\$0.00
<b><i>Historic County Court House</i></b>	<b><i>\$4,175,400.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Dunn Building</i></b>	<b><i>\$13,949,800.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Homeland Sec. Emerg. Mngt.</i></b>	<b><i>\$1,714,200.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Crawford Building</i></b>	<b><i>\$5,517,100.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Senior Center</i></b>	<b><i>\$3,386,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>County Maintenance Facility</i></b>	<b><i>\$1,268,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Central Dispatch</i></b>	<b><i>\$37,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Health Department</i></b>	<b><i>\$573,800.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Transmitter</i></b>	<b><i>\$10,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Berkeley/Judicial Center</i></b>	<b><i>\$22,024,900.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Poor House Farm</i></b>	<b><i>\$1,784,600.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>110 Building</i></b>	<b><i>\$2,143,700.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>126 Building</i></b>	<b><i>\$1,518,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Animal Control Center</i></b>	<b><i>\$400,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Morgan Cabin Museum	\$50,000.00	X	0.00	=	\$0.00
<b><i>Hedgesville Park</i></b>	<b><i>\$45,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>South Berkeley Park</i></b>	<b><i>\$40,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Water Street Facilities	\$2,828,000.00	X	0.00	=	\$0.00
Historic Marker (Bender Property)	\$1,200.00	X	0.00	=	\$0.00
Historic Marker (Providence Quaker Cemetery)	\$1,200.00	X	0.00	=	\$0.00
Court Complex.	\$21,100,000.00	X	0.00	=	\$0.00
Runnymede Road	\$2,045,300.00	X	0.00	=	\$0.00
Kelly Island	\$128,000.00	X	0.00	=	\$0.00
Old Quarry Road	\$53,000.00	X	0.00	=	\$0.00
Route 51 West	\$950,500.00	X	0.00	=	\$0.00
N/E Side Rt. 9 Near Co. Line	\$30,000.00	X	0.00	=	\$0.00
Glenwood Forest Subdivision	\$365,000.00	X	0.00	=	\$0.00
Specks Run Road	\$428,500.00	X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.00	=	\$0.00
\$45,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
<b><i>\$255,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$366,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$431,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$105,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$25,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$90,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$10,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$1,265,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$23,595.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$75,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$75,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$34,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$6,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$56,500.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Liberty Buisness Park	\$582,500.00	X	0.00	=	\$0.00
Rt. 11 Near Pikeside	\$52,500.00	X	0.00	=	\$0.00
Rockefeller Science Center	\$565,000.00	X	0.00	=	\$0.00
768 Williamsport Pike	\$1,000.00	X	0.00	=	\$0.00
General Motors	\$612,850.00	X	0.00	=	\$0.00
Duke Road	\$912,500.00	X	0.00	=	\$0.00
268 Treat Water Road	\$4,521,500.00	X	0.00	=	\$0.00
207 Mary Street	\$115,000.00	X	0.00	=	\$0.00
Ben Speck Road	\$170,250.00	X	0.00	=	\$0.00
Church Street	\$205,000.00	X	0.00	=	\$0.00
E/S Ridge Road	\$202,500.00	X	0.00	=	\$0.00
Route 901, East of HMS	\$12,800.00	X	0.00	=	\$0.00
Rt. 9, 1/2 Mile East of Texaco	\$12,800.00	X	0.00	=	\$0.00
Rt.9, Near James Rumsey	\$80,000.00	X	0.00	=	\$0.00
Rt. 9, Near Fort Hill Subdivision	\$14,000.00	X	0.00	=	\$0.00
71 and 83 Monroe Street		X	0.00	=	\$0.00
<i>Morning Dove Treatment</i>	<i>\$111,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Springdale Farm Treatment</i>	<i>\$203,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Potomac River Treatment</i>	<i>\$16,794,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
Multiple Locations	\$125,000.00	X	0.00	=	\$0.00
Roads	\$1,715,000,000.00	X	0.00	=	\$0.00
Railroads	\$170,000,000.00	X	0.00	=	\$0.00
Bridges	\$303,000,000.00	X	0.00	=	\$0.00
Airport Facilities	\$18,000,000.00	X	0.00	=	\$0.00
Airport Runways	\$84,000,000.00	X	0.00	=	\$0.00
WV State Police	\$200,000.00	X	0.00	=	\$0.00
Berkeley Sheriffs Dept.	\$1,134,000.00	X	0.00	=	\$0.00
Martinsburg Police Dept.		X	0.00	=	\$0.00
Back Creek Valley Fire Dept.		X	0.00	=	\$0.00
Baker Heights VFD		X	0.00	=	\$0.00
Bedington VFD		X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$20,000.00	X	0.00	=	\$0.00
\$75,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$10,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$62,000.00	X	0.00	=	\$0.00
\$0.00	X	0.00	=	\$0.00
\$0.00	X	0.00	=	\$0.00
\$0.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$400,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Hedgesville VFD		X	0.00	=	\$0.00
Martinsburg Fire Dept.	\$1,600,000.00	X	0.00	=	\$0.00
South Berkeley VFD		X	0.00	=	\$0.00
<b><i>WV Med. Ctr. FD</i></b>	<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>WV ANG FD</i></b>	<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Veterans Affairs Medical Center		X	0.00	=	\$0.00
Shenandoah Health Services		X	0.00	=	\$0.00
Martinsburg City Hospital	\$2,361,000.00	X	0.00	=	\$0.00
Naylor Memorial Library	\$279,000.00	X	0.00	=	\$0.00
Martinsburg - Berkeley County Public Library	\$37,000.00	X	0.00	=	\$0.00
<b>Total Loss to Structure</b>					<b>\$0.00</b>

<b>Contents of Loss (Task A.2.)</b>					
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)	
	X	0.00	=	\$0.00	
\$1,500,000.00	X	0.00	=	\$0.00	
	X	0.00	=	\$0.00	
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
	X	0.00	=	\$0.00	
	X	0.00	=	\$0.00	
\$965,640.00	X	0.00	=	\$0.00	
\$16,000.00	X	0.00	=	\$0.00	
\$43,000.00	X	0.00	=	\$0.00	
<b>Total Loss to Contents</b>					<b>\$0.00</b>

Structure Use and Function Loss (Task A.3.) Temperature Extreme-Heat Wave								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Elem		X	0	+		X	0	=	\$0.00	\$0.00
Bedington Elem		X	0	+		X	0	=	\$0.00	\$0.00
Berkeley Heights Elem		X	0	+		X	0	=	\$0.00	\$0.00
Bunker Hill Elem		X	0	+		X	0	=	\$0.00	\$0.00
Burke Street Elem		X	0	+		X	0	=	\$0.00	\$0.00
Gerrardstown Elem		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville Elem		X	0	+		X	0	=	\$0.00	\$0.00
Inwood Primary School		X	0	+		X	0	=	\$0.00	\$0.00
Marlowe Elem		X	0	+		X	0	=	\$0.00	\$0.00
Opequon Elem		X	0	+		X	0	=	\$0.00	\$0.00
Rosemont Elem		X	0	+		X	0	=	\$0.00	\$0.00
Tomahawk Elem		X	0	+		X	0	=	\$0.00	\$0.00
Tuscarora Elem		X	0	+		X	0	=	\$0.00	\$0.00
Valley View Elem		X	0	+		X	0	=	\$0.00	\$0.00
Winchester Ave. Elem		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville MS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg North MS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg South MS		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman MS		X	0	+		X	0	=	\$0.00	\$0.00
<b>Spring Mills MS</b>		<b>X</b>	<b>0</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$0.00</b>
Mill Creek IS		X	0	+		X	0	=	\$0.00	\$0.00
Potomac IS		X	0	+		X	0	=	\$0.00	\$0.00
Eagle School IS		X	0	+		X	0	=	\$0.00	\$0.00
<b>Mountain Ridge IS</b>		<b>X</b>	<b>0</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$0.00</b>
Orchard View IS		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville HS		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg HS		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman HS		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Temperature Extreme-Heat Wave								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
James Rumsey Vo Tech Center		X	0	+		X	0	=	\$0.00	\$0.00
Pikeside Pre-Vocational		X	0	+		X	0	=	\$0.00	\$0.00
Ramer Center		X	0	+		X	0	=	\$0.00	\$0.00
Administration Building		X	0	+		X	0	=	\$0.00	\$0.00
Maintenance		X	0	+		X	0	=	\$0.00	\$0.00
Transportation		X	0	+		X	0	=	\$0.00	\$0.00
Mussleman Athletic Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Resa VIII Offices		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hall		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Central Fire Station		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Westphal Hose Co.		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Waterworks		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Animal Shelter		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Sewer Plant		X	0	+		X	0	=	\$0.00	\$0.00
Capitol Cement		X	0	+		X	0	=	\$0.00	\$0.00
Red Hill Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Capitol Heights Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Western Ave. Storage Tank		X	0	+		X	0	=	\$0.00	\$0.00
Old Market House		X	0	+		X	0	=	\$0.00	\$0.00
Old Armory Building		X	0	+		X	0	=	\$0.00	\$0.00
Olde Sanitation Building		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Garage		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Train Station		X	0	+		X	0	=	\$0.00	\$0.00
Adam Stephen Complex		X	0	+		X	0	=	\$0.00	\$0.00
War Memorial Park		X	0	+		X	0	=	\$0.00	\$0.00
Lambert Park		X	0	+		X	0	=	\$0.00	\$0.00
P.O. Faulkner Park		X	0	+		X	0	=	\$0.00	\$0.00
Oak Street Park		X	0	+		X	0	=	\$0.00	\$0.00

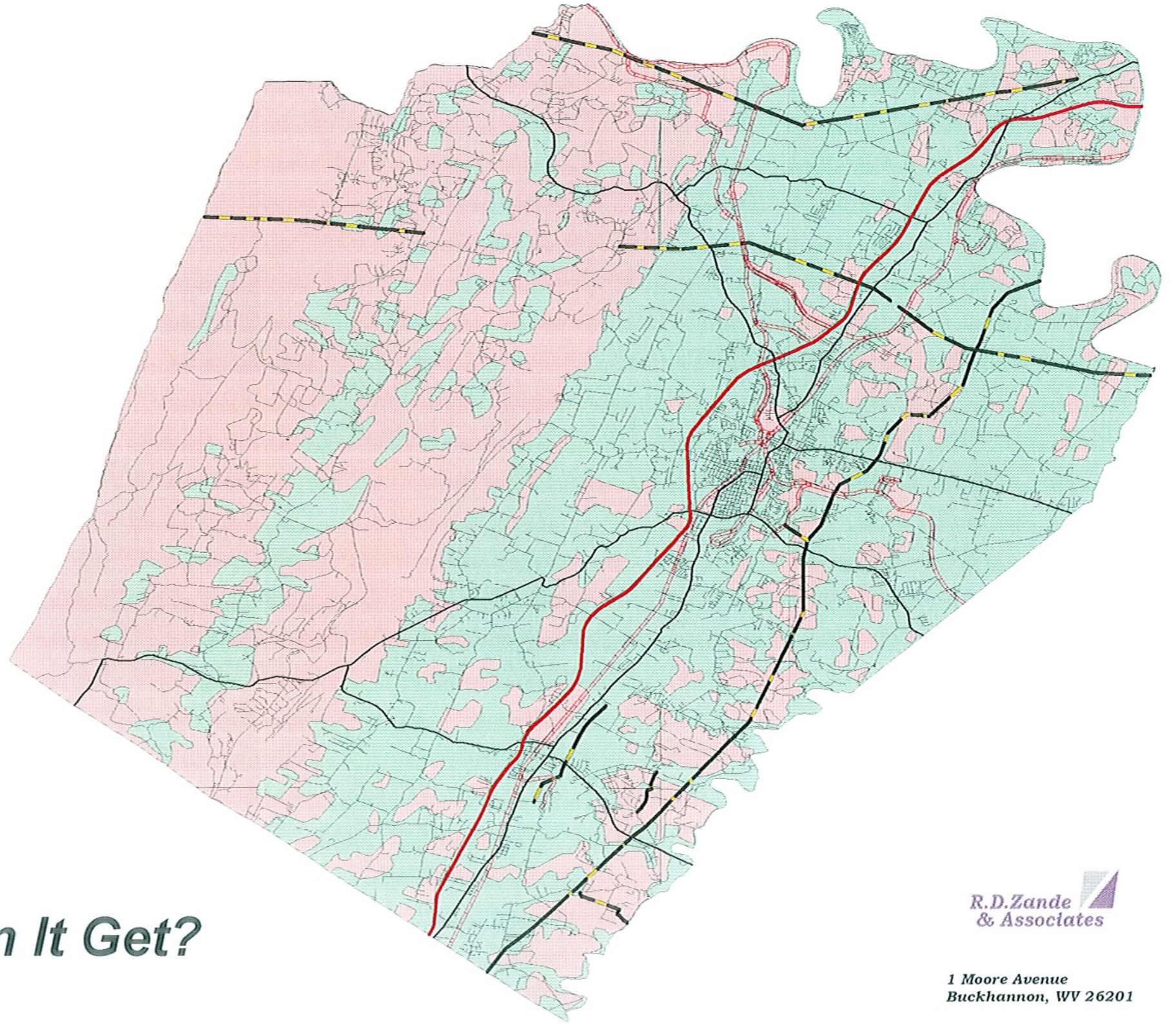


Structure Use and Function Loss (Task A.3.) Temperature Extreme-Heat Wave								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Ambrose Park		X	0	+		X	0	=	\$0.00	\$0.00
Parks and Recreation		X	0	+		X	0	=	\$0.00	\$0.00
Delmar Orchard Road		X	0	+		X	0	=	\$0.00	\$0.00
<i>Historic County Court House</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Dunn Building</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Homeland Sec. Emerg. Mngt.</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Crawford Building</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Senior Center</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>County Maintenance Facility</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Central Dispatch</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Health Department</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Transmitter</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Berkeley/Judicial Center</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Poor House Farm</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>110 Building</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>126 Building</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>Animal Control Center</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
Morgan Cabin Museum		X	0	+		X	0	=	\$0.00	\$0.00
<i>Hedgesville Park</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
<i>South Berkeley Park</i>		X	0	+		X	0	=	<i>\$0.00</i>	<i>\$0.00</i>
Water Street Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Historic Marker (Bender Property)		X	0	+		X	0	=	\$0.00	\$0.00
Historic Marker (Providence Quaker Cemetery)		X	0	+		X	0	=	\$0.00	\$0.00
Court Complex.		X	0	+		X	0	=	\$0.00	\$0.00
Runnymede Road		X	0	+		X	0	=	\$0.00	\$0.00
Kelly Island		X	0	+		X	0	=	\$0.00	\$0.00
Old Quarry Road		X	0	+		X	0	=	\$0.00	\$0.00
Route 51 West		X	0	+		X	0	=	\$0.00	\$0.00
N/E Side Rt. 9 Near Co. Line		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Temperature Extreme-Heat Wave								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Glenwood Forest Subdivision		X	0	+		X	0	=	\$0.00	\$0.00
Specks Run Road		X	0	+		X	0	=	\$0.00	\$0.00
Liberty Buisness Park		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 11 Near Pikeside		X	0	+		X	0	=	\$0.00	\$0.00
Rockefeller Science Center		X	0	+		X	0	=	\$0.00	\$0.00
768 Williamsport Pike		X	0	+		X	0	=	\$0.00	\$0.00
General Motors		X	0	+		X	0	=	\$0.00	\$0.00
Duke Road		X	0	+		X	0	=	\$0.00	\$0.00
268 Treat Water Road		X	0	+		X	0	=	\$0.00	\$0.00
207 Mary Street		X	0	+		X	0	=	\$0.00	\$0.00
Ben Speck Road		X	0	+		X	0	=	\$0.00	\$0.00
Church Street		X	0	+		X	0	=	\$0.00	\$0.00
E/S Ridge Road		X	0	+		X	0	=	\$0.00	\$0.00
Route 901, East of HMS		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 9, 1/2 Mile East of Texaco		X	0	+		X	0	=	\$0.00	\$0.00
Rt.9, Near James Rumsey		X	0	+		X	0	=	\$0.00	\$0.00
Rt. 9, Near Fort Hill Subdivision		X	0	+		X	0	=	\$0.00	\$0.00
71 and 83 Monroe Street		X	0	+		X	0	=	\$0.00	\$0.00
<b><i>Morning Dove Treatment</i></b>		<b><i>X</i></b>	<b><i>0</i></b>	<b><i>+</i></b>		<b><i>X</i></b>	<b><i>0</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	<b><i>\$0.00</i></b>
<b><i>Springdale Farm Treatment</i></b>		<b><i>X</i></b>	<b><i>0</i></b>	<b><i>+</i></b>		<b><i>X</i></b>	<b><i>0</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	<b><i>\$0.00</i></b>
<b><i>Potomac River Treatment</i></b>		<b><i>X</i></b>	<b><i>0</i></b>	<b><i>+</i></b>		<b><i>X</i></b>	<b><i>0</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	<b><i>\$0.00</i></b>
Multiple Locations		X	0	+		X	0	=	\$0.00	\$0.00
Roads		X	0	+		X	0	=	\$0.00	\$0.00
Railroads		X	0	+		X	0	=	\$0.00	\$0.00
Bridges		X	0	+		X	0	=	\$0.00	\$0.00
Airport Facilities		X	0	+		X	0	=	\$0.00	\$0.00
Airport Runways		X	0	+		X	0	=	\$0.00	\$0.00
WV State Police	\$1,800.00	X	0	+	\$1,800.00	X	0	=	\$0.00	\$0.00
Berkeley Sheriffs Dept.	\$5,900.00	X	0	+	\$5,900.00	X	0	=	\$0.00	\$0.00
Martinsburg Police Dept.		X	0	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Temperature Extreme-Heat Wave								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Valley Fire Dept.		X	0	+		X	0	=	\$0.00	\$0.00
Baker Heights VFD		X	0	+		X	0	=	\$0.00	\$0.00
Bedington VFD		X	0	+		X	0	=	\$0.00	\$0.00
Hedgesville VFD		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg Fire Dept.	\$5,450.00	X	0	+	\$5,450.00	X	0	=	\$0.00	\$0.00
South Berkeley VFD		X	0	+		X	0	=	\$0.00	\$0.00
<i>VA Med Ctr. FD</i>	<i>0</i>	<i>X</i>	<i>0</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
<i>WV ANG FD</i>	<i>0</i>	<i>X</i>	<i>0</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
Veterans Affairs Medical Center		X	0	+		X	0	=	\$0.00	\$0.00
Shenandoah Health Services		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hospital	\$3,500.00	X	0	+	\$3,500.00	X	0	=	\$0.00	\$0.00
Naylor Memorial Library		X	0	+		X	0	=	\$0.00	\$0.00
Martinsburg - Berkeley County Public Library		X	0	+		X	0	=	\$0.00	\$0.00
<b>Total Loss to Structure Use &amp; Function</b>									<b>\$0.00</b>	<b>\$0.00</b>

# Wildfire



## MAP LEGEND

- Roads
- Highway
  - State Route
  - County Route
  - Railroad
  - Power Lines
- High Hazard
- Low Hazard

### How Bad Can It Get?

R.D.Zande  
& Associates

1 Moore Avenue  
Buckhannon, WV 26201



## Wildfire

**A wildfire is an uncontrolled fire spreading through vegetative fuels, exposing and possibly consuming structures. They often begin unnoticed and spread quickly and are usually signaled by dense smoke that fills the area for miles around. Naturally occurring and non-native species of grasses, brush, and trees fuel wildfires.**

Several methods of research identified wildfires (on a very small scale) as a hazard in Berkeley County, including discussions with local representatives. The following Internet sites were searched with regard to wildfires.

- Firewise  
<http://www.firewise.org>
- General Wildfires Information  
[http://www.nfpa.org/Education/Consumers\\_and\\_Families/Fire\\_Safety\\_Information/Talking\\_About\\_Disaster/Wildfire/wildfire.html](http://www.nfpa.org/Education/Consumers_and_Families/Fire_Safety_Information/Talking_About_Disaster/Wildfire/wildfire.html)
- Local Wildfire Observations and Trend Forecasts for Fire Weather Forecast Zones  
[http://www.fs.fed.us/land/wfas/fd\\_class.gif](http://www.fs.fed.us/land/wfas/fd_class.gif)
- NOAA Fire Event Satellite Photos  
<http://www.osci.noaa.gov/Events/Fires/>
- Resolution Fire Danger Rating Fuel Model Map  
[http://www.fs.fed.us/land/wfas/nfer\\_map.htm](http://www.fs.fed.us/land/wfas/nfer_map.htm)
- US Forest Service (USDA)  
<http://www.fs.fed.us/land/wfas/welcome.html>
- USGS Topographic Maps  
<http://mcmcweb.cr.usgs.gov/topomaps/>
- Wildland Fire Assessment System  
<http://www.fs.fed.us/land/wfas/>
- Wildland Fire Updates  
<http://www.nifc.gov/fireinfo/nfn.html>

According to the West Virginia Division of Forestry, there are several factors that cause wildfires in Berkeley County, including arson, equipment fires, campfires, and lightning. Berkeley County contains a great deal of forestland, with several recreational campsites in designated areas. Campfires, coupled with large numbers of visitors and a large proportion of trees, make wildfires a potential hazard for Berkeley County.

Members of the volunteer fire departments confirm that small brush fires are a common occurrence during the dry summer months, in what is typically known as the “burning season.” These small brush fires are usually handled by local fire departments and often do not cause damage to structures. However, the threat is present that these bush fires could burn out of control and consume many structures.



## **MAPPING**

See the Berkeley County Wildfire Map for a graphical representation of the hazard areas with respect to wildfires. The areas shaded in green represent “low hazard areas,” the yellow areas represent “moderate hazard areas,” the areas shaded in orange represent “high hazard areas,” and the red areas represent “extreme high hazard areas.”

***Update: All information above is still relevant and under consideration.***

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

**Hazard: Wildfire**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# In County	# In Hazard Area	% In Hazard Area	\$ In County	\$ In Hazard Area	% In Hazard Area	# In County	# In Hazard Area	% In Hazard Area
RESIDENTIAL	35,300	11,205	30	\$3,353,500,000.00	\$1,064,462,000.00	29	52,365	16,622	20
COMMERCIAL	1,380	438	1	\$158,700,000.00	\$50,374,000.00	1	17,648	5,602	7
INDUSTRIAL	57	18	0	\$28,500,000.00	\$9,046,000.00	0	4,281	1,359	2
AGRICULTURAL	39	12	0	\$7,193,600.00	\$2,283,000.00	0	366	116	0
RELIGIOUS	55	17	0	\$13,475,000.00	\$4,277,000.00	0	110	35	0
GOVERNMENT	76	24	0	\$11,400,000.00	\$3,619,000.00	0	6,262	1,988	2
EDUCATION	28	9	0	\$140,790,000.00	\$44,689,000.00	1	1,373	436	1
UTILITIES	6	2	0	\$7,500,000.00	\$2,381,000.00	0	95	30	0
<b>Total</b>	<b>36,941</b>	<b>11,726</b>	<b>32</b>	<b>\$3,721,058,600.0</b>	<b>\$1,181,131,000.00</b>	<b>32</b>	<b>82,500</b>	<b>26,187</b>	<b>32</b>

Task B. Determine whether (and where) you want to collect additional inventory data.

	YES	NO
1) Do you know where your greatest damages may occur in your hazard areas?	X	
2) Do you know whether your critical facilities will be operational after a hazard event?		X
3) Is there enough data to determine which assets are subject to the greatest potential damages?	X	
4) Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5) Is there enough data to determine whether certain areas are vulnerable to potential hazards?	X	
6) Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7) Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		

### ESTIMATE LOSSES

Hazard: Wildfire

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Back Creek Elem	\$1,599,000.00	X	2.00	=	\$32,000.00
Bedington Elem	\$1,685,000.00	X	2.00	=	\$33,700.00
Berkeley Heights Elem	\$3,637,000.00	X	2.00	=	\$72,700.00
Bunker Hill Elem	\$1,764,000.00	X	2.00	=	\$35,300.00
Burke Street Elem	\$1,425,000.00	X	2.00	=	\$28,500.00
Gerrardstown Elem	\$1,292,000.00	X	2.00	=	\$25,800.00
Hedgesville Elem	\$2,670,000.00	X	2.00	=	\$53,400.00
Inwood Primary School	\$1,525,000.00	X	2.00	=	\$30,500.00
Marlowe Elem	\$2,070,000.00	X	2.00	=	\$41,400.00
Opequon Elem	\$3,529,000.00	X	2.00	=	\$70,600.00
Rosemont Elem	\$3,138,000.00	X	2.00	=	\$62,800.00
Tomahawk Elem	\$4,295,000.00	X	2.00	=	\$85,900.00
Tuscarora Elem	\$3,459,000.00	X	2.00	=	\$69,200.00
Valley View Elem	\$3,475,000.00	X	2.00	=	\$69,500.00
Winchester Ave. Elem	\$2,140,000.00	X	2.00	=	\$42,800.00
Hedgesville MS	\$7,105,000.00	X	2.00	=	\$142,100.00
Martinsburg North MS	\$6,245,000.00	X	2.00	=	\$124,900.00
Martinsburg South MS	\$5,249,000.00	X	2.00	=	\$105,000.00
Mussleman MS	\$9,217,000.00	X	2.00	=	\$184,300.00
<b>Spring Mills MS</b>	<b>\$10,370,648.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$207,400.00</b>
Mill Creek IS	\$5,175,000.00	X	2.00	=	\$103,500.00
Potomac IS	\$4,295,000.00	X	2.00	=	\$85,900.00
Eagle School IS	\$5,100,000.00	X	2.00	=	\$102,000.00
<b>Mountain Ridge IS</b>	<b>\$7,500,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$150,000.00</b>
Orchard View IS	\$5,100,000.00	X	2.00	=	\$102,000.00
Hedgesville HS	\$13,049,000.00	X	2.00	=	\$261,000.00
Martinsburg HS	\$17,312,000.00	X	2.00	=	\$346,200.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$144,000.00	X	1.00	=	\$1,400.00
\$152,000.00	X	1.00	=	\$1,500.00
\$356,000.00	X	1.00	=	\$3,600.00
\$158,000.00	X	1.00	=	\$1,600.00
\$129,000.00	X	1.00	=	\$1,300.00
\$117,000.00	X	1.00	=	\$1,200.00
\$241,000.00	X	1.00	=	\$2,400.00
\$129,000.00	X	1.00	=	\$1,300.00
\$186,000.00	X	1.00	=	\$1,900.00
\$355,000.00	X	1.00	=	\$3,600.00
\$297,000.00	X	1.00	=	\$3,000.00
\$388,000.00	X	1.00	=	\$3,900.00
\$322,000.00	X	1.00	=	\$3,200.00
\$314,000.00	X	1.00	=	\$3,100.00
\$139,000.00	X	1.00	=	\$1,400.00
\$626,000.00	X	1.00	=	\$6,300.00
\$550,000.00	X	1.00	=	\$5,500.00
\$467,000.00	X	1.00	=	\$4,700.00
\$507,000.00	X	1.00	=	\$5,100.00
<b>\$0.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$0.00</b>
\$419,000.00	X	1.00	=	\$4,200.00
\$452,000.00	X	1.00	=	\$4,500.00
\$500,000.00	X	1.00	=	\$5,000.00
<b>\$0.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$0.00</b>
\$500,000.00	X	1.00	=	\$5,000.00
\$1,167,800.00	X	1.00	=	\$11,700.00
\$1,538,000.00	X	1.00	=	\$15,400.00



<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Mussleman HS	\$15,205,000.00	X	2.00	=	\$304,100.00
James Rumsey Vo Tech Center	\$8,270,000.00	X	2.00	=	\$165,400.00
Pikeside Pre-Vocational	\$1,765,000.00	X	2.00	=	\$35,300.00
Ramer Center	\$1,720,000.00	X	2.00	=	\$34,400.00
Administration Building	\$2,175,000.00	X	2.00	=	\$43,500.00
Maintenance	\$665,000.00	X	2.00	=	\$13,300.00
Transportation	\$1,975,000.00	X	2.00	=	\$39,500.00
Mussleman Athletic Facilities	\$1,300,000.00	X	2.00	=	\$26,000.00
Resa VIII Offices	\$770,000.00	X	2.00	=	\$15,400.00
Martinsburg City Hall	\$2,000,000.00	X	2.00	=	\$40,000.00
Martinsburg Central Fire Station	\$1,260,000.00	X	2.00	=	\$25,200.00
Martinsburg Westphal Hose Co.	\$350,000.00	X	2.00	=	\$7,000.00
Martinsburg Waterworks	\$5,103,000.00	X	2.00	=	\$102,100.00
Martinsburg Animal Shelter	\$54,000.00	X	2.00	=	\$1,100.00
Martinsburg Sewer Plant	\$6,508,000.00	X	2.00	=	\$130,200.00
Capitol Cement	\$5,149,000.00	X	2.00	=	\$103,000.00
Red Hill Storage Tank	\$1,030,000.00	X	2.00	=	\$20,600.00
Capitol Heights Storage Tank	\$464,000.00	X	2.00	=	\$9,300.00
Western Ave. Storage Tank	\$309,000.00	X	2.00	=	\$6,200.00
Old Market House	\$538,000.00	X	2.00	=	\$10,800.00
Old Armory Building	\$1,215,000.00	X	2.00	=	\$24,300.00
Olde Sanitation Building	\$279,000.00	X	2.00	=	\$5,600.00
Martinsburg City Garage	\$434,000.00	X	2.00	=	\$8,700.00
Martinsburg Train Station	\$1,082,000.00	X	2.00	=	\$21,600.00
Adam Stephen Complex	\$1,203,000.00	X	2.00	=	\$24,100.00
War Memorial Park	\$1,816,000.00	X	2.00	=	\$36,300.00
Lambert Park	\$1,644,000.00	X	2.00	=	\$32,900.00
P.O. Faulkner Park	\$59,000.00	X	2.00	=	\$1,200.00
Oak Street Park	\$25,000.00	X	2.00	=	\$500.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$1,341,000.00	X	1.00	=	\$13,400.00
\$3,430,000.00	X	1.00	=	\$34,300.00
\$156,000.00	X	1.00	=	\$1,600.00
\$177,000.00	X	1.00	=	\$1,800.00
\$210,000.00	X	1.00	=	\$2,100.00
\$140,000.00	X	1.00	=	\$1,400.00
\$450,000.00	X	1.00	=	\$4,500.00
\$20,000.00	X	1.00	=	\$200.00
\$1,931,000.00	X	1.00	=	\$19,300.00
\$250,000.00	X	1.00	=	\$2,500.00
\$200,000.00	X	1.00	=	\$2,000.00
\$5,000.00	X	1.00	=	\$100.00
\$79,000.00	X	1.00	=	\$800.00
\$1,000.00	X	1.00	=	\$0.00
\$5,000.00	X	1.00	=	\$100.00
\$24,000.00	X	1.00	=	\$200.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
\$30,000.00	X	1.00	=	\$300.00
\$10,000.00	X	1.00	=	\$100.00
\$25,000.00	X	1.00	=	\$300.00
	X	1.00	=	\$0.00
\$43,000.00	X	1.00	=	\$400.00
\$100,000.00	X	1.00	=	\$1,000.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Ambrose Park	\$59,000.00	X	2.00	=	\$1,200.00
Parks and Recreation		X	2.00	=	\$0.00
Delmar Orchard Road	\$2,000,000.00	X	2.00	=	\$40,000.00
<b>Historic County Court House</b>	<b>\$4,175,400.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$83,500.00</b>
<b>Dunn Building</b>	<b>\$13,949,800.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$279,000.00</b>
<b>Homeland Sec. Emerg. Mngt.</b>	<b>\$1,714,200.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$34,300.00</b>
<b>Crawford Building</b>	<b>\$5,517,100.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$110,300.00</b>
<b>Senior Center</b>	<b>\$3,386,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$67,700.00</b>
<b>County Maintenance Facility</b>	<b>\$1,268,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$25,400.00</b>
<b>Central Dispatch</b>	<b>\$37,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$700.00</b>
<b>Health Department</b>	<b>\$573,800.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$11,500.00</b>
<b>Transmitter</b>	<b>\$10,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$200.00</b>
<b>Berkeley/Judicial Center</b>	<b>\$22,024,900.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$440,500.00</b>
<b>Poor House Farm</b>	<b>\$1,784,600.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$35,700.00</b>
<b>110 Building</b>	<b>\$2,143,700.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$42,900.00</b>
<b>126 Building</b>	<b>\$1,518,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$30,400.00</b>
<b>Animal Control Center</b>	<b>\$400,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$8,000.00</b>
Morgan Cabin Museum	\$50,000.00	X	2.00	=	\$1,000.00
<b>Hedgesville Park</b>	<b>\$45,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$900.00</b>
<b>South Berkeley Park</b>	<b>\$40,000.00</b>	<b>X</b>	<b>2.00</b>	<b>=</b>	<b>\$800.00</b>
Water Street Facilities	\$2,828,000.00	X	2.00	=	\$56,600.00
Historic Marker (Bender Property)	\$1,200.00	X	2.00	=	\$0.00
Historic Marker (Providence Quaker Cemetery)	\$1,200.00	X	2.00	=	\$0.00
Court Complex.	\$21,100,000.00	X	2.00	=	\$422,000.00
Runnymede Road	\$2,045,300.00	X	2.00	=	\$40,900.00
Kelly Island	\$128,000.00	X	2.00	=	\$2,600.00
Old Quarry Road	\$53,000.00	X	2.00	=	\$1,100.00
Route 51 West	\$950,500.00	X	2.00	=	\$19,000.00
N/E Side Rt. 9 Near Co. Line	\$30,000.00	X	2.00	=	\$600.00
Glenwood Forest Subdivision	\$365,000.00	X	2.00	=	\$7,300.00
Specks Run Road	\$428,500.00	X	2.00	=	\$8,600.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	1.00	=	\$0.00
\$45,000.00	X	1.00	=	\$500.00
	X	1.00	=	\$0.00
<b>\$255,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$2,600.00</b>
<b>\$366,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$3,700.00</b>
<b>\$431,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$4,300.00</b>
\$0.00	X	1.00	=	\$0.00
\$105,000.00	X	1.00	=	\$1,100.00
\$0.00	X	1.00	=	\$0.00
\$25,000.00	X	1.00	=	\$300.00
\$90,000.00	X	1.00	=	\$900.00
\$10,000.00	X	1.00	=	\$100.00
<b>\$1,265,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$12,700.00</b>
<b>\$23,595.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$200.00</b>
<b>\$75,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$800.00</b>
<b>\$75,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$800.00</b>
<b>\$34,000.00</b>	<b>X</b>	<b>1.00</b>	<b>=</b>	<b>\$300.00</b>
\$6,000.00	X	1.00	=	\$100.00
\$0.00	X	1.00	=	\$0.00
\$0.00	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
\$56,500.00	X	1.00	=	\$600.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Liberty Buisness Park	\$582,500.00	X	2.00	=	\$11,700.00
Rt. 11 Near Pikeside	\$52,500.00	X	2.00	=	\$1,100.00
Rockefeller Science Center	\$565,000.00	X	2.00	=	\$11,300.00
768 Williamsport Pike	\$1,000.00	X	2.00	=	\$0.00
General Motors	\$612,850.00	X	2.00	=	\$12,300.00
Duke Road	\$912,500.00	X	2.00	=	\$18,300.00
268 Treat Water Road	\$4,521,500.00	X	2.00	=	\$90,400.00
207 Mary Street	\$115,000.00	X	2.00	=	\$2,300.00
Ben Speck Road	\$170,250.00	X	2.00	=	\$3,400.00
Church Street	\$205,000.00	X	2.00	=	\$4,100.00
E/S Ridge Road	\$202,500.00	X	2.00	=	\$4,100.00
Route 901, East of HMS	\$12,800.00	X	2.00	=	\$300.00
Rt. 9, 1/2 Mile East of Texaco	\$12,800.00	X	2.00	=	\$300.00
Rt.9, Near James Rumsey	\$80,000.00	X	2.00	=	\$1,600.00
Rt. 9, Near Fort Hill Subdivision	\$14,000.00	X	2.00	=	\$300.00
71 and 83 Monroe Street		X	2.00	=	\$0.00
<b><i>Morning Dove Treatment</i></b>	<b><i>\$111,000.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$2,200.00</i></b>
<b><i>Springdale Farm Treatment</i></b>	<b><i>\$203,000.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$4,100.00</i></b>
<b><i>Potomac River Treatment</i></b>	<b><i>\$16,794,000.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$335,900.00</i></b>
Multiple Locations	\$125,000.00	X	2.00	=	\$2,500.00
Roads	\$1,715,000,000.00	X	2.00	=	\$34,300,000.00
Railroads	\$170,000,000.00	X	2.00	=	\$3,400,000.00
Bridges	\$303,000,000.00	X	2.00	=	\$6,060,000.00
Airport Facilities	\$18,000,000.00	X	2.00	=	\$360,000.00
Airport Runways	\$84,000,000.00	X	2.00	=	\$1,680,000.00
WV State Police	\$200,000.00	X	2.00	=	\$4,000.00
Berkeley Sheriffs Dept.	\$1,134,000.00	X	2.00	=	\$22,700.00
Martinsburg Police Dept.		X	2.00	=	\$0.00
Back Creek Valley Fire Dept.		X	2.00	=	\$0.00
Baker Heights VFD		X	2.00	=	\$0.00
Bedington VFD		X	2.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
\$20,000.00	X	1.00	=	\$200.00
\$75,000.00	X	1.00	=	\$800.00
	X	1.00	=	\$0.00
\$10,000.00	X	1.00	=	\$100.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
\$62,000.00	X	1.00	=	\$600.00
\$0.00	X	1.00	=	\$0.00
\$0.00	X	1.00	=	\$0.00
\$0.00	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
\$400,000.00	X	1.00	=	\$4,000.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Hedgesville VFD		X	2.00	=	\$0.00
Martinsburg Fire Dept.	\$1,600,000.00	X	2.00	=	\$32,000.00
South Berkeley VFD		X	2.00	=	\$0.00
<b><i>VA Med. Ctr. FD</i></b>	<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>WV ANG FD</i></b>	<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>2.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Veterans Affairs Medical Center		X	2.00	=	\$0.00
Shenandoah Health Services		X	2.00	=	\$0.00
Martinsburg City Hospital	\$2,361,000.00	X	2.00	=	\$47,200.00
Naylor Memorial Library	\$279,000.00	X	2.00	=	\$5,600.00
Martinsburg - Berkeley County Public Library	\$37,000.00	X	2.00	=	\$700.00
<b>Total Loss to Structure</b>					<b>\$52,147,100.00</b>

Contents of Loss (Task A.2.)					
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)	
	X	1.00	=	\$0.00	
\$1,500,000.00	X	1.00	=	\$15,000.00	
	X	1.00	=	\$0.00	
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>1.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>1.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
	X	1.00	=	\$0.00	
	X	1.00	=	\$0.00	
\$965,640.00	X	1.00	=	\$9,700.00	
\$16,000.00	X	1.00	=	\$200.00	
\$43,000.00	X	1.00	=	\$400.00	
<b>Total Loss to Contents</b>					<b>\$248,200.00</b>

Structure Use and Function Loss (Task A.3.) Wildfire								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Elem		X	1	+		X	0	=	\$0.00	\$33,400.00
Bedington Elem		X	1	+		X	0	=	\$0.00	\$35,200.00
Berkeley Heights Elem		X	1	+		X	0	=	\$0.00	\$76,300.00
Bunker Hill Elem		X	1	+		X	0	=	\$0.00	\$36,900.00
Burke Street Elem		X	1	+		X	0	=	\$0.00	\$29,800.00
Gerrardstown Elem		X	1	+		X	0	=	\$0.00	\$27,000.00
Hedgesville Elem		X	1	+		X	0	=	\$0.00	\$55,800.00
Inwood Primary School		X	1	+		X	0	=	\$0.00	\$31,800.00
Marlowe Elem		X	1	+		X	0	=	\$0.00	\$43,300.00
Opequon Elem		X	1	+		X	0	=	\$0.00	\$74,200.00
Rosemont Elem		X	1	+		X	0	=	\$0.00	\$65,800.00
Tomahawk Elem		X	1	+		X	0	=	\$0.00	\$89,800.00
Tuscarora Elem		X	1	+		X	0	=	\$0.00	\$72,400.00
Valley View Elem		X	1	+		X	0	=	\$0.00	\$72,600.00
Winchester Ave. Elem		X	1	+		X	0	=	\$0.00	\$44,200.00
Hedgesville MS		X	1	+		X	0	=	\$0.00	\$148,400.00
Martinsburg North MS		X	1	+		X	0	=	\$0.00	\$130,400.00
Martinsburg South MS		X	1	+		X	0	=	\$0.00	\$109,700.00
Mussleman MS		X	1	+		X	0	=	\$0.00	\$189,400.00
<b>Spring Mills MS</b>		<b>X</b>	<b>1</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>=</b>	<b>\$0.00</b>	<b>\$207,400.00</b>
Mill Creek IS		X	1	+		X	0	=	\$0.00	\$107,700.00
Potomac IS		X	1	+		X	0	=	\$0.00	\$90,400.00
Eagle School IS		X	1	+		X	0	=	\$0.00	\$107,000.00
<b>Mountain Ridge IS</b>		<b>X</b>	<b>1</b>	<b>+</b>		<b>X</b>	<b>0</b>	<b>+</b>	<b>\$0.00</b>	<b>\$150,000.00</b>
Orchard View IS		X	1	+		X	0	=	\$0.00	\$107,000.00
Hedgesville HS		X	1	+		X	0	=	\$0.00	\$272,700.00
Martinsburg HS		X	1	+		X	0	=	\$0.00	\$361,600.00
Mussleman HS		X	1	+		X	0	=	\$0.00	\$317,500.00

Structure Use and Function Loss (Task A.3.) Wildfire								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
James Rumsey Vo Tech Center		X	1	+		X	0	=	\$0.00	\$199,700.00
Pikeside Pre-Vocational		X	1	+		X	0	=	\$0.00	\$36,900.00
Ramer Center		X	1	+		X	0	=	\$0.00	\$36,200.00
Administration Building		X	1	+		X	0	=	\$0.00	\$45,600.00
Maintenance		X	1	+		X	0	=	\$0.00	\$14,700.00
Transportation		X	1	+		X	0	=	\$0.00	\$44,000.00
Mussleman Athletic Facilities		X	1	+		X	0	=	\$0.00	\$26,200.00
Resa VIII Offices		X	1	+		X	0	=	\$0.00	\$34,700.00
Martinsburg City Hall		X	1	+		X	0	=	\$0.00	\$42,500.00
Martinsburg Central Fire Station		X	1	+		X	0	=	\$0.00	\$27,200.00
Martinsburg Westphal Hose Co.		X	1	+		X	0	=	\$0.00	\$7,100.00
Martinsburg Waterworks		X	1	+		X	0	=	\$0.00	\$102,900.00
Martinsburg Animal Shelter		X	1	+		X	0	=	\$0.00	\$1,100.00
Martinsburg Sewer Plant		X	1	+		X	0	=	\$0.00	\$130,300.00
Capitol Cement		X	1	+		X	0	=	\$0.00	\$103,200.00
Red Hill Storage Tank		X	1	+		X	0	=	\$0.00	\$20,600.00
Capitol Heights Storage Tank		X	1	+		X	0	=	\$0.00	\$9,300.00
Western Ave. Storage Tank		X	1	+		X	0	=	\$0.00	\$6,200.00
Old Market House		X	1	+		X	0	=	\$0.00	\$10,800.00
Old Armory Building		X	1	+		X	0	=	\$0.00	\$24,300.00
Olde Sanitation Building		X	1	+		X	0	=	\$0.00	\$5,900.00
Martinsburg City Garage		X	1	+		X	0	=	\$0.00	\$8,800.00
Martinsburg Train Station		X	1	+		X	0	=	\$0.00	\$21,900.00
Adam Stephen Complex		X	1	+		X	0	=	\$0.00	\$24,100.00
War Memorial Park		X	1	+		X	0	=	\$0.00	\$36,700.00
Lambert Park		X	1	+		X	0	=	\$0.00	\$33,900.00
P.O. Faulkner Park		X	1	+		X	0	=	\$0.00	\$1,200.00
Oak Street Park		X	1	+		X	0	=	\$0.00	\$500.00

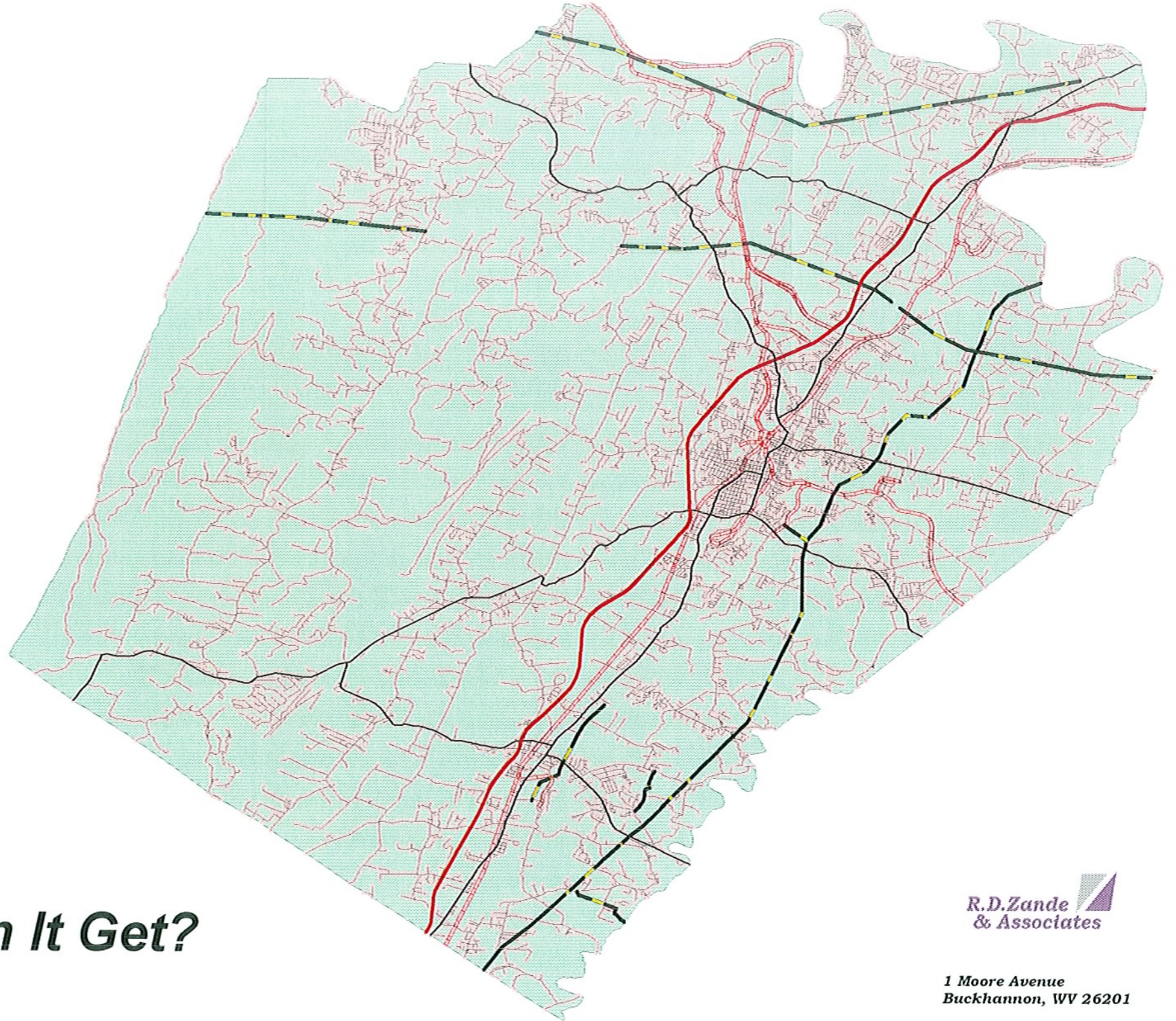
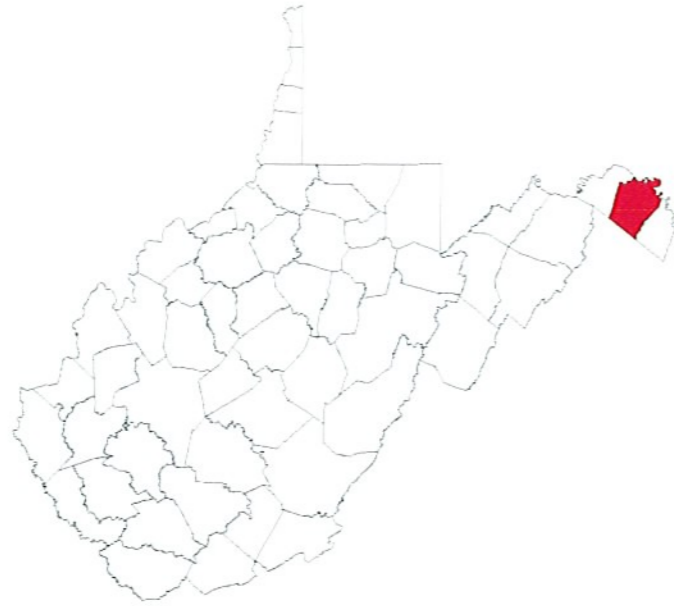
Structure Use and Function Loss (Task A.3.) Wildfire								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Ambrose Park		X	1	+		X	0	=	\$0.00	\$1,200.00
Parks and Recreation		X	1	+		X	0	=	\$0.00	\$500.00
Delmar Orchard Road		X	1	+		X	0	=	\$0.00	\$40,000.00
<i>Historic County Court House</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$86,100.00</i>
<i>Dunn Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$282,700.00</i>
<i>Homeland Sec. Emerg. Mngt.</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$38,600.00</i>
<i>Crawford Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$110,300.00</i>
<i>Senior Center</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$68,800.00</i>
<i>County Maintenance Facility</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$25,400.00</i>
<i>Central Dispatch</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$1,000.00</i>
<i>Health Department</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$12,400.00</i>
<i>Transmitter</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$300.00</i>
<i>Berkeley/Judicial Center</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$453,200.00</i>
<i>Poor House Farm</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$35,900.00</i>
<i>110 Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$43,700.00</i>
<i>126 Building</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$31,200.00</i>
<i>Animal Control Center</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$8,300.00</i>
Morgan Cabin Museum		X	1	+		X	0	=	\$0.00	\$1,100.00
<i>Hedgesville Park</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$900.00</i>
<i>South Berkeley Park</i>		X	1	+		X	0	=	<i>\$0.00</i>	<i>\$800.00</i>
Water Street Facilities		X	1	+		X	0	=	\$0.00	\$56,600.00
Historic Marker (Bender Property)		X	1	+		X	0	=	\$0.00	\$0.00
Historic Marker (Providence Quaker Cemetery)		X	1	+		X	0	=	\$0.00	\$0.00
Court Complex.		X	1	+		X	0	=	\$0.00	\$422,000.00
Runnymede Road		X	1	+		X	0	=	\$0.00	\$41,500.00
Kelly Island		X	1	+		X	0	=	\$0.00	\$2,600.00
Old Quarry Road		X	1	+		X	0	=	\$0.00	\$1,100.00
Route 51 West		X	1	+		X	0	=	\$0.00	\$19,000.00
N/E Side Rt. 9 Near Co. Line		X	1	+		X	0	=	\$0.00	\$600.00

Structure Use and Function Loss (Task A.3.) Wildfire								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Glenwood Forest Subdivision		X	1	+		X	0	=	\$0.00	\$7,300.00
Specks Run Road		X	1	+		X	0	=	\$0.00	\$8,600.00
Liberty Buisness Park		X	1	+		X	0	=	\$0.00	\$11,700.00
Rt. 11 Near Pikeside		X	1	+		X	0	=	\$0.00	\$1,100.00
Rockefeller Science Center		X	1	+		X	0	=	\$0.00	\$11,300.00
768 Williamsport Pike		X	1	+		X	0	=	\$0.00	\$0.00
General Motors		X	1	+		X	0	=	\$0.00	\$12,300.00
Duke Road		X	1	+		X	0	=	\$0.00	\$18,500.00
268 Treat Water Road		X	1	+		X	0	=	\$0.00	\$91,200.00
207 Mary Street		X	1	+		X	0	=	\$0.00	\$2,300.00
Ben Speck Road		X	1	+		X	0	=	\$0.00	\$3,500.00
Church Street		X	1	+		X	0	=	\$0.00	\$4,100.00
E/S Ridge Road		X	1	+		X	0	=	\$0.00	\$4,100.00
Route 901, East of HMS		X	1	+		X	0	=	\$0.00	\$300.00
Rt. 9, 1/2 Mile East of Texaco		X	1	+		X	0	=	\$0.00	\$300.00
Rt.9, Near James Rumsey		X	1	+		X	0	=	\$0.00	\$1,600.00
Rt. 9, Near Fort Hill Subdivision		X	1	+		X	0	=	\$0.00	\$300.00
71 and 83 Monroe Street		X	1	+		X	0	=	\$0.00	\$600.00
<b><i>Morning Dove Treatment</i></b>		<b><i>X</i></b>	<b><i>1</i></b>	<b><i>+</i></b>		<b><i>X</i></b>	<b><i>1</i></b>	<b><i>+</i></b>	<b><i>\$0.00</i></b>	<b><i>\$2,200.00</i></b>
<b><i>Springdale Farm Treatment</i></b>		<b><i>X</i></b>	<b><i>1</i></b>	<b><i>+</i></b>		<b><i>X</i></b>	<b><i>1</i></b>	<b><i>+</i></b>	<b><i>\$0.00</i></b>	<b><i>\$4,100.00</i></b>
<b><i>Potomac River Treatment</i></b>		<b><i>X</i></b>	<b><i>1</i></b>	<b><i>+</i></b>		<b><i>X</i></b>	<b><i>1</i></b>	<b><i>+</i></b>	<b><i>\$0.00</i></b>	<b><i>\$335,900.00</i></b>
Multiple Locations		X	1	+		X	0	=	\$0.00	\$2,500.00
Roads		X	1	+		X	0	=	\$0.00	\$34,300,000.00
Railroads		X	1	+		X	0	=	\$0.00	\$3,400,000.00
Bridges		X	1	+		X	0	=	\$0.00	\$6,060,000.00
Airport Facilities		X	1	+		X	0	=	\$0.00	\$360,000.00
Airport Runways		X	1	+		X	0	=	\$0.00	\$1,680,000.00
WV State Police	\$1,800.00	X	1	+	\$1,800.00	X	0	=	\$1,800.00	\$5,800.00
Berkeley Sheriffs Dept.	\$5,900.00	X	1	+	\$5,900.00	X	0	=	\$5,900.00	\$32,600.00
Martinsburg Police Dept.		X	1	+		X	0	=	\$0.00	\$0.00



Structure Use and Function Loss (Task A.3.) Wildfire										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
Back Creek Valley Fire Dept.		X	1	+		X	0	=	\$0.00	\$0.00
Baker Heights VFD		X	1	+		X	0	=	\$0.00	\$0.00
Bedington VFD		X	1	+		X	0	=	\$0.00	\$0.00
Hedgesville VFD		X	1	+		X	0	=	\$0.00	\$0.00
Martinsburg Fire Dept.	\$5,450.00	X	1	+	\$5,450.00	X	0	=	\$5,450.00	\$52,450.00
South Berkeley VFD		X	1	+		X	0	=	\$0.00	\$0.00
<i>VA Med Ctr. FD</i>	<i>0</i>	<i>X</i>	<i>1</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
<i>WV ANG FD</i>	<i>0</i>	<i>X</i>	<i>1</i>	<i>+</i>		<i>X</i>	<i>0</i>	<i>=</i>	<i>\$0.00</i>	<i>\$0.00</i>
Veterans Affairs Medical Center		X	1	+		X	0	=	\$0.00	\$0.00
Shenandoah Health Services		X	1	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hospital	\$3,500.00	X	1	+	\$3,500.00	X	0	=	\$3,500.00	\$60,400.00
Naylor Memorial Library		X	1	+		X	0	=	\$0.00	\$5,800.00
Martinsburg - Berkeley County Public Library		X	1	+		X	0	=	\$0.00	\$1,100.00
<b>Total Loss to Structure Use &amp; Function</b>									<b>\$16,650.00</b>	<b>\$52,411,950.00</b>

# HazMat Incident



## MAP LEGEND

- Roads
- Highway
  - State Route
  - County Route
  - Railroad
  - Power Lines
  - High Hazard
  - Low Hazard

*How Bad Can It Get?*



R.D.Zande  
& Associates

1 Moore Avenue  
Buckhannon, WV 26201

## ADDITIONAL HAZARDS

### HAZMAT Incident

**Hazardous Materials (HAZMAT)** – These are defined as explosive, flammable, combustible, corrosive, oxidizing, toxic, infectious, or radioactive materials that, when involved in an accident and released in sufficient quantities, will place a segment of the general public in immediate danger from exposure, contact, inhalation, or ingestion.

**HAZMAT Incident** – These are incidents involving either the release or potential release of a hazardous material as the result of accidental spills, leaks, or released airborne hazardous materials at transportation or fixed facility accident.

Hazardous substances fall under two definitions of health and physical hazard:

**Health Hazard** – Means a chemical for which there is statistically significant evidence (based on at least one (1) study conducted in accordance with established scientific principles) that acute or chronic health effects may occur if exposed.

**Physical Hazard** – Means a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed liquid, a compressed gas, explosive, flammable, an organic oxide, an oxidizer, pyrophoric (ignites spontaneously), unstable (reactive), or water reactive.

Hazardous materials incidents are a significant man-made hazard in Berkeley County. Hazardous materials in various forms have the potential to result in death, serious injury, long lasting health effects, and damage to buildings, homes, and other property. However, the hauling, storage, and use of hazardous materials play a vital role in the economy of the nation. These materials are stored and handled at fixed facilities and are transported over highways, railways, and water transportation systems. It is estimated that over four (4) billion tons of hazardous materials are transported annually and that 100,000 trucks haul hazardous materials on the country's highways each day. Almost half of all freight trains carry hazardous materials.

The most probable site for a HAZMAT incident in Berkeley County would be along its many miles of U.S. and State highway or at any of the fixed facilities, which handle, use, or store hazardous materials on a regular basis. Berkeley County contains a segment of Interstate 81, and the CSX railway also passes through the county. HAZMAT incidents do not follow any seasonal pattern and could occur at any time of the year. An incident causing the accidental release of a hazardous material is spontaneous, with little time of warning. Further, the recovery and clean-up activities involved in a HAZMAT incident may require several hours, days, or even weeks to complete.

## **MAPPING**

See the Berkeley County HAZMAT Incident Map for a graphical representation of high-risk areas with regard to HAZMAT incidents. The areas shaded in green represent “low hazard areas,” the yellow areas represent “moderate hazard areas,” the areas shaded in orange represent “high hazard areas,” and the red areas represent “extreme high hazard areas.”

*Update: All information above is still relevant and under consideration. The next update will be included in the 2014 update when data is available.*

### ESTIMATE LOSSES

Hazard: Temperature Extreme

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Back Creek Elem	\$1,599,000.00	X	0.00	=	\$0.00
Bedington Elem	\$1,685,000.00	X	0.00	=	\$0.00
Berkeley Heights Elem	\$3,637,000.00	X	0.00	=	\$0.00
Bunker Hill Elem	\$1,764,000.00	X	0.00	=	\$0.00
Burke Street Elem	\$1,425,000.00	X	0.00	=	\$0.00
Gerrardstown Elem	\$1,292,000.00	X	0.00	=	\$0.00
Hedgesville Elem	\$2,670,000.00	X	0.00	=	\$0.00
Inwood Primary School	\$1,525,000.00	X	0.00	=	\$0.00
Marlowe Elem	\$2,070,000.00	X	0.00	=	\$0.00
Opequon Elem	\$3,529,000.00	X	0.00	=	\$0.00
Rosemont Elem	\$3,138,000.00	X	0.00	=	\$0.00
Tomahawk Elem	\$4,295,000.00	X	0.00	=	\$0.00
Tuscarora Elem	\$3,459,000.00	X	0.00	=	\$0.00
Valley View Elem	\$3,475,000.00	X	0.00	=	\$0.00
Winchester Ave. Elem	\$2,140,000.00	X	0.00	=	\$0.00
Hedgesville MS	\$7,105,000.00	X	0.00	=	\$0.00
Martinsburg North MS	\$6,245,000.00	X	0.00	=	\$0.00
Martinsburg South MS	\$5,249,000.00	X	0.00	=	\$0.00
Mussleman MS	\$9,217,000.00	X	0.00	=	\$0.00
<b><i>Spring Mills MS</i></b>	<b><i>\$10,370,648.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Mill Creek IS	\$5,175,000.00	X	0.00	=	\$0.00
Potomac IS	\$4,295,000.00	X	0.00	=	\$0.00
Eagle School IS	\$5,100,000.00	X	0.00	=	\$0.00
<b><i>Mountain Ridge IS</i></b>	<b><i>\$7,500,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Orchard View IS	\$5,100,000.00	X	0.00	=	\$0.00
Hedgesville HS	\$13,049,000.00	X	0.00	=	\$0.00
Martinsburg HS	\$17,312,000.00	X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$144,000.00	X	0.00	=	\$0.00
\$152,000.00	X	0.00	=	\$0.00
\$356,000.00	X	0.00	=	\$0.00
\$158,000.00	X	0.00	=	\$0.00
\$129,000.00	X	0.00	=	\$0.00
\$117,000.00	X	0.00	=	\$0.00
\$241,000.00	X	0.00	=	\$0.00
\$129,000.00	X	0.00	=	\$0.00
\$186,000.00	X	0.00	=	\$0.00
\$355,000.00	X	0.00	=	\$0.00
\$297,000.00	X	0.00	=	\$0.00
\$388,000.00	X	0.00	=	\$0.00
\$322,000.00	X	0.00	=	\$0.00
\$314,000.00	X	0.00	=	\$0.00
\$139,000.00	X	0.00	=	\$0.00
\$626,000.00	X	0.00	=	\$0.00
\$550,000.00	X	0.00	=	\$0.00
\$467,000.00	X	0.00	=	\$0.00
\$507,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$419,000.00	X	0.00	=	\$0.00
\$452,000.00	X	0.00	=	\$0.00
\$500,000.00	X	0.00	=	\$0.00
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$500,000.00	X	0.00	=	\$0.00
\$1,167,800.00	X	0.00	=	\$0.00
\$1,538,000.00	X	0.00	=	\$0.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Mussleman HS	\$15,205,000.00	X	0.00	=	\$0.00
James Rumsey Vo Tech Center	\$8,270,000.00	X	0.00	=	\$0.00
Pikeside Pre-Vocational	\$1,765,000.00	X	0.00	=	\$0.00
Ramer Center	\$1,720,000.00	X	0.00	=	\$0.00
Administration Building	\$2,175,000.00	X	0.00	=	\$0.00
Maintenance	\$665,000.00	X	0.00	=	\$0.00
Transportation	\$1,975,000.00	X	0.00	=	\$0.00
Mussleman Athletic Facilities	\$1,300,000.00	X	0.00	=	\$0.00
Resa VIII Offices	\$770,000.00	X	0.00	=	\$0.00
Martinsburg City Hall	\$2,000,000.00	X	0.00	=	\$0.00
Martinsburg Central Fire Station	\$1,260,000.00	X	0.00	=	\$0.00
Martinsburg Westphal Hose Co.	\$350,000.00	X	0.00	=	\$0.00
Martinsburg Waterworks	\$5,103,000.00	X	0.00	=	\$0.00
Martinsburg Animal Shelter	\$54,000.00	X	0.00	=	\$0.00
Martinsburg Sewer Plant	\$6,508,000.00	X	0.00	=	\$0.00
Capitol Cement	\$5,149,000.00	X	0.00	=	\$0.00
Red Hill Storage Tank	\$1,030,000.00	X	0.00	=	\$0.00
Capitol Heights Storage Tank	\$464,000.00	X	0.00	=	\$0.00
Western Ave. Storage Tank	\$309,000.00	X	0.00	=	\$0.00
Old Market House	\$538,000.00	X	0.00	=	\$0.00
Old Armory Building	\$1,215,000.00	X	0.00	=	\$0.00
Olde Sanitation Building	\$279,000.00	X	0.00	=	\$0.00
Martinsburg City Garage	\$434,000.00	X	0.00	=	\$0.00
Martinsburg Train Station	\$1,082,000.00	X	0.00	=	\$0.00
Adam Stephen Complex	\$1,203,000.00	X	0.00	=	\$0.00
War Memorial Park	\$1,816,000.00	X	0.00	=	\$0.00
Lambert Park	\$1,644,000.00	X	0.00	=	\$0.00
P.O. Faulkner Park	\$59,000.00	X	0.00	=	\$0.00
Oak Street Park	\$25,000.00	X	0.00	=	\$0.00

<b>Contents of Loss (Task A.2.)</b>				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$1,341,000.00	X	0.00	=	\$0.00
\$3,430,000.00	X	0.00	=	\$0.00
\$156,000.00	X	0.00	=	\$0.00
\$177,000.00	X	0.00	=	\$0.00
\$210,000.00	X	0.00	=	\$0.00
\$140,000.00	X	0.00	=	\$0.00
\$450,000.00	X	0.00	=	\$0.00
\$20,000.00	X	0.00	=	\$0.00
\$1,931,000.00	X	0.00	=	\$0.00
\$250,000.00	X	0.00	=	\$0.00
\$200,000.00	X	0.00	=	\$0.00
\$5,000.00	X	0.00	=	\$0.00
\$79,000.00	X	0.00	=	\$0.00
\$1,000.00	X	0.00	=	\$0.00
\$5,000.00	X	0.00	=	\$0.00
\$24,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$30,000.00	X	0.00	=	\$0.00
\$10,000.00	X	0.00	=	\$0.00
\$25,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$43,000.00	X	0.00	=	\$0.00
\$100,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Ambrose Park	\$59,000.00	X	0.00	=	\$0.00
Parks and Recreation		X	0.00	=	\$0.00
Delmar Orchard Road	\$2,000,000.00	X	0.00	=	\$0.00
<b><i>Historic County Court House</i></b>	<b><i>\$4,175,400.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Dunn Building</i></b>	<b><i>\$13,949,800.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Homeland Sec. Emerg. Mngt.</i></b>	<b><i>\$1,714,200.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Crawford Building</i></b>	<b><i>\$5,517,100.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Senior Center</i></b>	<b><i>\$3,386,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>County Maintenance Facility</i></b>	<b><i>\$1,268,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Central Dispatch</i></b>	<b><i>\$37,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Health Department</i></b>	<b><i>\$573,800.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Transmitter</i></b>	<b><i>\$10,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Berkeley/Judicial Center</i></b>	<b><i>\$22,024,900.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Poor House Farm</i></b>	<b><i>\$1,784,600.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>110 Building</i></b>	<b><i>\$2,143,700.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>126 Building</i></b>	<b><i>\$1,518,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>Animal Control Center</i></b>	<b><i>\$400,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Morgan Cabin Museum	\$50,000.00	X	0.00	=	\$0.00
<b><i>Hedgesville Park</i></b>	<b><i>\$45,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>South Berkeley Park</i></b>	<b><i>\$40,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Water Street Facilities	\$2,828,000.00	X	0.00	=	\$0.00
Historic Marker (Bender Property)	\$1,200.00	X	0.00	=	\$0.00
Historic Marker (Providence Quaker Cemetery)	\$1,200.00	X	0.00	=	\$0.00
Court Complex.	\$21,100,000.00	X	0.00	=	\$0.00
Runnymede Road	\$2,045,300.00	X	0.00	=	\$0.00
Kelly Island	\$128,000.00	X	0.00	=	\$0.00
Old Quarry Road	\$53,000.00	X	0.00	=	\$0.00
Route 51 West	\$950,500.00	X	0.00	=	\$0.00
N/E Side Rt. 9 Near Co. Line	\$30,000.00	X	0.00	=	\$0.00
Glenwood Forest Subdivision	\$365,000.00	X	0.00	=	\$0.00
Specks Run Road	\$428,500.00	X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.00	=	\$0.00
\$45,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
<b><i>\$255,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$366,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$431,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$105,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$25,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$90,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$10,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$1,265,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$23,595.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$75,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$75,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>\$34,000.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
\$6,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$56,500.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Liberty Buisness Park	\$582,500.00	X	0.00	=	\$0.00
Rt. 11 Near Pikeside	\$52,500.00	X	0.00	=	\$0.00
Rockefeller Science Center	\$565,000.00	X	0.00	=	\$0.00
768 Williamsport Pike	\$1,000.00	X	0.00	=	\$0.00
General Motors	\$612,850.00	X	0.00	=	\$0.00
Duke Road	\$912,500.00	X	0.00	=	\$0.00
268 Treat Water Road	\$4,521,500.00	X	0.00	=	\$0.00
207 Mary Street	\$115,000.00	X	0.00	=	\$0.00
Ben Speck Road	\$170,250.00	X	0.00	=	\$0.00
Church Street	\$205,000.00	X	0.00	=	\$0.00
E/S Ridge Road	\$202,500.00	X	0.00	=	\$0.00
Route 901, East of HMS	\$12,800.00	X	0.00	=	\$0.00
Rt. 9, 1/2 Mile East of Texaco	\$12,800.00	X	0.00	=	\$0.00
Rt.9, Near James Rumsey	\$80,000.00	X	0.00	=	\$0.00
Rt. 9, Near Fort Hill Subdivision	\$14,000.00	X	0.00	=	\$0.00
71 and 83 Monroe Street		X	0.00	=	\$0.00
<i>Morning Dove Treatment</i>	<i>\$111,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Springdale Farm Treatment</i>	<i>\$203,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
<i>Potomac River Treatment</i>	<i>\$16,794,000.00</i>	<i>X</i>	<i>0.00</i>	<i>=</i>	<i>\$0.00</i>
Multiple Locations	\$125,000.00	X	0.00	=	\$0.00
Roads	\$1,715,000,000.00	X	0.00	=	\$0.00
Railroads	\$170,000,000.00	X	0.00	=	\$0.00
Bridges	\$303,000,000.00	X	0.00	=	\$0.00
Airport Facilities	\$18,000,000.00	X	0.00	=	\$0.00
Airport Runways	\$84,000,000.00	X	0.00	=	\$0.00
WV State Police	\$200,000.00	X	0.00	=	\$0.00
Berkeley Sheriffs Dept.	\$1,134,000.00	X	0.00	=	\$0.00
Martinsburg Police Dept.		X	0.00	=	\$0.00
Back Creek Valley Fire Dept.		X	0.00	=	\$0.00
Baker Heights VFD		X	0.00	=	\$0.00
Bedington VFD		X	0.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$20,000.00	X	0.00	=	\$0.00
\$75,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$10,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$62,000.00	X	0.00	=	\$0.00
\$0.00	X	0.00	=	\$0.00
\$0.00	X	0.00	=	\$0.00
\$0.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
\$400,000.00	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00
	X	0.00	=	\$0.00



Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Hedgesville VFD		X	0.00	=	\$0.00
Martinsburg Fire Dept.	\$1,600,000.00	X	0.00	=	\$0.00
South Berkeley VFD		X	0.00	=	\$0.00
<b><i>WV Med. Ctr. FD</i></b>	<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
<b><i>WV ANG FD</i></b>	<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>
Veterans Affairs Medical Center		X	0.00	=	\$0.00
Shenandoah Health Services		X	0.00	=	\$0.00
Martinsburg City Hospital	\$2,361,000.00	X	0.00	=	\$0.00
Naylor Memorial Library	\$279,000.00	X	0.00	=	\$0.00
Martinsburg - Berkeley County Public Library	\$37,000.00	X	0.00	=	\$0.00
<b>Total Loss to Structure</b>					<b>\$0.00</b>

Contents of Loss (Task A.2.)					
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)	
	X	0.00	=	\$0.00	
\$1,500,000.00	X	0.00	=	\$0.00	
	X	0.00	=	\$0.00	
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
<b><i>\$0.00</i></b>	<b><i>X</i></b>	<b><i>0.00</i></b>	<b><i>=</i></b>	<b><i>\$0.00</i></b>	
	X	0.00	=	\$0.00	
	X	0.00	=	\$0.00	
\$965,640.00	X	0.00	=	\$0.00	
\$16,000.00	X	0.00	=	\$0.00	
\$43,000.00	X	0.00	=	\$0.00	
<b>Total Loss to Contents</b>					<b>\$0.00</b>

Structure Use and Function Loss (Task A.3.) HazMat								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Elem		X	1	+		X	0	=	\$0.00	\$33,400.00
Bedington Elem		X	1	+		X	0	=	\$0.00	\$35,200.00
Berkeley Heights Elem		X	1	+		X	0	=	\$0.00	\$76,300.00
Bunker Hill Elem		X	1	+		X	0	=	\$0.00	\$36,900.00
Burke Street Elem		X	1	+		X	0	=	\$0.00	\$29,800.00
Gerrardstown Elem		X	1	+		X	0	=	\$0.00	\$27,000.00
Hedgesville Elem		X	1	+		X	0	=	\$0.00	\$55,800.00
Inwood Primary School		X	1	+		X	0	=	\$0.00	\$31,800.00
Marlowe Elem		X	1	+		X	0	=	\$0.00	\$43,300.00
Opequon Elem		X	1	+		X	0	=	\$0.00	\$74,200.00
Rosemont Elem		X	1	+		X	0	=	\$0.00	\$65,800.00
Tomahawk Elem		X	1	+		X	0	=	\$0.00	\$89,800.00
Tuscarora Elem		X	1	+		X	0	=	\$0.00	\$72,400.00
Valley View Elem		X	1	+		X	0	=	\$0.00	\$72,600.00
Winchester Ave. Elem		X	1	+		X	0	=	\$0.00	\$44,200.00
Hedgesville MS		X	1	+		X	0	=	\$0.00	\$148,400.00
Martinsburg North MS		X	1	+		X	0	=	\$0.00	\$130,400.00
Martinsburg South MS		X	1	+		X	0	=	\$0.00	\$109,700.00
Mussleman MS		X	1	+		X	0	=	\$0.00	\$189,400.00
Mill Creek IS		X	1	+		X	0	=	\$0.00	\$107,700.00
Potomac IS		X	1	+		X	0	=	\$0.00	\$90,400.00
Eagle School IS		X	1	+		X	0	=	\$0.00	\$107,000.00
Orchard View IS		X	1	+		X	0	=	\$0.00	\$107,000.00
Hedgesville HS		X	1	+		X	0	=	\$0.00	\$272,700.00
Martinsburg HS		X	1	+		X	0	=	\$0.00	\$361,600.00
Mussleman HS		X	1	+		X	0	=	\$0.00	\$317,500.00
James Rumsey Vo Tech Center		X	1	+		X	0	=	\$0.00	\$199,700.00
Pikeside Pre-Vocational		X	1	+		X	0	=	\$0.00	\$36,900.00

Structure Use and Function Loss (Task A.3.) HazMat								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Ramer Center		X	1	+		X	0	=	\$0.00	\$36,200.00
Administration Building		X	1	+		X	0	=	\$0.00	\$45,600.00
Maintenance		X	1	+		X	0	=	\$0.00	\$14,700.00
Transportation		X	1	+		X	0	=	\$0.00	\$44,000.00
Mussleman Athletic Facilities		X	1	+		X	0	=	\$0.00	\$26,200.00
Resa VIII Offices		X	1	+		X	0	=	\$0.00	\$34,700.00
Martinsburg City Hall		X	1	+		X	0	=	\$0.00	\$42,500.00
Martinsburg Central Fire Station		X	1	+		X	0	=	\$0.00	\$27,200.00
Martinsburg Westphal Hose Co.		X	1	+		X	0	=	\$0.00	\$7,100.00
Martinsburg Waterworks		X	1	+		X	0	=	\$0.00	\$102,900.00
Martinsburg Animal Shelter		X	1	+		X	0	=	\$0.00	\$1,100.00
Martinsburg Sewer Plant		X	1	+		X	0	=	\$0.00	\$130,300.00
Capitol Cement		X	1	+		X	0	=	\$0.00	\$103,200.00
Red Hill Storage Tank		X	1	+		X	0	=	\$0.00	\$20,600.00
Capitol Heights Storage Tank		X	1	+		X	0	=	\$0.00	\$9,300.00
Western Ave. Storage Tank		X	1	+		X	0	=	\$0.00	\$6,200.00
Old Market House		X	1	+		X	0	=	\$0.00	\$10,800.00
Old Armory Building		X	1	+		X	0	=	\$0.00	\$24,300.00
Olde Sanitation Building		X	1	+		X	0	=	\$0.00	\$5,900.00
Martinsburg City Garage		X	1	+		X	0	=	\$0.00	\$8,800.00
Martinsburg Train Station		X	1	+		X	0	=	\$0.00	\$21,900.00
Adam Stephen Complex		X	1	+		X	0	=	\$0.00	\$24,100.00
War Memorial Park		X	1	+		X	0	=	\$0.00	\$36,700.00
Lambert Park		X	1	+		X	0	=	\$0.00	\$33,900.00
P.O. Faulkner Park		X	1	+		X	0	=	\$0.00	\$1,200.00
Oak Street Park		X	1	+		X	0	=	\$0.00	\$500.00
Ambrose Park		X	1	+		X	0	=	\$0.00	\$1,200.00
Parks and Recreation		X	1	+		X	0	=	\$0.00	\$500.00
Delmar Orchard Road		X	1	+		X	0	=	\$0.00	\$40,000.00

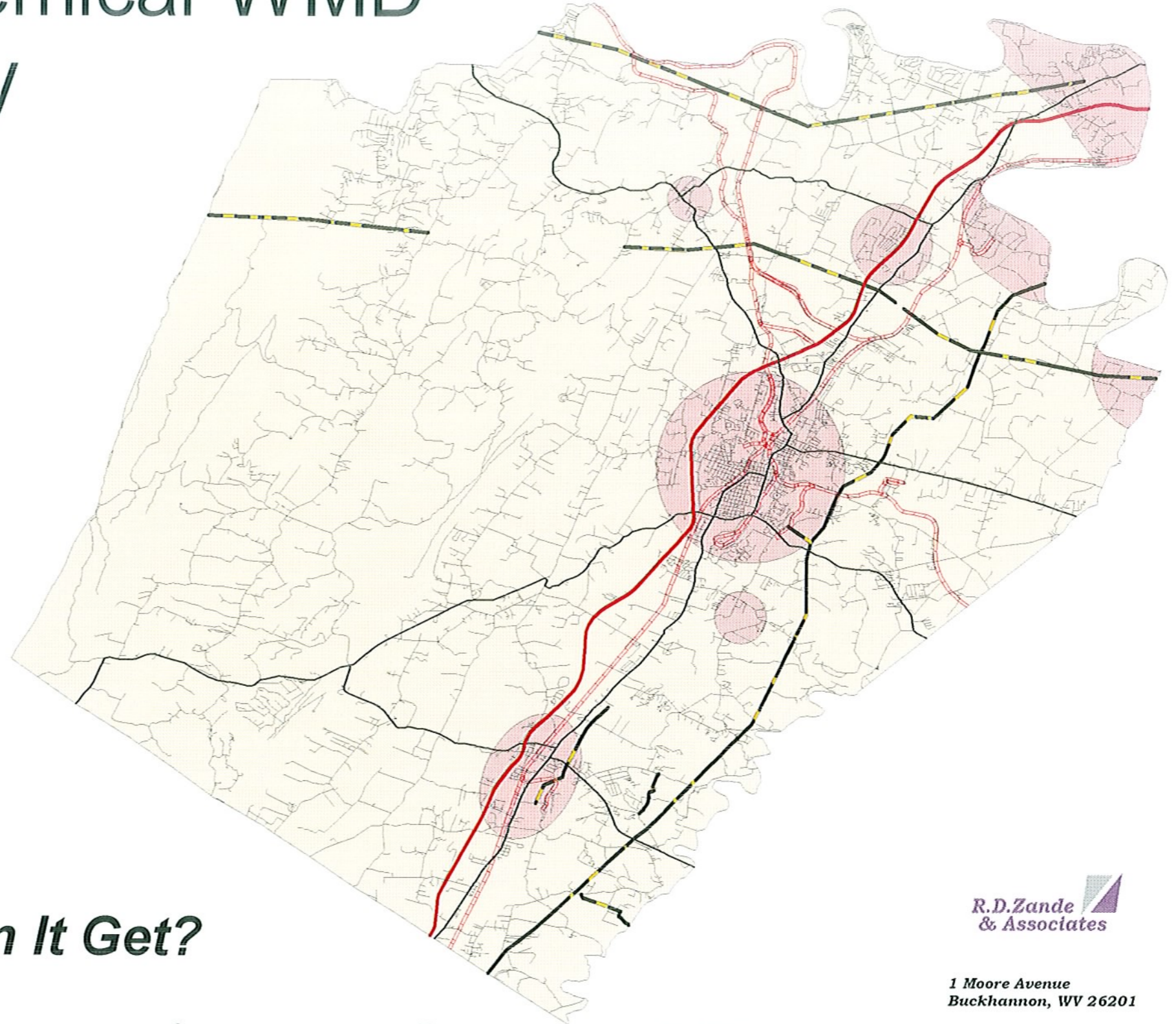
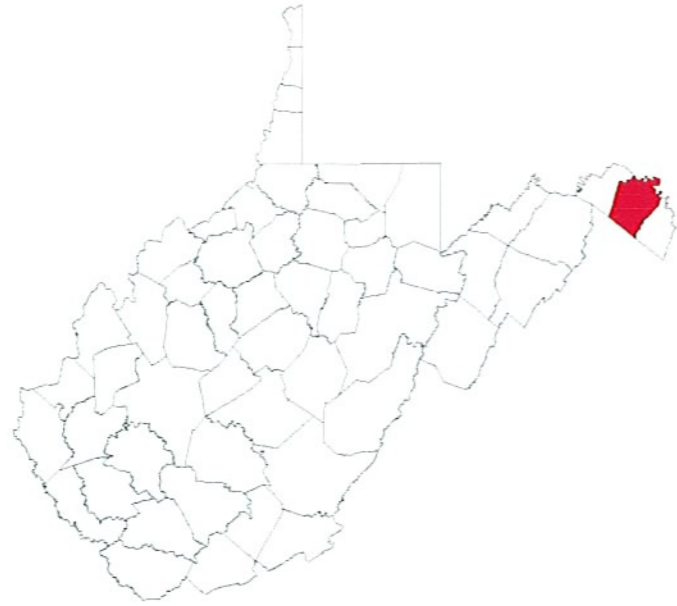
Structure Use and Function Loss (Task A.3.) HazMat								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
County Court House		X	1	+		X	0	=	\$0.00	\$40,000.00
Court House Annex #4		X	1	+		X	0	=	\$0.00	\$18,500.00
Emergency Services		X	1	+		X	0	=	\$0.00	\$27,900.00
Magistrate Court		X	1	+		X	0	=	\$0.00	\$21,500.00
Senior Center		X	1	+		X	0	=	\$0.00	\$19,000.00
County Maintenance Facility		X	1	+		X	0	=	\$0.00	\$4,300.00
Central Dispatch		X	1	+		X	0	=	\$0.00	\$900.00
Health Department		X	1	+		X	0	=	\$0.00	\$2,800.00
Transmitter		X	1	+		X	0	=	\$0.00	\$200.00
Epoch Building		X	1	+		X	0	=	\$0.00	\$38,900.00
Poor House Farm		X	1	+		X	0	=	\$0.00	\$15,000.00
County Office Building #1		X	1	+		X	0	=	\$0.00	\$27,500.00
County Office Building #2		X	1	+		X	0	=	\$0.00	\$15,300.00
Animal Control Center		X	1	+		X	0	=	\$0.00	\$1,700.00
Morgan Cabin Museum		X	1	+		X	0	=	\$0.00	\$1,100.00
Hedgesville Park		X	1	+		X	0	=	\$0.00	\$500.00
South Berkeley Park		X	1	+		X	0	=	\$0.00	\$800.00
Water Street Facilities		X	1	+		X	0	=	\$0.00	\$56,600.00
Historic Marker (Bender Property)		X	1	+		X	0	=	\$0.00	\$0.00
Historic Marker (Providence Quaker Cemetery)		X	1	+		X	0	=	\$0.00	\$0.00
Court Complex.		X	1	+		X	0	=	\$0.00	\$422,000.00
Runnymede Road		X	1	+		X	0	=	\$0.00	\$41,500.00
Kelly Island		X	1	+		X	0	=	\$0.00	\$7,700.00
Old Quarry Road		X	1	+		X	0	=	\$0.00	\$3,200.00
Route 51 West		X	1	+		X	0	=	\$0.00	\$57,000.00
N/E Side Rt. 9 Near Co. Line		X	1	+		X	0	=	\$0.00	\$1,800.00
Glenwood Forest Subdivision		X	1	+		X	0	=	\$0.00	\$21,900.00
Specks Run Road		X	1	+		X	0	=	\$0.00	\$25,700.00
Liberty Buisness Park		X	1	+		X	0	=	\$0.00	\$35,000.00

Structure Use and Function Loss (Task A.3.) HazMat								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Rt. 11 Near Pikeside		X	1	+		X	0	=	\$0.00	\$3,200.00
Rockefeller Science Center		X	1	+		X	0	=	\$0.00	\$33,900.00
768 Williamsport Pike		X	1	+		X	0	=	\$0.00	\$100.00
General Motors		X	1	+		X	0	=	\$0.00	\$36,800.00
Duke Road		X	1	+		X	0	=	\$0.00	\$55,400.00
268 Treat Water Road		X	1	+		X	0	=	\$0.00	\$273,600.00
207 Mary Street		X	1	+		X	0	=	\$0.00	\$6,900.00
Ben Speck Road		X	1	+		X	0	=	\$0.00	\$10,500.00
Church Street		X	1	+		X	0	=	\$0.00	\$12,300.00
E/S Ridge Road		X	1	+		X	0	=	\$0.00	\$12,200.00
Route 901, East of HMS		X	1	+		X	0	=	\$0.00	\$800.00
Rt. 9, 1/2 Mile East of Texaco		X	1	+		X	0	=	\$0.00	\$800.00
Rt.9, Near James Rumsey		X	1	+		X	0	=	\$0.00	\$4,800.00
Rt. 9, Near Fort Hill Subdivision		X	1	+		X	0	=	\$0.00	\$800.00
71 and 83 Monroe Street		X	1	+		X	0	=	\$0.00	\$1,900.00
Multiple Locations		X	1	+		X	0	=	\$0.00	\$7,500.00
Roads		X	1	+		X	0	=	\$0.00	\$102,900,000.00
Railroads		X	1	+		X	0	=	\$0.00	\$10,200,000.00
Bridges		X	1	+		X	0	=	\$0.00	\$18,180,000.00
Airport Facilities		X	1	+		X	0	=	\$0.00	\$1,080,000.00
Airport Runways		X	1	+		X	0	=	\$0.00	\$5,040,000.00
WV State Police	\$1,800.00	X	1	+	\$1,800.00	X	0	=	\$1,800.00	\$5,800.00
Berkeley Sheriffs Dept.	\$5,900.00	X	1	+	\$5,900.00	X	0	=	\$5,900.00	\$32,600.00
Martinsburg Police Dept.		X	1	+		X	0	=	\$0.00	\$0.00
Back Creek Valley Fire Dept.		X	1	+		X	0	=	\$0.00	\$0.00
Baker Heights VFD		X	1	+		X	0	=	\$0.00	\$0.00
Bedington VFD		X	1	+		X	0	=	\$0.00	\$0.00
Hedgesville VFD		X	1	+		X	0	=	\$0.00	\$0.00
Martinsburg Fire Dept.	\$5,450.00	X	1	+	\$5,450.00	X	0	=	\$5,450.00	\$52,450.00
South Berkeley VFD		X	1	+		X	0	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) HazMat										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
Veterans Affairs Medical Center		X	1	+		X	0	=	\$0.00	\$0.00
Shenandoah Health Services		X	1	+		X	0	=	\$0.00	\$0.00
Martinsburg City Hospital	\$3,500.00	X	1	+	\$3,500.00	X	0	=	\$3,500.00	\$60,400.00
Naylor Memorial Library		X	1	+		X	0	=	\$0.00	\$5,800.00
Martinsburg - Berkeley County Public Library		X	1	+		X	0	=	\$0.00	\$1,100.00
<b>Total Loss to Structure Use &amp; Function</b>									<b>\$16,650.00</b>	<b>\$142,756,450.00</b>



# Biological-Chemical-WMD Mass Casualty



## MAP LEGEND

- Roads
-  Highway
  -  State Route
  -  County Route
  -  Railroad
  -  Power Lines
  -  High Hazard
  -  Moderate Hazard

***How Bad Can It Get?***



**R.D.Zande  
& Associates**

1 Moore Avenue  
Buckhannon, WV 26201

*Biological, Chemical, and Weapons of Mass Destruction (WMD) Terrorist Incidents*

**Terrorism is a form of violence aimed at a public audience. The Federal Bureau of Investigation defines Terrorism as “the unlawful use of force or violence against persons or property to intimidate or coerce a government, civilian population, or any segment thereof in furtherance of political or social objections.”**

Terrorist incidents are at the forefront of everyone’s conscious following the events of September 11, 2001. We, as a society, have realized how vulnerable we are to such actions. Berkeley County is not immune to any type of terrorist activity. Terrorist attacks can be focused on government or the civilian population. Terrorism has long been associated with foreign radical groups acting against American installations abroad. In recent history, however both foreign and domestic groups alike have conducted terrorism on American soil. Although terrorist acts are generally targeted towards major metropolitan areas, no area is completely safe. When regards to terrorism occurring in Berkeley County one must consider the counties proximity to the Washington D.C. metropolitan area.

Biological terrorist incidents have a somewhat low probability of occurring in Berkeley County. These incidents include the release of diseases such as smallpox into the general population for destructive purposes. Biological events have an extremely high risk associated with them, as the affects of such an event can exceed the capabilities of the limited healthcare facilities located in Berkeley County, and the loss of human life can be disastrous.

Chemical terrorist incidents are comparable to biological incidents, in that they have a relatively low probability of occurring, yet are associated with extremely high risks. Chemical incidents include the use of weapons that subject the general population to toxic chemicals similar to those that could potentially be released during an accidental HAZMAT incident. Chemical incidents are capable of the subsequent loss of large percentages of the population. Berkeley County does contain several public water systems, which makes the threat of a biological and chemical attack more plausible.

Events involving weapons of mass destruction also have a relatively low probability of occurring in Berkeley County. However, in the event that a nuclear or other weapon of mass destruction was to discharge in or near the county, the inherent loss of life would be catastrophic.

Terrorist actions often occur in areas of densely concentrated populations to increase the loss of human life. As such, all population centers in the county are at an elevated risk, especially the City of Martinsburg as the largest and most diverse municipality in the county. Dams and water and sewer treatment facilities are likewise highly susceptible to terrorist activities. Facilities



in neighboring counties may also be susceptible to WMD-type attacks and may affect Berkeley County indirectly.

#### **MAPPING**

See the Berkeley County Terrorism Map for a graphical representation of high-risk areas with relation to these types of terrorist incidents. The areas shaded in green represent “low hazard areas,” the yellow areas represent “moderate hazard areas,” the areas shaded in orange represent “high hazard areas,” and the red areas represent “extreme high hazard areas.”

*Update: All information above is still relevant and under consideration. The next update will be included in the 2014 update when data is available.*

Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are located in hazard areas.

**Hazard: Terrorism**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# In County	# In Hazard Area	% In Hazard Area	\$ In County	\$ In Hazard Area	% In Hazard Area	# In County	# In Hazard Area	% In Hazard Area
RESIDENTIAL	35,300	18,496	50	\$3,353,500,000.00	\$1,757,153,000.00	47	52,365	27,438	33
COMMERCIAL	1,380	723	2	\$158,700,000.00	\$83,155,000.00	2	17,648	9,247	11
INDUSTRIAL	57	30	0	\$28,500,000.00	\$14,933,000.00	0	4,281	2,243	3
AGRICULTURAL	39	20	0	\$7,193,600.00	\$3,769,000.00	0	366	192	0
RELIGIOUS	55	29	0	\$13,475,000.00	\$7,061,000.00	0	110	58	0
GOVERNMENT	76	40	0	\$11,400,000.00	\$5,973,000.00	0	6,262	3,281	4
EDUCATION	28	15	0	\$140,790,000.00	\$73,771,000.00	2	1,373	719	1
UTILITIES	6	3	0	\$7,500,000.00	\$3,930,000.00	0	95	50	0
<b>Total</b>	<b>36,941</b>	<b>19,356</b>	<b>52</b>	<b>\$3,721,058,600.0</b>	<b>\$1,949,745,000.00</b>	<b>52</b>	<b>82,500</b>	<b>43,228</b>	<b>52</b>

Task B. Determine whether (and where) you want to collect additional inventory data.

	YES	NO
1) Do you know where your greatest damages may occur in your hazard areas?	X	
2) Do you know whether your critical facilities will be operational after a hazard event?		X
3) Is there enough data to determine which assets are subject to the greatest potential damages?	X	
4) Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	X	
5) Is there enough data to determine whether certain areas are vulnerable to potential hazards?	X	
6) Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	X	
7) Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		

## ESTIMATE LOSSES

Hazard: Terrorism

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Back Creek Elem	\$1,599,000.00	X	2.00	=	\$32,000.00
Bedington Elem	\$1,685,000.00	X	6.00	=	\$101,100.00
Berkeley Heights Elem	\$3,637,000.00	X	6.00	=	\$218,200.00
Bunker Hill Elem	\$1,764,000.00	X	2.00	=	\$35,300.00
Burke Street Elem	\$1,425,000.00	X	2.00	=	\$28,500.00
Gerrardstown Elem	\$1,292,000.00	X	2.00	=	\$25,800.00
Hedgesville Elem	\$2,670,000.00	X	6.00	=	\$160,200.00
Inwood Primary School	\$1,525,000.00	X	6.00	=	\$91,500.00
Marlowe Elem	\$2,070,000.00	X	6.00	=	\$124,200.00
Opequon Elem	\$3,529,000.00	X	6.00	=	\$211,700.00
Rosemont Elem	\$3,138,000.00	X	6.00	=	\$188,300.00
Tomahawk Elem	\$4,295,000.00	X	2.00	=	\$85,900.00
Tuscarora Elem	\$3,459,000.00	X	2.00	=	\$69,200.00
Valley View Elem	\$3,475,000.00	X	6.00	=	\$208,500.00
Winchester Ave. Elem	\$2,140,000.00	X	6.00	=	\$128,400.00
Hedgesville MS	\$7,105,000.00	X	6.00	=	\$426,300.00
Martinsburg North MS	\$6,245,000.00	X	6.00	=	\$374,700.00
Martinsburg South MS	\$5,249,000.00	X	6.00	=	\$314,900.00
Mussleman MS	\$9,217,000.00	X	6.00	=	\$553,000.00
Mill Creek IS	\$5,175,000.00	X	2.00	=	\$103,500.00
Potomac IS	\$4,295,000.00	X	2.00	=	\$85,900.00
Eagle School IS	\$5,100,000.00	X	2.00	=	\$102,000.00
Orchard View IS	\$5,100,000.00	X	2.00	=	\$102,000.00
Hedgesville HS	\$13,049,000.00	X	6.00	=	\$782,900.00
Martinsburg HS	\$17,312,000.00	X	6.00	=	\$1,038,700.00
Mussleman HS	\$15,205,000.00	X	6.00	=	\$912,300.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$144,000.00	X	1.00	=	\$1,400.00
\$152,000.00	X	3.00	=	\$4,600.00
\$356,000.00	X	3.00	=	\$10,700.00
\$158,000.00	X	1.00	=	\$1,600.00
\$129,000.00	X	1.00	=	\$1,300.00
\$117,000.00	X	1.00	=	\$1,200.00
\$241,000.00	X	3.00	=	\$7,200.00
\$129,000.00	X	3.00	=	\$3,900.00
\$186,000.00	X	3.00	=	\$5,600.00
\$355,000.00	X	3.00	=	\$10,700.00
\$297,000.00	X	3.00	=	\$8,900.00
\$388,000.00	X	1.00	=	\$3,900.00
\$322,000.00	X	1.00	=	\$3,200.00
\$314,000.00	X	3.00	=	\$9,400.00
\$139,000.00	X	3.00	=	\$4,200.00
\$626,000.00	X	3.00	=	\$18,800.00
\$550,000.00	X	3.00	=	\$16,500.00
\$467,000.00	X	3.00	=	\$14,000.00
\$507,000.00	X	3.00	=	\$15,200.00
\$419,000.00	X	1.00	=	\$4,200.00
\$452,000.00	X	1.00	=	\$4,500.00
\$500,000.00	X	1.00	=	\$5,000.00
\$500,000.00	X	1.00	=	\$5,000.00
\$1,167,800.00	X	3.00	=	\$35,000.00
\$1,538,000.00	X	3.00	=	\$46,100.00
\$1,341,000.00	X	3.00	=	\$40,200.00

Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
James Rumsey Vo Tech Center	\$8,270,000.00	X	6.00	=	\$496,200.00
Pikeside Pre-Vocational	\$1,765,000.00	X	6.00	=	\$105,900.00
Ramer Center	\$1,720,000.00	X	6.00	=	\$103,200.00
Administration Building	\$2,175,000.00	X	6.00	=	\$130,500.00
Maintenance	\$665,000.00	X	6.00	=	\$39,900.00
Transportation	\$1,975,000.00	X	6.00	=	\$118,500.00
Mussleman Athletic Facilities	\$1,300,000.00	X	6.00	=	\$78,000.00
Resa VIII Offices	\$770,000.00	X	6.00	=	\$46,200.00
Martinsburg City Hall	\$2,000,000.00	X	6.00	=	\$120,000.00
Martinsburg Central Fire Station	\$1,260,000.00	X	6.00	=	\$75,600.00
Martinsburg Westphal Hose Co.	\$350,000.00	X	6.00	=	\$21,000.00
Martinsburg Waterworks	\$5,103,000.00	X	6.00	=	\$306,200.00
Martinsburg Animal Shelter	\$54,000.00	X	6.00	=	\$3,200.00
Martinsburg Sewer Plant	\$6,508,000.00	X	6.00	=	\$390,500.00
Capitol Cement	\$5,149,000.00	X	6.00	=	\$308,900.00
Red Hill Storage Tank	\$1,030,000.00	X	6.00	=	\$61,800.00
Capitol Heights Storage Tank	\$464,000.00	X	6.00	=	\$27,800.00
Western Ave. Storage Tank	\$309,000.00	X	6.00	=	\$18,500.00
Old Market House	\$538,000.00	X	6.00	=	\$32,300.00
Old Armory Building	\$1,215,000.00	X	6.00	=	\$72,900.00
Olde Sanitation Building	\$279,000.00	X	6.00	=	\$16,700.00
Martinsburg City Garage	\$434,000.00	X	6.00	=	\$26,000.00
Martinsburg Train Station	\$1,082,000.00	X	6.00	=	\$64,900.00
Adam Stephen Complex	\$1,203,000.00	X	6.00	=	\$72,200.00
War Memorial Park	\$1,816,000.00	X	6.00	=	\$109,000.00
Lambert Park	\$1,644,000.00	X	6.00	=	\$98,600.00
P.O. Faulkner Park	\$59,000.00	X	6.00	=	\$3,500.00
Oak Street Park	\$25,000.00	X	6.00	=	\$1,500.00
Ambrose Park	\$59,000.00	X	6.00	=	\$3,500.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
\$3,430,000.00	X	3.00	=	\$102,900.00
\$156,000.00	X	3.00	=	\$4,700.00
\$177,000.00	X	3.00	=	\$5,300.00
\$210,000.00	X	3.00	=	\$6,300.00
\$140,000.00	X	3.00	=	\$4,200.00
\$450,000.00	X	3.00	=	\$13,500.00
\$20,000.00	X	3.00	=	\$600.00
\$1,931,000.00	X	3.00	=	\$57,900.00
\$250,000.00	X	3.00	=	\$7,500.00
\$200,000.00	X	3.00	=	\$6,000.00
\$5,000.00	X	3.00	=	\$200.00
\$79,000.00	X	3.00	=	\$2,400.00
\$1,000.00	X	3.00	=	\$0.00
\$5,000.00	X	3.00	=	\$200.00
\$24,000.00	X	3.00	=	\$700.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
\$30,000.00	X	3.00	=	\$900.00
\$10,000.00	X	3.00	=	\$300.00
\$25,000.00	X	3.00	=	\$800.00
	X	3.00	=	\$0.00
\$43,000.00	X	3.00	=	\$1,300.00
\$100,000.00	X	3.00	=	\$3,000.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00



Structure Loss (Task A.1.)					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Liberty Buisness Park	\$582,500.00	X	6.00	=	\$35,000.00
Rt. 11 Near Pikeside	\$52,500.00	X	6.00	=	\$3,200.00
Rockefeller Science Center	\$565,000.00	X	6.00	=	\$33,900.00
768 Williamsport Pike	\$1,000.00	X	6.00	=	\$100.00
General Motors	\$612,850.00	X	6.00	=	\$36,800.00
Duke Road	\$912,500.00	X	6.00	=	\$54,800.00
268 Treat Water Road	\$4,521,500.00	X	6.00	=	\$271,300.00
207 Mary Street	\$115,000.00	X	6.00	=	\$6,900.00
Ben Speck Road	\$170,250.00	X	6.00	=	\$10,200.00
Church Street	\$205,000.00	X	6.00	=	\$12,300.00
E/S Ridge Road	\$202,500.00	X	6.00	=	\$12,200.00
Route 901, East of HMS	\$12,800.00	X	6.00	=	\$800.00
Rt. 9, 1/2 Mile East of Texaco	\$12,800.00	X	6.00	=	\$800.00
Rt.9, Near James Rumsey	\$80,000.00	X	6.00	=	\$4,800.00
Rt. 9, Near Fort Hill Subdivision	\$14,000.00	X	6.00	=	\$800.00
71 and 83 Monroe Street		X	6.00	=	\$0.00
Multiple Locations	\$125,000.00	X	6.00	=	\$7,500.00
Roads	\$1,715,000,000.00	X	6.00	=	\$102,900,000.00
Railroads	\$170,000,000.00	X	6.00	=	\$10,200,000.00
Bridges	\$303,000,000.00	X	6.00	=	\$18,180,000.00
Airport Facilities	\$18,000,000.00	X	6.00	=	\$1,080,000.00
Airport Runways	\$84,000,000.00	X	6.00	=	\$5,040,000.00
WV State Police	\$200,000.00	X	6.00	=	\$12,000.00
Berkeley Sheriffs Dept.	\$1,134,000.00	X	6.00	=	\$68,000.00
Martinsburg Police Dept.		X	6.00	=	\$0.00
Back Creek Valley Fire Dept.		X	2.00	=	\$0.00
Baker Heights VFD		X	2.00	=	\$0.00
Bedington VFD		X	6.00	=	\$0.00
Hedgesville VFD		X	6.00	=	\$0.00
Martinsburg Fire Dept.	\$1,600,000.00	X	6.00	=	\$96,000.00
South Berkeley VFD		X	2.00	=	\$0.00

Contents of Loss (Task A.2.)				
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
\$20,000.00	X	3.00	=	\$600.00
\$75,000.00	X	3.00	=	\$2,300.00
	X	3.00	=	\$0.00
\$10,000.00	X	3.00	=	\$300.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
\$62,000.00	X	3.00	=	\$1,900.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
\$400,000.00	X	3.00	=	\$12,000.00
	X	3.00	=	\$0.00
	X	1.00	=	\$0.00
	X	1.00	=	\$0.00
	X	3.00	=	\$0.00
	X	3.00	=	\$0.00
\$1,500,000.00	X	3.00	=	\$45,000.00
	X	1.00	=	\$0.00

<b>Structure Loss (Task A.1.)</b>					
Name/Description of Structure	Structure Replacement Value (Step 3) (\$)	X	Percent Damage (Step 4) (%)	=	Loss to Structure (\$)
Veterans Affairs Medical Center		X	6.00	=	\$0.00
Shenandoah Health Services		X	6.00	=	\$0.00
Martinsburg City Hospital	\$2,361,000.00	X	6.00	=	\$141,700.00
Naylor Memorial Library	\$279,000.00	X	2.00	=	\$5,600.00
Martinsburg - Berkeley County Public Library	\$37,000.00	X	6.00	=	\$2,200.00
<b>Total Loss to Structure</b>					<b>\$150,090,900.00</b>

<b>Contents of Loss (Task A.2.)</b>					
Replacement Value of Contents (Step 3) (\$)	X	Percent Damage (step 4) (%)	=	Loss to Contents (\$)	
	X	3.00	=	\$0.00	
	X	3.00	=	\$0.00	
\$965,640.00	X	3.00	=	\$29,000.00	
\$16,000.00	X	1.00	=	\$200.00	
\$43,000.00	X	3.00	=	\$1,300.00	
<b>Total Loss to Contents</b>					<b>\$647,400.00</b>

Structure Use and Function Loss (Task A.3.) Terrorism								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Back Creek Elem		X	2	+		X	1	=	\$0.00	\$33,400.00
Bedington Elem		X	2	+		X	1	=	\$0.00	\$105,700.00
Berkeley Heights Elem		X	2	+		X	1	=	\$0.00	\$228,900.00
Bunker Hill Elem		X	2	+		X	1	=	\$0.00	\$36,900.00
Burke Street Elem		X	2	+		X	1	=	\$0.00	\$29,800.00
Gerrardstown Elem		X	2	+		X	1	=	\$0.00	\$27,000.00
Hedgesville Elem		X	2	+		X	1	=	\$0.00	\$167,400.00
Inwood Primary School		X	2	+		X	1	=	\$0.00	\$95,400.00
Marlowe Elem		X	2	+		X	1	=	\$0.00	\$129,800.00
Opequon Elem		X	2	+		X	1	=	\$0.00	\$222,400.00
Rosemont Elem		X	2	+		X	1	=	\$0.00	\$197,200.00
Tomahawk Elem		X	2	+		X	1	=	\$0.00	\$89,800.00
Tuscarora Elem		X	2	+		X	1	=	\$0.00	\$72,400.00
Valley View Elem		X	2	+		X	1	=	\$0.00	\$217,900.00
Winchester Ave. Elem		X	2	+		X	1	=	\$0.00	\$132,600.00
Hedgesville MS		X	2	+		X	1	=	\$0.00	\$445,100.00
Martinsburg North MS		X	2	+		X	1	=	\$0.00	\$391,200.00
Martinsburg South MS		X	2	+		X	1	=	\$0.00	\$328,900.00
Mussleman MS		X	2	+		X	1	=	\$0.00	\$568,200.00
Mill Creek IS		X	2	+		X	1	=	\$0.00	\$107,700.00
Potomac IS		X	2	+		X	1	=	\$0.00	\$90,400.00
Eagle School IS		X	2	+		X	1	=	\$0.00	\$107,000.00
Orchard View IS		X	2	+		X	1	=	\$0.00	\$107,000.00
Hedgesville HS		X	2	+		X	1	=	\$0.00	\$817,900.00
Martinsburg HS		X	2	+		X	1	=	\$0.00	\$1,084,800.00
Mussleman HS		X	2	+		X	1	=	\$0.00	\$952,500.00
James Rumsey Vo Tech Center		X	2	+		X	1	=	\$0.00	\$599,100.00
Pikeside Pre-Vocational		X	2	+		X	1	=	\$0.00	\$110,600.00



Structure Use and Function Loss (Task A.3.) Terrorism								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Ramer Center		X	2	+		X	1	=	\$0.00	\$108,500.00
Administration Building		X	2	+		X	1	=	\$0.00	\$136,800.00
Maintenance		X	2	+		X	1	=	\$0.00	\$44,100.00
Transportation		X	2	+		X	1	=	\$0.00	\$132,000.00
Mussleman Athletic Facilities		X	2	+		X	1	=	\$0.00	\$78,600.00
Resa VIII Offices		X	2	+		X	1	=	\$0.00	\$104,100.00
Martinsburg City Hall		X	2	+		X	1	=	\$0.00	\$127,500.00
Martinsburg Central Fire Station		X	2	+		X	1	=	\$0.00	\$81,600.00
Martinsburg Westphal Hose Co.		X	2	+		X	1	=	\$0.00	\$21,200.00
Martinsburg Waterworks		X	2	+		X	1	=	\$0.00	\$308,600.00
Martinsburg Animal Shelter		X	2	+		X	1	=	\$0.00	\$3,200.00
Martinsburg Sewer Plant		X	2	+		X	1	=	\$0.00	\$390,700.00
Capitol Cement		X	2	+		X	1	=	\$0.00	\$309,600.00
Red Hill Storage Tank		X	2	+		X	1	=	\$0.00	\$61,800.00
Capitol Heights Storage Tank		X	2	+		X	1	=	\$0.00	\$27,800.00
Western Ave. Storage Tank		X	2	+		X	1	=	\$0.00	\$18,500.00
Old Market House		X	2	+		X	1	=	\$0.00	\$32,300.00
Old Armory Building		X	2	+		X	1	=	\$0.00	\$72,900.00
Olde Sanitation Building		X	2	+		X	1	=	\$0.00	\$17,600.00
Martinsburg City Garage		X	2	+		X	1	=	\$0.00	\$26,300.00
Martinsburg Train Station		X	2	+		X	1	=	\$0.00	\$65,700.00
Adam Stephen Complex		X	2	+		X	1	=	\$0.00	\$72,200.00
War Memorial Park		X	2	+		X	1	=	\$0.00	\$110,300.00
Lambert Park		X	2	+		X	1	=	\$0.00	\$101,600.00
P.O. Faulkner Park		X	2	+		X	1	=	\$0.00	\$3,500.00
Oak Street Park		X	2	+		X	1	=	\$0.00	\$1,500.00
Ambrose Park		X	2	+		X	1	=	\$0.00	\$3,500.00
Parks and Recreation		X	2	+		X	1	=	\$0.00	\$1,400.00
Delmar Orchard Road		X	2	+		X	1	=	\$0.00	\$120,000.00

Structure Use and Function Loss (Task A.3.) Terrorism								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
County Court House		X	2	+		X	1	=	\$0.00	\$120,000.00
Court House Annex #4		X	2	+		X	1	=	\$0.00	\$55,600.00
Emergency Services		X	2	+		X	1	=	\$0.00	\$83,600.00
Magistrate Court		X	2	+		X	1	=	\$0.00	\$64,500.00
Senior Center		X	2	+		X	1	=	\$0.00	\$57,100.00
County Maintenance Facility		X	2	+		X	1	=	\$0.00	\$12,900.00
Central Dispatch		X	2	+		X	1	=	\$0.00	\$2,600.00
Health Department		X	2	+		X	1	=	\$0.00	\$8,500.00
Transmitter		X	2	+		X	1	=	\$0.00	\$700.00
Epoch Building		X	2	+		X	1	=	\$0.00	\$116,800.00
Poor House Farm		X	2	+		X	1	=	\$0.00	\$15,000.00
County Office Building #1		X	2	+		X	1	=	\$0.00	\$82,500.00
County Office Building #2		X	2	+		X	1	=	\$0.00	\$46,000.00
Animal Control Center		X	2	+		X	1	=	\$0.00	\$1,700.00
Morgan Cabin Museum		X	2	+		X	1	=	\$0.00	\$1,100.00
Hedgesville Park		X	2	+		X	1	=	\$0.00	\$1,600.00
South Berkeley Park		X	2	+		X	1	=	\$0.00	\$800.00
Water Street Facilities		X	2	+		X	1	=	\$0.00	\$169,700.00
Historic Marker (Bender Property)		X	2	+		X	1	=	\$0.00	\$0.00
Historic Marker (Providence Quaker Cemetery)		X	2	+		X	1	=	\$0.00	\$0.00
Court Complex.		X	2	+		X	1	=	\$0.00	\$1,266,000.00
Runnymede Road		X	2	+		X	1	=	\$0.00	\$124,400.00
Kelly Island		X	2	+		X	1	=	\$0.00	\$7,700.00
Old Quarry Road		X	2	+		X	1	=	\$0.00	\$3,200.00
Route 51 West		X	2	+		X	1	=	\$0.00	\$57,000.00
N/E Side Rt. 9 Near Co. Line		X	2	+		X	1	=	\$0.00	\$1,800.00
Glenwood Forest Subdivision		X	2	+		X	1	=	\$0.00	\$21,900.00
Specks Run Road		X	2	+		X	1	=	\$0.00	\$25,700.00
Liberty Buisness Park		X	2	+		X	1	=	\$0.00	\$35,000.00

Structure Use and Function Loss (Task A.3.) Terrorism								Structure Loss + Content Loss + Function Loss (\$)		
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)		=	Structue Use & Function Loss (\$)
Rt. 11 Near Pikeside		X	2	+		X	1	=	\$0.00	\$3,200.00
Rockefeller Science Center		X	2	+		X	1	=	\$0.00	\$33,900.00
768 Williamsport Pike		X	2	+		X	1	=	\$0.00	\$100.00
General Motors		X	2	+		X	1	=	\$0.00	\$36,800.00
Duke Road		X	2	+		X	1	=	\$0.00	\$55,400.00
268 Treat Water Road		X	2	+		X	1	=	\$0.00	\$273,600.00
207 Mary Street		X	2	+		X	1	=	\$0.00	\$6,900.00
Ben Speck Road		X	2	+		X	1	=	\$0.00	\$10,500.00
Church Street		X	2	+		X	1	=	\$0.00	\$12,300.00
E/S Ridge Road		X	2	+		X	1	=	\$0.00	\$12,200.00
Route 901, East of HMS		X	2	+		X	1	=	\$0.00	\$800.00
Rt. 9, 1/2 Mile East of Texaco		X	2	+		X	1	=	\$0.00	\$800.00
Rt.9, Near James Rumsey		X	2	+		X	1	=	\$0.00	\$4,800.00
Rt. 9, Near Fort Hill Subdivision		X	2	+		X	1	=	\$0.00	\$800.00
71 and 83 Monroe Street		X	2	+		X	1	=	\$0.00	\$1,900.00
Multiple Locations		X	2	+		X	1	=	\$0.00	\$7,500.00
Roads		X	2	+		X	1	=	\$0.00	\$102,900,000.00
Railroads		X	2	+		X	1	=	\$0.00	\$10,200,000.00
Bridges		X	2	+		X	1	=	\$0.00	\$18,180,000.00
Airport Facilities		X	2	+		X	1	=	\$0.00	\$1,080,000.00
Airport Runways		X	2	+		X	1	=	\$0.00	\$5,040,000.00
WV State Police	\$1,800.00	X	2	+	\$1,800.00	X	1	=	\$5,400.00	\$17,400.00
Berkeley Sheriffs Dept.	\$5,900.00	X	2	+	\$5,900.00	X	1	=	\$17,700.00	\$97,700.00
Martinsburg Police Dept.		X	2	+		X	1	=	\$0.00	\$0.00
Back Creek Valley Fire Dept.		X	2	+		X	1	=	\$0.00	\$0.00
Baker Heights VFD		X	2	+		X	1	=	\$0.00	\$0.00
Bedington VFD		X	2	+		X	1	=	\$0.00	\$0.00
Hedgesville VFD		X	2	+		X	1	=	\$0.00	\$0.00
Martinsburg Fire Dept.	\$5,450.00	X	2	+	\$5,450.00	X	1	=	\$16,350.00	\$157,350.00
South Berkeley VFD		X	2	+		X	1	=	\$0.00	\$0.00

Structure Use and Function Loss (Task A.3.) Terrorism										
Name/Description of Structure	Average Daily Operating Budget (Step 3) (\$)	X	Functional Downtime (Step 4) (# of days)	+	Displacement Cost per Day (Step 3) (\$)	X	Dplacemetnt Time (Step 4) (\$)	=	Structue Use & Function Loss (\$)	Structure Loss + Content Loss + Function Loss (\$)
Veterans Affairs Medical Center		X	2	+		X	1	=	\$0.00	\$0.00
Shenandoah Health Services		X	2	+		X	1	=	\$0.00	\$0.00
Martinsburg City Hospital	\$3,500.00	X	2	+	\$3,500.00	X	1	=	\$10,500.00	\$181,200.00
Naylor Memorial Library		X	2	+		X	1	=	\$0.00	\$5,800.00
Martinsburg - Berkeley County Public Library		X	2	+		X	1	=	\$0.00	\$3,500.00
<b>Total Loss to Structure Use &amp; Function</b>									<b>\$49,950.00</b>	<b>\$150,788,250.00</b>