REGION 9 PLANNING & DEVELOPMENT COUNCIL

Multi-Jurisdictional Hazard Mitigation Plan
for Berkeley and Morgan Counties

REGION 9 PLANNING & DEVELOPMENT COUNCIL

HAZARD MITIGATION PLAN

RELEASED 2012

FOR BERKELEY AND MORGAN COUNTIES AND THE MUNICIPALITIES THEREIN

REGION 9 PLANNING AND DEVELOPMENT COUNCIL
HAZARD MITIGATION PLAN
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SECTION 1.0

INTRODUCTION

Section 1.0 provides introductory material for the regional Hazard Mitigation Plan (HMP). This section presents an overall purpose statement, documents the process used to develop the plan, and describes the planning area in detail.

1.1 PURPOSE STATEMENT

This multi-jurisdictional hazard mitigation plan has been completed in accordance with Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as enacted by Section 104 of the Disaster Mitigation Act of 2000. The guidelines for the completion of this plan appear in the Code of Federal Regulations (CFR) under Title 44: Emergency Services, Part 201.6. The West Virginia Division of Homeland Security and Emergency Management (WVDHSEM) further monitored the planning process. Funding for the project was distributed by the WVDHSEM under the Pre-Disaster Mitigation (PDM) program.

The Region 9 Planning & Development Council (PDC) acted as the lead agency for the completion of this plan. Originally, the PDC assisted its member governments in completing HMP requirements circa 2003. Later, between 2007 and 2009, the PDC assisted these same member governments with updates to their plans. Finally, to consolidate the plans and ensure a level of consistency between the counties, the PDC contracted the creation of this document out; it was completed between March, 2011, and October, 2011.

The *Region 9 Multi-Jurisdictional Hazard Mitigation Plan* is considered “multi-jurisdictional” for several reasons. In addition to the two (2) county governing bodies, all 4 municipal member governments participated in the data compilation and action plan development through the efforts of individual county offices of emergency management and the PDC. All municipalities are represented by at least one (1) project in the action plan. Further, all government entities in Region 9 formally adopted the plan by resolution.

It is significant to note that this document mimics the all-hazards approach that the local emergency management community takes as part of its regular operation. Such a decision was considered prudent because county-level emergency management offices throughout Region 9 are the ones charged with the maintenance and implementation (at a coordinating level) of many of the strategies listed in this plan. As such, this document assumes that the responsibility for mitigation activities rests with the

lowest affected jurisdictional level, which is also consistent with the National Incident Management System (NIMS).

A number of documents were utilized as resources throughout the development of the Hazard Mitigation Plan (HMP). References to these documents are, at times, direct and cited; other references are indirect and implied. This paragraph serves to formally recognize these documents.

- *Berkeley County Multi-Jurisdictional Hazard Mitigation Plan*
- *Morgan County Multi-Jurisdictional Hazard Mitigation Plan*
- *Berkeley County Emergency Operations Plan*
- *Morgan County Emergency Operations Plan*
- *Region 9 Regional Development Plan Update, Comprehensive Economic Development Strategy (CEDS) 2010 Annual Report*

Organization of the Plan

This plan has been organized in a way that both follows the federal criteria for hazard mitigation plans and is user-friendly.

- **Section 1.0: Introduction:** Describes the process used to develop the plan as well as profiles the planning area.
- **Section 2.0: Risk Assessment:** Identifies and profiles the hazard risks most probable throughout the region. This section also analyzes the regional implications of the risks (i.e., how does an occurrence of a hazard in one county affect the neighboring county). *NOTE: Hazard profiles contain averaged loss estimates. Such estimates are based on the county-specific loss estimates (and asset inventories), which are developed and maintained separately by individual jurisdictions.
- **Section 3.0: Mitigation Strategy:** Identifies mitigation projects to be undertaken by the member governments in the region. Again, the regional implications of implementing these projects are examined.
- **Section 4.0: Plan Maintenance Process:** Identifies the process by which the member governments plan to update their own mitigation efforts as well as how this document is to be maintained.

1.2 DOCUMENTATION OF THE PLANNING PROCESS

§201.6(b) and 201.6(c)(1)	An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include: (1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval; (2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process; and (3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information. [The plan shall 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.

To guide the completion of this plan, a multi-jurisdictional core planning team was established (see "Planning Process" below). This team was guided by the "regional council" (whose composition includes local government and private sector members). The regional council is comprised of the following:

- Joe Anderson – Mayor of Harpers Ferry
- Jim Auxer – Mayor of Shepherdstown
- Guy Avey, III – Berkeley County Appointee
- Mark Baldwin – City of Martinsburg Appointee
- Mary Sue Catlett – Mayor of Hedgesville
- Bill Clark – Morgan County Appointee
- David Clark – Town of Paw Paw Elected Appointee
- Nic Diehl – Berkeley County Appointee
- Stacy Dugan – Morgan County Commissioner
- David Hamill – Mayor of Ranson
- Robert Hardy – Mayor of Bolivar
- Louis Herrell – Morgan County Appointee
- George Karos – Mayor of Martinsburg
- Kevin Knowles – City of Martinsburg Appointee
- Kathy Mason – Berkeley County Appointee

- Neil McLaughlin – Berkeley County Appointee
- Patsy Noland – Jefferson County Commissioner
- John Overington – Berkeley County Appointee
- John Reisenweber – Jefferson County Appointee
- Peggy Smith – Mayor of Charles Town
- Chris Strovel – Berkeley County Appointee
- Bill Stubblefield – Berkeley County Council Person
- Susan Webster – Mayor of Bath (Berkeley Springs)

PLANNING PROCESS – CREATION OF THE REGIONAL DOCUMENT

Overview

Each county worked with the municipalities within their county, the county commission, county departments, local businesses and the general public to complete their original hazard mitigation plans and each plan's most recent update. In order to create a regional format, each section was reviewed and utilized as necessary. The work in each county was performed to develop plans that would 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 counties.

Each member of a county's Hazard Mitigation Committee (HMC), was identified as a project stakeholder, and was responsible for the development and implementation of the plan. In addition to county personnel, businesses and citizens working on the plan, consultants were used to assist in completing the plan. Local media was used to communicate work being perform on the plans to the general public. Comments and input received during the development of the plan was included in the final version of the approved plans. This plan will consolidate regional hazards wherever possible. Hazards unique to a specific part of the region are also included to create a comprehensive plan for the entire region.

Stakeholders for each county's original plan and the county's most recent update are listed below. It should be noted that for Berkeley and Morgan Counties the counties and communities participated in this regional effort. From previous plans to the current regionalization undertaking all communities and counties except Jefferson County

participated in this plan's development. This was accomplished by each community and the counties sending representatives to meetings held during the planning process to act as stakeholders. However, Jefferson County and its communities did not participate in this region plan. Jefferson County will continue with their individual county plan.

The Region 9 Planning and Development Council led development of this plan, reviewing each section looking for old data that needed to be replaced, and including any changes per section if any, with the assistance of the West Virginia Division of Homeland Security and Emergency Management and the individuals listed below.

County Commissions and local Community Councils from Bath, Berkeley Springs, Martinsburg, and Hedgesville, acknowledge the creation of this plan and have provided invaluable information throughout the drafting stages.

Berkeley County

The Berkeley County 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 following organizations:

- Berkeley County Commission
- Berkeley County Office of Emergency Services
- The Town of Hedgesville
- The City of Martinsburg
- Berkeley County Development Authority
- Berkeley County Fire Board
- Berkeley County Ambulance Authority
- *The Journal* (local newspaper)
- *The Herald-Mail* (local newspaper)

Morgan County

The Morgan County Commission created a Hazard Mitigation Committee (HMC), known as project stakeholders, to be responsible for the development and implementation of the plan. This regionalization serves as Morgan County's first Hazard Mitigation Plan update. The committee included representatives from the following organizations:

- Morgan County Planning
- Morgan County EMS
- Town of Paw Paw
- Town of Bath
- Region 9 Planning and Development
- Morgan County Commission

These organizations had various individuals participating in developing the plan. The general public was also able to review the final draft of the plan and make comments before it was formally adopted. The two local newspapers, *The Journal* and the *Herald-Mail*, kept the general public informed of the project as it was being carried out. Some individuals from the above participated in developing this plan:

Name	**Organization**
Steve Allen	Berkeley County Office of Homeland Security & Emergency Mgmt.
Howard Strauss	Berkeley County Commission
Steve Teufel	Berkeley County Commission
Mary Beth Good	Mayor Town of Hedgesville
George Karos	Mayor City of Martinsburg
Michael Covell	City of Martinsburg, Engineer
Bob Crawford	Berkeley County Development Authority
David A. Michael	Director, Office of Morgan County Emergency Services
Alma E. Gorse	County Planner Morgan County, WV
Robert Ford	County Commissioner Morgan County, WV
Bill Clark	County Administrator Morgan County, WV
Susan Webster	Mayor Town of Bath
Julie Kidwell	Mayor Town of Paw Paw
Don Dirting	Eastern Panhandle Conservation District

For this Regionalized plan these individuals were consulted again and provided information, but did not necessarily attend meetings which were to primarily obtain comments from the general public. It should be noted that commentaries provided by the public have been incorporated into this plan as appropriate. Comments from the stakeholders identified have also been incorporated into the plan as necessary, but their input is more of an informational nature.

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. Consulting firms were used to 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 region. 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 was further involved in the process as information was gathered from each of the county's assets to complete loss estimates. The county's contractors contacted representatives from each of these assets, explaining the process and collecting ideas.

HAZUS-MR3 was also used to produce estimates of damages from flooding. Although it is a level 1 analysis it provides general insight into areas that are expected to receive the most damage from a flood. The data is included in Appendix A for reference. The data used for this analysis is from the 2000 census and has not been updated yet as the 2010 census data was not available at the time the analysis was performed.

During the planning process, each county used a variety of sources to identify hazards, evaluate risks and to develop the individual county plans. These individual county efforts provided the necessary information for this plan. The counties used many sources, listed below are examples of sources used to develop this plan:

- County Comprehensive Plans
- Prior Hazard Mitigation Plans
- County Capital Improvement Plans
- Local ordinances and regulation related to flooding, land use and erosion control
- FEMA technical documents related to
    - FIRMS to identify flood areas
    - Severe weather data
    - Sinkholes and landslide data

- American Red Cross studies
- NOAA event records
- National Weather Service data
- U.S. Geological Survey mapping information
- WV State Police regarding terrorism and weapons of mass destruction
- HAZUS MR3 Analysis

By using these sources, this plan will complement existing county plans and ordinances. The plan will incorporate relevant factors from experts in their fields, including: FEMA, NOAA, DHS, NWS and other federal and state agencies.

Following the completion of the risk assessment, each county's assessment committee used information such as hazard profiles and loss estimations to formulate mitigation goals, objectives, and strategies. For this phase of the project, the committees met to discuss baseline strategies. Flood data is based on the HAZUS data made available by the State.

The baseline mitigation strategies were presented to the public to ensure the fair participation of all sectors of the county. Attendees to these meetings provided valuable insight that was used in the development of each county's plan. These meetings 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 each county's residents as to the status of the plan.

1.3 REGION PROFILE

Region 9 Planning & Development Council (PDC) is comprised of a total of 6 member governments, two (2) of which are counties and four (4) of which are municipalities. Table 1.3.1 lists the member governments.

Table 1.3.1

NAME	TYPE	COUNTY
Berkeley	County	N/A
Morgan	County	N/A
Martinsburg	City	Berkeley
Hedgesville	Town	Berkeley
Bath (Berkeley Springs)	Town	Morgan
Paw Paw	Town	Morgan

Throughout the Region Profile section, Census 2010 data is used where available. For example, in the "Demographics" subsection below, 2010 population data was available and was used. In other areas (e.g., "Economy" subsection), certain employment figures using 2010 had not been calculated at the time this plan was completed. Some of those figures were based on 2000 Census data; others were based off of mid-decade estimates. In all instances, the appropriate year of the data is noted.

Transportation

The transportation network of the Region 9 area includes four (4)-lane, divided highways, two (2)-lane roadways, and single-lane roadways. The primary transportation routes through Region 9 are as follows:

- Interstate 81
- US Route 11
- US Route 522
- US Route 220

Several state routes also serve as secondary transportation routes. The roadways are largely well-maintained two (2)-lane highways; they are, however, somewhat more rural than the routes listed as "primary".

Economy

In both counties, the economy (i.e., local work force) is driven by government and the trade, transportation, and utilities industries. Other industries with significant work forces vary considerably from county to county. The other common industry in both counties is "manufacturing" (which ranks fourth in both Berkeley and Morgan Counties). Table 1.3.2 shows the top four (4) industries in each county, with the number of individuals employed by each.

Table 1.3.2

Top Industries by Jurisdiction				
County	*INDUSTRY 1 Name (#)*	*INDUSTRY 2 Name (#)*	*INDUSTRY 3 Name (#)*	*INDUSTRY 4 Name (#)*
Berkeley	Government (8,760)	Trade, Transportation, Utilities (5,370)	Education & Health Services (3,830)	Manufacturing (2,240)
Morgan	Government (870)	Trade, Transportation, Utilities (450)	Other Services (250)	Manufacturing (190)

Source: WVBEP

Figures 1.3.1 through 1.3.5 depict the non-farm employment in each county as of August, 2011.

Figure 1.3.1 – Berkeley County

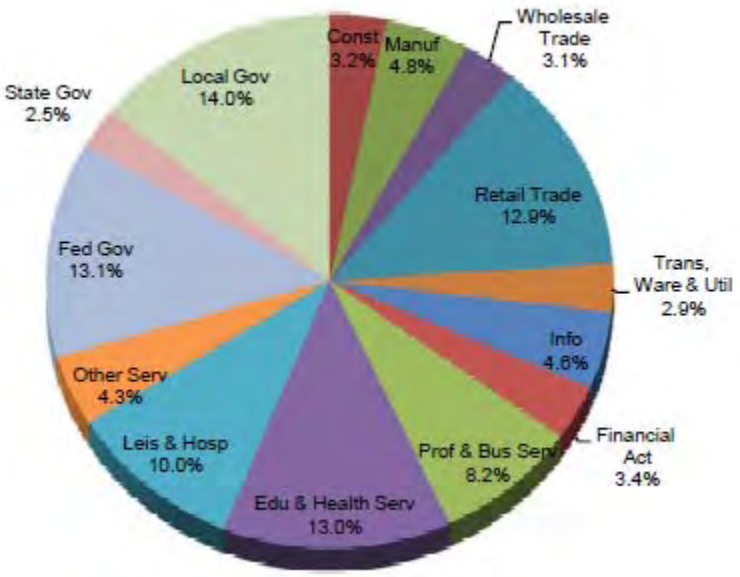
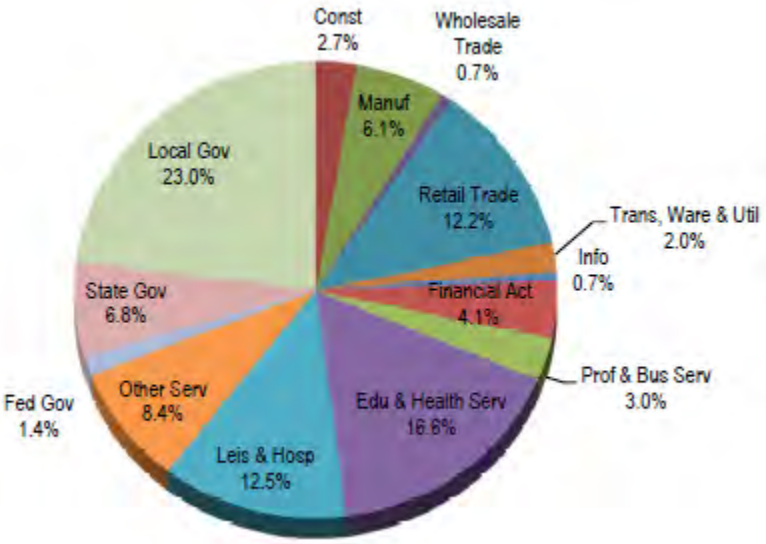


Figure 1.3.2 – Morgan County



Both Berkeley and Morgan counties have available space for development, primarily commercial/business but also some space for industrial development. Both counties employ Economic Development Authorities (EDAs) that work to bring

development and jobs to the counties. The top employers, by jurisdiction, are as follows (*Source: WV Bureau of Employment Programs*).

- Berkeley County
  - Berkeley County Board of Education
  - Department of Veterans Affairs, Duty Station Martinsburg
  - City Hospital, Inc.
  - U.S. Department of Treasury
  - Quad/Graphics, Inc.

- Morgan County
  - Morgan County Board of Education
  - Valley Health System
  - Dayspring, Inc.
  - West Virginia Division of Natural Resources
  - Caperton Furnitureworks, LLC

Additionally, the Region 9 area sees a high percentage of its workforce work in other states, which is not surprising considering the region borders both Maryland and Virginia. Further, the region is considered as the outlying portions of the National Capital Region (NCR). According to the West Virginia Department of Commerce, the following estimated numbers of workers commute to another state for employment.

- **Berkeley County:** 12,204
- **Morgan County:** 2,840

DEMOGRAPHICS

Demographic data has been consolidated based on Census data from each of the counties unless otherwise noted.

Population

The population of the area represented by the Region 9 PDC is 121,710 according to 2010 Census data. A breakdown by counties is shown in Figure 1.3.3 (*Source: US Census Bureau*). Generally speaking, the majority of the population is located in the eastern portion of the region. Such a figure could be expected given the presence of such larger municipal areas as Hagerstown (MD) and Winchester (VA) as well as this area's designation as part of the NCR.

Housing

As with population, it is not surprising to see that counties with a more robust transportation infrastructure have a higher number of housing units. What is also interesting to note is that the majority of these housing units are along the major transportation routes throughout the region. There are over 54,000 housing units in the region. On average, 73.4% of residents in the region own their own homes. (The average median value of housing is $180,400.)

. Table 1.3.3 provides a more detailed overview of the housing characteristics in each one of the counties (*Source: US Census Bureau, 2010*).

Table 1.3.3

Demographic	*Berkeley*	*Morgan*
Housing Units	44,762	9,753
Owner Occupied	33,840	6,944
Renter Occupied	10,922	2,809
Ownership Rate	75.6%	71.2%
Median Value	$193,700	$167,100

UTILITIES

Utilities are provided by many different companies. Infrastructure provider breakdowns are as follows.

- Berkeley County
  - **Electricity:** Potomac Edison
  - **Natural Gas:** Mountaineer Gas
  - **Water:** Berkeley County Public Service Water District, City of Martinsburg, Valley Water and Sewer

- **Sewer:** City of Martinsburg, Berkeley County Public Service Sewer District
- **Telephone:** Frontier Communications
- Wireless carriers are AT&T, US Cellular and some Sprint. There are some areas where service is virtually non-existent.

- Morgan County
  - **Electricity:** Potomac Edison
  - **Telephone:** Frontier Communications
  - Wireless carriers are AT&T, US Cellular and some Sprint. There are some areas where service is virtually non-existent.

ANALYZING DEVELOPMENT TRENDS: CURRENT AND FUTURE LAND USE

§201.6(c)(2)(ii)(C)	[The plan should describe vulnerability in terms of] providing a general discussion of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.

The region has seen significant development in recent years as a part of the National Capital Region (NCR). As such, the potential for development is likely to continue. The proximity of the Interstate 81 and 70 corridors have helped to drive this development of the region.

Topography often drives development to flatter areas which are often in or near floodplains in mountainous areas, such as the western portion of the region. Local floodplain development regulations carefully balance the needs for economic development and growth in the employment sector with a basic responsibility to buffer potential and existing businesses from the effects of hazards. All counties indicated that the majority of the commercial and industrial development in their counties is located in or near the municipalities. Several development sites have been established along the primary roadways throughout the region.

Recently, the jurisdictions throughout the region have been pursuing a number of infrastructure projects. Examples of recent infrastructure projects include, the widening of Interstate 81 from the Virginia to the Maryland state lines being initiated. Once completed, this project will result a six lane cross section of the Interstate 81 corridor throughout the region. 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. Long term plans have been proposed to widen and realign WV SR 9 highway corridor west from I-81 to US Route 522 at Berkeley Springs and the US Route 522 corridor between Virginia and Maryland state lines. All of these projects, while not directly considered a "mitigation" effort, help these jurisdictions strengthen their transportation infrastructure. These projects can promote an influx of commerce while offering viable egress routes if needed in time of disaster and help maintain self-sufficiency for greater periods of time.

Each participating county and a number of municipal jurisdictions are planning various types of projects, ranging from water/sewer to recreation to education to job

creation efforts. The Region 9 PDC maintains a list of these projects in its Comprehensive Economic Development Strategy (CEDS). Summaries of these projects are listed in Tables 1.3.4 through 1.3.8 below.

Table 1.3.4

2011	pendix A - Consolidated Project List										
Rank	**Project Name**	**Applicant Name**	**Applicant County**	**Potential Funding Source**	**Goals**	**Project Type**	**Stage of Development**	**Project Impacts**	**Time Frame**	**Costs**	**Score**
#1	**Mandate/Unfunded Infrastructure**										
1	Wastewater Treatment Plant Facility Plan	City of Martinsburg	B	IJDC	2	1	Planning	EN,CD	S/L	$45,000	60
1	Wastewater Treatment and Collection System Upgrade Flowing Springs and	Charles Town Utility Board	J	CWSRF, IJDC	2	1	Planning/ Preliminary Engineering/ Architecture Completed	EN,CD	L	$17,500,000	60
1	WWTP Nutrient Removal Upgrades/ Improvements	Berkeley County Public Service Sewer District	B	IJDC	2	1	Planning/ Preliminary Engineering/ Architecture Completed	EN.CD	S/L	$45,000,000	60
#2	**Bridges/Road Infrastructure**										
1	I-81 Industrial Park / Corning Way	Berkeley County Developmen t Authority	B		3	2	Planning/ Preliminary Engineering/ Architecture Complete/ Environmental Assessment Completed / Cost Estimates Completed	BR,ED,TR,E ,CD	S	$1,350,000	58
2	Cumbo Yard / Caperton Blvd Uprgrade	Berkeley County Developmen t Authority	B	IAR	3	2	Planning/Final Engineering/ Architecture Complete/ Environmental Assessment Completed / Cost Estimates Completed	BR,ED,TR,E ,CD	S	$400,000	57
3	Convention Center–Education/ Medical/Business Complex	Berkeley County Developmen t Authority	B	DOT	5,3	2	Planning/Final Engineering/ Architecture Complete/ Environmental Assessment Completed / Cost Estimates Completed	CD, ED,TR,E	L	$14,600,000	54
4	US 522 and Fairview Drive Connector Road	Morgan County Developmen t Authority	M		3	2	Planning/ Preliminary Engineering Cmpleted	BR,ED,TR,E ,CD	S	$9,000,000	53

Table 1.3.5

2011	pendix A - Consolidated Project List										
Rank	**Project Name**	**Applicant Name**	**Applicant County**	**Potential Funding Source**	**Goals**	**Project Type**	**Stage of Development**	**Project Impacts**	**Time Frame**	**Costs**	**Score**
5	Tabler Station Business Park/Infrastructure Improvements	Berkeley County Developmen t Authority	B	DOT	5	2	Planning/Final Engineering/ Architecture Complete/ Environmental Assessment Completed / Cost Estimates Completed	CD,TR,ED,E	L	$11,900,000	46
6	West End Traffic Safety Improvement (RT.51 and Summit Point Road RT.13 Intersection)	City of Charles Town	J	DOT, FWHA TEA, Annual Approps., CIP	5	2	Planning/ Preliminary Eningeering/ Architecture	TR	L	$2,100,000	45
7	Raleigh Street Extension	City of Martinsburg	B	WVDOT	5	2	Funded	CD,TR	L	$38,000,000	43
7	Gateway Revitalization Project	City of Charles Town	J	WVDOT	5	2	Funded	CD, TR	S	$4,000,000	43
7	Paving of Roads	Town of Bath	M	DOT	5	2	Planning/Final Engineering/ Architecture Complete/ Environmental Assessment Completed / Cost Estimates Completed	TR	S	$54,000	43
8	Ranson-Charles Town Green Corridor Revitalization	City of Ranson	J	WVDOT	5	2	Planning	CD, TR	S	$1,400,000	41
8	Old Town Gateway Corridor Revitalization-Mildred St	City of Ranson	J	WVDOT	5	2	Planning	CD, TR	L	$1,500,000	41
9	Route 522 Bypass	Morgan County	M	WVDOT	5	2	Planning complete	TR	L	$90,000,000	38
10	East Burke Street Bridge Renovations	City of Martinsburg	B	WVDOT	1,5	2	Planning/ Preliminary Engineering/Ar chitecture	TR	S	$500,000	35

Table 1.3.6

2011	pendix A - Consolidated Project List										
Rank	**Project Name**	**Applicant Name**	**Applicant County**	**Potential Funding Source**	**Goals**	**Project Type**	**Stage of Development**	**Project Impacts**	**Time Frame**	**Costs**	**Score**
11	Across from The Commons(Rt45) –Service Road	Berkeley County Developmen t Authority	B	DOT	5	2	Planning	CD, EN, TR	L	$17,300,000	33
#3	**Water/Sewer/Storm Water Infrastructure**										
1	Inwood Land Drainage and Water Quality Project	Berkeley County Public Service Sewer District	B	IJDC,Public	2	3	Planning/Final Engineering/ Architecture Complete/ Environmental Assessment Completed / Cost Estimates Completed	EN, CD, FM	S/L	$32,000,000	57
2	Potomac Station Well Pumps, etc. from Well Field to Potomac River WTP	Berkeley County Public Service Water District	B	Private Bond Issue Proceeds	2	3	Planning/Final Engineering/ Architecture Complete/ Environmental Assessment N/A	EN	S	$1,708,200	47
3	Springdale Farm Filtration Facility	Berkeley County Public Service Water District	B	IJDC	2	3	Planning/ Final Engineering/ Architecture Completed/ Local Funds Commited	EN, CD	L	$2,126,700	46
4	Berkeley Station 24" and 30" Water Main	Berkeley County Public Service Water	B	IJDC	2	3	Permitted; Engineering Design Complete	EN, CD	S	$3,900,000	45
5	Water Treatment and Distribution System Upgrade	Charles Town Utility Board	J	IJDC	2	3	Planning/ Preliminary Engineering/Ar chitecture Completed	EN,CD	L	$13,000,000	44
6	Blue Ridge Mountain Water Project	Jefferson Utilities, Inc./Jefferso n County PSD	J	Public/ Private/IJDC	2	3	Planning Preliminary Engineering	EN, CD	S	$16,200,000	43
6	Thatcher Road 24" Water Main	Berkeley County Public Service Water	B	IJDC	2	3	Planning/ Final Engineering/Ar chitecture Completed	EN, CD	L	$3,900,000	43
6	Grubb Corner Water Tank	Berkeley County Public Service Water District	B	IJDC	2	3	Final Engineering/ Archetecture Complete, Environment Assessment Complete	EN, CD	L	$2,900,000	43
7	522 Busines Park water and Sewer Systems Improvements	Morgan County Economic Developmen	M	WVDO grants	2	3	Planning	EN, ED, BR	S	$300,000	42

Table 1.3.7

2011	pendix A - Consolidated Project List										
Rank	**Project Name**	**Applicant Name**	**Applicant County**	**Potential Funding Source**	**Goals**	**Project Type**	**Stage of Development**	**Project Impacts**	**Time Frame**	**Costs**	**Score**
8	Water System Project	Town of Harpers Ferry	J	DHHS	2	3	Planning Preliminary Engineering	EN, CD	L	$2,998,000	41
8	Sewer Grinding Station Improvements, replace and upgrade lines - Sewer Project: 2005S-888	Town of Paw Paw	M	IJDC, SCBG	2	3	SCBG funded for Design Phase	CD, EN	S	$2,000,000	41
9	Upgrade Wastewater Treatment Plant Project #2006S-928	Town of Harpers Ferry/Bolivar PSD	J	IJDC - CWSRF Loan	2	3	Funded	EN, CD	L	$696,412	39
10	Washington Street Drainage Improvements(Harpers Ferry)	Corporation of Harpers Ferry	J		2	3	Planning/Final Engineering/ Architecture Complete	EN	S	$281,00.00	38
10	Washington Street Drainage Improvements(Bolivar)	Corporation of Bolivar	J		2	3	Planning/Final Engineering/ Architecture Complete	EN	S	$141,365	38
11	Glen Haven Water System Improvements	Jefferson County Public	J		2	3	In Planning	EN,CD	S	$1,600,000	37
12	Alternative Water Source	Morgan County EDA	M	IJDC	2	3	Planning Preliminary Engineering	EN,CD	S	$40,000	36/37
13	Rt 522 Corridor Sewer Extension	Warm Springs PSD/EDA	M	LA	2	3	Planning	EN,CD	S/L	$1.5 Million	34
14	Drinking Water Tanks for Mountain Communities	Jefferson County Commission	J		2	3	Planning	CD	S		N/A
#4	**Public/Safety Buildings**										
1	Ice House Project	Morgan County Commission	M		2	4	Planning/Final Engineering/ Architecture Complete/ Environmental Assessment Completed / Cost Estimates Completed	BR,CD,ED	S	$300,000	49

Table 1.3.8

2011	pendix A - Consolidated Project List										
Rank	**Project Name**	**Applicant Name**	**Applicant County**	**Potential Funding Source**	**Goals**	**Project Type**	**Stage of Development**	**Project Impacts**	**Time Frame**	**Costs**	**Score**
2	New Hospital Campus	Morgan County Developmen t Authority	M	Privately Funded	2	4	Under Construction	BR,CD,E, ED	L	$17,000,000	48
3	Old War Memorial Hospital and Property Development	Morgan County Economic Developmen t Authority	M		2	4	In Planning	BR,CD,ED	S	$30,000	40
4	Administrative/ Maintenance Facility	Berkeley County Public Service Water District	B	Private Revenue Bonds	2	4	Planning Preliminary Engineering/ Local Funds Committed	CD	L	$3,945,000	37
5	New Safety/Public Building	Berkeley County	B		2	4	Planning Engineering/ Environmental Assment Complete	CD	L	$14,000,000	36
6	Senior Center/Health Department	Morgan County Commission	M	SCBG, USDA	2	4	SCBG Application Pending/ Some Funding Secured	CD	L	$500,000	35
7	City Hall Energy Efficiency Grant	City of Martinsburg	B	EEG	2	4	Planning/ Preliminary Engineering/ Cost Estimates/Final Engineering Plans	CD,EN	S	$1,100,000	33
8	Jefferson County Judicial Center	Jefferson County Commission	J		2	4	Planning/ Preliminary Engineering / Local Funds Committed	CD	S	$9,650,000	32
9	Renovation of Charles Washington Hall Multi-Modal Transportation Center	City of Charles Town	J	FWHA TEA, Annual Approps., EDI, Scenic Byways, CIP	2	4	Planning	TR,T, E	L	$3,400,000	31
10	Community Service Center/Green Street Renovations	Morgan County	M	SCBG, USDA	2	4	Planning	CD, EN	S	$200,000	29
11	Police Department Replacement Facility	City of Charles Town	J	DOJ, DHHS, USDA	2	4	Planning On Hold	CD	L	$1,000,000	28
11	City Hall/Police Headquarters/ Judicial Complex Project	City of Martinsburg	B		2	4	Planning On Hold	CD	L	$8,000,000	28

2011	pendix A - Consolidated Project List										
Rank	**Project Name**	**Applicant Name**	**Applicant County**	**Potential Funding Source**	**Goals**	**Project Type**	**Stage of Development**	**Project Impacts**	**Time Frame**	**Costs**	**Score**
11	West Side I-81 Police & Fire/EMS Multipurpose Building	City of Martinsburg	B	ARRA	2	4	Planning On Hold	CD	L	$5,000,000	28
12	CSX Lot - Municipal Center	Town of Bath	M	Brownfields	2	4	Planning	CD	L	$150,000	25
13	Brownfields - Crawford Building	Berkeley County	B	Brownfields	2	4	Planning	CD	L	unknown	22
13	Morgan County Animal Control Facility	Morgan County Commission	M		2	4	In Planning		S	$150,000	22
14	Library Project	Shepherdstown	J	Brownfields	2	4	Planning	CD	L	unknown	21
#5	**Rail/Trail and Streetscape**										
1	Streetscape, Potomac Street Project	Corporation of Harpers Ferry	J			5	Planning Complete	EN,CD	L	$310,000	25
2	Gateway & Wayfinding Signage System	City of Martinsburg	B	Local	5	5	Final Engineering/ Architecture Completed	TR	S	$350,000	23
2	Downtown Plan: Town Square Project	City of Martinsburg	B	DOT	2	5	Funded	CD, TR	S	$1,600,000	23
2	3rd Ave Streetscape Part of Ranson CBD Revitalization	City of Ranson	J	DOH,LA, NP	5	5	Funded	CD,EN	S	$359,745	23
2	5th Avenue Extended Streetscape Improvement Project	City of Ranson	J	ARRA/DOT LA, NP	5	5	Funded	CD, EN,TR	S	$625,000	23
3	Washington Street Streetscape Enhancements, Phase III	City of Charles Town	J	FWHA TEA, Annual Approps.	5	5	Planning/ Preliminary Engineering/Architecture Completed	TR	L	$3,000,000	22
3	Streetscape-Phase II and Phase III	Town of Bath	M	TEP	5	5	Planning	TR	L	$750,000	22

2011	pendix A - Consolidated Project List										
Rank	**Project Name**	**Applicant Name**	**Applicant County**	**Potential Funding Source**	**Goals**	**Project Type**	**Stage of Development**	**Project Impacts**	**Time Frame**	**Costs**	**Score**
3	Armory Wall, Potomac Street	Corporation of Harpers Ferry	J			5	Planning Complete	EN	L	$450,000	22
4	North Berkeley Community Park / North Berkeley Rail Trail Project	Morgan County EDA	M	LA, NP	5	5	Planning, Design Complete	CD	L	$350,000	20
5	Road Signs	Morgan County	M	EDA,WVEDA,LA	5	5	Planning	TR	S	$50,000	18
5	Paw Paw Rails to Trails	Morgan County	M	DOT	5	5	Partially Funded	T,EN,CD	L	$3-4,000,000	18
6	Edwin Miller Boulevard – Walking paths between businesses West of Rt 9 and I- 81	Berkeley County Development Authority	B	DOT	5	5	Planning/ Preliminary Engineering/ Architecture Completed	CD, EN, TR	L	$582,000	15
7	Route 9 Bikepath Trail Signage	Jefferson County Commission	J			5	Planning		S		11
#6	**Other**										
1	Cacapon State Park Renovations	Morgan County Commission / Development Authority	M		3	6	Planning/Final Engineering/ Architecture Complete/ Environmental Assessment Completed / Cost Estimates Completed	BR,E,ED	L	$25 Million	54
2	Higher Education to Morgan County	Morgan County Development Authority	M	EDA,WVEDA	4	6	Planning	BR,CD,E, ED	S	$66,000	44
3	Internet Access/Public Safety Enhancements - Cell towers	Morgan County Development Authority	M	ARC, EDA, Homeland Security	2	6	Planning Ongoing	ED,CD	S	$16,000,000	43
4	PowhatanPlace Brownfield Eco Dev Initiative	City of Ranson	J	BEDI, HUD	2	6	Planning, Cost Estimated	ED, BR, CD	S	$3,000,000	42
5	Ranson/Charles Town Area Wide Brownfield Grant	City of Ranson	J	EPA	2	6	Planning, Cost Estimated	ED, BR, CD	S	$175,000	40

Berkeley County has seen significant economic activity since 2003. Listed below are some of those projects.

- 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 167th 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.

For a discussion of land use in Morgan County, see Appendix 3 below.

1.4 RECORD OF CHANGES

To determine which sections would be kept and consolidated into this document, the Hazard Mitigation Planning Committee (HMC) reviewed and analyzed each section of both Berkeley and Morgan Counties' plans. The decisions made as to the organization of this document are reflected in the table below.

Section	Description of Change
	INTRODUCTION
General, Section-Wide Revisions	• Created regional format
1.1 Purpose Statement	• Added section
1.2 Documentation of the Planning Process	• Added sections verbatim from existing county plans to represent their development/update processes • Added notes per the regionalization process • Described the methodology used for this update • Described the composition of the regional council
1.3 Region Profile	• Consolidated appropriate data from existing county plans • Updated demographic data • Consolidated appropriate land use and development trend data from existing county plans
1.4 Record of Changes	• Added section
	RISK ASSESSMENT
General, Section-Wide Revisions	• Consolidated appropriate data from existing county plans
2.1 Hazard Identification	• Standardized presentation of data (i.e., creation of regional probability vs. severity chart and risk assessment matrix) • Included all hazards considered in chart form; identified which to profile • Added "Dam Failure" as a hazard per DHS/FEMA recommendations • Standardized list of regional assets using Worksheet #3b from FEMA's "How-To Guides"

Section	Description of Change
2.2 Hazard Profiles	• Added NFIP and RL data to "Flooding" profile • Created regional maps • Excerpted appropriate maps from existing county plans • Removed "Temperature Extreme" as a hazard as appropriate • Standardized hazard list • Created loss estimates for Morgan County (using Worksheet #3a from FEMA's "How-To Guides" • Added elements, as appropriate, from the *West Virginia Enhanced State Hazard Mitigation Plan*
2.3 Regional Implications	• Added section
	MITIGATION STRATEGY
General, Section-Wide Revisions	• Consolidated appropriate data from existing county plans • Standardized formatting throughout • Added regional goals, objectives, and strategies
3.1 Goals, Objectives, and Strategies	• Ensured inclusion of at least one municipal project per participating municipality in county-organized lists • Included a brief status statement for each project (i.e., "New", "On-Going", "Completed", "Deleted", or "Deferred")
3.2 Identification and Analysis of Mitigation Actions	• Added detailed status statement for each project • Ensured identification of projects by one of six mitigation types
3.3 Implementation of Mitigation Actions	• Added language to address the benefit-cost analysis
3.4 Regional Implications	• Added section
4.0 Plan Maintenance Process	• Consolidated appropriate data from existing county plans • Standardized formatting
	APPENDICES
Appendix 1	• Added section per reference of Hazus documents
Appendix 2	• Added section as reference for loss estimates from Section 2.2 • Ensured inclusion of Worksheet #4 from FEMA's "How-To Guides" as completed and updated by Berkeley County for further explanation of potential losses in that county
Appendix 3	• Added section to ensure appropriate inclusion of land use data as presented in original Morgan County plan
Appendix 4	• Added section
Appendix 5	• Added section to be a clearinghouse of all adoption efforts

SECTION 2.0

RISK ASSESSMENT

Section 2.0 is a multi-hazard risk assessment, analyzing primarily the natural hazards affecting the entire region. This particular assessment includes brief analyses of the hazardous material and terrorism risks. In addition to a simple identification of applicable hazards, this section profiles those hazards (i.e., describes them in the regional context) and discusses the regional implications of these hazard risks.

It is important to understand that the risk assessment portion of this planning process was cyclical. For example, hazards were identified and analyzed on an "area-wide" basis. Upon completion of the initial assessment, such factors as targeted development areas, the locations of critical facilities, etc. were compared to the initial data. Where warranted, additional risk analysis was done in those areas to determine the primary hazards affecting, for example, a potential development. Further, determining probability and severity could be affected by the presence of a number of critical facilities or developable areas in a "hazard zone".

2.1 HAZARD IDENTIFICATION

§201.6(c)(2)(i)	[The risk assessment shall include a] description of the type…of all natural hazards that can affect the jurisdiction.

The hazard identification serves as a guide to all communities in the Region 9 Planning and Development Council (PDC) planning district when assessing their vulnerabilities to hazards. The purpose of the hazard identification is to (1) identify all the natural hazards that could affect the planning area, (2) assess the extent to which the area is vulnerable to the effects of these hazards, and (3) prioritize the potential risks to the community.

Hazard Identification

The following chart – Table 2.1.1 – Illustrates the hazards to which the planning area could be susceptible. The table also includes a list of the research sources used to identify the hazards as well as a brief statement justifying their inclusion in this analysis. Those hazards with justification for inclusion in the hazard profiling section are highlighted in yellow. In addition to all sources identified in the following table, each county's most recent hazard mitigation plan was also used as a research source.

It is significant to note that it is not the intent of Table 2.1.1 to list all occurrences of the hazards in consideration. Table 2.1.1 simply seeks to demonstrate that a particular hazard is indeed worthy of further risk analysis.

Table 2.1.1

HAZARD	HOW IDENTIFIED	WHY IDENTIFIED
Avalanche	• Research indicates that these jurisdictions are not susceptible to this hazard.	• The general contour of the land in the region is rolling hills, but they are not high enough in elevation to cause avalanche activity. • Further, the amount of snowfall the region receives is insufficient for any kind of avalanche.
Coastal Erosion	• MapQuest	• Coastal erosion is not a significant risk as the region is more than 450 miles from the Atlantic Ocean.
Coastal Storm	• See "Thunderstorm"	• Coastal storms are not a threat to the region as it is more than 450 miles from the Atlantic Ocean.
Dam Failure	• WV Department of Environmental Protection (WVDEP) Dam Safety •	• There are 22 dams identified in the area.
Drought	• National Climatic Data Center (NCDC) Event Records	• From the summer of 1998 through September 1999, the Eastern Panhandle was categorized as being in an extreme drought, however the remnants of two tropical storms in September 1999 changed that category to moderate drought conditions.
Earthquake	• US Geological Survey (USGS) • Internet Research http://www.earthquake.gov	• According to the USGS, the counties in the region range from a 2 to a 4 in Peak Ground Acceleration (PGA) with a 10% chance of exceedance in 50 years. • An earthquake occurred in August, 2011, originating in northern Virginia, that was felt throughout the region

HAZARD	HOW IDENTIFIED	WHY IDENTIFIED
Epidemic	• Interviews w/ Local Officials • Internet research	• The H1N1 outbreak was considered a "pandemic" in 2010. • 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 been conducted.
Extreme Heat	• NCDC Event Records	• Temperatures in the region seldom exceed 100 degrees. • If the temperature meets or exceeds 100 degrees, it has not been hot enough for the amount of time appropriate to denote "extreme heat".
Flooding	• NCDC Event Records • Interviews w/ Local Officials	• The Eastern Panhandle includes a number of major rivers and streams, including: the Potomac, Shenandoah, Opequon Creek, Back Creek, Sleepy Creek, Cacapon River and Tuscarora Creek. • As indicated by a *NOAA Event Record* 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.

HAZARD	HOW IDENTIFIED	WHY IDENTIFIED
Hailstorm	• NCDC Event Records	• Thunderstorms and windstorms are often accompanied by hail. • 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 the Eastern Panhandle. Potomac Edison reported 3,000 customers without power during the peak of the storm. • NOAA records indicate 25 hailstorms reported in Jefferson County in 57 years.
Hazmat Incident	• Annual Tier II filings • Berkeley Local Emergency Planning Committee (LEPC) Operating Guidelines (OGs) • Berkeley Commodity Flow Study (CFS) • Morgan County CFS • Interviews w/ Local Officials	• All counties in Region 9 receive Tier II filings indicating the use and storage of hazardous materials.
Hurricane	• See "Thunderstorm"	• The region does not experience the hurricane conditions of extremely high winds, rains, and hail. • In some instances, the region may be affected by rainfall brought about by the remnants of a hurricane, which are addressed elsewhere.
Land Subsidence	• Interviews w/ Local Officials • USGS Landslide Overview Map • Internet Research http://www.nationalatlas.gov	• According to the USGS map, areas throughout the region are classified as "high susceptibility/ moderate incidence".

HAZARD	HOW IDENTIFIED	WHY IDENTIFIED
Infestation	• Review of online information from the West Virginia Division of Forestry • Review of online information from West Virginia Division of Natural Resources	• An infestation can strike any area at any time. • The Eastern Panhandle may possibly encounter an infestation from gypsy moths, Asian long horned beetles, southern pine beetles, and mosquitoes. • The Eastern Panhandle contains several acres of agricultural and forestland.
Landslide	• See "Land Subsidence"	• See "Land Subsidence"
Terrorism	• Interviews w/ Local Officials	• There are locations that could be considered targets in the region.
Thunderstorm	• NOAA Event Records • Public input • Information supplied by Region 9 PDC	• Severe thunderstorms are frequently reported throughout the Eastern Panhandle. • A *NOAA Event Record* indicated that on July 25, 1999, several trees and power lines were downed as a thunderstorm moved across Berkeley and Jefferson Counties.
Tsunami	• MapQuest	• The Atlantic Ocean is approximately 450 miles from the region.
Volcano	• USGS	• No volcanoes exist on the east coast.
Wildfire	• NCDC Event Records	• The region is mixed rural and urban with a number of heavily wooded areas. • Since 1985, approximately 9,000 homes have been lost to urban/wild land interface fires across the United States. •

HAZARD	HOW IDENTIFIED	WHY IDENTIFIED
Wind	• NOAA Event Records	• The Eastern Panhandle has experienced seven (7) recorded incidences of tornado touchdowns. A 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. Also on September 17th, 2004 a tornado ripped through the Darksville area of Berkeley County as well as Morgan and Jefferson Counties. No major damage was reported.
Winter Storm	• NCDC Event Records	• Severe winter storms are frequently reported in the Eastern Panhandle. • As indicated by a *NOAA Event Record* on February 4, 1998, a powerful nor'easter, dumped moderate to heavy snow across all of eastern West Virginia beginning early on the 4th

Over an area as large as that covered by the Region 9 PDC, it seems intuitively obvious that the hazards listed in Table 2.1.1 above would not affect the entire region in the same manner.

To capture this concept, Table 2.1.2 depicts the region's county jurisdictions in comparison. The baseline hazard risk is a generalized average in each county. If a county appears to be more or less affected by a particular hazard, evidence was sought through research. The variances in risk are discussed in Section 2.2 below.

Table 2.1.2

JURISDICTION	HAZARDS													
	Dam Failure	***Drought***	***Earthquake***	***Epidemic***	***Flooding***	***Hailstorm***	***Hazmat Incident***	***Infestation***	***Land Subsidence***	***Terrorism***	***Thunderstorm***	***Wildfire***	***Wind***	***Winter Storm***
Berkeley County	=	=	=	=	=	=	>	>	=	>	=	=	=	=
Morgan County	=	=	=	=	=	=	=	=	>	=	=	=	=	=

KEY:
=: Equal risk
<: Lower risk
>: Higher risk

Probability vs. Severity Explanation

The historical data collected includes accounts of all the hazard types listed above. Some hazards, however, have occurred much more frequently than others with a wide range of impacts. By analyzing the historical frequency of each hazard along with the associated impacts, the hazards that pose the most significant risks to the Region 9 PDC planning district can be identified. Such an analysis allows participating communities to focus mitigation strategies on those hazards that are most likely to cause significant losses.

Prioritizing the potential hazards that can threaten the planning district is based on two (2) separate factors:

- The probability that a potential hazard will affect the community, and
- The potential impacts to the community in the event that such a hazard occurs (i.e., severity).

The probability of a hazard event occurring is largely based on the historical recurrence interval of the hazard. Such sources as the NCDC's "event record database", local media archives, and interviews with local officials were used to determine the number of occurrences. If repeated coverage was given to a particular hazard event, that event was considered highly probable to occur. Also, local officials were able to verify or identify those hazards occurring frequently. For instance, if flood damage occurs every five (5) years versus a tornado causing damage every 50 years, the flood probability would score much higher than the tornado.

Table 2.1.3 lists the classifications considered for hazard probability.

Table 2.1.3

Hazard Probability Classifications

Label	*Specific Hazard Event*	*Frequency*
Frequent	Likely to occur frequently	Continuously experienced
Probable	Will occur several times in the life of an item	Experienced several times
Occasional	Likely to occur sometime in the life of an item	Experienced
Remote	Unlikely but possible to occur in the life of an item	Unlikely that it has been experienced
Improbable	So unlikely that it can be assumed occurrence may not be experienced	Not experienced

The hazard's severity is made up of three (3) separate factors: the extent of the potentially affected geographic area, the primary impacts of the hazard event, and any cascading (or secondary) effects. While primary impacts are a direct result of the hazard, secondary impacts can only arise subsequent to a primary impact. For example, a primary impact of a flood may be road closures due to submerged pavement. A possible secondary impact in such an incident would be restricted access of emergency vehicles due to a road closure.

Table 2.1.4

Hazard Severity Classifications

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

Figure 2.1.1 combines the probability and severity information into a "risk assessment matrix" that generalizes the potential impact of each hazard included in the plan. This is the figure that was re-formatted into a bar graph as described above.

Figure 2.1.1

Risk Assessment Matrix

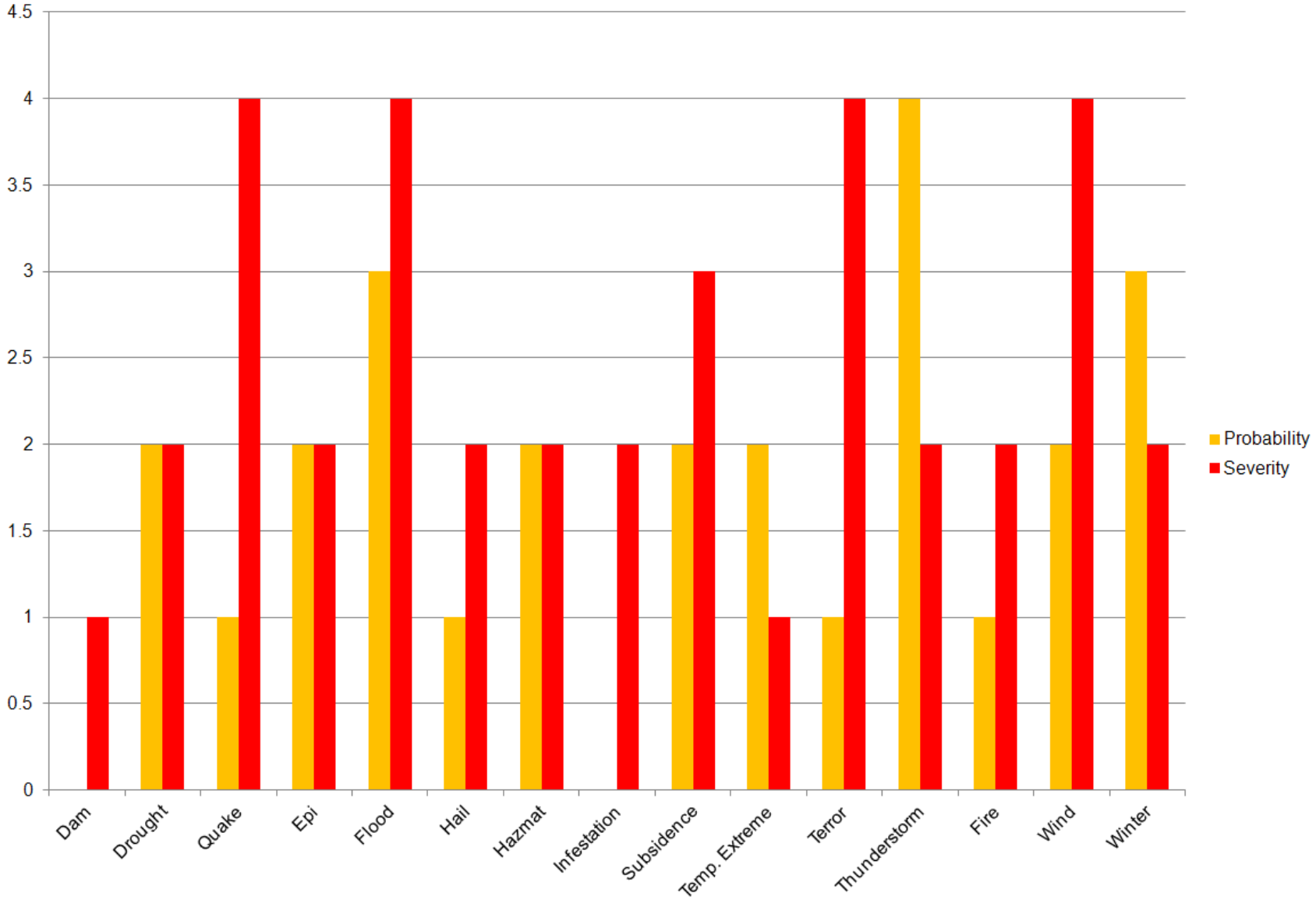
Hazard Severity	***Hazard Probability***				
	Frequent	Probable	Occasional	Remote	Improbable
Catastrophic		**Flood**	**Wind**	**Earthquake, Terrorism**	
Critical			**Subsidence**		
Marginal	**Thunderstorm**	**Winter Storm,**	**Drought, Epidemic, Hazmat**	**Hailstorm, Wildfire**	**Infestation**
Negligible			**Temperature Extremes**		**Dam**

Figure 2.1.2 below was created to enhance the usability of the plan. It provides a more holistic snapshot of risk in terms of probability and severity in a format that is more familiar to most readers of this plan. To create the bar graph, the following approximations were used.

- Probability
  - Frequent = 4
  - Probable = 3
  - Occasional = 2
  - Remote = 1
  - Improbable = 0

- Severity
  - Catastrophic = 4
  - Critical = 3
  - Marginal = 2
  - Negligible = 1

Figure 2.1.2


4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
Dam
Drought
Quake
Epi
Flood
Hail
Hazmat
Infestation
Subsidence
Temp. Extreme
Terror
Thunderstorm
Fire
Wind
Winter
Probability
Severity

Inventorying Assets

This risk assessment identifies "at-risk" community assets such as critical facilities, critical infrastructure, historical properties, commercial/industrial facilities, etc. "Assets" contribute directly to the quality of life throughout the region as well as ensure its continued operation. As such, government facilities are often listed, as are water/wastewater and transportation infrastructure. "Assets" can also be irreplaceable items within the community, such as historical structures or even vulnerable populations (including the elderly or youths).

Inventorying assets first involves determining what in the community can be affected by a hazard event. The core planning committee maintains a specific list of community assets as part of this plan. (*NOTE: Individual jurisdictions may also maintain these types of lists for their own areas.) Assets were grouped into the following categories.

- **Critical Facilities:** Governmental facilities, water/wastewater facilities, dams, emergency services facilities, medical facilities (hospitals/clinics), military facilities, and the transportation infrastructure.
- **Vulnerable Populations:** Schools, nursing homes, and senior centers.
- **Economic Assets:** Large commercial/industrial facilities or large employers (not covered in other categories).
- **Special Considerations:** Residences, community outreach facilities, post offices, and libraries.
- **Historical Considerations:** Areas/structures listed on the National Register of Historic Places.

While compiling the inventory, much information can be gathered that could assist in estimating the impact that the loss of each asset could have on the community. Each specific asset is listed with its size, replacement value (structure only), contents value, function use or value (annual operating budget), displacement cost ($ per day), and occupancy. Following is a brief description of how the above numbers are derived.

- **Size:** County assessor data or by directly contacting the facility.
- **Replacement Value:** County assessor data or by directly contacting the facility.
- **Contents Value:** Directly contacting the facility.
- **Function Use or Value:** Directly contacting the facility.
- **Displacement Cost:** Function Use or Value divided by 365.
- **Occupancy:** Directly contacting the facility.

Table 2.1.5 lists the assets identified throughout Region 9. This matrix is loosely derived from Worksheet #3b in the FEMA 386-2, *State and Local Mitigation Planning How-To Guide: Understanding Your Risks* document.

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Figure 2.1.6

Region 9 Asset Inventory

Name or Description of Asset	Address Location/ Jurisdiction	Critical Facility	Vulnerable Populations	Economic Assets	Special Considerations	Historic/Other Considerations	Size of Bldg. (sq. ft.)	Replacement Value ($)	Contents Value ($)	Function Use or Value ($)	Displacement Cost ($)	Occupancy or Capacity (#)
		X	X	X	X	X						
Back Creek ES	Valley		X					$1,400,000	$635,000	$109,500	$300	
Bedington ES	Bedington		X					$1,475,000	$625,000	$113,150	$310	
Berkeley Heights ES			X					$1,625,000	$640,000	$138,700	$380	
Bunker Hill ES	Bunker Hill		X					$1,425,000	$635,000	$129,575	$355	
Burke Street ES	Martinsburg		X					$1,750,000	$600,000	$131,400	$360	
Gerrardstown ES	Gerrardstown		X					$1,325,000	$615,000	$138,700	$380	
Hedgesville ES	Hedgesville		X					$1,700,000	$650,000	$447,125	$1,225	
Inwood ES	Inwood		X					$2,700,000	$1,250,000	$173,375	$475	
Marlowe ES			X					$1,215,000	$575,000	$114,975	$315	
Opequon ES	Martinsburg		X					$1,235,000	$600,000	$113,150	$310	
Rosemont ES			X					$1,245,000	$600,000	$113,150	$310	
Tomahawk ES			X					$1,345,000	$610,000	$116,800	$320	
Tuscarora ES	Martinsburg		X					$1,275,000	$605,000	$122,275	$335	
Valley View ES			X					$1,235,000	$600,000	$118,625	$325	
Winchester Ave. ES	Martinsburg		X					$1,435,000	$615,000	$164,250	$450	
Hedgesville MS	Hedgesville		X					$9,325,000	$1,250,000	$237,250	$650	
Martinsburg North MS	Martinsburg		X					$14,325,000	$3,400,000	$273,750	$750	
Martinsburg South MS	Martinsburg		X					$14,325,000	$3,400,000	$273,750	$750	
Mussleman MS	Inwood		X					$12,425,000	$3,235,000	$456,250	$1,250	
Mussleman HS	Inwood		X					$19,425,000	$7,235,000	$401,500	$1,100	
Spring Hills MS			X					$3,000,000	$850,000	$173,375	$475	
Eagle School IS			X					$3,400,000	$735,000	$155,125	$425	
Mill Creek IS			X					$3,250,000	$700,000	$155,125	$425	

Name or Description of Asset	Address Location/ Jurisdiction	Critical Facility X	Vulnerable Populations X	Economic Assets X	Special Considerations X	Historic/Other Considerations X	Size of Bldg. (sq. ft.)	Replacement Value ($)	Contents Value ($)	Function Use or Value ($)	Displacement Cost ($)	Occupancy or Capacity (#)
Potomac IS			X					$3,350,000	$710,000	$158,775	$435	
Mountain Ridge IS			X					$3,000,000	$685,000	$151,475	$415	
Orchard View IS			X					$3,125,000	$685,000	$153,300	$420	
Hedgesville HS	Hedgesville		X					$18,125,000	$7,350,000	$346,750	$950	
Martinsburg HS	Martinsburg		X					$17,625,000	$7,500,000	$438,000	$1,200	
James Rumsey Vo-Tech			X					$11,425,000	$9,235,000	$447,125	$1,225	
Pikeside Pre-Vocational			X					$3,250,000	$2,750,000	$337,625	$925	
Ramer Center			X					$750,000	$175,000	$109,500	$300	
WV State Police		X						$235,000	$85,000	$164,250	$450	
Berkeley Co. Sheriff's Dept.		X						$185,000	$60,000	$401,500	$1,100	
Martinsburg Police Dept.	Martinsburg	X						$205,000	$63,000	$346,750	$950	
Back Creek Valley FD		X						$250,000	$985,000	$41,975	$115	
Baker Heights VFD		X						$725,000	$1,150,000	$49,275	$135	
Bedington VFD		X						$325,000	$965,000	$41,975	$115	
Hedgesville VFD	Hedgesville	X						$1,250,000	$1,750,000	$54,750	$150	
Martinsburg FD	Martinsburg	X						$2,500,000	$4,750,000	$912,500	$2,500	
South Berkeley VFD		X						$750,000	$1,225,000	$49,275	$135	
Veterans Affairs Med Ctr FD	Martinsburg	X						$2,250,000	$3,125,000	$1,277,500	$3,500	
WV Air Natl. Guard FD	Martinsburg	X						$2,500,000	$4,250,000	$1,277,500	$3,500	
Veterans Affairs Medical Center	Martinsburg	X						$150,000,000	$65,000,000	$31,536,000	$86,400	

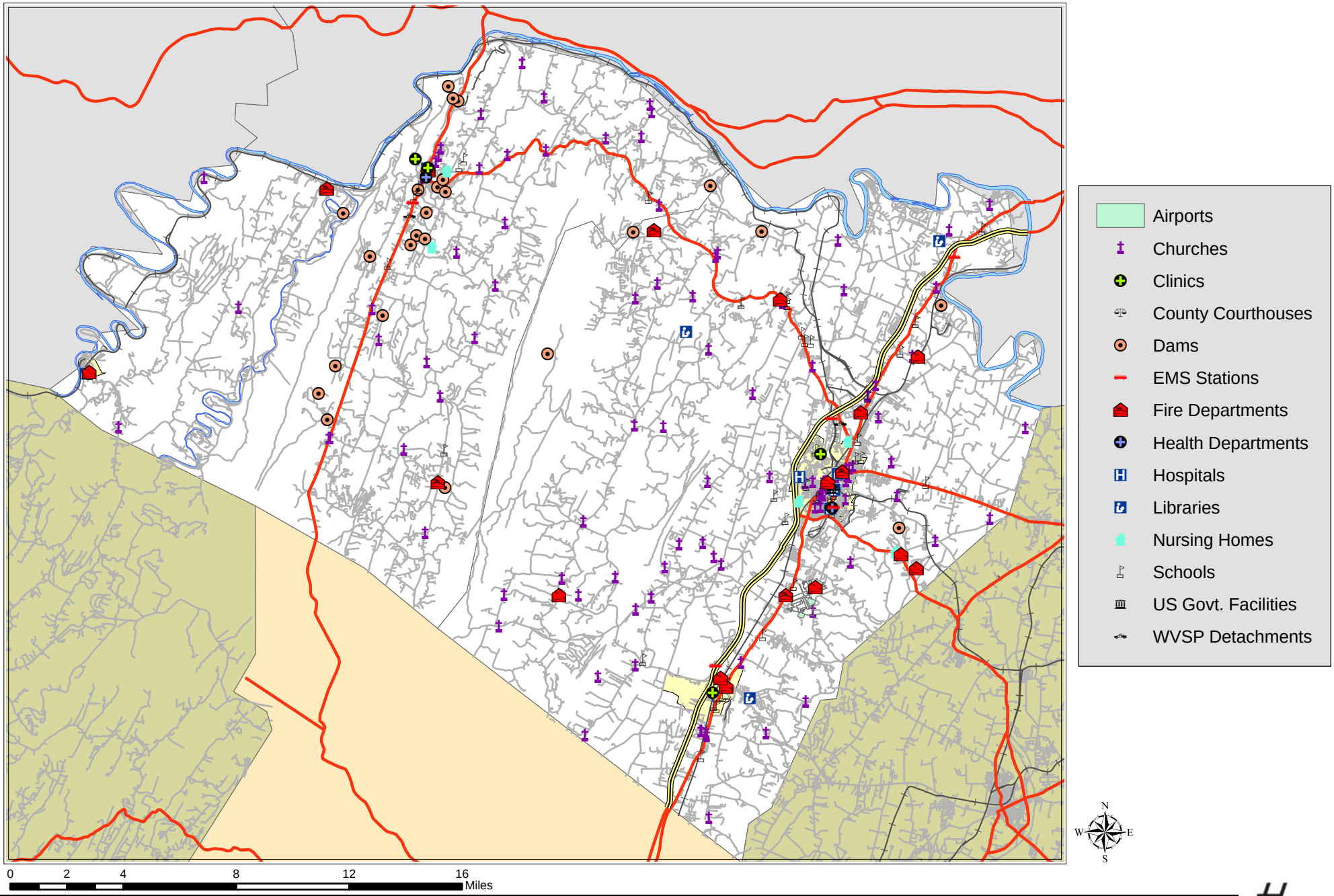
Name or Description of Asset	Address Location/ Jurisdiction	Critical Facility X	Vulnerable Populations X	Economic Assets X	Special Considerations X	Historic/Other Considerations X	Size of Bldg. (sq. ft.)	Replacement Value ($)	Contents Value ($)	Function Use or Value ($)	Displacement Cost ($)	Occupancy or Capacity (#)
Shenandoah Health Services	Martinsburg	X						$185,000	$65,000	$584,000	$1,600	
Martinsburg City Hospital	Martinsburg	X						$245,000,000	$125,000,000	$28,470,000	$78,000	
Naylor Memorial Library	Hedgesville				X			$115,000	$875,000	$63,875	$175	
Martinsburg-Berkeley Co. Public Library	Martinsburg				X			$625,000	$3,250,000	$127,750	$350	
Berkeley springs VFD	Berkeley Springs	X						$465,000	$850,000	$164,250	$450	
Warm Springs MS	Berkeley Springs				X			$1,750,000	$725,000	$173,375	$475	
Warm Springs PSD WWTP	Berkeley Springs	X						$325,000	$16,325,000	$85,775	$235	
Warm Springs PSD WWTP	Great Cacapon	X						$275,000	$14,250,000	$82,125	$225	
Berkeley County Courthouse	Martinsburg	X				X		$3,250,000	$475,000	$164,250	$450	
Martinsburg City Hall	Martinsburg							$1,115,000	$305,000	$200,750	$550	
RESA VIII	Martinsburg				X			$255,000	$35,000	$45,625	$125	
Martinsburg Water Works	Martinsburg	X						$200,000	$33,000,000	$118,625	$325	
Martinsburg WWTP	Martinsburg	X						$225,000	$25,000,000	$118,625	$325	
Bekeley County Animal Control	Martinsburg				X			$125,000	$15,000	$45,625	$125	
Capitol Cement	Martinsburg			X				$13,750,000	$75,000,000	$122,275	$3,350	
Martinsburg City Garage	Martinsburg			X				$250,000	$325,000	$164,250	$450	

Name or Description of Asset	Address Location/ Jurisdiction	Critical Facility X	Vulnerable Populations X	Economic Assets X	Special Considerations X	Historic/Other Considerations X	Size of Bldg. (sq. ft.)	Replacement Value ($)	Contents Value ($)	Function Use or Value ($)	Displacement Cost ($)	Occupancy or Capacity (#)
Martinsburg Train Station	Martinsburg	X		X				$3,250,000	$65,000	$173,375	$475	
Berkeley Co OHSEM		X						$75,000	$35,000	$140,525	$385	
Berkeley Co. Senior Center	Martinsburg		X					$145,000	$53,000	$49,275	$135	
Berkeley Co. Central Dispatch	Martinsburg	X						$1,250,000	$2,250,000	$127,750	$350	
Bekeley County Health Dept.	Martinsburg	X						$125,000	$25,000	$136,875	$375	
Morgan Cabin Museum	Bunker Hill					X		$1,785,000	$325,000	$27,375	$75	
Eastern WV Regional Airport	Martinsburg	X						$875,000,000	$125,000,000	$2,737,500	$7,500	
Widmeyer ES	Berkeley Springs		X					$1,125,000	$325,000	$116,800	$320	
WVDOH	Berkeley Springs	X						$425,000	$2,150,000	$164,250	$450	
WV State Police	Berkeley Springs	X						$125,000	$65,000	$118,625	$325	
Berkeley Springs WTP	Berkeley Springs	X						$125,000	$2,250,000	$67,525	$185	
Great Cacapon VFD	Great Cacapon	X						$150,000	$1,250,000	$45,625	$125	
Greenwood ES	Berkeley Springs				X			$1,150,000	$300,000	$118,625	$325	
Morgan Co. Emergency Comm. Ctr.	Berkeley Springs	X						$125,000	$300,000	$173,375	$475	
Morgan County Courthouse	Berkeley Springs	X						$2,250,000	$175,000	$91,250	$250	

Name or Description of Asset	Address Location/ Jurisdiction	Critical Facility X	Vulnerable Populations X	Economic Assets X	Special Considerations X	Historic/Other Considerations X	Size of Bldg. (sq. ft.)	Replacement Value ($)	Contents Value ($)	Function Use or Value ($)	Displacement Cost ($)	Occupancy or Capacity (#)
Morgan Co. EOC	Berkeley Springs	X						$225,000	$75,000	$118,625	$325	
Morgan Co. Sheriff's Dept.	Berkeley Springs	X						$125,000	$85,000	$282,875	$775	
Morgan Co. Rescue	Berkeley Springs	X						$165,000	$575,000	$273,750	$750	
Morgan Co. Magistrates Ofc.	Berkeley Springs				X			$125,000	$25,000	$67,525	$185	
Morgan Co. BOE	Berkeley Springs				X			$125,000	$35,000	$118,625	$325	
Paw Paw ES	Paw Paw		X					$985,000	$275,000	$125,925	$345	
Paw Paw PSD WWTP	Paw Paw	X						$275,000	$14,235,000	$67,525	$185	
Paw Paw Police Dept.	Paw Paw	X						$65,000	$17,500	$146,000	$400	
Paw Paw HS	Paw Paw		X					$3,500,000	$650,000	$151,475	$415	
Paw Paw VFD	Paw Paw	X						$185,000	$985,000	$60,225	$165	
Paw Paw Water Works WTP	Paw Paw	X						$135,000	$16,250,000	$45,625	$125	
Paw Paw Water Works Pump Station	Paw Paw	X						$35,000	$1,250,000	$36,500	$100	
Pleasant View ES	Hedgesville		X					$1,225,000	$525,000	$140,525	$385	
South Morgan Co. VFD	Berkeley Springs	X						$325,000	$1,150,000	$149,650	$410	
Town of Bath Municipal Ofc.	Berkeley Springs				X			$65,000	$14,250	$133,225	$365	
Town of Paw Paw Municipal Ofc.	Paw Paw				X			$45,000	$9,000	$76,650	$210	

Name or Description of Asset	Address Location/ Jurisdiction	Critical Facility X	Vulnerable Populations X	Economic Assets X	Special Considerations X	Historic/Other Considerations X	Size of Bldg. (sq. ft.)	Replacement Value ($)	Contents Value ($)	Function Use or Value ($)	Displacement Cost ($)	Occupancy or Capacity (#)
Berkeley Springs PO	Berkeley Springs				X			$115,000	$18,000	$67,525	$185	
Great Cacapon PO	Great Cacapon				X			$75,000	$12,000	$49,275	$135	
Paw Paw PO	Paw Paw				X			$77,000	$11,625	$41,975	$115	
War Memorial Hospital	Berkeley Springs	X						$30,000,000	$18,000,000	$1,642,500	$4,500	
Martinsburg PO (24504)	Martinsburg				X			$165,000	$25,000	$136,875	$375	
Martinsburg PO (24501)	Martinsburg				X			$225,000	$37,000	$228,125	$625	
Hedgesville PO	Hedgesville				X			$125,000	$21,000	$67,525	$185	
Inwood PO	Inwood				X			$135,000	$20,000	$60,225	$165	
Bunker Hill PO	Bunker Hill				X			$85,000	$12,000	$36,500	$100	
Gerrardstown PO	Gerrardstown				X			$75,000	$12,400	$38,325	$105	
Falling Waters PO	Falling Waters				X			$81,000	$12,225	$38,325	$105	
Residential	N/A							$2,080,000,000	$192,000,000	N/A	N/A	
Roads	N/A	X						$18,000,000,000	N/A	N/A	N/A	
Railroads	N/A	X						$250,000,000	N/A	N/A	N/A	
Bridges	N/A	X						$1,250,000,000	N/A	N/A	N/A	

REGION 9 CRITICAL FACILITIES



2.2 HAZARD PROFILES

§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 hazard events.

The section above identifies which hazards affect the jurisdictions in Region 9, but it does not explain *how* these hazards affect them. To do so, "profiles" have been developed for each hazard identified in Section 2.1. The profile describes how each hazard manifests itself in each of the Region 9 counties.

Each of the 14 profiles below contains estimated losses as a result of the hazard being profiled. All loss estimates were calculated in the same manner, which is as follows. See Appendix 2 below for copies of the applicable worksheets from each county.

Worksheet #3a from Federal Emergency Management Agency (FEMA) 386-2, *State and Local Mitigation Planning How-To Guide: Understanding Your Risks*, contains space for the total number of structures and the total value of structures. For each (the number and the value), a percentage in hazard-prone areas is identified. The values corresponding to the percentage in hazard areas correspond to the loss estimates for each category: residential, commercial, industrial, agricultural, religious/non-profit, government, education, and utilities.

Historical hazard event research often contains estimates of losses in a variety of categories, some of which correspond with the categories used in this plan; consequently, historical data contributed heavily to the process of determining potential damage percentages. During the hazard identification research for this project, planners noted loss totals from large incidents. Dollar amounts computed on Worksheet #3a are compared to those from historical events.

2.2.1: Dam Failure

A dam failure is when downstream flooding occurs as the result of the complete or partial inundation of an impoundment.

RESEARCH SOURCES

- WV Department of Environmental Protection (WVDEP) Dam Safety
- Interviews with Local Officials
- Internet Research (http://itouchmap.com)

Period of Occurrence:	At any time
Probability of Event:	Infrequent – Dams that fail typically have some deficiency that causes the failure that should be detected by regular inspections and subsequently repaired. Heavy rains or moderate earthquakes may trigger a dam failure.
Warning Time:	Minimal – Depends on frequency of inspection
Potential Impacts:	Potential loss of human life, economic loss, environmental damage, disruption of lifeline facilities
Cause Injury or Death:	Injury and risk of multiple deaths
Potential Facility Shutdown:	30 days or more

HAZARD EFFECTS

Dam failure is often the result of prolonged rainfall or flooding or, during prolonged dry periods, erosion. The primary hazard surrounding dam failure is the swift, unpredictable flooding of those areas immediately downstream. While general inundation areas can be determined, it is often impossible to know exactly how and where water held back by a dam will flow during a rapid failure of the dam.

Generally, there are three (3) types of dam failures: hydraulic, seepage, and structural.

- **Hydraulic Failure:** Hydraulic failures result from the uncontrolled flow of water over the dam, around and adjacent to the dam, and the erosive action of water on the dam and its foundation. Earthen dams are particularly vulnerable to hydraulic failure since earth erodes at relatively small velocities.
- **Seepage Failure:** All dams exhibit some seepage that must be controlled in velocity and amount. Seepage occurs both through the dam and the foundation. If uncontrolled, seepage can erode material from the foundation of an earthen dam to form a conduit

through which water can pass. This passing of water often leads to a complete failure of the structure, known as piping.

- **Structural Failure:** Structural failures involve the rupture of the dam and/or its foundation. This is particularly a hazard for large dams and for dams built of low strength materials such as silts, slag, fly ash, etc.

Dam failures generally result from a complex interrelationship of several failure modes. Uncontrolled seepage may weaken the soils and lead to a structural failure. Structural failure may shorten the seepage path and lead to a piping failure. Surface erosion may lead to structural or piping failures.

The WVDEP classifies dams into four (4) categories, including the following:

- **Class 1 (High Hazard):** Dams located where failure may cause loss of human life or major damage to dwellings, commercial or industrial buildings, main railroads, important public utilities, or where a high-risk highway may be affected or damaged.
- **Class 2 (Significant Hazard):** Dams located where failure may cause minor damage to dwellings, commercial or industrial buildings, important public utilities, main railroads, or cause major damage to unoccupied buildings, or where a low-risk highway may be affected or damaged. Loss of human life from a failure of a Class 2 dam is unlikely.
- **Class 3 (Low Hazard):** Dams located in rural or agricultural areas where failure may cause minor damage to non-residential and normally unoccupied buildings, or rural or agricultural land. Failure of a Class 3 dam would cause only a loss of the dam itself and a loss of property use, such as use of related roads, with little additional damage to adjacent property.
- **Class 4 (Negligible Hazard):** Dams where failure is expected to have no potential for loss of human life, no potential for property damage, and no potential for significant harm to the environment.

HAZARD PROFILE

There are numerous dam facilities throughout the region, some of which are more high profile than others. The chart below lists all of the dams in the region on which the WVDEP maintains information.

Dams in the Region 9 Area				
Dam	*County*	*Stream*	*Nearest Town or Community*	*Class*
SLEEPY CREEK DAM	BERKELEY	MEADOW BRANCH	MICHAEL'S CHAPEL	1
SLEEPY HOLLOW CREEK DAM	BERKELEY	CHERRY RUN	HEDGESVILLE	2
R. P. SMITH POWER STATION	BERKELEY	POTOMAC	FALLINGWATER	2
R. PAUL SMITH # 3 DAM	BERKELEY	POTOMAC RIVER		2
STONEBRIDGE LAKE DAM	BERKELEY			1
DUNCAN RUN ESTATES DAM	BERKELEY	OPEQUON CREEK	BLAIRTON	2
WATERFORD GLEN DAM	BERKELEY		DARKESVILLE	U
CACPON RESEVOIR DAM	MORGAN	NORTH FORK	SLEEPY CREEK	1
CACAPON STATE PARK LAKE	MORGAN	NORTH, MIDDLE & SOUTH FK.	SLEEPY CREEK	1
WARM SPRINGS NO. 1	MORGAN	WARM SPRING RUN	BERKELEY SPRINGS	1
WARM SPRINGS NO. 2	MORGAN	WARM SPRING RUN	BERKELEY SPRINGS	1
WARM SPRINGS NO. 3	MORGAN	WARM SPRING RUN	BERRYVILLE	1
WARM SPRINGS NO. 4	MORGAN	WARM SPRING RUN	BERRYVILLE	1
WARM SPRINGS NO. 5	MORGAN	WARM SPRING RUN	BERRYVILLE	1
WARM SPRINGS NO. 6	MORGAN	WARM SPRING RUN	BERRYVILLE	1
WARM SPRINGS NO. 7	MORGAN	WARM SPRING RUN	BERRYVILLE	1
WARM SPRINGS NO. 9	MORGAN	WARM SPRING RUN	BERKELEY SPRINGS	1
OLD CACAPON POWER DAM	MORGAN	CACAPON RIVER	GREAT CACAPON	3
COOLFONT DAM	MORGAN	COLD SPRING RUN	BERKELEY SPRINGS	2
UN. LAKE ON TRIB. OF SLEEPY CR	MORGAN	SLEEPY CREEK	SMITH CROSSROADS	U
GRASSHOPPER HOLLOW TAILINGS DAM	MORGAN	POTOMAC RIVER	BERKELEY SPRINGS	1
LAKE SIRI DAM	MORGAN	SIR JOHNS RUN	BERKELEY SPRINGS	U

The perception of the dam failure risk varies from county to county; this perception is rooted in reality since the actual risk varies quite considerably. After extensive and exhaustive research no evidence has been shown of any dam failure in this region.

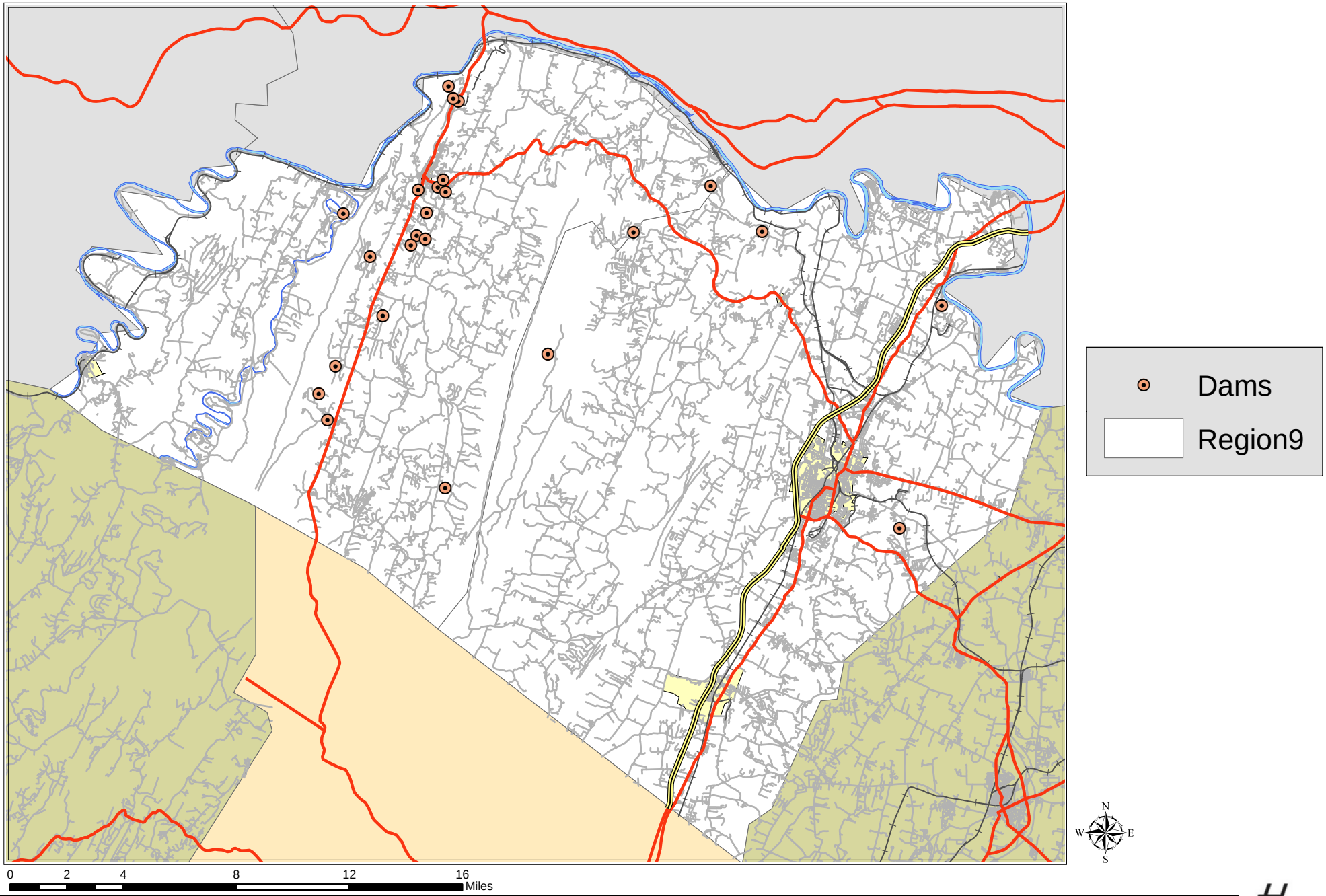
VULNERABLE STRUCTURES

Vulnerable Structures – Dam Failure								
County	*Residential*	*Commercial*	*Industrial*	*Agricultural*	*Religious*	*Government*	*Education*	*Utilities*
Berkeley	1,000	20	1	100	5	0	0	0
Morgan	700	100	2	50	10	5	3	5
TOTALS	**1700**	**120**	**3**	**150**	**15**	**5**	**3**	**5**

LOSS ESTIMATES

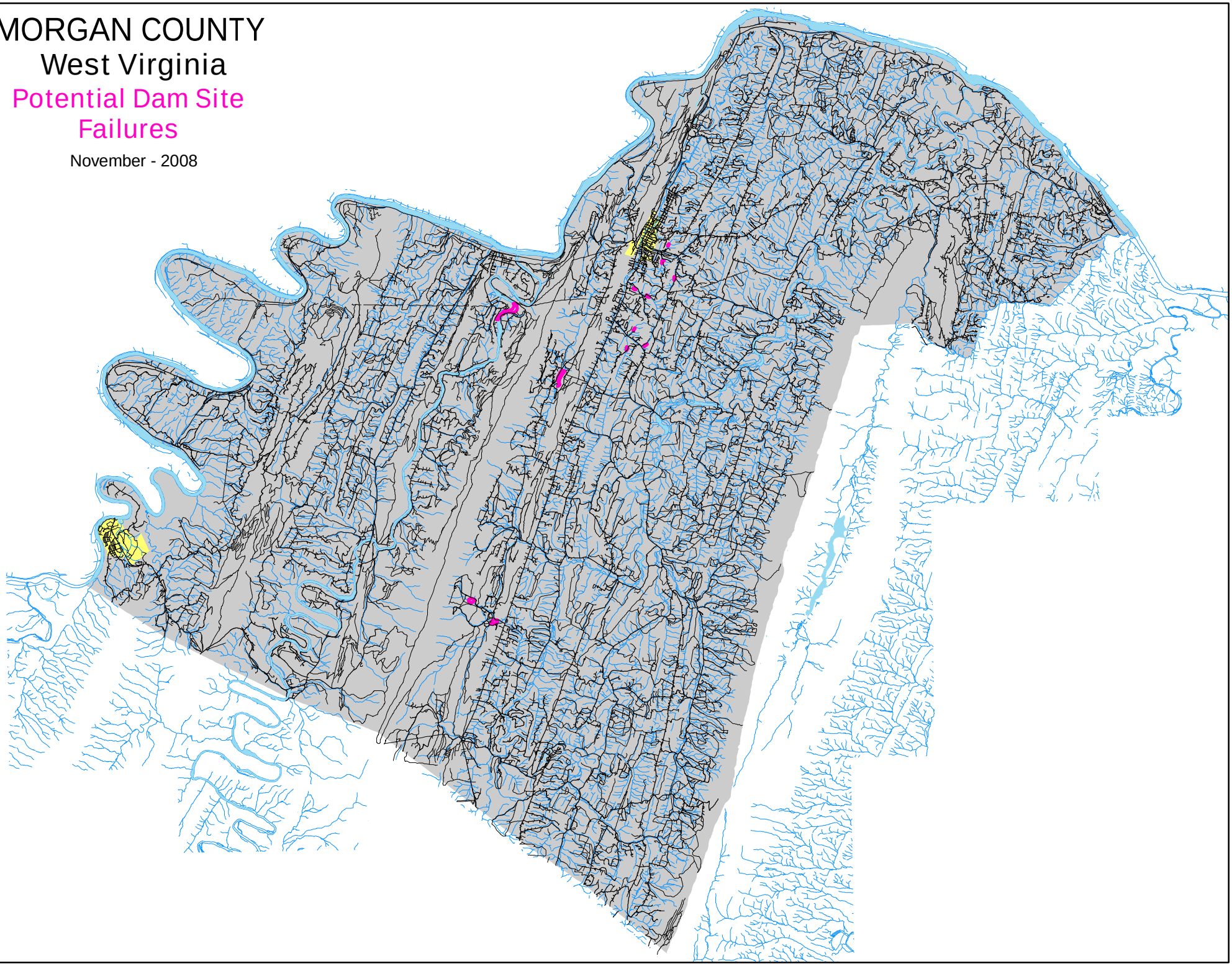
In an effort to assist jurisdictional understanding of risks and implementation of strategies, loss estimates were done for each county (see Appendix 2). By averaging those estimates, this plan assumes a total, regional loss estimate *per dam failure incident* to be as much as $241,465,632. If all counties in the region were affected to the “worst case scenario” level, as much as $482,931,264 could be lost.

REGION 9 - DAM FACILITIES MAP



MORGAN COUNTY
West Virginia
Potential Dam Site Failures

November - 2008



2.2.2: Drought

Drought is an extended period of deficient rainfall relative to the statistical mean for a region.

RESEARCH SOURCES

- National Climatic Data Center (NCDC) Event Records

Period of Occurrence:	Summer months or extended periods with no precipitation
Probability of Event:	Infrequent – Small scale droughts occur frequently, but events causing major disruption and economic loss are infrequent
Warning Time:	Weeks
Potential Impacts:	Activities that rely heavily on high water usage may be impacted significantly, including agriculture, tourism, wildlife protection, municipal water usage, commerce, recreation, electric power generation, and water quality deterioration. Droughts can lead to economic losses such as unemployment, decreased land values, and agribusiness losses. Minimal risk of damage or cracking to structural foundations, due to soils.
Cause Injury or Death:	None
Potential Facility Shutdown:	None

HAZARD EFFECTS

Droughts are defined according to meteorological, hydrological, and agricultural criteria. Any significant deficit of precipitation is categorized as meteorological. Hydrological drought is apparent in noticeably reduced river and stream flow and critically low groundwater tables. Agricultural drought indicates an extended dry period that results in crop stress and harvest reduction.

The Palmer Drought Severity Index (PDSI) is widely used throughout the United States as a measure of drought and to track moisture conditions. The PDSI is defined as “an interval of time, generally in months or years in duration, during which the actual moisture supply at a given place rather consistently falls short of the climatically expected or climatically appropriate moisture supply”. The range of the PDSI is from -4.0 (extremely dry) to +4.0 (excessively wet), with the central half (-2.0 to +2.0) representing normal or near normal conditions.

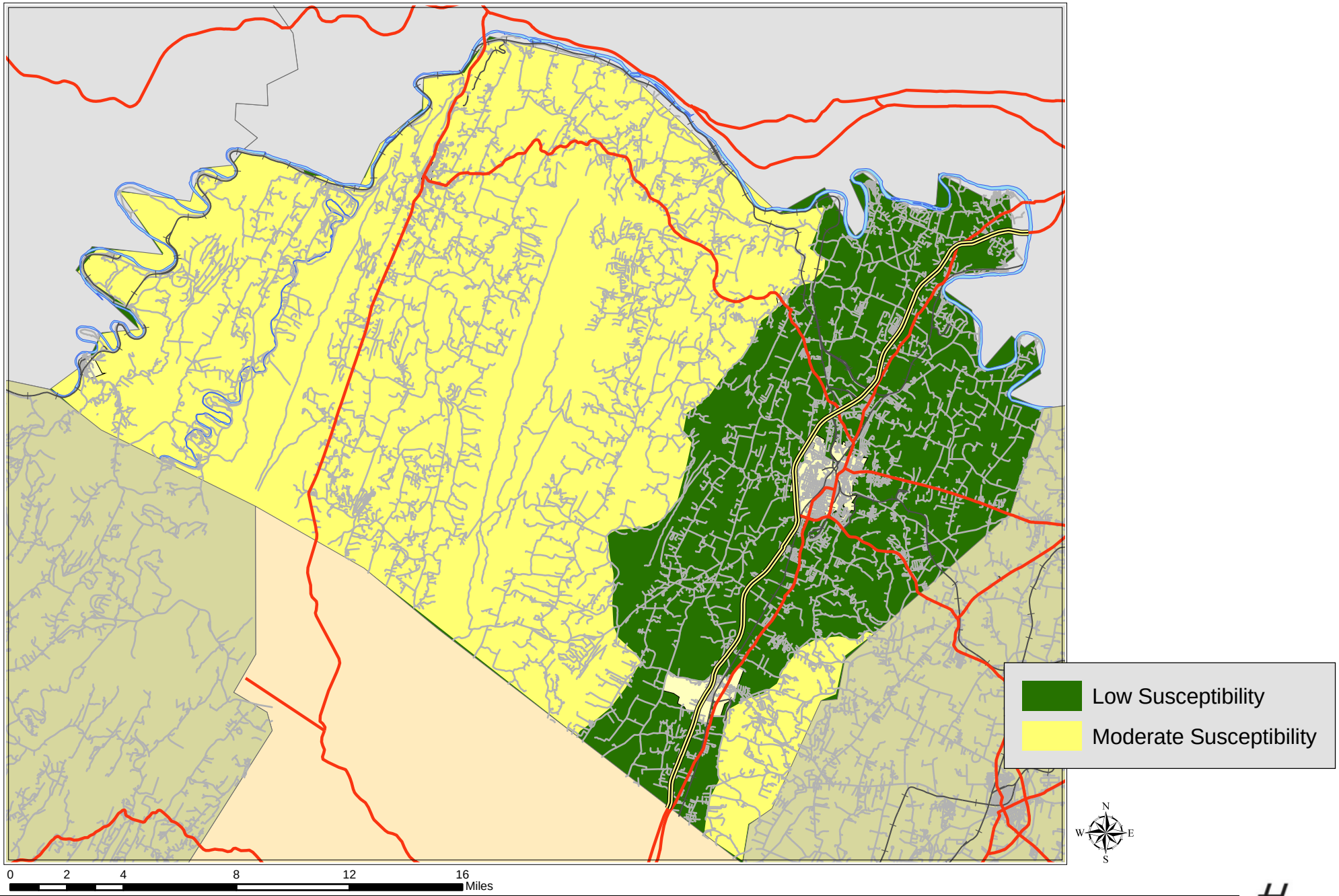
HAZARD PROFILE

A drought could have a significant impact to the economy of Region 9, as all counties are home to agricultural activity.

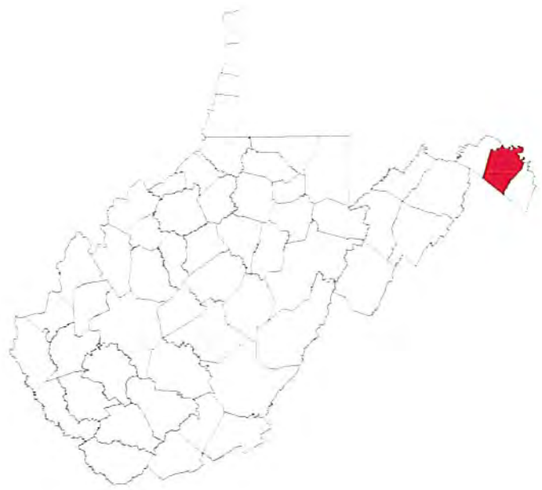
Agriculture in Region 9 Counties			
County	*Number of Farms*	*Market Value of Crops*	*Percent Change in Value from 2002*
Berkeley	833	$21,715,000	+18
Morgan	212	$1,851,000	+45
TOTALS	**1,045**	**$23,566,000**	

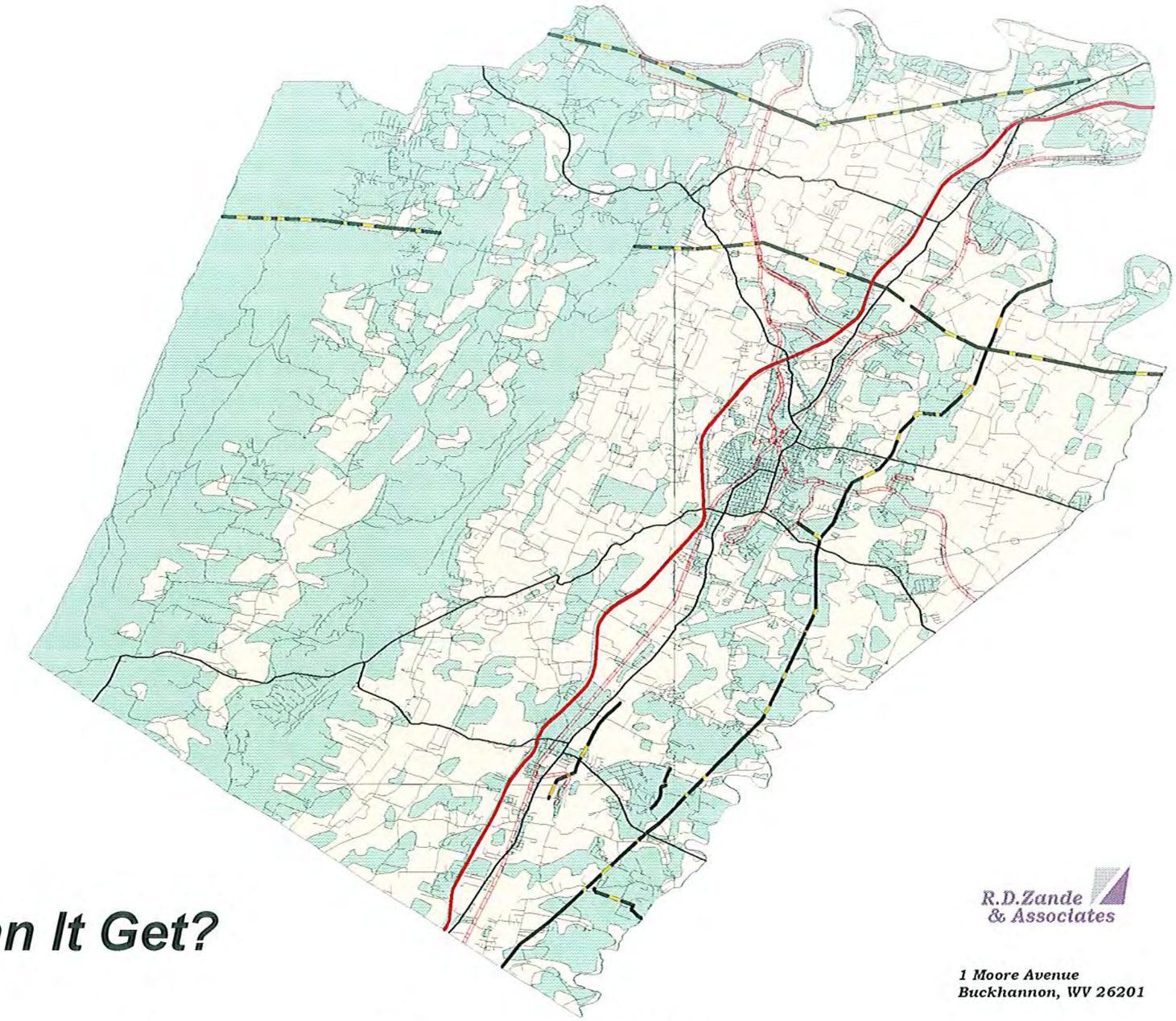
As with many hazards, determining specific risk and vulnerability areas for drought is difficult. Drought is an “overall” hydrologic condition; that is, if one small area was without precipitation but a nearby area was not, it would be difficult to classify the entire area as “in a drought” due to the eventual seepage of said precipitation to the overall groundwater supply. Consequently, drought is said to affect the entire region evenly.

PROFILE MAP: DROUGHT



Drought





MAP LEGEND

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

- Moderate Hazard
- Low Hazard

How Bad Can It Get?

6 0 6 12 18 Miles

R.D.Zande & Associates

1 Moore Avenue
Buckhannon, WV 26201

2.2.3: Earthquake

An earthquake is a sudden motion or trembling that is caused by a release of strain accumulation within or along the edge of the Earth's tectonic plates.

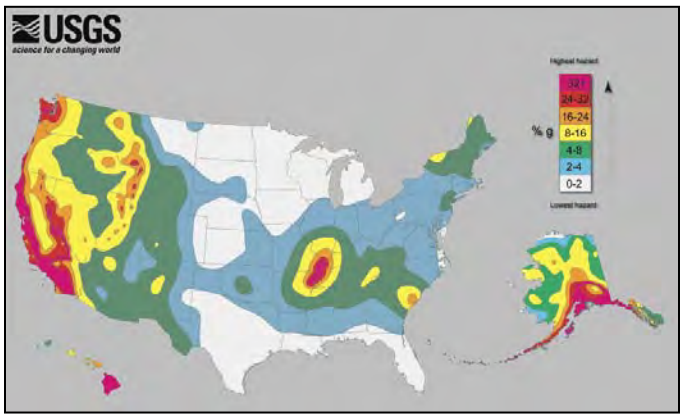
RESEARCH SOURCES

- US Geological Survey (USGS)
- Internet Research (http://www.earthquake.gov)

Period of Occurrence:	At any time
Probability of Event:	Infrequent
Warning Time:	None
Potential Impacts:	According to FEMA, areas with a PGA of 2 to 4 (0.02 to 0.04) will incur little to no damage with no function loss.
Cause Injury or Death:	Minor risk of injury
Potential Facility Shutdown:	None

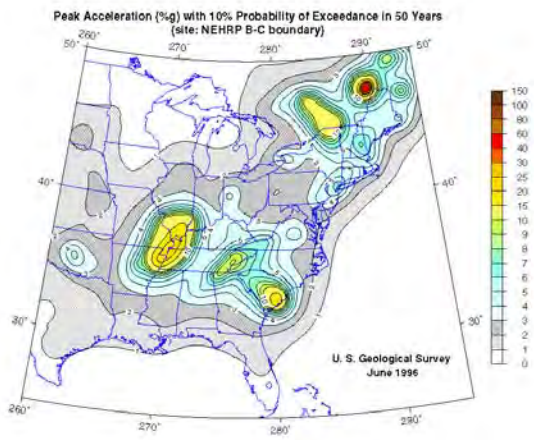
HAZARD EFFECTS

An earthquake's sudden release of stored energy may manifest itself by shaking or displacing the ground. The severity of these effects is dependent on the amount of energy released from the fault (or epicenter) of the quake. The effects of an earthquake can be felt far beyond the site of its occurrence. Earthquakes 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. Peak Ground Acceleration (PGA) is a measure of strength of ground movements. The PGA measures the rate in change of motion relative to the established rate of acceleration due to gravity.



HAZARD PROFILE

The map provided by the USGS (shown below) depicts the PGA values for areas with a 10% chance of being exceeded over the next 50 years. West Virginia does have an earthquake risk as it is located in the 2 and 3%g area. All of the counties in Region 9 are located in the lower risk areas of eastern West Virginia. PGA values for each of Region 9's counties are list as between 2 (0.02) and 4 (0.04). These approximate values were determined by estimating the PGA values shown by the figure at right. The FEMA states that areas with these PGAs are



considered to have a low to moderate earthquake risk. As such, earthquake vulnerability is rated "low".

The Central and Southeast United States region covers a large area of relatively diffuse, low-rate seismicity. Principle areas of activity include the New Madrid Seismic Zone of the central Mississippi Valley and the Southern Appalachian Seismic Zone, extending from Virginia to Alabama. These areas of continued seismic activity increase the likelihood of Region 9's counties experiencing or being affected by an earthquake at some point in time. This assumption recently proved true, as a small earthquake (magnitude 2.9) occurred in April, 2010, near the Town of Man in Logan County (southwest of Region 9). A second small earthquake (magnitude 2.8) also occurred in April near Sutton in Braxton County, again to the southwest of the region.

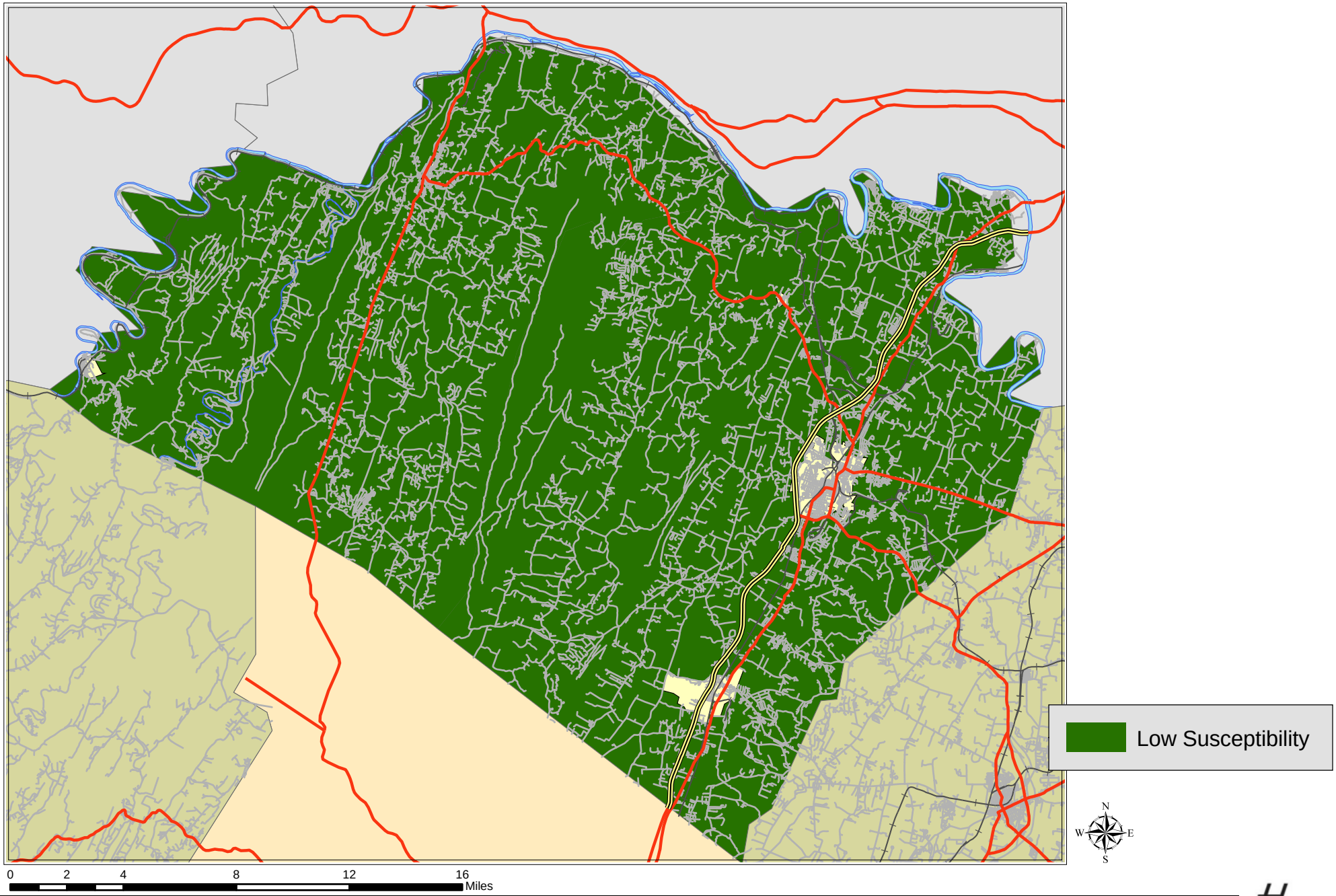
The most high-profile earthquake event to occur near the Potomac Highlands of West Virginia occurred in August, 2011. A magnitude 5.6 earthquake centered in Louisa, Virginia (less than 130 roadway miles from the City of Martinsburg in Berkeley County) shook structures throughout West Virginia, Pennsylvania, Virginia, Maryland, and New York. Damage to such structures as the National Cathedral and the Washington Monument were noted in Washington, D.C. Evacuations occurred in D.C. as well as New York City because the general population was not accustomed to experiencing an earthquake of that magnitude.

The eastern panhandle of West Virginia has a long history of earthquakes (albeit minor ones). For instance, the USGS reports a "strong earthquake" in the Charles Town-Martinsburg area in April of 1909. The total "felt" area was approximately 6,500 square kilometers. Its epicenter was near the convergence of West Virginia, Virginia, and Maryland.

LOSS ESTIMATES

The somewhat random historical occurrences of earthquakes would indicate that all structures throughout Region 9's counties to be equally at risk from earthquakes. The severity of those earthquakes, though, is expected to be very low (according to FEMA's 386-2 document). Given this low severity, officials in both counties of Region 9 estimated earthquake losses to be zero.

PROFILE MAP: EARTHQUAKE



2.2.4: 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.

RESEARCH SOURCES

- Interviews with Local Officials

Period of Occurrence:	At any time
Probability of Event:	Unlikely – Large-scale biological incidents are infrequent.
Warning Time:	Months
Potential Impacts:	Potential loss of human life, economic loss, disruption of lifeline facilities
Cause Injury or Death:	Injury and risk of multiple deaths
Potential Facility Shutdown:	Weeks to Months

HAZARD EFFECTS

An epidemic can affect all parts of the region, but is more probable to occur in densely populated areas, particularly large, multi-unit residential developments. Epidemic situations can also spread rapidly through such congregate facilities as nursing homes and hospitals and even schools and colleges.

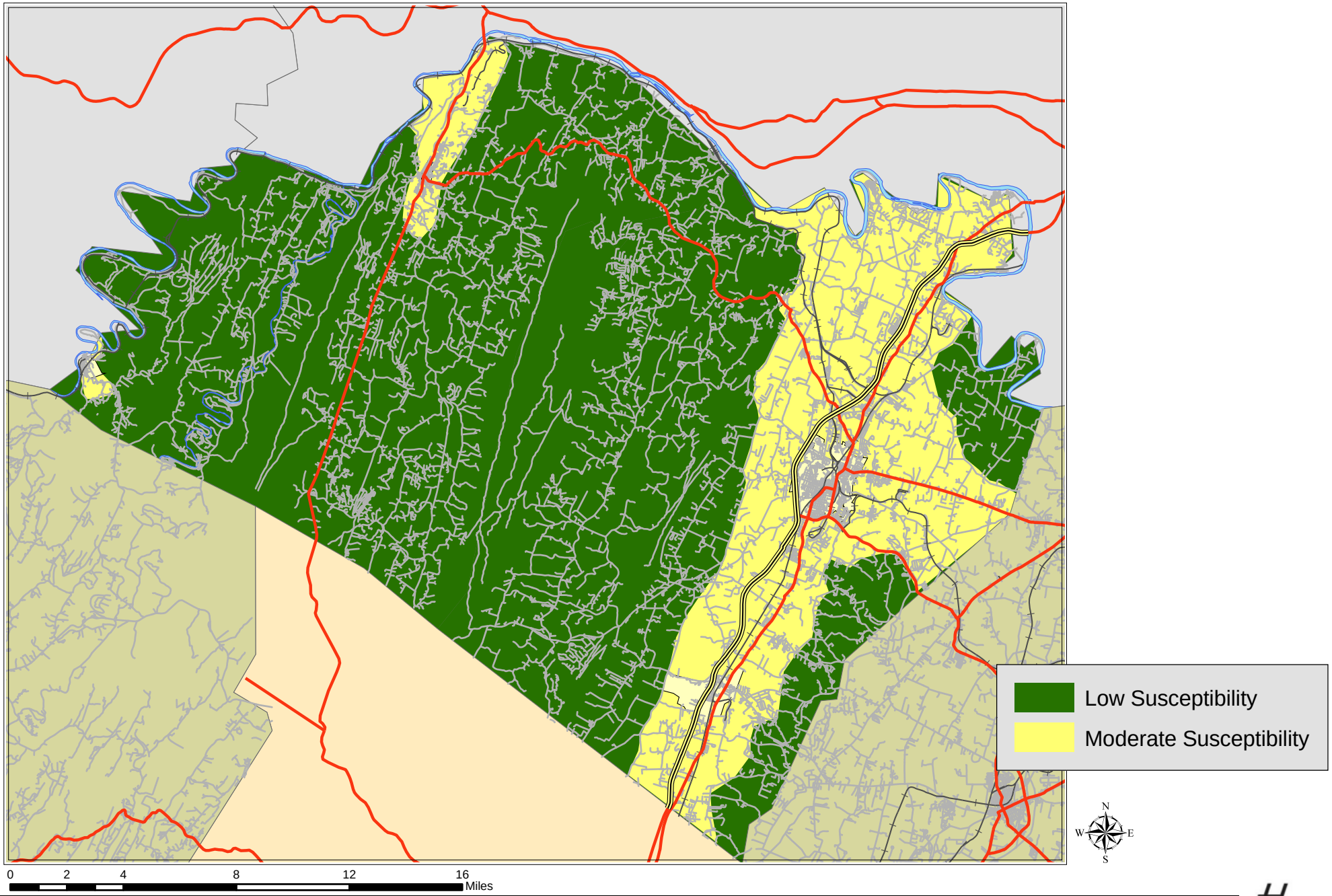
Epidemics can develop with little or no warning and quickly erode the capacity of local medical care providers. A fast developing epidemic can last several days and extend into several weeks. In some extreme cases, they can last for several months. An epidemic can occur at any time of the year, but the warm summer months, when bacteria and microorganism growth are at their highest, present the greatest risk.

Local health departments have taken many steps to ensure a base level of preparedness for epidemic and pandemic conditions. Initiatives surrounding general preparedness for Avian flu (beginning in 2006) and most recently for H1N1 (swine flu) in 2010 have led other local governments to create and adopt business continuity plans. Since numerous residents throughout the region travel and because groups/individuals from out of county (or state) frequently travel to the area's destinations, the possibility does exist for novel strains to be introduced to the local population, thus validating epidemic/pandemic planning efforts. Additionally, the region is located in close proximity to high-density populations in Hagerstown (MD), Winchester (VA), and the National Capital Region (NCR), which may lead to outbreaks near and, ultimately, in the area.

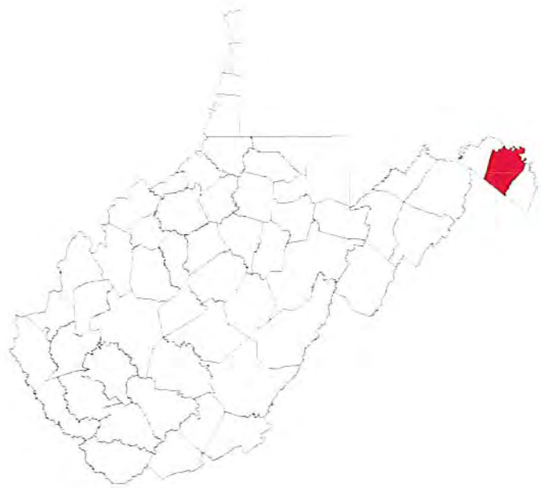
Additionally, it should also be noted that just south of the region is one (1) of the major

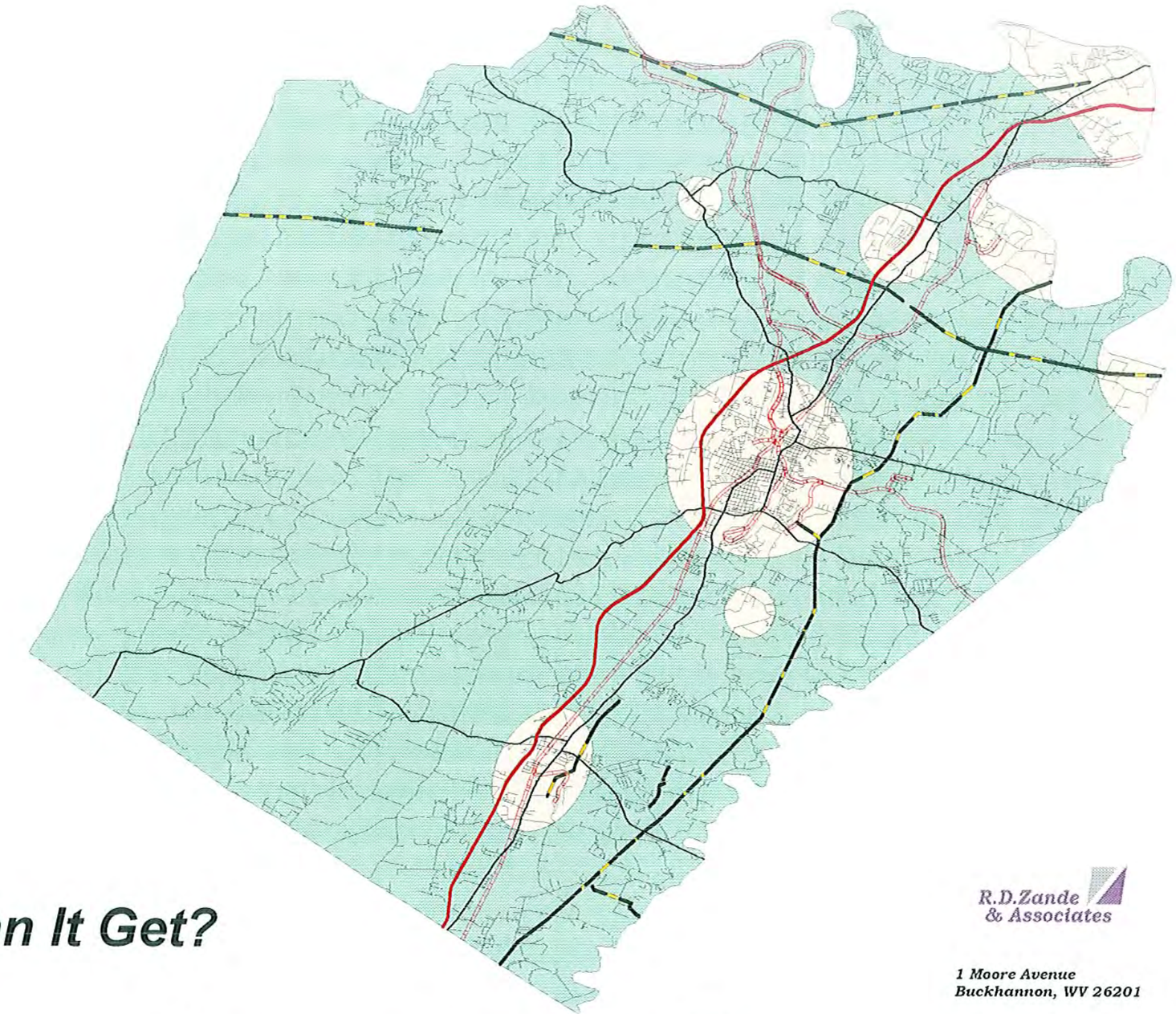
poultry-producing areas of the United States. Moorefield, WV, is the home to a large poultry manufacturing facility. As an example, a turkey farm in Pendleton County experienced an outbreak of Avian influenza some years ago that resulted in the euthanasia of approximately 26,000 birds. (Pendleton County, WV contains 90 farms and 300 poultry houses.) Neighboring poultry industries also suffered as a result of Avian flu – specifically those in Virginia.

PROFILE MAP: EPIDEMIC



Epidemic





MAP LEGEND

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

How Bad Can It Get?

6 0 6 12 18 Miles

R.D.Zande & Associates

1 Moore Avenue
Buckhannon, WV 26201

2.2.5: Flooding

Flooding is defined as a general temporary condition of partial or complete inundation of normally dry land areas from: overflow of inland or tidal waters; unusual and rapid accumulation of runoff of surface water from any source; mudflows; or the sudden collapse of shoreline land. A flash flood is a rapid flooding of low-lying areas, rivers, and streams that is caused by intense rainfall and is often associated with thunderstorms.

RESEARCH SOURCES

- NCDC Event Records
- Interviews with Local Officials

Period of Occurrence:	Potomac River – Primarily January through May (history shows incidents occurring year-round) Flash Flood – At any time depending on recent weather conditions Result of Dam Failure – At any time
Probability of Event:	Frequent
Warning Time:	River Flood – 3 to 5 days Flash Flood – Minutes to hours Dam Failure – None
Potential Impacts:	Impacts to human life, health, and public safety. Utility damage and outages, infrastructure damage (transportation and communication systems), structural damage, fire, damaged or destroyed critical facilities, and hazardous material releases. Can lead to economic losses such as unemployment, decreased land values and agribusiness losses. Floodwaters are a public safety issue due to contaminants and pollutants.
Cause Injury or Death:	Injury and moderate risk of death
Potential Facility Shutdown:	Days to Weeks

HAZARD EFFECTS

Flooding is arguably the highest priority hazard in both Berkeley and Morgan counties (as is the case in most of West Virginia). These counties are susceptible to flooding largely due to physical geography, which includes several rivers and creeks as well as varied topography. The worst floods usually occur when a river overflows its banks. Periodic floods occur naturally on most rivers, forming an area known as a “floodplain”. With enough rainfall, the rivers and

creeks will rise up to and over the floodplain, thus causing a flood.

Flash flooding is also a common concern throughout the region. Historical occurrences can indicate where flash flooding will strike, but it is somewhat more unpredictable than riverine flooding. Flash flooding can be a result of an overloaded storm water management system, a washed out creek bed, water rushing off of a hill or mountain, etc. In some cases, flash floods result in great damage because areas that are not in identified floodplains (and are thus not prepared for potential flooding) are affected.

DESCRIPTION OF EXISTING FLOOD HAZARD AND IDENTIFICATION OF FLOOD RISK

All of the Region 9 counties have an extensive history of flooding. Examples include the following.

- **Berkeley County:** 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.
- **Morgan County:** In January of 1996 there was a three-day period of flooding resulting from snow melting after the blizzard of 1996. The flooding resulted in the cause of one death, property damage in the amount of $20,500,000, and crop damage in the amount of $150,000. The Town of Paw Paw was hardest hit by this flood, suffering the loss of its major industries (which were located in the floodplain).

In September of 1996, heavy rain and flooding was experienced as a result of Hurricane Fran dropped 4 to 6 inches of rain across the region. The flooding resulted in property damages in the amount of $500,000 and crop damages in the amount of $525,000.

The table below lists the number of flooding events faced in the counties since 1985 as well as the reported damage and any injury/death information.

To better profile the type of impact flooding events could have on the region, Hazus reports were generated for 10-year, 25-year, and 50-year flood events in each of the region's counties. (*NOTE: The full Hazus reports are included in Appendix 1.)

10-Year Flood Event

This type of flood event has a 10% chance of occurring in any single year (*Source: Wikipedia*). The following impacts, listed by county, are anticipated.

- Berkeley
  - An estimated 91 buildings would have moderate damage (representing over 24% of the total number of buildings in the risk area).
  - An estimated eighteen (18) building would be completely destroyed.
  - An estimated 8,080 tons of debris would be generated.
  - As many as 335 households could be displaced, which could result in approximately 243 people needing shelter.
  - The total building-related loss could exceed $38,600,000. Approximately 0% of this loss would be related to business interruption. Residential losses comprise over 80.31% of the estimate.

- Morgan
  - An estimated 15 buildings would have moderate damage (representing over 26% of the total number of buildings in the risk area).
  - An estimated 1 building would be completely destroyed.
  - An estimated 2,335 tons of debris would be generated.
  - As many as 98 households could be displaced, which could result in approximately 70 people needing shelter.
  - The total building-related loss could exceed $13,450,000. Approximately 0% of this loss would be related to business interruption. Residential losses comprise over 82.52% of the estimate.

25-Year Flood Event

Twenty-five (25)-year floods have a 4% chance of occurring in any single year. The following impacts, listed by county, are anticipated.

- Berkeley
  - An estimated 155 buildings would have moderate damage (representing over 24% of the total number of buildings in the risk area).
  - An estimated one (31) building would be completely destroyed.
  - An estimated 11,079 tons of debris would be generated.
  - As many as 463 households could be displaced, which could result in approximately

465 people needing shelter.

- The total building-related loss could exceed $56,050,000. Approximately 0% of this loss would be related to business interruption. Residential losses comprise over 75.10% of the estimate.

- Morgan
  - An estimated 23 buildings would have moderate damage (representing over 15% of the total number of buildings in the risk area).
  - An estimated 2 buildings would be completely destroyed.
  - An estimated 3,209 tons of debris would be generated.
  - As many as 112 households could be displaced, which could result in approximately 77 people needing shelter.
  - The total building-related loss could exceed $16,200,000. Approximately 0% of this loss would be related to business interruption. Residential losses comprise over 84.35% of the estimate.

50-Year Flood Event

These types of events have a 2% chance of occurring in any single year. The following impacts, listed by county, are anticipated.

- Berkeley
  - An estimated 128 buildings would have moderate damage (representing over 18% of the total number of buildings in the risk area).
  - An estimated one (33) building would be completely destroyed.
  - An estimated 11,098 tons of debris would be generated.
  - As many as 386 households could be displaced, which could result in approximately 324 people needing shelter.
  - The total building-related loss could exceed $48,250,000. Approximately 0% of this loss would be related to business interruption. Residential losses comprise over 81.29% of the estimate.

- Morgan
  - An estimated 29 buildings would have moderate damage (representing over 14% of the total number of buildings in the risk area).
  - An estimated 2 buildings would be completely destroyed..

- An estimated 3,863 tons of debris would be generated.
- As many as 118 households could be displaced, which could result in approximately 82 people needing shelter.
- The total building-related loss could exceed $19,180,000. Approximately 0% of this loss would be related to business interruption. Residential losses comprise over 81.74% of the estimate.

Hazus reports were also compiled for the 100-year flood event, which is a flood event with a 1% chance of being equaled or exceeded in any single year (*Source: Wikipedia*). If an event, though, were to be classified as a 100-year flood in any county, it is likely that the event itself would be regional and affect, at least minimally, other nearby counties. The following estimates apply to a 100-year flood.

- Berkeley
  - An estimated 188 buildings would have moderate damage (representing over 20% of the total number of buildings in the risk area).
  - An estimated one (48) building would be completely destroyed.
  - An estimated 14,984 tons of debris would be generated.
  - As many as 525 households could be displaced, which could result in approximately 591 people needing shelter.
  - The total building-related loss could exceed $68,070,000. Approximately 0% of this loss would be related to business interruption. Residential losses comprise over 75.74% of the estimate.

- Morgan
  - An estimated 30 buildings would have moderate damage (representing over 14% of the total number of buildings in the risk area).
  - An estimated 2 buildings would be completely destroyed.
  - An estimated 4,675 tons of debris would be generated.
  - As many as 127 households could be displaced, which could result in approximately 90 people needing shelter.
  - The total building-related loss could exceed $22,020,000. Approximately 0% of this loss would be related to business interruption. Residential losses comprise over 79.45% of the estimate.

REPETITVE LOSS PROPERTIES

Several communities see repeated flooding problems. Some even contain a number of properties that have been flooded and repaired multiple times. These properties are referred to as "Repetitive Loss" (RL) properties. Actual RL listings are protected by privacy laws because of the presence of names, addresses, losses, etc. These properties, though, can be depicted in this document by type (i.e., single family, 2-4 family, etc.). To better illustrate areas with repeated flooding problems, the *general* areas where these properties are located is also listed.

- **Berkeley County:** 62 total properties
  - 58 single family
  - 2 "assumed" condo
  - 1 2-4 family
  - 1 Non-residential

- **Morgan County:** 34 total properties
  - 33 single family
  - 1 Non-residential

NFIP COMPLIANCE

The following local governments in Region 9 are participants in the National Flood Insurance Program (NFIP). (The date the jurisdiction joined the NFIP is included in parentheses.)

- Berkeley county (December, 1977)
- City of Martinsburg (June, 1974)
- Morgan County (August, 1977)
- Town of Berkeley Springs [Bath] (February, 1976)
- Town of Paw Paw (August, 1974)

The town of Hedgesville is neither listed as participating or not participating in the NFIP. This status will be updated as further information can be obtained.

Each jurisdiction has designated an "NFIP Coordinator", sometimes referred to as the "Floodplain Manager". This individual maintains the jurisdiction's floodplain ordinance and ensures that development is compliant with that ordinance (and, consequently, the NFIP). The operations of the floodplain offices in Region 9 are similar from jurisdiction to jurisdiction (*Sources:* Interviews with floodplain managers, existing mitigation plans). The Region 9

Planning & Development Council (PDC) maintains contact information for all 5 floodplain managers as well as exact lists of the services they provide.

Generally, all provide three (3) basic services: floodplain identification, floodplain management, and outreach.

Floodplain Identification

Throughout the region, the floodplain managers are the primary local contact for floodplain mapping. In many cases, they are responsible for using these maps to determine whether structures or proposed structures/developments are either in or out of the floodplain. Floodplain managers can provide information as to the "zone" (e.g., A, AE, etc.) a proposed development is located. Zone designations can affect insurance policies and rates.

Floodplain managers work with surveyors and engineers to assist the public with elevation certificates. This assistance includes putting those in need in contact with appropriate surveyors, providing access to certain forms (e.g., letter of map amendment, etc.), etc. Floodplain managers may also serve as a liaison with the Federal Emergency Management Agency (FEMA) by collecting and submitting completed certificates.

Finally, on an as-needed basis, floodplain managers review updates to the flood maps themselves. This type of service is done to varying degrees throughout the region. As a follow up to map review, floodplain managers work with their governing body to update the floodplain ordinance appropriately. In some jurisdictions, such maintenance is a joint approach.

It is significant to note that both counties in Region 9 have adopted the most recent versions of the Flood Insurance Rate Map (FIRM) mapping for their jurisdictions.

Floodplain Management

In many ways, "floodplain management" is difficult to define. All floodplain managers work closely with their governing bodies to ensure that the floodplain ordinance is current and viable. Floodplain managers are responsible for enforcing the floodplain ordinance (usually through the floodplain identification tasks discussed above). Floodplain managers also keep records of all maps and certificates for their jurisdictions.

The coordinators for both counties in the region also often provide support to municipal floodplain coordinators. County and other municipal floodplain coordinators often support these municipalities with advice, technical assistance, quality control (i.e., a "second opinion"), etc. Further, many of the municipal jurisdictions throughout the region are small with part-time or volunteer government staff. County coordinators can support these efforts as well. Municipalities

themselves, though, are responsible for providing the "ultimate say" for cases within their jurisdiction.

Floodplain identification and management also include integration with other planning efforts. For example, municipal floodplain management is also closely related to the building permitting process. Many municipal coordinators indicated that determining whether a proposed project was in the floodplain was a part of their approval process.

Outreach

Finally, the floodplain coordinators serve as the Points of Contact (POCs) for their jurisdiction's residents regarding floodplain regulations. All coordinators indicated that they maintain the appropriate forms, contact lists for local surveyors and engineers, the most recent version of FIRM or D-FIRM information, etc. Educating the community about the value of flood insurance also falls under this category.

VULNERABLE STRUCTURES

Vulnerable Structures – Flooding								
County	*Residential*	*Commercial*	*Industrial*	*Agricultural*	*Religious*	*Government*	*Education*	*Utilities*
Berkeley	9,692	298	12	8	12	0	6	16
Morgan	800	10	0	150	12	0	0	11
TOTALS	**10,492**	**308**	**12**	**158**	**24**	**0**	**6**	**27**

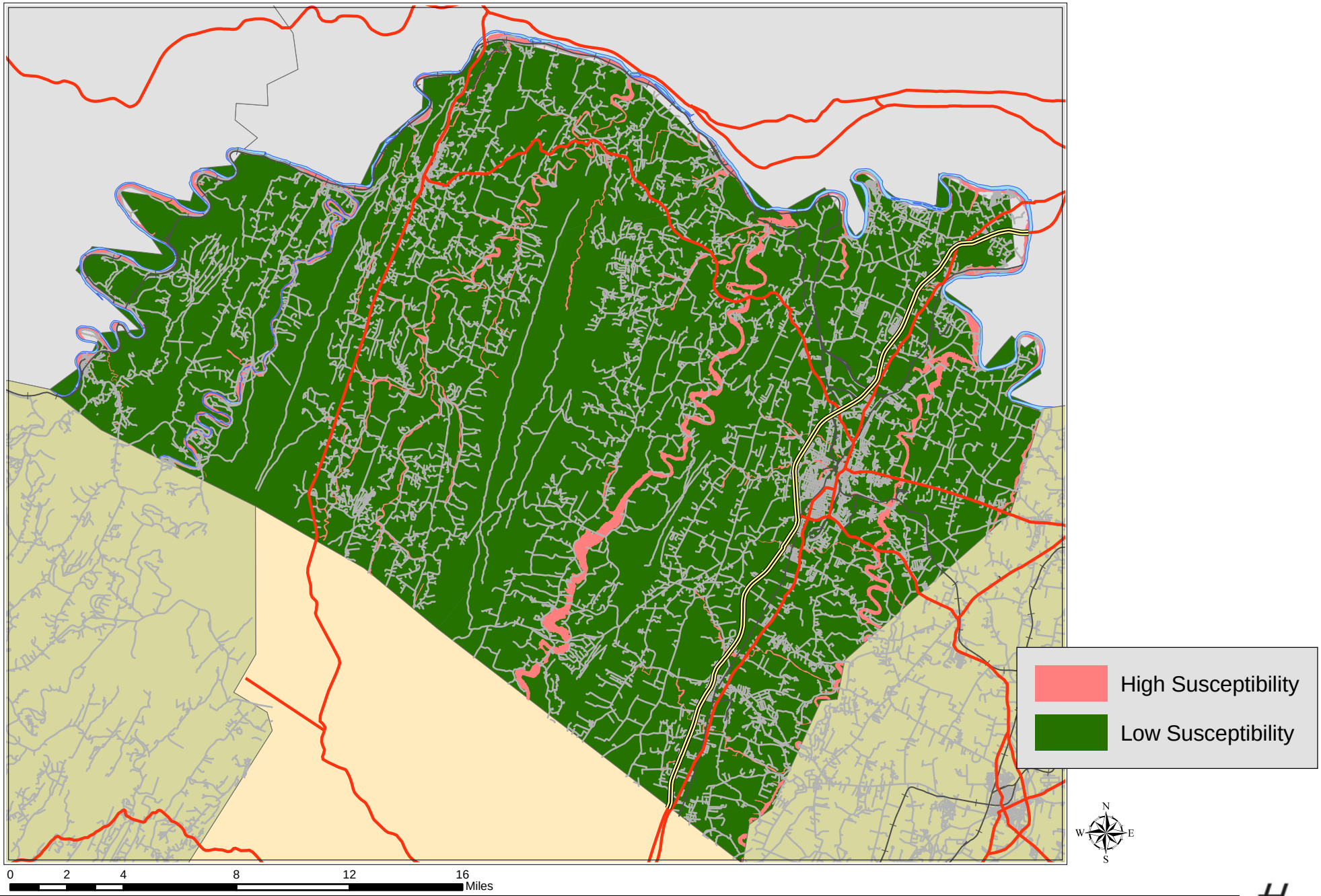
**NOTE: An estimated number of vulnerable structures was loosely derived using the 100-year floodplain.*

LOSS ESTIMATES: Loosely based on a 100-year flood, the counties in Region 9 could experience the following aggregate losses.

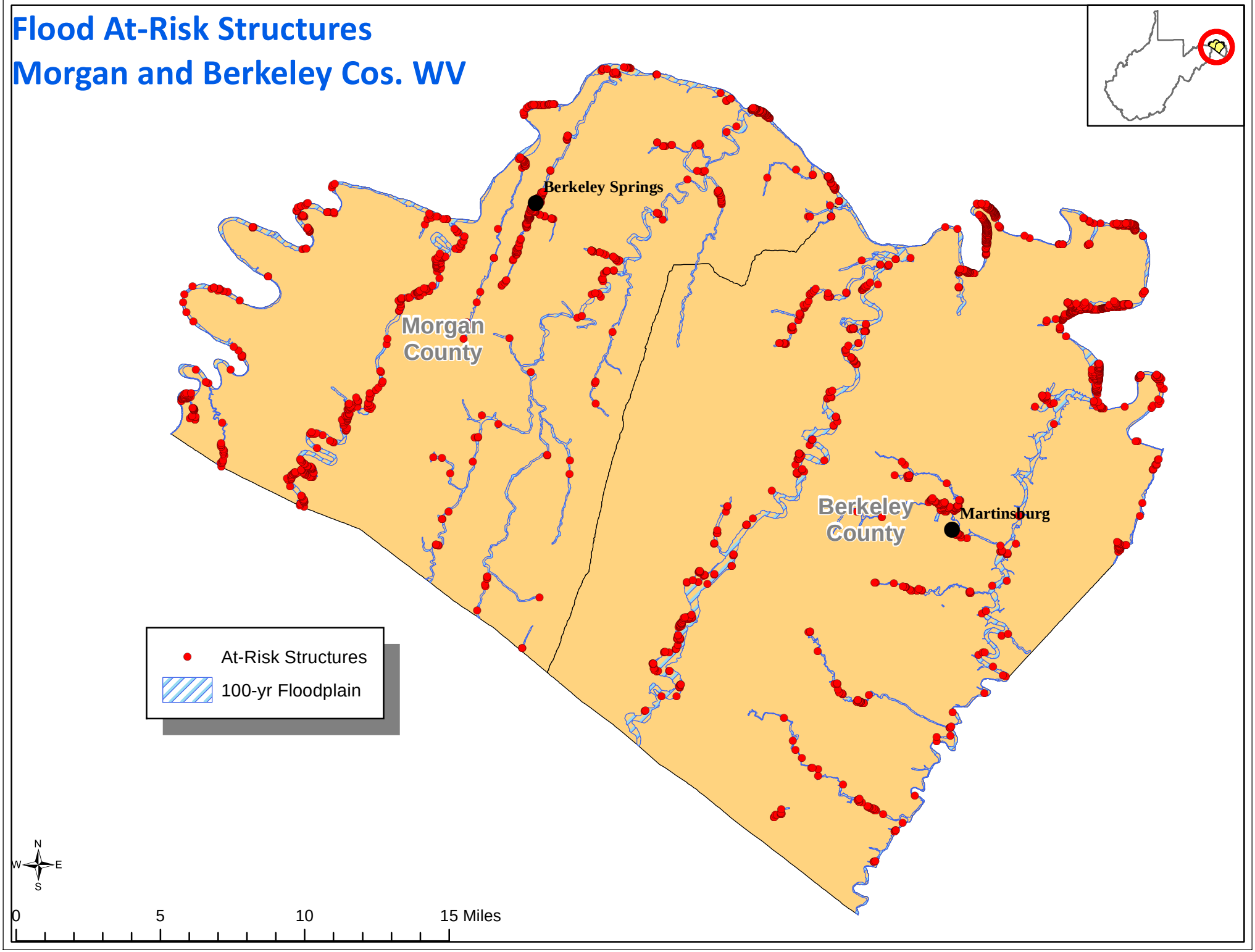
- **Berkeley:** $2,070,321,518
- **Morgan:** $437,267,428

*NOTE: Detailed flood mapping for each county is maintained by each jurisdiction in Region 9. Identification of floodplain areas on those maps is based on FIRM data (D-FIRM, if available) produced by the National Flood Insurance Program NFIP. Additional resources, such as the West Virginia Flood Hazard Determination Tool (http://www.mapwv.gov/flood/) can also be used. See the regional flood map that is appended to this document for a general, graphic depiction of flood risk in Region 9.

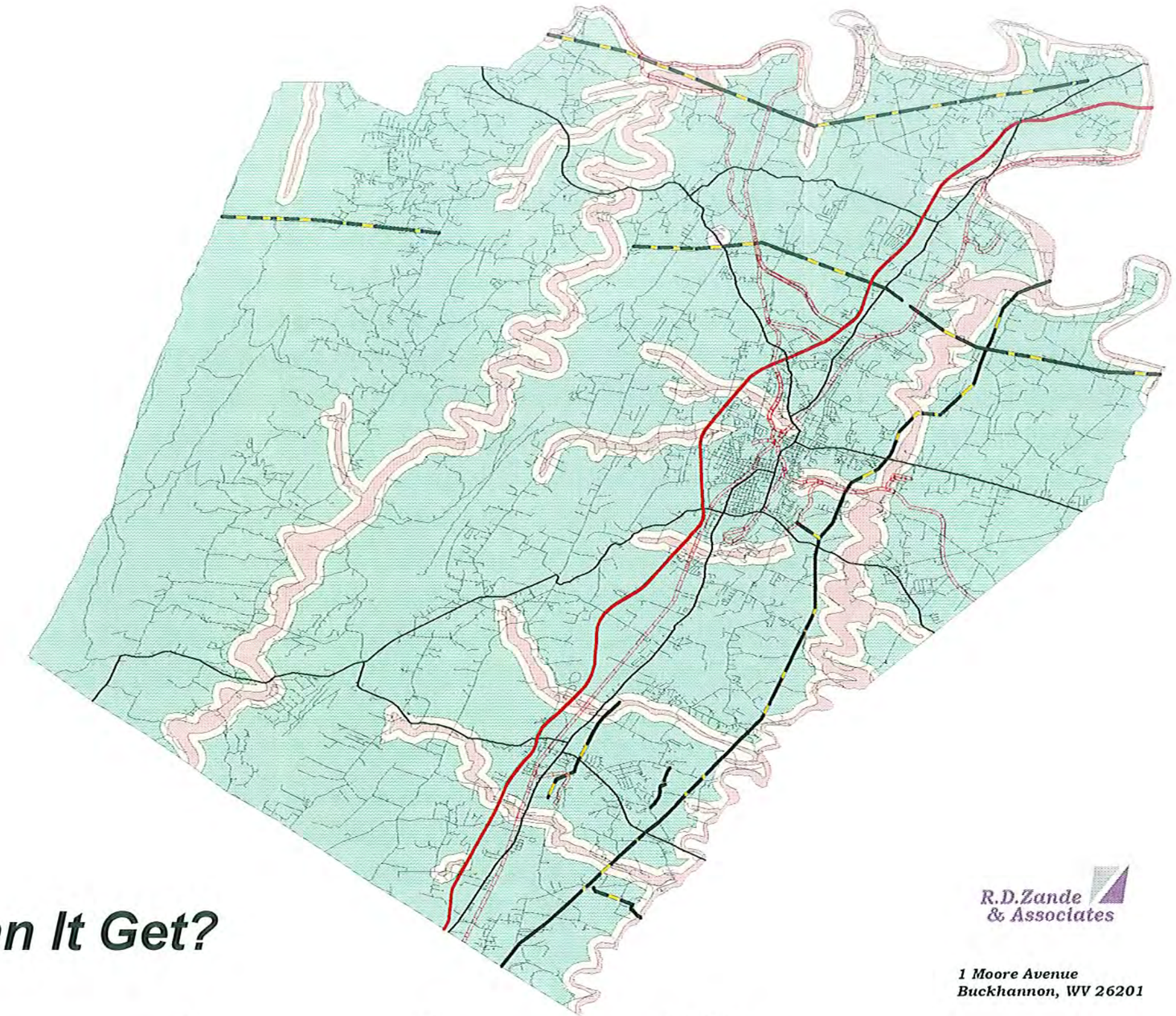
PROFILE MAP: FLOODING



Flood At-Risk Structures
Morgan and Berkeley Cos. WV



Flooding



MAP LEGEND

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

How Bad Can It Get?

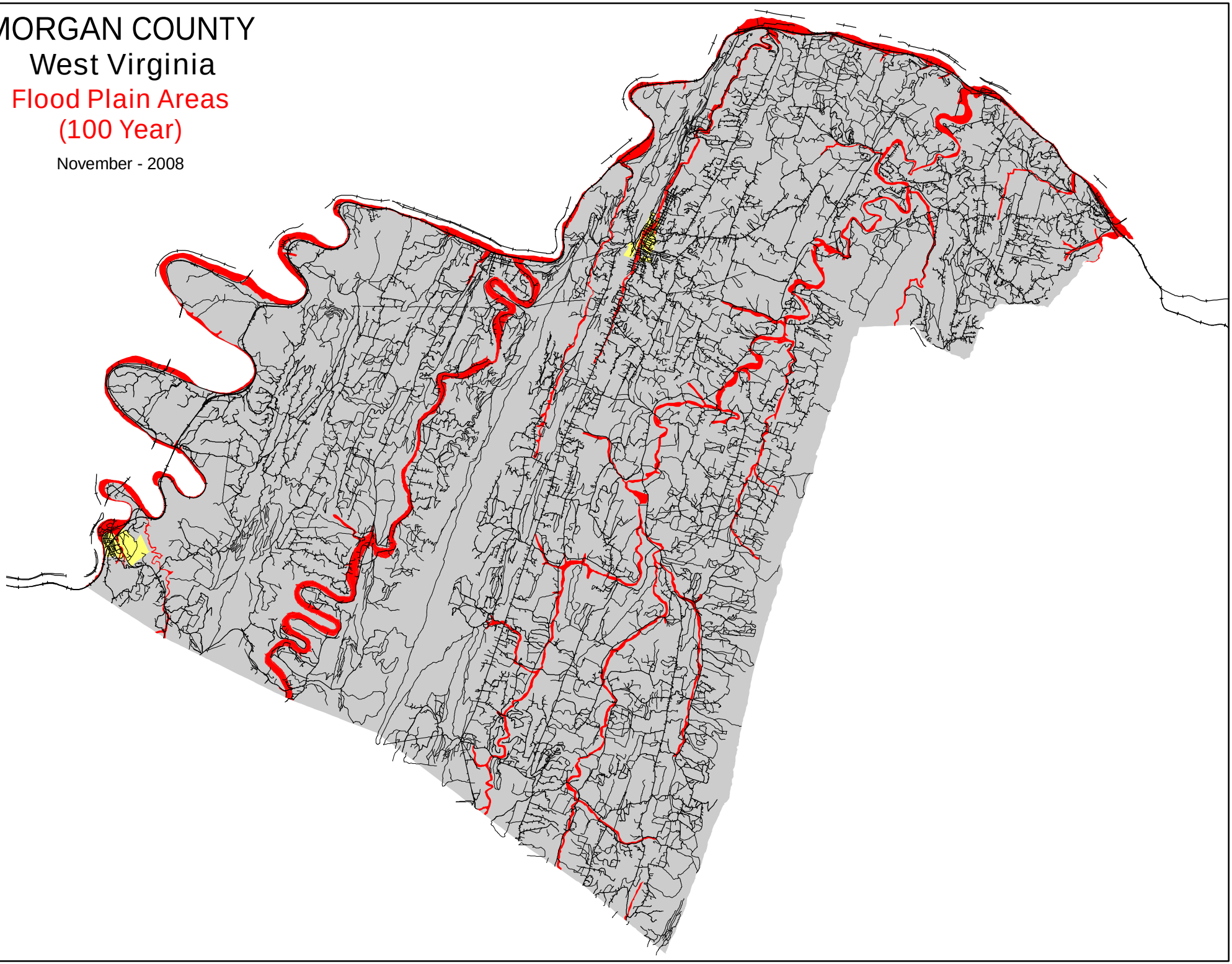
6 0 6 12 18 Miles

R.D.Zande & Associates

1 Moore Avenue
Buckhannon, WV 26201

MORGAN COUNTY
West Virginia
Flood Plain Areas
(100 Year)

November - 2008



2.2.6: Hailstorm

Hail is a form of precipitation which occurs when freezing water in thunderstorm type clouds accumulates in layers around an icy core. When this event takes place, balls or irregular lumps of ice are created. On average, hail can be from 5mm to 50mm in diameter.

RESEARCH SOURCES

- NCDC Event Records

Period of Occurrence:	At any time
Probability of Event:	Likely – Usually associated with severe thunderstorms
Warning Time:	Minutes to hours
Potential Impacts:	Large hail can minimally damage property (facilities) as well as crops
Cause Injury or Death:	Injury
Potential Facility Shutdown:	Minimal

HAZARD EFFECTS

When hail occurs, it can cause damage by battering crops, structures, automobiles, and transportation systems. When hailstorms are large, especially when combined with high winds, damage can be somewhat extensive. Hail is also much more common along mountain ranges because mountains force horizontal winds upwards thereby intensifying the updrafts within thunderstorms, where hail is formed, and making hail more likely. In mountainous areas, the falling hail has less time to melt before touching the ground.

Hail is a relatively minor natural hazard in all parts of the region. It has been included in this plan by virtue of the frequent occurrences. All parts of the region are affected equally. Even with these frequent occurrences, losses are small, especially to critical facilities and other infrastructure. Much like minor thunderstorms, hailstorms rarely slow down the daily lives of the residents in the region. If their vehicles or homes are damaged, they usually claim those damages on their insurance policies or repair the damage themselves.

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 the Eastern Panhandle. Potomac Edison reported 3,000 customers without power during the peak of the storm.

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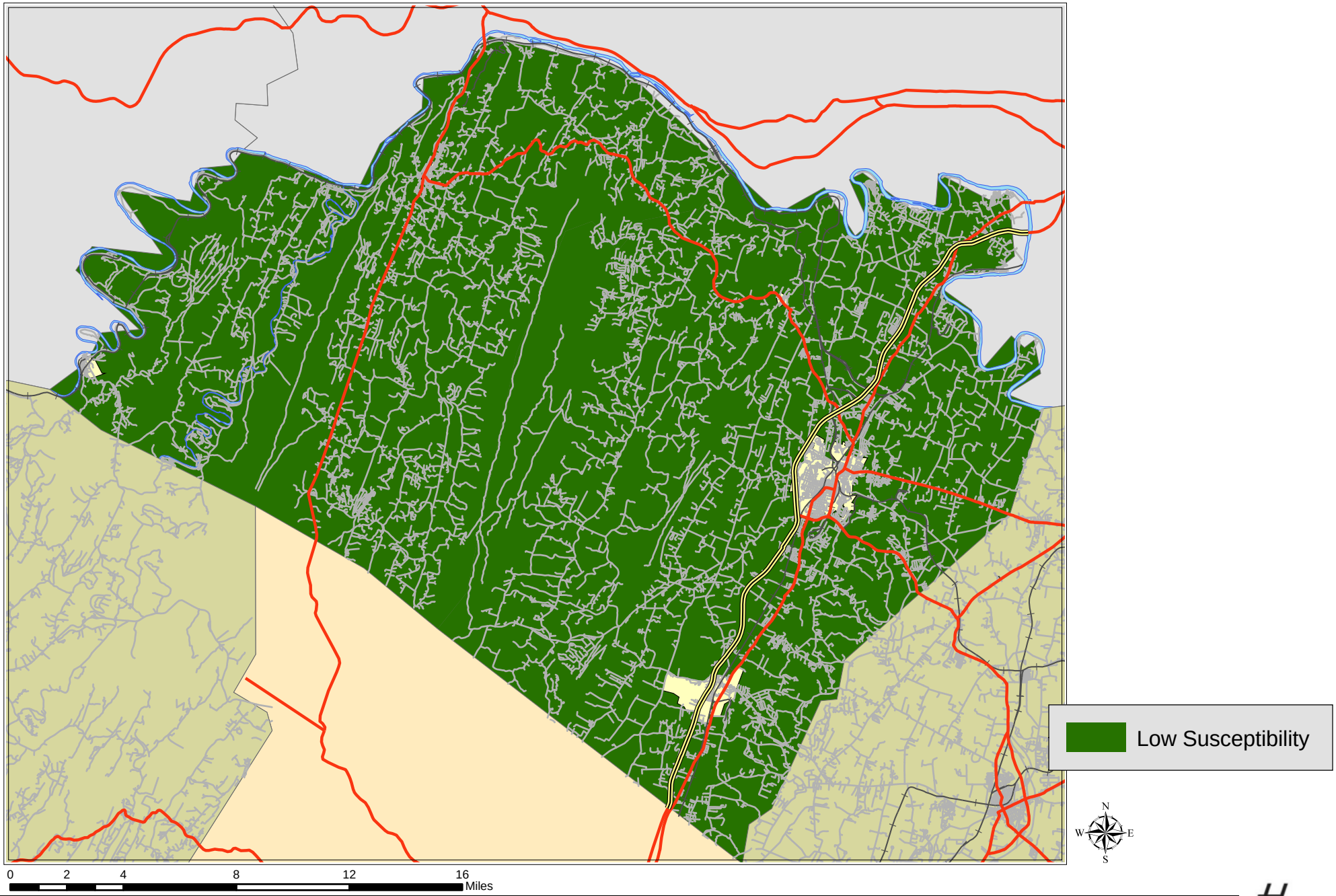
LOSS ESTIMATES

As a minor hazard, potential losses as a result of hail are small, even though all structures in the region can be said to be at risk of hail damage. The average losses per worst-

case scenario hail event could total $570,194. If all counties were damaged to the “worst-case scenario” level, losses could be as much as $1,140,387. *NOTE: Loss estimates are listed at these levels because of the confusion usually results in damage from hailstorms (as directly from hail or as part of the thunderstorm producing hail).

PROFILE MAP: HAILSTORM



2.2.7: Hazardous Material Incident

A technological hazard refers to the origins of incidents that can arise from human activities such as the manufacture, transportation, storage, and use of hazardous materials.

RESEARCH SOURCES

- Annual Tier II filings
- *Berkeley County HMEP*
- Interviews with Local Officials

Period of Occurrence:	At any time
Probability of Event:	Infrequent
Warning Time:	None
Potential Impacts:	Potential loss of human life, economic loss, environmental damage
Cause Injury or Death:	Injury and risk of multiple deaths
Potential Facility Shutdown:	Days to weeks

HAZARD EFFECTS

The manufacture, storage, transportation, and use of hazardous materials can become a hazard if an accident occurs. Hazardous material incidents typically happen in one (1) of two (2) ways: fixed facility releases and/or transportation accidents. The major difference between the two is that it is reasonably possible to identify and prepare for a fixed facility incident because laws require those facilities to notify state and local authorities of what materials are being used, stored, and/or produced at that facility.

Transportation incidents are substantially more difficult for which to prepare, however, because it is difficult to determine what material(s) could be involved until the accident actually happens. Information is routinely compiled on the locations of facilities that store hazardous materials. Further, the US Department of Transportation (USDOT) estimates that the vast majority of hazardous material incidents occur during the transport phase.

HAZARD PROFILE

All counties in Region 9 contain “covered facilities” that report the use and/or storage of hazardous materials to the appropriate county Local Emergency Planning Committee (LEPC). The following are approximate facility counts for each county (*Source: Local LEPCs*):

- **Berkeley:** 66*
- **Morgan:** 14*

**NOTE: “Star” denotes estimated numbers.*

It could be easy to predict the location of fixed facility hazardous material incidents. The probability of such occurrences, though, is relatively low. Should an event occur, many facilities have internal response protocols to contain the release.

The map below depicts high and moderate risk areas for transportation hazardous material incidents throughout the region. The red bands roughly follow the paths of Interstate 81 and represent high risk areas. The yellow bands following State Route 9, US Route 11 and 522, and Interstate 81represent moderate transportation hazmat hazards.

VULNERABLE STRUCTURES

Vulnerable Structures – Hazardous Material Incident								
County	*Residential*	*Commercial*	*Industrial*	*Agricultural*	*Religious*	*Government*	*Education*	*Utilities*
Berkeley	7386	1000	125	50	14	7	5	32
Morgan	283	10	13	75	1	1	2	11
TOTALS	**7669**	**1010**	**138**	**125**	**15**	**8**	**7**	**43**

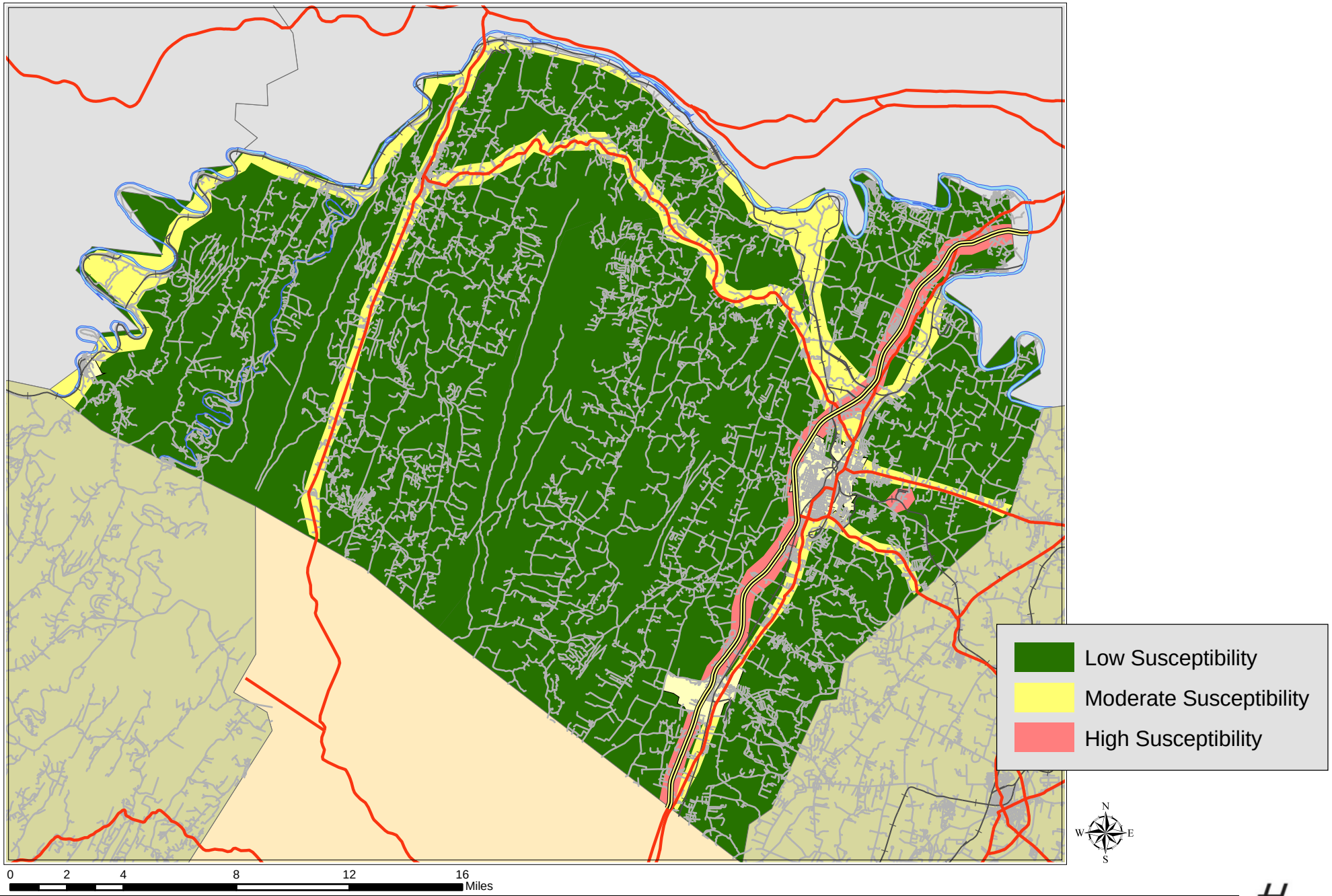
LOSS ESTIMATES

In general, due to the higher number of covered facilities and the presence of major thoroughfares, Berkeley County is at a higher risk from hazardous materials than Morgan County. Loss estimates, though, should be done for all both counties given the presence of covered facilities (who will likely have materials shipped to or from their facility).

In an effort to assist jurisdictional understanding of risks and implementation of strategies, such estimates were done for each county; the following table reflects those efforts. These are WCS estimates and were organized by county because hazardous material incidents are site-specific hazards.

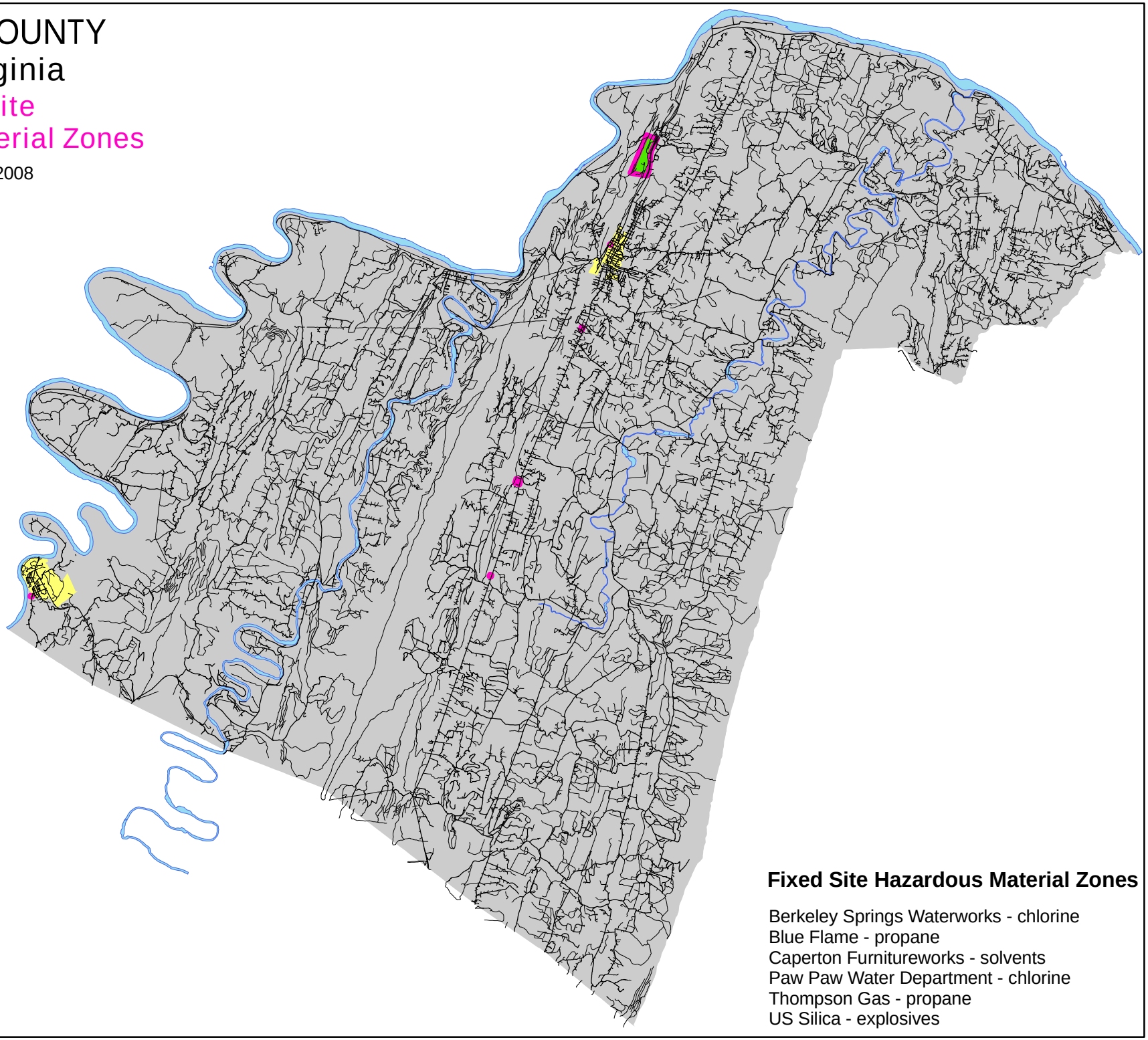
Estimated Hazardous Material Losses	
County	*Loss Estimate*
Berkeley	$517,839,656
Morgan	$30,030,596
TOTALS	**$547,870,252**

PROFILE MAP: HAZARDOUS MATERIALS



MORGAN COUNTY
West Virginia
Fixed Site
Hazardous Material Zones

November - 2008

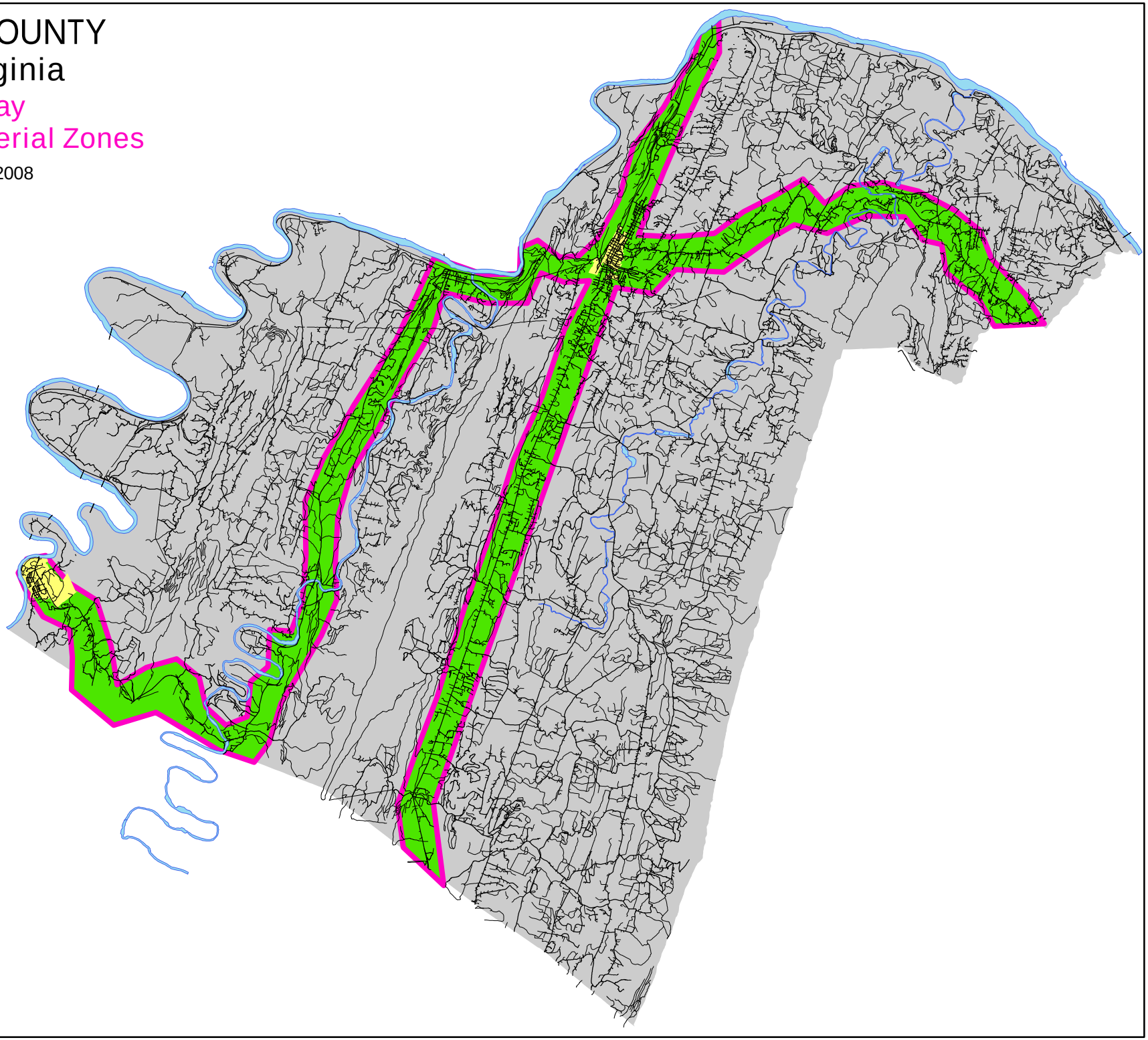


Fixed Site Hazardous Material Zones

Berkeley Springs Waterworks - chlorine
Blue Flame - propane
Caperton Furnitureworks - solvents
Paw Paw Water Department - chlorine
Thompson Gas - propane
US Silica - explosives

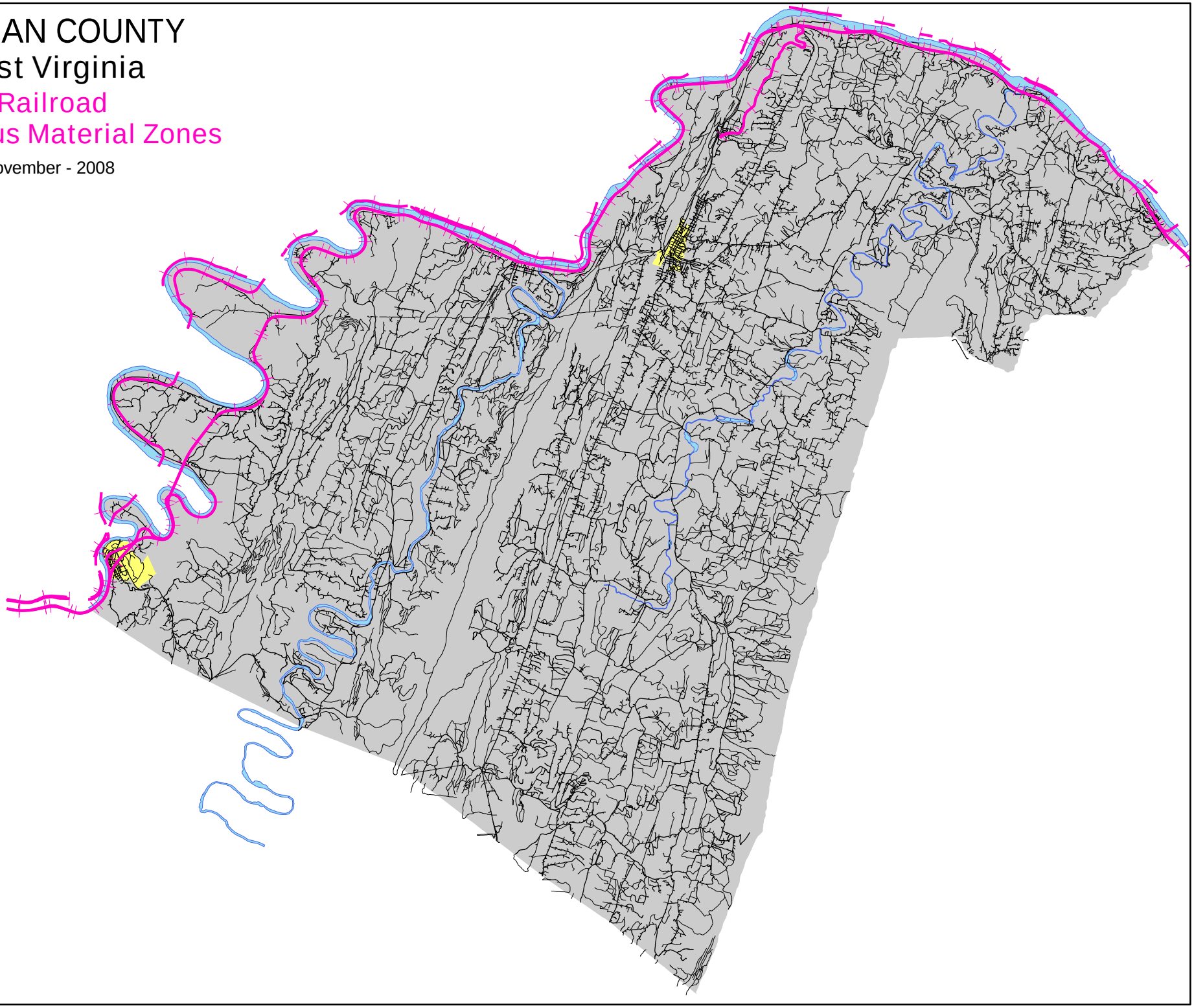
MORGAN COUNTY
West Virginia
Highway
Hazardous Material Zones

November - 2008



MORGAN COUNTY
West Virginia
Railroad
Hazardous Material Zones

November - 2008



2.2.8: Infestation

An infestation is to spread or swarm in or over in a troublesome manner. Also, an infestation may mean to live in, or on, as a parasite.

RESEARCH SOURCES

- Interviews with Local Officials
- West Virginia Division of Forestry
- Internet Research

Period of Occurrence:	At any time
Probability of Event:	Probable
Warning Time:	Months to Years
Potential Impacts:	Can be particularly damaging to crops and timber
Cause Injury or Death:	N/A
Potential Facility Shutdown:	N/A

HAZARD EFFECTS

The effects of an infestation to this region could be quite damaging due to the thousands of acres of agriculture and forested land in the region.

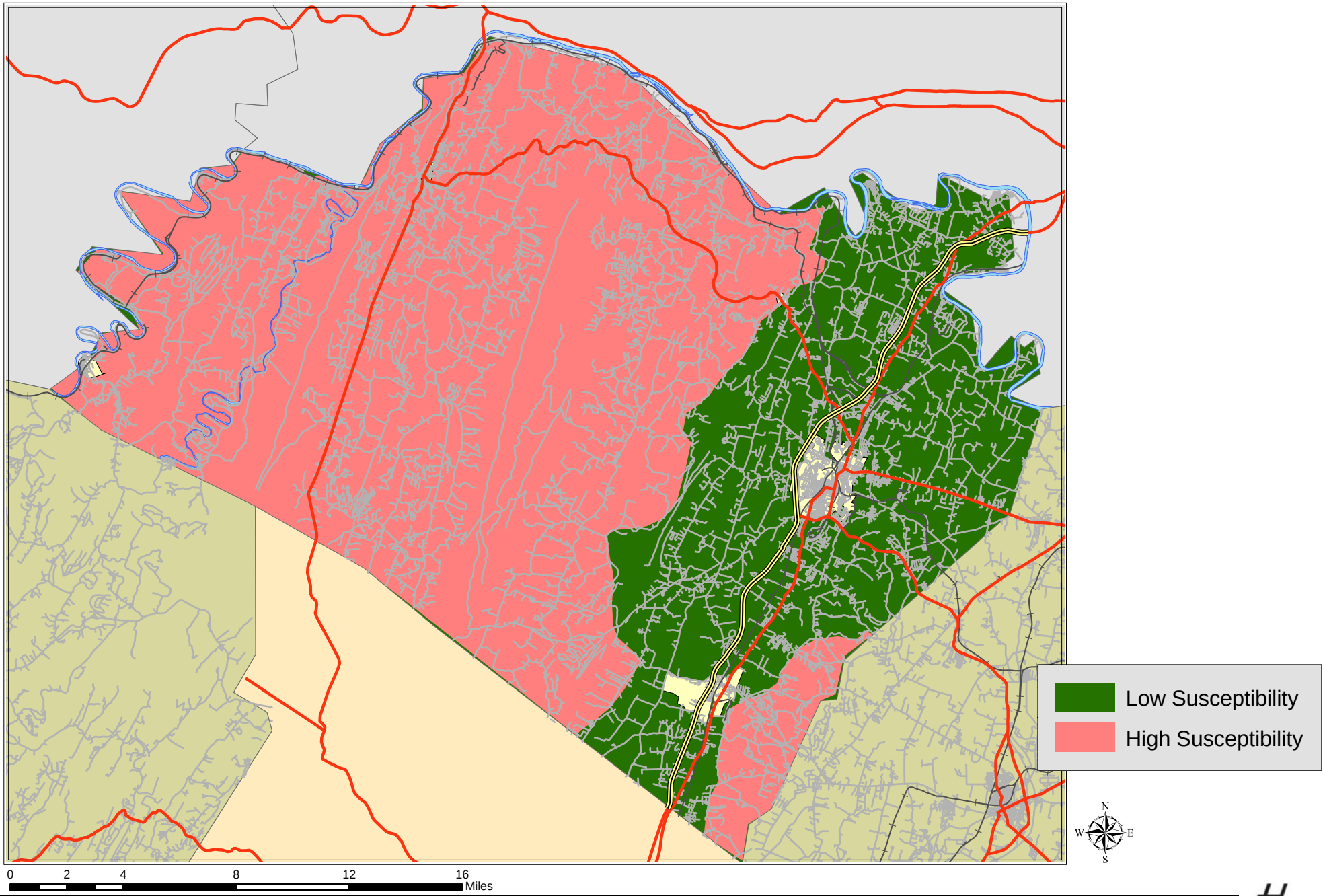
The Eastern Panhandle has been identified by the department of forestry as being infested with gypsy moths and may possibly encounter an infestation from Asian long horned beetles, southern pine beetles, and mosquitoes.

HAZARD PROFILE

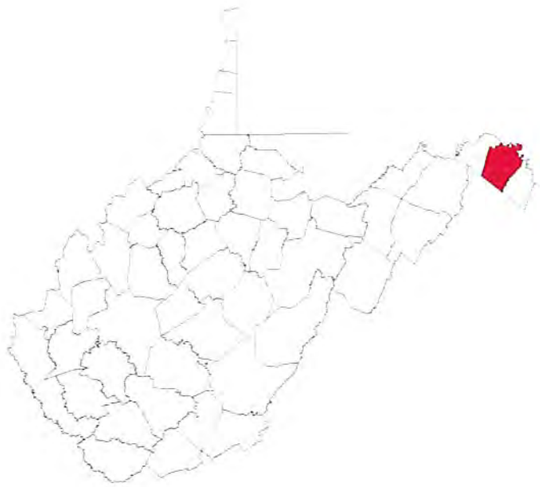
No single infestation has been identified in the current county's hazard mitigation plans. But that is not to say an infestation could not strike any area within the region at any time.

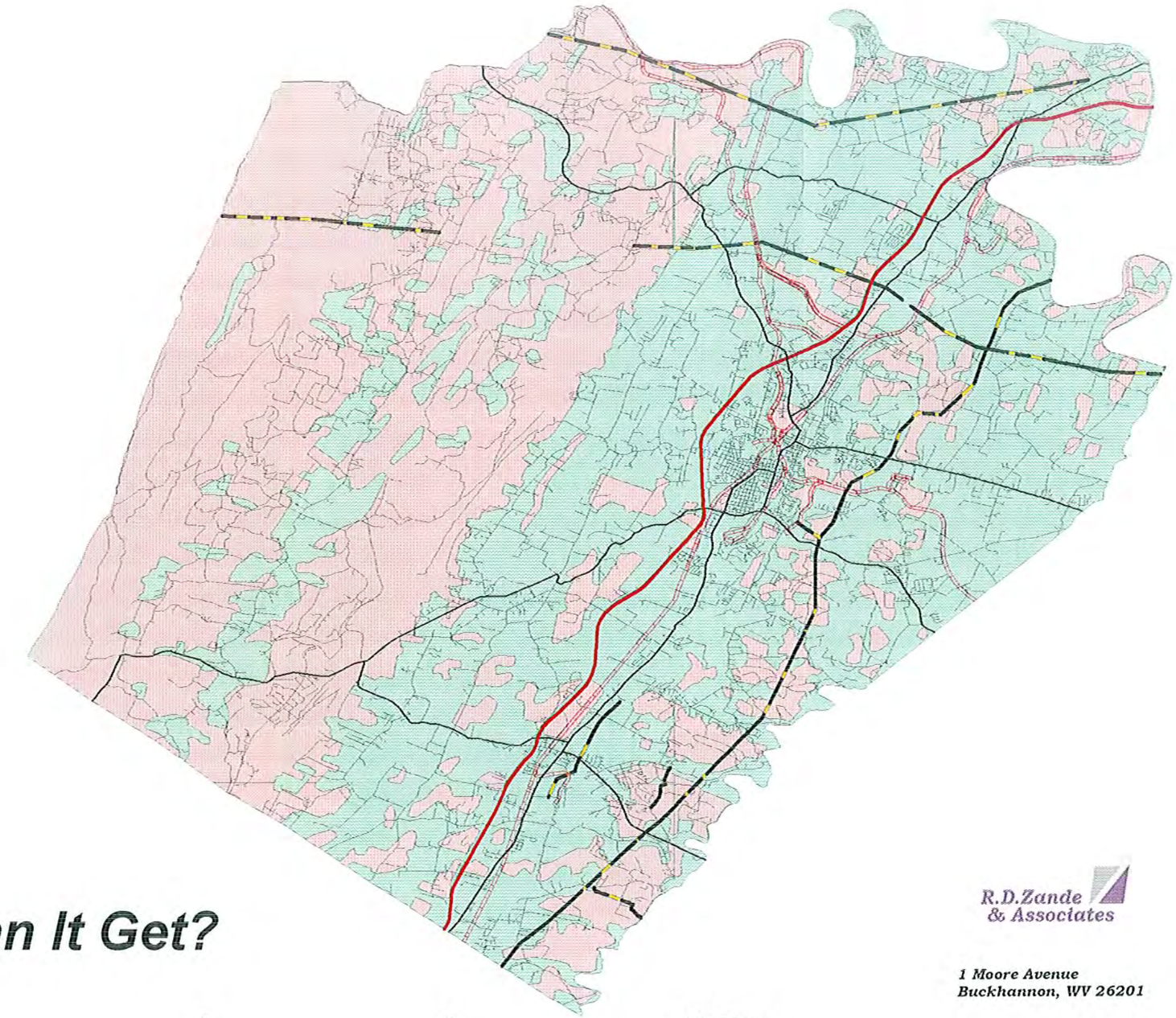
The gypsy moth is potentially the most destructive forest pest threatening West Virginia woodlands. Since its inadvertent introduction into Massachusetts in 1869, it has spread naturally south and west at approximately 5-10 miles per year. In the last 10 years, it has been spreading across the eastern panhandle and northern counties of this state. It is presently concentrated in Jefferson, Berkeley, Morgan, Hampshire, Hardy, Pendleton, Grant, Mineral, Tucker, Randolph, Pocahontas, Preston, Taylor, Barbour, Monongalia, Marion, Hancock, Brooke, Ohio, Marshall, Wetzel, Harrison, and Upshur counties.

PROFILE MAP: INFESTATION



Infestation





MAP LEGEND

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

- High Hazard
- Low Hazard

How Bad Can It Get?

6 0 6 12 18 Miles

R.D.Zande & Associates

1 Moore Avenue
Buckhannon, WV 26201

2.2.9: Land Subsidence

Land subsidence refers to any failures in the ground that cause collapses in the earth's surface.

RESEARCH SOURCES

- Interviews with Local Officials
- USGS Landslide Overview Map
- Internet Research (http://www.nationalatlas.gov)

Period of Occurrence:	At any time – Chance of occurrence increases following long periods of heavy rain, snowmelt, or near construction activity
Probability of Event:	Infrequent
Warning Time:	Weeks to months – Some instances of land subsidence can occur quickly without warning, but often in the context of other storm events.
Potential Impacts:	Economic losses such as decreased land values, agrobusiness losses, disruption of utility and transportation systems, and costs for any litigation. May cause geological movement, causing infrastructure damages ranging from minimal to severe.
Cause Injury or Death:	Injury
Potential Facility Shutdown:	Days to weeks

HAZARD EFFECTS

Land subsidence hazards include: landslides (a wide range of earth movement such as rock falls), debris flow (e.g., mudslides and avalanches), and expansive soils (which is the swelling and sinking of soil). Each of these hazards involves ground movement in or on the earth's surface. These hazards can be caused by natural processes such as the dissolving of limestone underground, earthquakes, or volcanic activity. Land subsidence hazards can also occur as a result of human actions such as the withdrawal of subsurface fluids or underground mining; unplanned commercial, residential or industrial developments; roadway construction; etc.

HAZARD PROFILE

Most of Region 9's counties lie on a geological formation containing evaporite rocks such as salt and gypsum. (The map below demonstrates the presence of "evaporite rocks" in West Virginia and roughly throughout the Region 9 area.) Various portions of the region also contain karst formations. These southern-most portions contain a number of underground caves that could collapse, causing subsidence on top of the ground. Some portions of the region have been undermined, which could also result in subsidence. As a result, the entire region appears susceptible to subsidence, but it should be noted that the type of subsidence could vary. According to nationalatlas.gov, sink holes and other subsidence are not predicted to be extensive in the areas of West Virginia containing these formations.

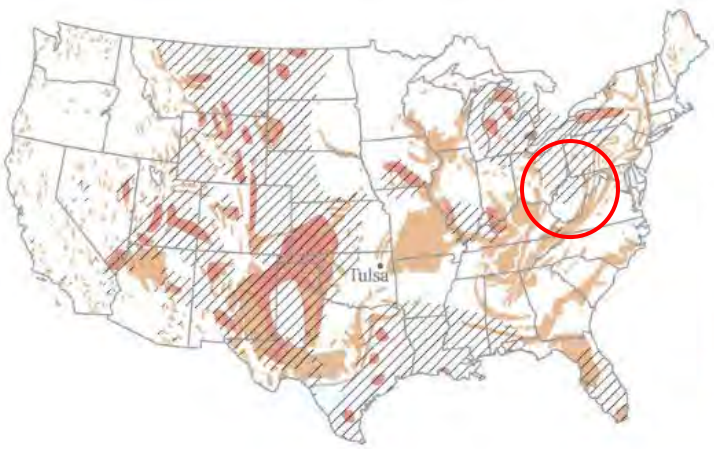
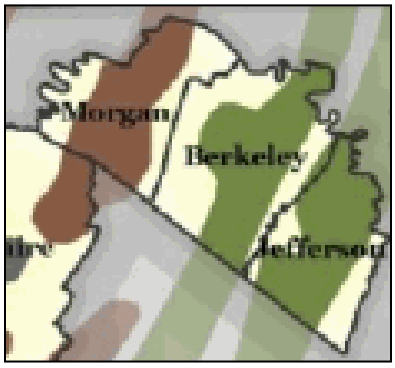


Figure 9. Salt and gypsum underlie about 40 percent of the contiguous United States. Carbonate karst landscapes constitute about 40 percent of the United States east of Tulsa, Oklahoma (White and others, 1995).

Evaporite rocks—salt and gypsum
Karst from evaporite rock
Karst from carbonate rock
(modified from Davies and Legrand, 1972

The *West Virginia State Standard All-Hazard Mitigation Plan* discusses karst formations throughout West Virginia. According to that document, Region 9 contains areas of "long karst" and areas of "short karst". The image at right depicts these areas. The brown sections are long karst and the green section represents short karst.



Fortunately, neither county in the region has reported significant numbers of historical land subsidence occurrences. Most slippage is a result of other hazards, such as heavy rains. Other instances of landslides result from construction activities.

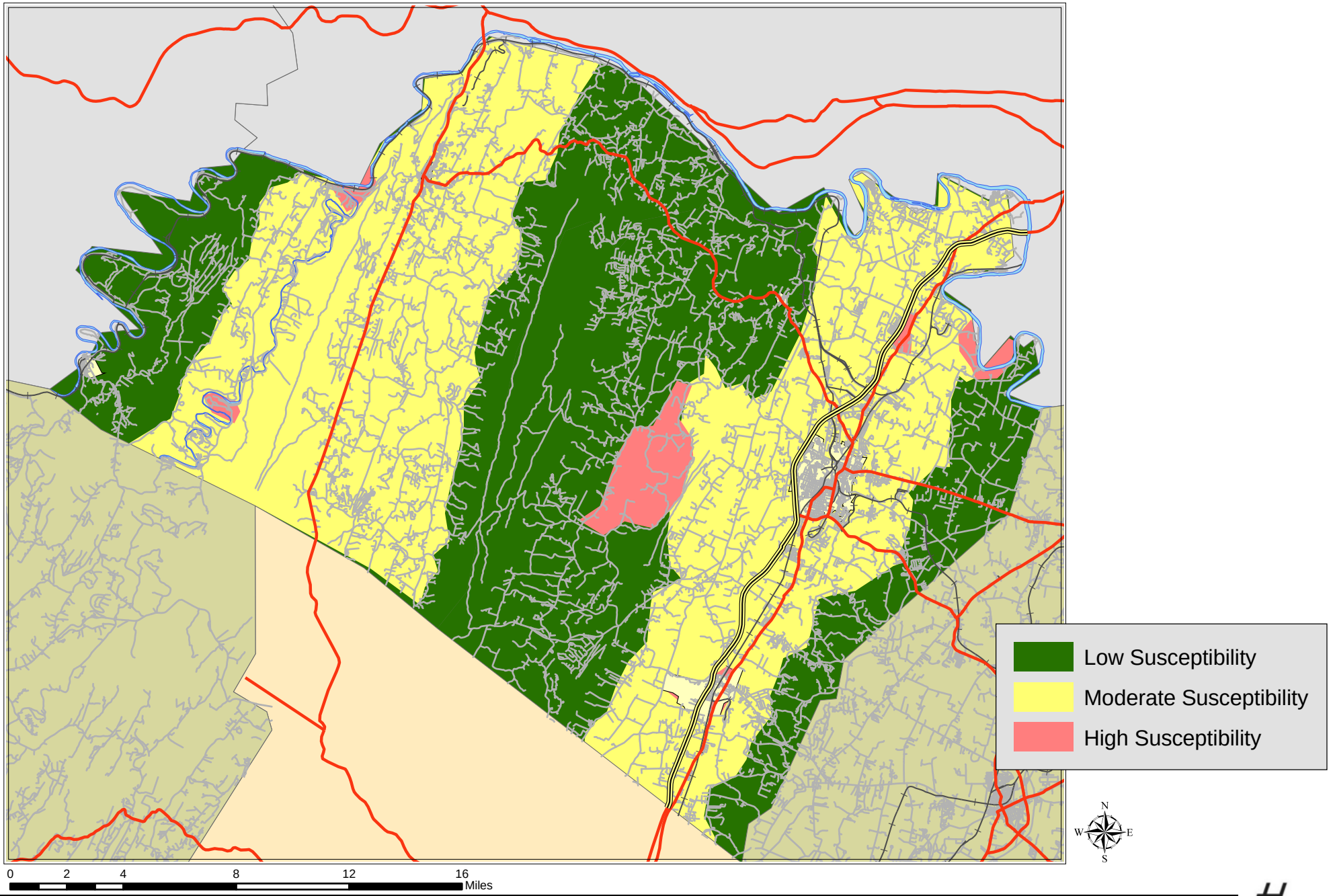
VULNERABLE STRUCTURES

Vulnerable Structures – Land Subsidence								
County	*Residential*	*Commercial*	*Industrial*	*Agricultural*	*Religious*	*Government*	*Education*	*Utilities*
Berkeley	5,895	181	7	5	7	5	4	1
Morgan	5,000	150	10	175	25	10	7	8
TOTALS	**10,895**	**331**	**17**	**180**	**32**	**15**	**11**	**9**

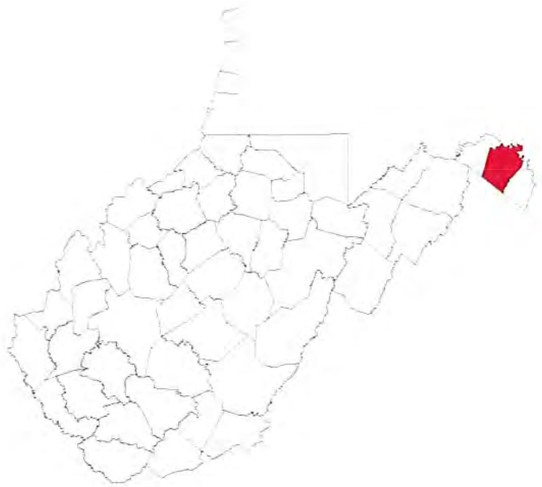
LOSS ESTIMATES

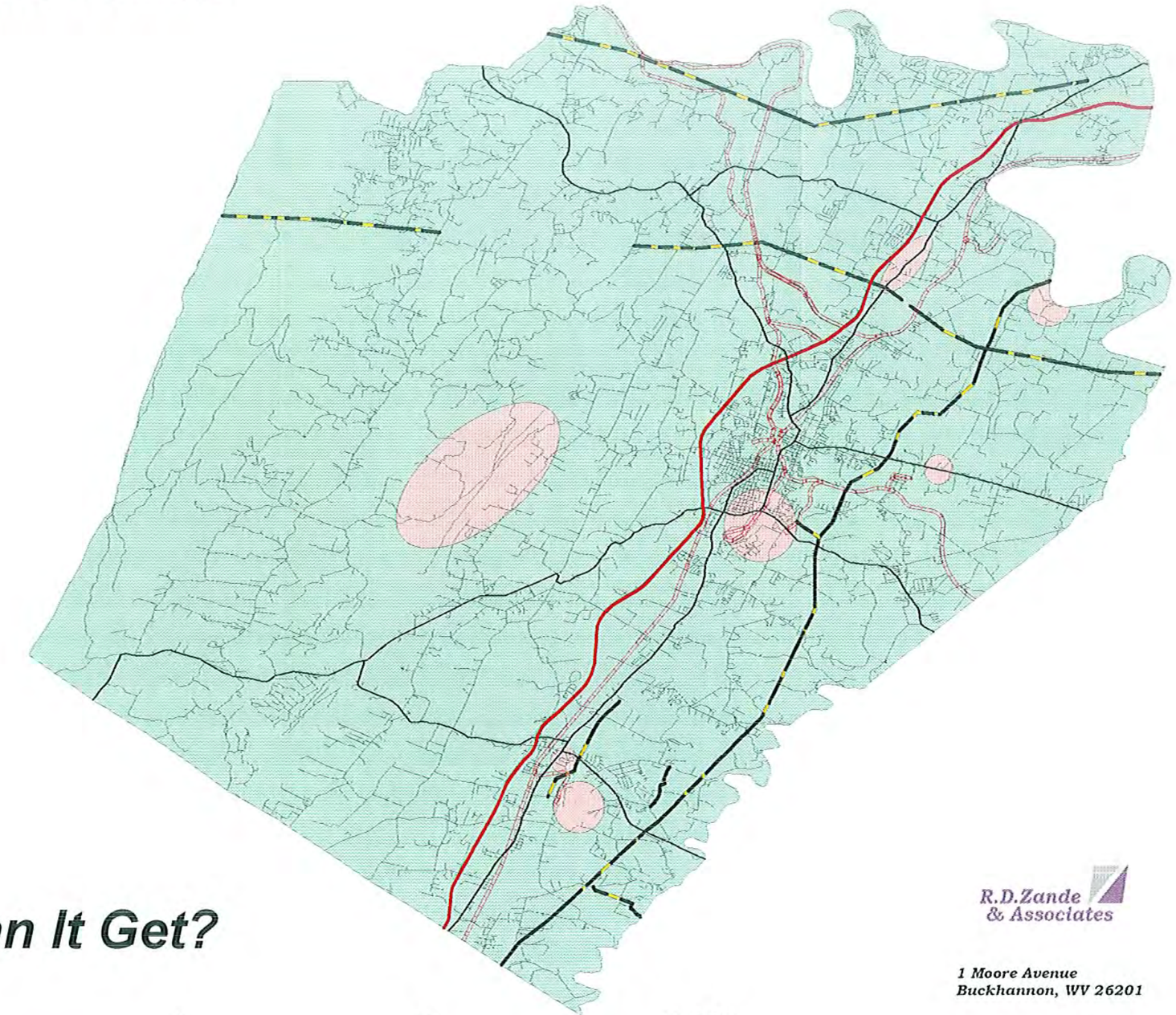
Land subsidence can be a gradually-occurring hazard or it can occur rapidly. In either case, repairing damages as a result of subsidence can be costly. Structural foundations can be damaged; transportation and other infrastructure can be damaged; etc. Consequently, subsidence-based loss estimates are somewhat high. The WCS average on a per county basis is $15,001,463. *NOTE: A region-wide estimate was not compiled since land subsidence is often considered a site-specific hazard.

PROFILE MAP: LAND SUBSIDENCE



Landslide-Sink Hole





MAP LEGEND

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

How Bad Can It Get?

6 0 6 12 18 Miles

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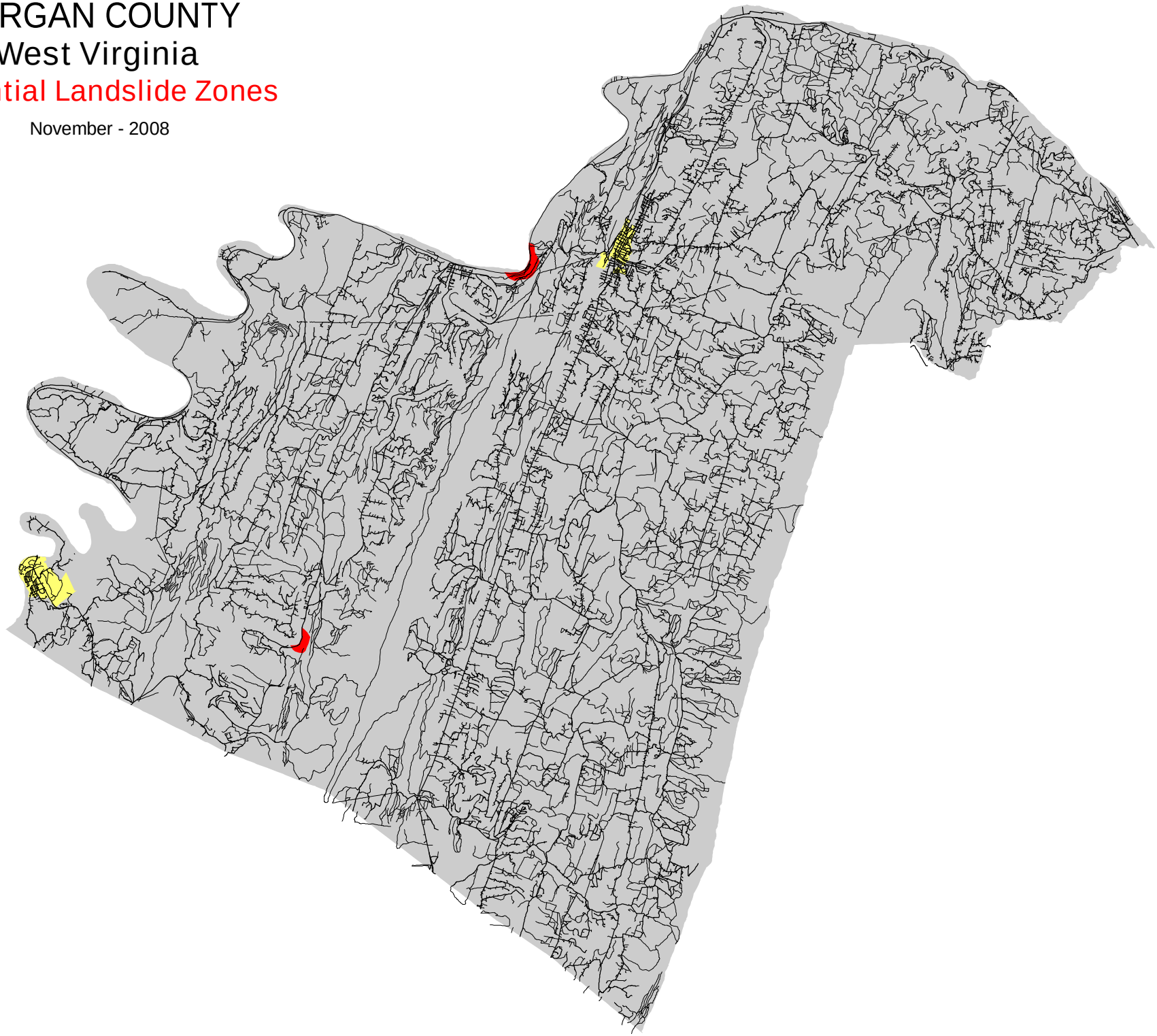
MORGAN COUNTY
West Virginia
Potential Landslide Zones

November - 2008



2.2.10: Terrorism

Terrorism is the use of force or violence, including threats of force or violence, against persons or property in violation of the criminal laws of the United States for the purposes of intimidate, coercion, or ransom.

RESEARCH SOURCES

- Interviews with Local Officials

Period of Occurrence:	At any time
Number of Events to Date (2001 – 2011):	0
Probability of Event:	Infrequent
Warning Time:	Minimal – Depends on the presence of a threat
Potential Impacts:	Potential loss of human life, economic loss, environmental damage, disruption of lifeline facilities
Cause Injury or Death:	Injury and risk of multiple deaths
Potential Facility Shutdown:	Days to weeks or more

HAZARD EFFECTS

"Acts of terrorism include threats of terrorism; assassinations; kidnappings; hijackings; bomb scares and bombings; cyber attacks (computer-based); and the use of chemical, biological, nuclear and radiological weapons. High-risk targets for acts of terrorism include military and civilian government facilities, international airports, large cities, and high-profile landmarks. Terrorists might also target large public gatherings, water and food supplies, utilities, and corporate centers. Further, terrorists are capable of spreading fear by sending explosives or chemical and biological agents through the mail." (*Source: USDHS FEMA*)

NOTE: Throughout the remainder of this profile, terrorism will be discussed generally. This profile does not include any information on any threats that have been received, specific listings of potential targets in the region, etc.

HAZARD PROFILE

All of the counties in the region contain what could be considered "targets". In general, governmental, educational, and industrial facilities could be considered *targets*, but such a consideration usually has more to do with other circumstances surrounding the facility than the facility's identification as a governmental, educational, or industrial facility. One (1) of the two (2) counties contain significant targets due to the potential effect on infrastructure (both within and

beyond the region), the population – either permanent or transient – that could be affected, the symbolic and/or historical influence of the site/facility, etc.

Terrorism is not always accomplished on a "grand scale", as is the case with international terrorists who are attempting to coerce the federal government. Such terrorism, while technically a hazard in throughout Region 9, is more unlikely than what is known as "domestic terrorism" or "homegrown violent extremism". Domestic terrorism can involve disgruntled employees (in the case of large industrial plants), angry parents (at schools), upset citizens (at government facilities), etc. Domestic terrorists may often only intend to harm a single individual or a small group of individuals, but the threat of their actions can be highly disruptive. Historical acts of domestic terrorism include such incidents as the Columbine High School shooting and the bombing of the Murrah Federal Building in Oklahoma City. School districts throughout the region report occasional bomb threats.

A terrorist event would, at a minimum, cripple the region. The effects of a terrorist incident are not only monetary; they are often emotional and symbolic. The communities throughout the region are rural and small. Any mass loss of life would take an emotional toll on the affected and nearby communities. Recent technological hazard incidents in West Virginia (e.g. the Sago and Upper Big Branch mine disasters) have shown how these losses of life impact the entire state.

Symbolically, an implemented act of terrorism would erode the feeling of security that the region enjoys. It would also likely result in a loss of faith in local decision makers and public safety officials. A loss of public support, especially in the public safety and emergency services sectors, could affect agency operating budgets, personnel recruitment, etc., thus adversely affecting the level of service that could be provided in subsequent years.

The most obvious effects of a terrorist incident would be economic. Infrastructure, including "hard" infrastructure such as facilities and systems, but also "soft" infrastructure such as people could be diminished or destroyed. Any loss of tax base and employment would be extremely hard for the communities throughout the region to overcome. The Region 9 area, though, is somewhat unique in comparison to other communities throughout West Virginia given its proximity to the National Capital Region (NCR), which is one of the most target-rich areas of the country. Should a terrorist strike the NCR, the region could see a mass influx of residents evacuating the area. The region could also suffer the indirect economic effects of the incident as many residents work in or close to D.C.

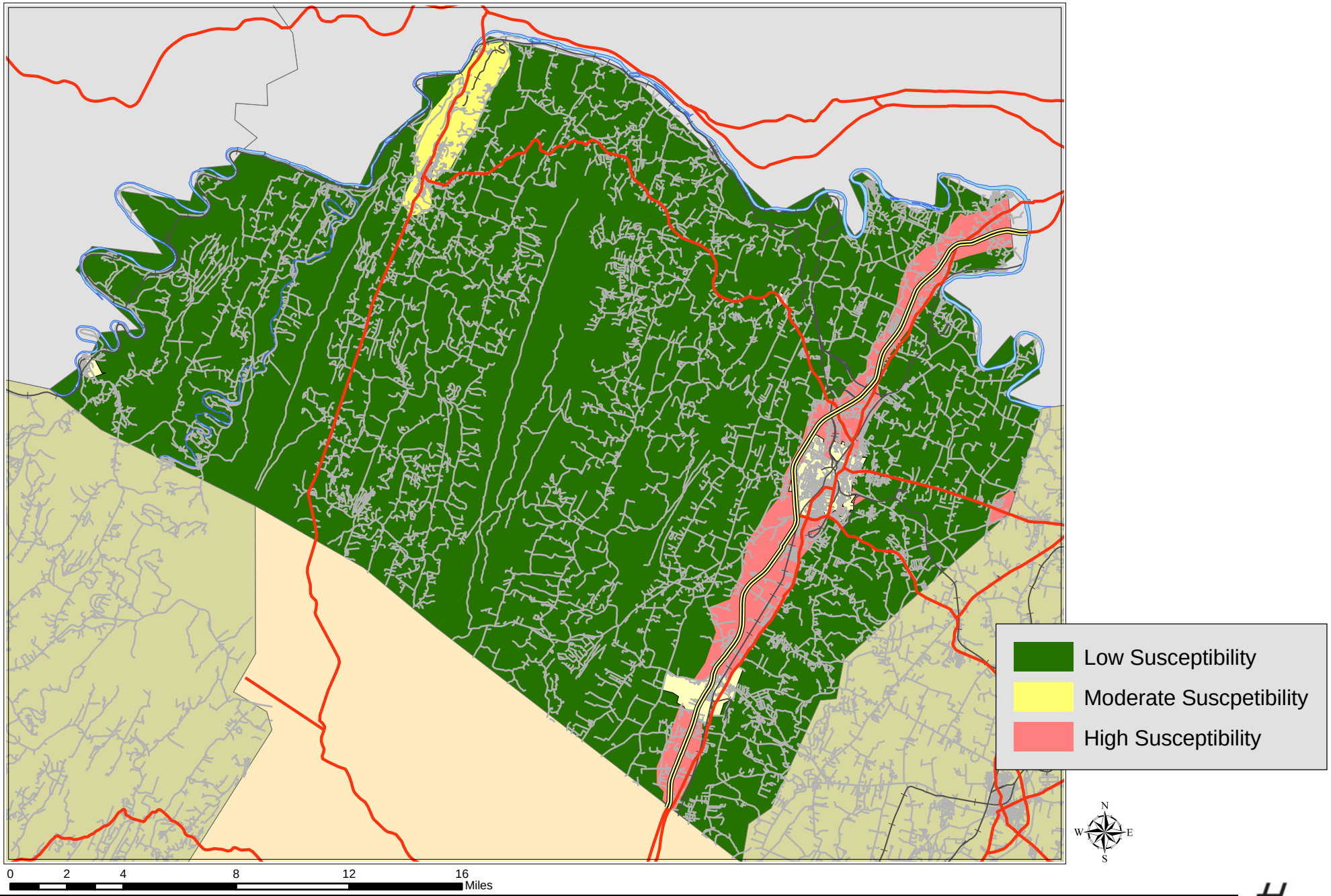
VULNERABLE STRUCTURES

Vulnerable Structures – Terrorism								
County	*Residential*	*Commercial*	*Industrial*	*Agricultural*	*Religious*	*Government*	*Education*	*Utilities*
Berkeley	23,490	723	30	20	29	11	15	15
Morgan	1,000	50	10	0	10	13	4	5
TOTALS	**24,490**	**773**	**40**	**20**	**39**	**24**	**19**	**20**

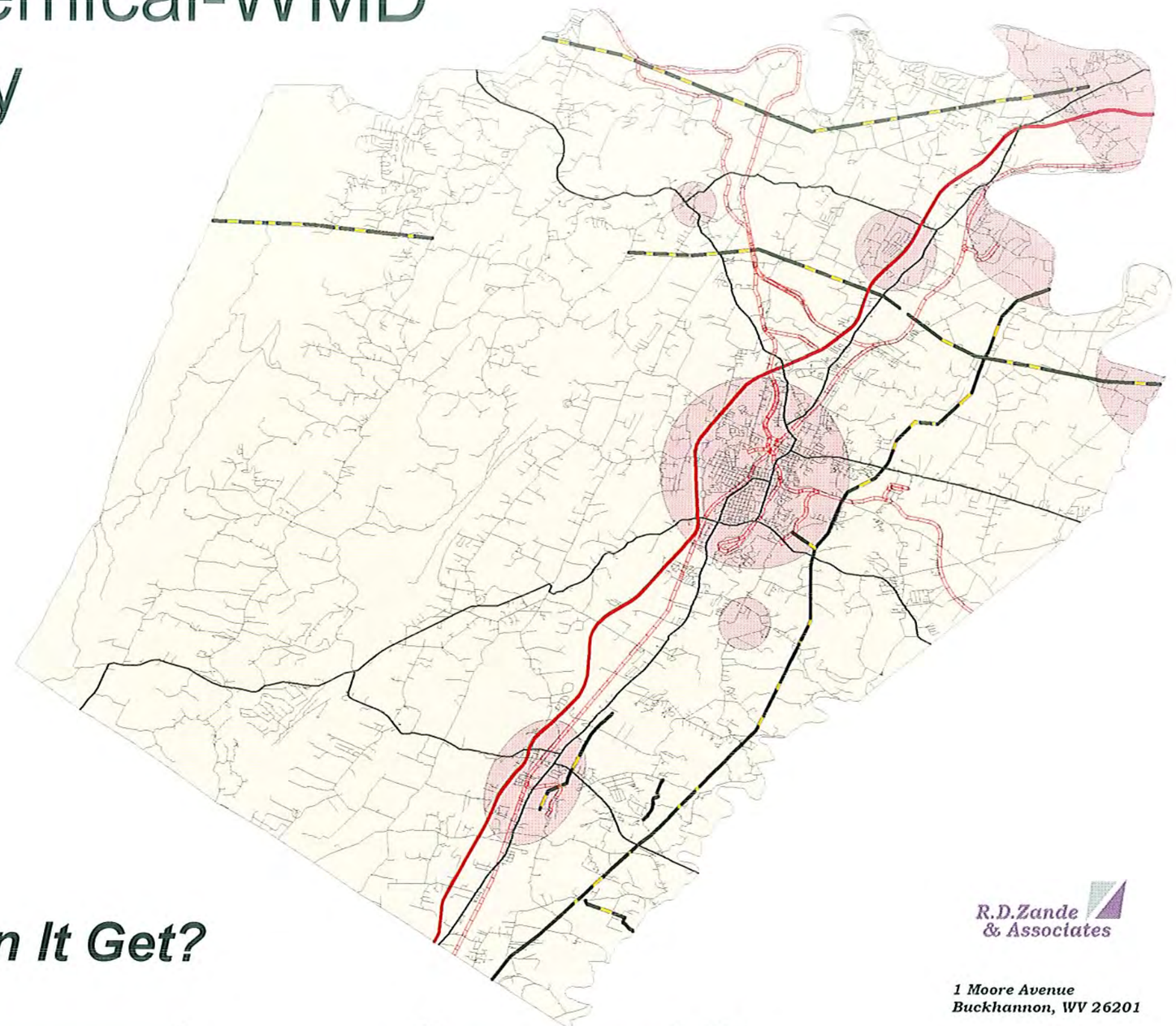
LOSS ESTIMATES

In an effort to assist jurisdictional understanding of risks and implementation of strategies, loss estimates were done for each county (see Appendix 2). By averaging those estimates, this plan assumes a total, regional loss estimate *per incident* to be as much as $2,552,851,760. If all counties in the region were affected to the “worst case scenario” level, as much as $5,105,703,520 could be lost.

PROFILE MAP: TERRORISM



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?

6 0 6 12 18 Miles

R.D.Zande & Associates

1 Moore Avenue
Buckhannon, WV 26201

2.2.11: Thunderstorm

A thunderstorm is considered severe when that storm produces a tornado, winds of at least 58 mph (50 knots), and/or hail at least ¾" in diameter. Structural wind damage may imply the occurrence of a severe thunderstorm. A thunderstorm wind equal to or greater than 40 mph (35 knots) and/or hail of at least ½" is defined as "approaching severe".

RESEARCH SOURCES

- NCDC Event Records

Period of Occurrence:	Spring, summer, and fall
Probability of Event:	Frequent
Warning Time:	Minutes to hours
Potential Impacts:	Utility damage and outages, infrastructure damage (transportation and communication systems). Impacts human life, health, and public safety.
Cause Injury or Death:	Injury
Potential Facility Shutdown:	Days

HAZARD EFFECTS

The wind gusts associated with thunderstorms pose a threat to life and/or property. Severe thunderstorms also have the potential of producing a tornado with little or no advanced tornado warning. These storms may contain frequent cloud-to-ground lightning and heavy downpours which can lead to localized flooding. Generally, a weak thunderstorm which produces a wind gust of the required strength would be defined as "severe" whereas a very violent thunderstorm with continuous lightning and very heavy rain (but without the required wind gusts, hail, or tornado/funnel cloud) would not. For the purposes of this plan, though, these violent thunderstorms are also considered severe because they are more frequent and cause a significant amount of damage annually throughout the county.

HAZARD PROFILE

Thunderstorms are one of the most frequently-occurring hazards throughout the region (second only to winter storms). NCDC records reflect the most severe of thunderstorms. Storms, however, are common throughout the spring and summer months (although a thunderstorm can occur in any season) that cause downed trees and power lines. Residents and businesses are likely to incur more damage as a result of these "smaller" storms as

individual houses and vehicles are damaged by fallen limbs and businesses are forced to close due to a lack of electricity.

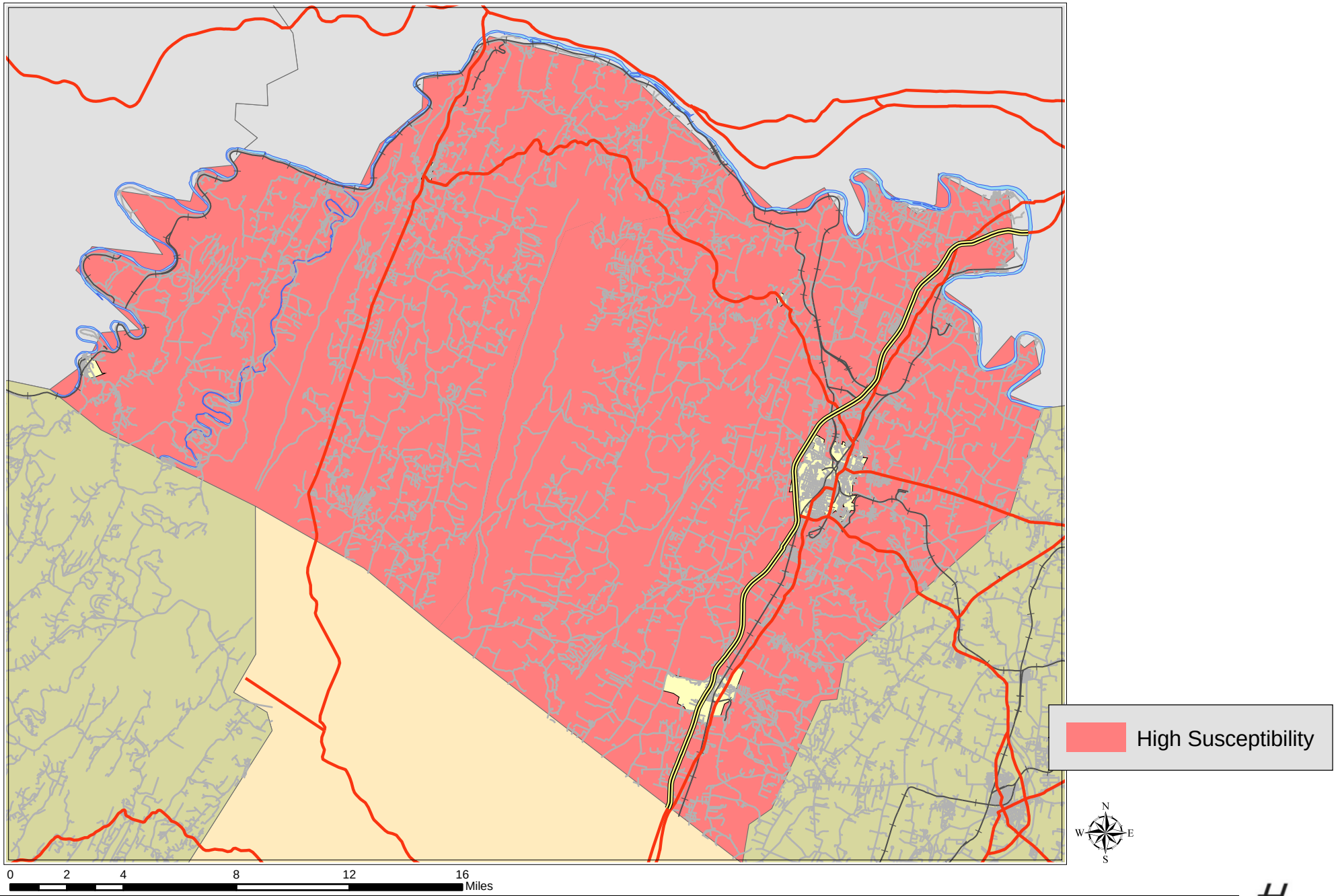
Wind sheer damage from a severe storm in June 2009 caused power outages, downed trees and minor property damage throughout Jefferson and Berkeley County.

LOSS ESTIMATES

Thunderstorm is another hazard that can be said to affect the entire region equally (i.e., all structures in the region are at risk). As part of the loss estimates completed by all of the region's counties, the average county-level WCS event could total $57,019,336 in losses. A region-wide WCS event could total as much as $114,038,672.

In many ways, the cascading effects of thunderstorms are more damaging than the storm itself. For example, as mentioned above, lightning strikes may cause power surges that result in damage. Thunderstorm winds may down trees that fall onto personal property. Tracking these types of damages is difficult as many people may not turn such claims into their insurance.

PROFILE MAP: THUNDERSTORM



2.2.12: Wildfire

A wildfire is an uncontrolled fire spreading through vegetative fuels, exposing and possibly consuming structures.

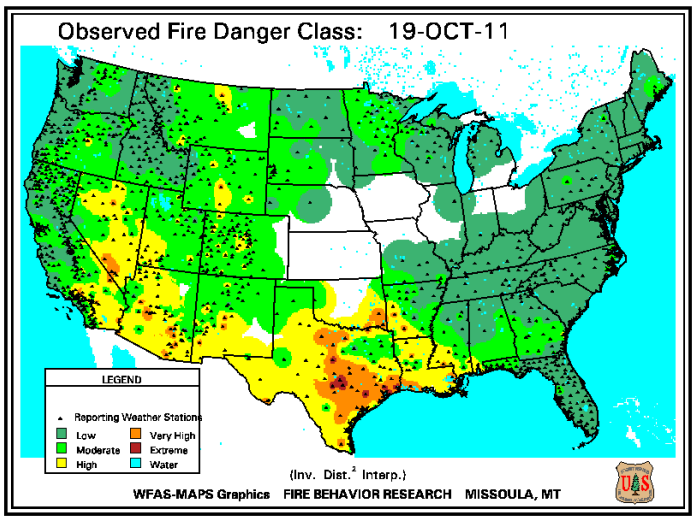
RESEARCH SOURCES

- NCDC Event Records

Period of Occurrence:	At any time – Primarily summer
Probability of Event:	Infrequent
Warning Time:	Minimal
Potential Impacts:	Impacts human life, health, and public safety. Loss of wildlife habitat, increased soil erosion, and degraded water quality. Utility damage and outages, infrastructure damage (transportation and communication systems), and damaged or destroyed critical facilities.
Cause Injury or Death:	Injury and risk death
Potential Facility Shutdown:	Days to weeks or more

HAZARD EFFECTS

Wildfires often begin unnoticed and spread quickly. They are usually signaled by dense smoke that fills the area for miles around. Grasses, bushes, trees, and other vegetation supply fuel for the wildfire. The size of a wildfire is contingent on the amount of fuel available, weather conditions, and wind speed and direction. In a map from Wildland Fire Assessment System (WFAS)-Maps, Fire Behavior Research (see left), the majority of West Virginia was labeled as being at low risk for wildfires. The National Interagency Fire Center also indicates that Region 9's counties are at a low risk of wildfires..



HAZARD PROFILE

Just because a no wildfires have been reported, one should not assume that vegetation fires do not occur frequently. Representatives from local fire departments

throughout the region confirm that brush fires, ranging in size from a single acre to hundreds of acres occur each year. Many of these fires are extinguished before becoming a major problem. Additionally, most of these events occur in rural areas rather than in areas of urban-wildland interface.

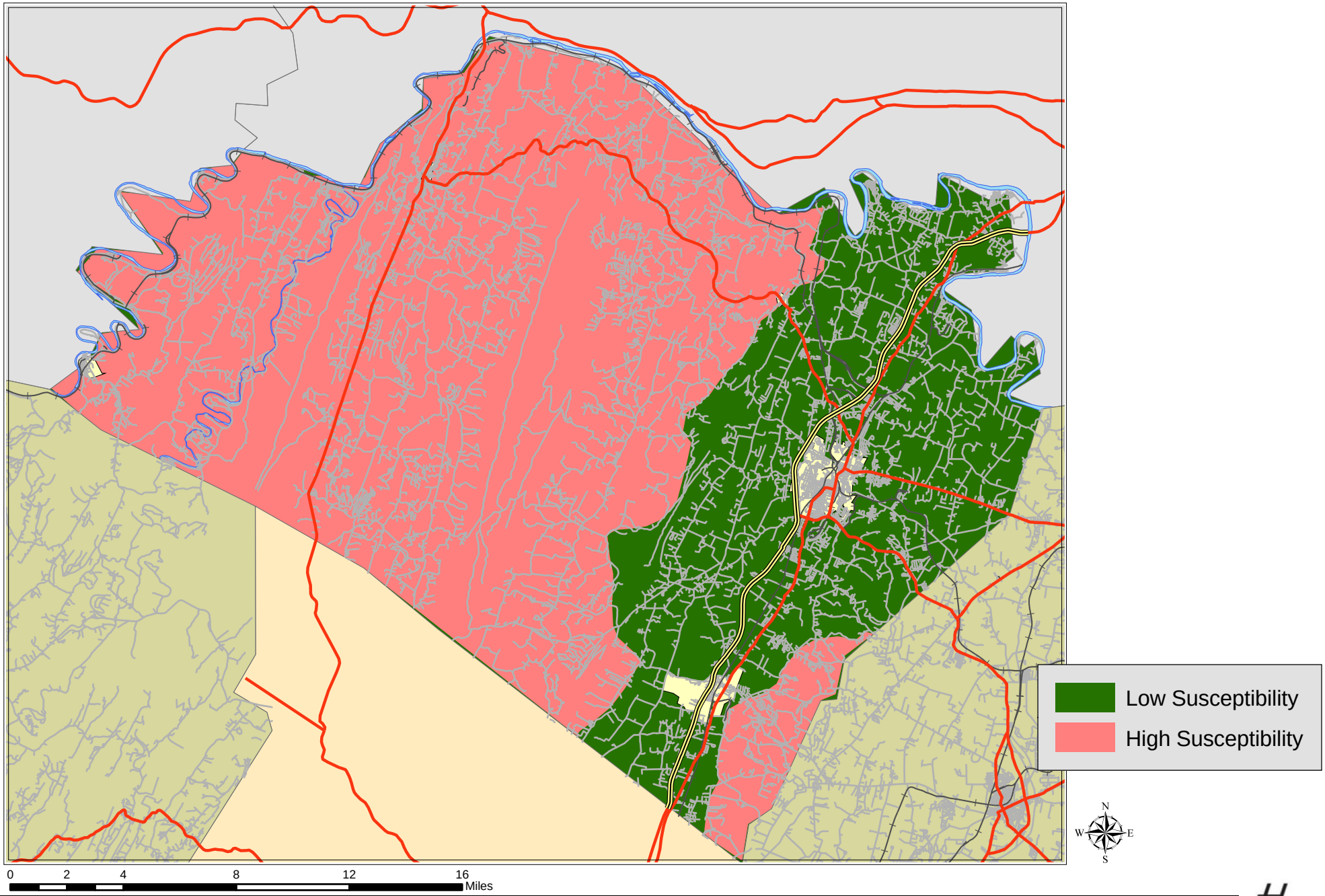
VULNERABLE STRUCTURES

Vulnerable Structures – Wildfire								
County	*Residential*	*Commercial*	*Industrial*	*Agricultural*	*Religious*	*Government*	*Education*	*Utilities*
Berkeley	14,230	438	18	12	17	3	9	2
Morgan	6,429	100	2	200	16	0	0	5
TOTALS	**20,659**	**538**	**20**	**212**	**33**	**3**	**9**	**7**

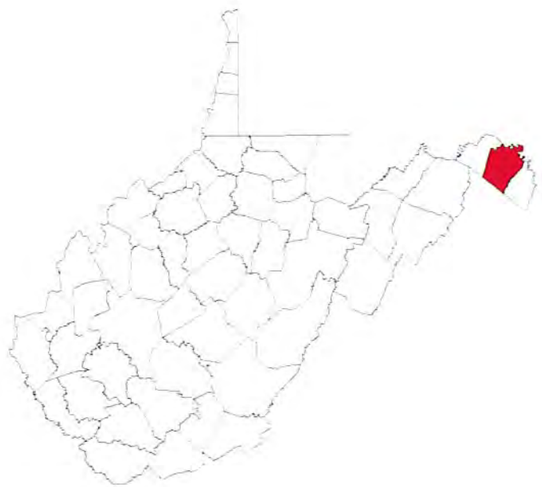
LOSS ESTIMATES

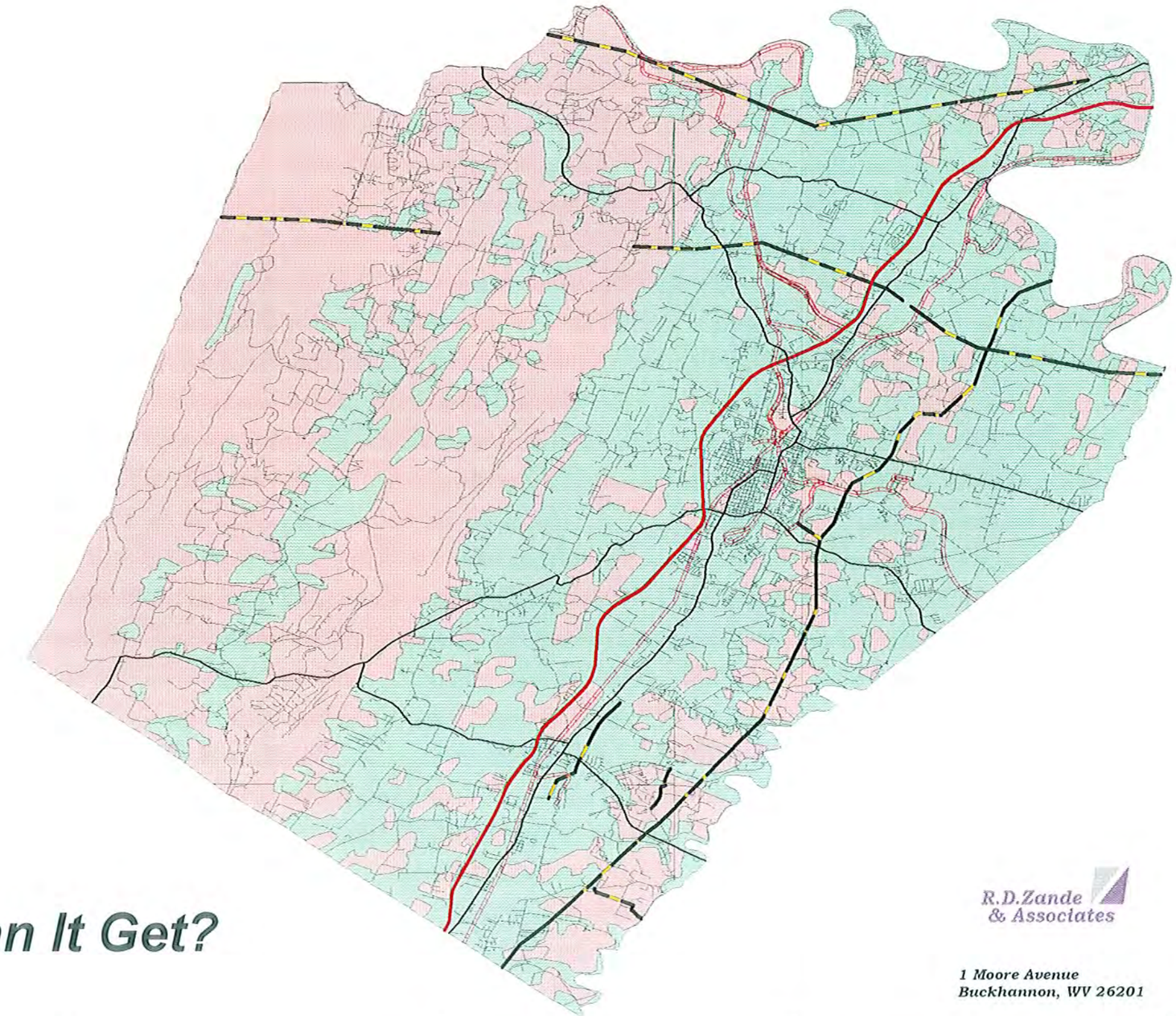
Individual county loss estimates were calculated on the assumption that a wildfire could occur in an area of urban-wildland interface; consequently, the estimates could be considered high when compared to historical occurrences. This document, however, estimates losses based on WCS events. The estimated WCS event for a single-county incident is $2,226,885,778, while the WCS estimate for a region-wide incident would be $4,453,771,556.

PROFILE MAP: WILDFIRE



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

9 0 9 18 27 Miles

2.2.13: Wind

Wind storms are destructive wind events that occur with or without the presence of other storm events, such as tornados or severe thunderstorms.

A tornado is a violently rotating column of air extending from a thunderstorm to the ground.

RESEARCH SOURCES

- NCDC Event Records

Period of Occurrence:	At any time – Primarily during March through August
Number of Events to Date (1970–2011):	21 (7 tornado events)
Probability of Event:	Infrequent
Warning Time:	Minutes to hours
Potential Impacts:	Utility damage and outages, infrastructure damage (transportation and communication systems), structural damage, and damaged or destroyed critical facilities. Impacts human life, health, and public safety.
Cause Injury or Death:	Injury and risk of multiple deaths
Potential Facility Shutdown:	Days to weeks or more

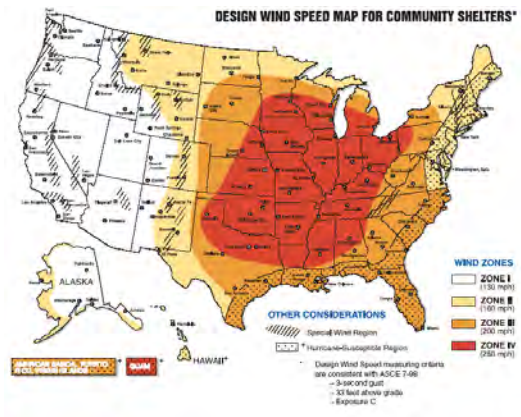
HAZARD EFFECTS – WIND

A wind storm is a severe weather condition indicated by high winds and with little or no rain. Localized geographical conditions can exacerbate the damages from high winds and cause increases in wind intensity. Since 1970, the counties in Region 9 have experienced a number high wind events.

HAZARD PROFILE – WIND

These events have resulted in significant damage throughout the region. Some examples of this damage are as follows:

- The Eastern Panhandle 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. Also one F2 classified tornado in Jefferson County.
- In Morgan County, on March 6th and March 31st, 1997, windstorms across the county generated $30,000.00 and $53,000.00 respectively in property damage.



The "Design Wind Speed Map for Community Shelters" is one way of graphically analyzing wind risks. As can be seen, all of the counties in the region are in a "Zone II" with respect to design wind speeds, which means that shelters constructed for protective purposes should be designed to withstand up to 160 mph winds.

Severe wind events can cause a variety of secondary, or cascading, hazard events. For instance, wind may blow limbs from trees down knocking out electric power or blocking roadways. Wind often results in damages to roofs and other home finishes (such as siding, etc.).

	Description	Wind Speeds
F0	***Gale Tornado***: Some damage to chimneys; break branches off of trees, pushes over shallow-rooted trees, damages signs.	40-70
F1	***Moderate Tornado***: The lower limit is the beginning of hurricane wind speed; peels surfaces off of roofs; mobile homes destroyed.	73-112
F2	***Significant Tornado***: Considerable damage; roofs torn off frame houses; mobile homes demolished; boxcars pushed over; larger trees snapped or uprooted; light object missiles generated.	113-157
F3	***Severe Tornado***: Roof and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted.	158-206
F4	***Devastating Tornado***: Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown; large missiles generated.	207-260
F5	***Incredible Tornado***: Strong frame houses lifted off foundations and carried considerable distances; automobile-sized missiles fly in excess of 100 meters.	261-318
F6	***Inconceivable Tornado***: The area of damage produced would be unrecognizable.	319-379

HAZARD EFFECTS - TORNADO

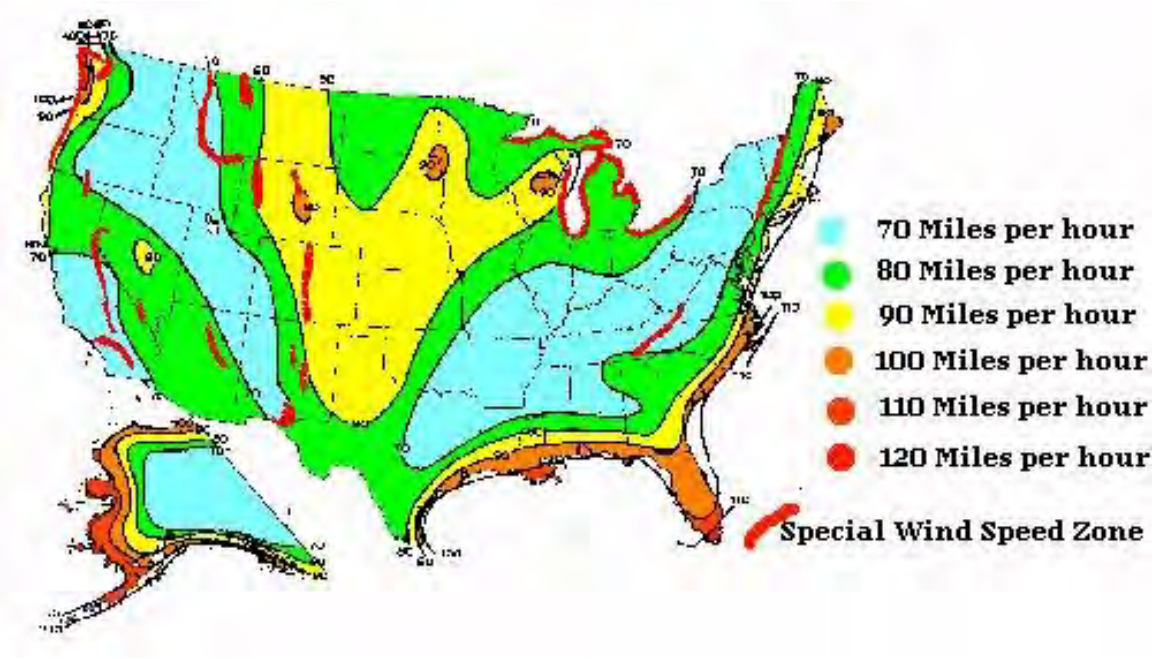
The most violent tornadoes are capable of tremendous destruction with wind speeds of 250 mph or more. Damage paths can be in excess of one (1) mile wide and 50 miles long. Tornadoes are among the most unpredictable of weather phenomena. Tornadoes can occur in any state in the United States but are more frequent in the Midwest, Southeast, and Southwest.

The nature of tornadoes is that they strike at random. While it is known that some areas of the country experience tornadoes more than others, predicting exactly what parts of the region have a greater chance of being struck by a tornado is difficult. The best predictor of future tornadoes is the occurrence of previous tornadoes.

HAZARD PROFILE – TORNADO

According to NCDC records, there have been one (1) tornado (an F1) recorded in Berkeley County. This storms caused approximately $80,000 in property damage.

For planning purposes, it is less important to map the tornado risk than it is to identify it. This is because it is so difficult to predict the path of future tornadoes. The Fujita scale provides us with an idea of the strength and extent of damages of tornadoes that can occur in the region. An additional resource to help understand the extent of tornado risks in the county is the "Design Wind Speed Map for Community Shelters" developed by the Disaster Center. The Disaster Center has also developed a map (shown below) that is similar to the "Design Wind Speed Map for Community Shelters" that suggests building standards with respect to wind speed.



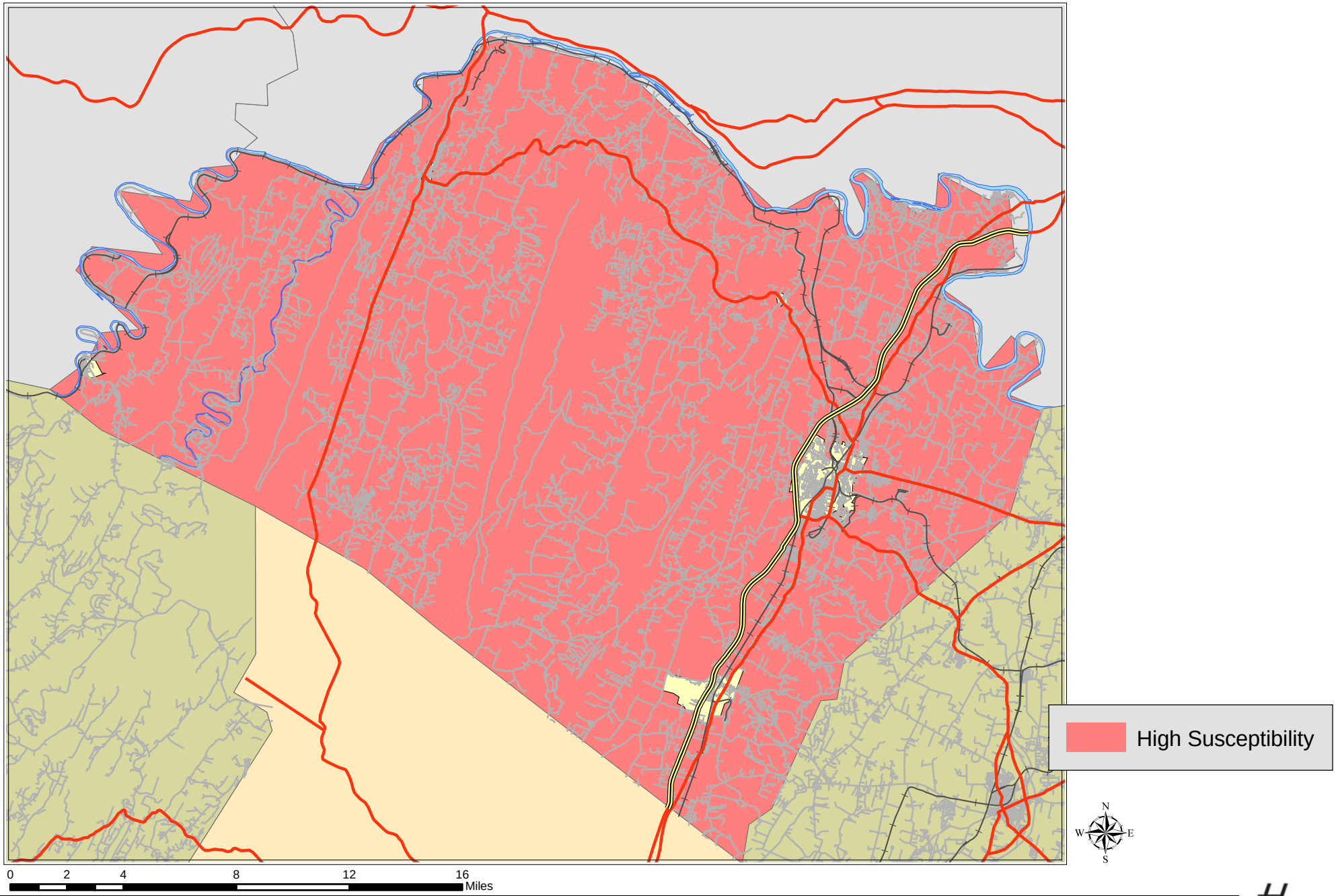
As can be seen, all of West Virginia is shown with the lowest wind speed (or the equivalent to a "gale tornado" as described above).

High wind, in general, is another of the hazards that can be said to affect the entire region. Tornadoes can also be said to affect the entire region due to their unpredictable nature. Tornadoes, however, appear to strike the least mountainous counties in Region 9; therefore, Berkeley County can be considered to have a higher tornado risk than Morgan Counties.

LOSS ESTIMATES

Wind-related loss estimates are quite high because both high wind and tornado loss estimates are combined and because of the amount of damage that can be done by a single incident. As an example, consider the extremely high damage estimates from the tornado events versus just the high wind events. The average WCS wind event in a single county could result in as much as $85,529,004 in losses; a region-wide WCS event could tally over $171,058,008 in losses.

PROFILE MAP: WIND



2.2.14: Winter Storm

A winter storm is a type of storm in which the dominant varieties of precipitation are forms that only occur at cold temperatures such as snow or sleet, or a rainstorm where ground temperatures are cold enough to allow ice to form.

RESEARCH SOURCES

- NCDC Event Records

Period of Occurrence:	Winter
Probability of Event:	Likely
Warning Time:	Snow – Days Ice – Minutes to hours
Potential Impacts:	Utility damage and outages, infrastructure damage (transportation and communication systems), structural damage, damaged critical facilities. Can cause severe transportation problems and make travel extremely dangerous. Power outages, which result in loss of electrical power and potentially loss of heat. Extreme cold temperatures may lead to frozen water mains and pipes, damaged car engines, and prolonged exposure to cold resulting in frostbite.
Cause Injury or Death:	Injury
Potential Facility Shutdown:	Days

HAZARD EFFECTS

Winter storms vary in size and strength and can be accompanied by strong winds that create blizzard conditions and dangerous wind chill. There are three (3) categories of winter storms:

- **Blizzard:** A blizzard is the most dangerous of all winter storms. It combines low temperatures, heavy snowfall, and winds of at least 35 miles per hour (mph), reducing visibility to only a few yards.
- **Heavy Snowstorms:** A heavy snowstorm is one that drops four (4) or more inches of snow in a 12-hour period.
- **Ice Storm:** An ice storm occurs when moisture falls and freezes immediately upon impact.

Winter storms tend to encompass the entire county whereas flooding generally occurs within predictable boundaries along the regulatory Special Flood Hazard Area (SFHA) and its main branches and tributaries. Risks associated and identified with severe winter storms include but are not limited to the following:

- Emergency medical evacuation of the sick, elderly, and infirmed to shelters.
- Power outages to those on life support systems.
- Communications interruptions and/or outages.
- Loss of the ability to heat homes.
- Interruption of the delivery of home supplies and food.

These above-described events fall within two (2) general categories 1) road closures due to snow drifts and 2) utility failures (such as damaged supply lines). Additionally, data indicates that structural damage has occurred in several instances in the past as a result of extremely heavy snowfall. Structures damaged were usually buildings such as barns, garages, carports, etc. Additionally, severe winter storms, because of the county's mountainous terrain, frequently result in dangerous driving conditions.

HAZARD PROFILE

Winter storms are reported to be the most frequently-occurring hazard in the region. The following table illustrates the number of winter storm (i.e., snow, ice, and blizzard) events in each of the region's counties as well as the damage caused by those storms (*Source: NCDC Event Records*).

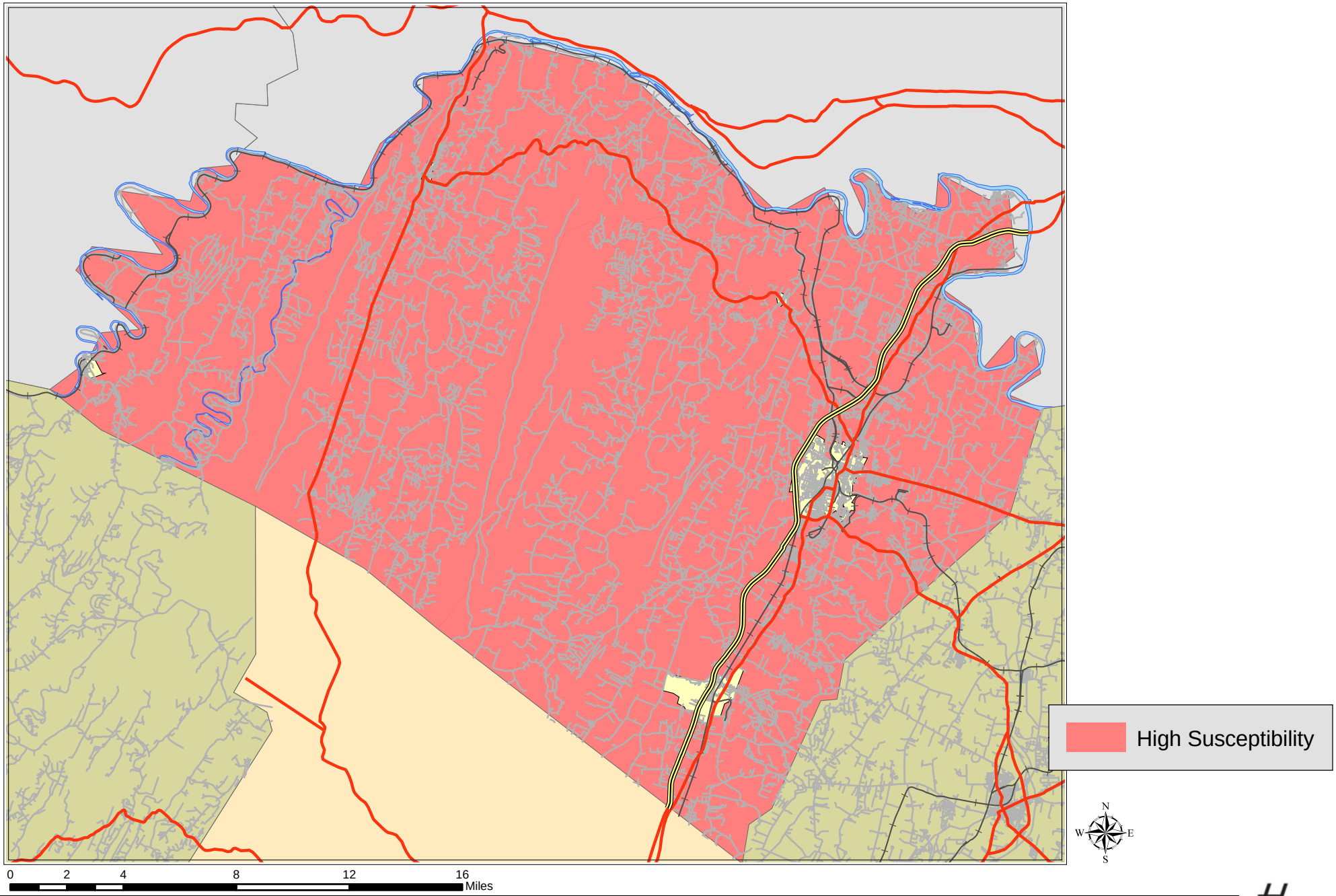
For example, on February 4, 1998, a powerful nor'easter, dumped moderate to heavy snow across all of eastern West Virginia beginning early on the 4th. Two winter storms during January and February 2010 produced more than 60 inches of snow fall. High winds caused drifting, further impairing the area. Local governments declared the region a disaster area due to the amount of snow

A winter storm is another hazard that can be said to affect the entire region equally (i.e., all structures in the region are at risk). One must realize, though, that the cascading hazards resulting from winter storms (e.g., slick roadways, drifts covering roadways, communities being isolated as a result of snow, etc.) can vary within the region – even within a single county – due to factors such as topography. Further, winter storms are often considered "just a way of life"; many residents do not report the losses from these storms.. Such an attitude is likely shaped by the frequency with which residents face these events.

LOSS ESTIMATES

As part of the loss estimates completed by all of the region's counties, the average county-level WCS event could total $99,782,839 in losses. A region-wide WCS event, again according to the county's individual loss estimates, could total as much as $199,567,677.

PROFILE MAP: WINTER STORM



2.3 REGIONAL IMPLICATIONS

The hazard profiles above present, in a general sense, a regional hazard risk. This risk, though, is based off of individual county assessments of how risk *individual counties*. This section discusses how region-wide risks are realized.

Flooding, as one of the primary hazards addressed by this plan, does pose a risk regionally. Even flash flooding, which is widely considered to be a site-specific hazard, can contribute to a regional flooding impact.

The hazardous material risk also bears a regional implication, primarily in the planning function. Hazmat incidents are widely considered to be site-specific hazards, and this document would concur with such an assumption. The risk, though, is shared; risk areas can be predicted in one county based on facts and figures from a neighboring county.

As Local Emergency Planning Committees (LEPCs) educate communities on the hazardous material risk, these efforts should extend beyond county lines. Further, the training and exercising often used to strengthen response agency capabilities can be coordinated throughout the region to strengthen the overall region's response capability.

SECTION 3.0

MITIGATION STRATEGY

Section 3.0 uses the risk assessment information from Section 2.0 to generate a list of action items that Region 9's member governments can consider to greatly lessen potential hazard losses. This section lists and prioritizes them.

As was done in the first version of the Region 9 plan, projects are listed primarily by jurisdiction. This document does list "regional" projects – or those which most (or all) of the participating jurisdictions feel would be successful at lessening losses – as Section 3.4.

3.1 GOALS, OBJECTIVES, AND STRATEGIES

§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.

Several hazard mitigation projects have been listed in this plan. It is significant to note that mitigation projects are developed in much the same way as other projects (i.e., community and economic development projects) considered and/or administered by the Region 9 Planning and Development Council (PDC). Member governments – in this case, their emergency management/preparedness representatives – are encouraged to compile lists of the projects they feel are most beneficial to their jurisdiction. These projects are submitted to the PDC for (consideration by and) inclusion into this plan.

Goals, objectives, and strategies are only listed in this section as a "quick reference guide" for users of the plan. Strategies – which are the mitigation projects under consideration – are organized both by hazard and jurisdiction. A simple status statement is also listed for each project. Projects can be classified as: New, Completed, Deleted, Deferred, Unchanged, or On-Going. Detailed discussions on the implementation and prioritization of mitigation projects, including an explanation of each status indicator, can be found in Sections 3.2 and 3.3 below.

REGION 9 PLANNING AND DEVELOPMENT COUNCIL

Goal A: Lessen flood risk by maintaining compliance with the National Flood Insurance Program (NFIP) and undertaking buyout projects when funding is available.

Objective A.1: Maintain compliance with the NFIP.

Strategy A.1.1: Maintain compliance with the NFIP at the jurisdictional level by attending training, monitoring development, and ensuring that local floodplain regulations are as current and applicable as possible.

Status: New.

Strategy A.1.2: Undertake buyout, elevation, and/or relocation projects in the Region VI Planning and Development Council area when and if funding is available.

Status: New.

Goal B: Better identify hazard areas.

Objective B.1: Identify hazard areas with respect to the dam failure hazard.

Strategy B.1.1: Coordinate, as appropriate, with partners throughout the region to identify the location of privately-owned dams.

Status: New.

REGION 9 PLANNING AND DEVELOPMENT COUNCIL AREA: BERKELEY COUNTY

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.

Status: Ongoing

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

Status: Completed

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.

Status: Ongoing

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

Status: Ongoing

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

Status: Ongoing

Goal 3: Protect Berkeley County's population 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.

Status: Completed

Strategy 3.1.2: Produce public awareness campaigns on the local radio station and in newspapers.

Status: Completed

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.

Status: Ongoing

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.

Status: Completed

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.

Status: Completed

Strategy 4.2.3: Consider conducting acquisition and relocation projects (buyouts) in flood-prone areas. This includes repetitive, severe repetitive loss and non repetitive and severe repetitive loss structures.

Status: Ongoing

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.

Status: Deferred

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.

Status: 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.

Status: 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.

Status: Completed

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.

Status: Ongoing

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

Objective B1.1: Increase public awareness and knowledge after an infestation has been discovered.

Strategy B1.1.1: Develop an informational brochure to distribute to local farmers and residents concerning the potential effects of an infestation.

Status: Ongoing

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.

Status: Ongoing

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

Status: Ongoing

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

Status: Ongoing

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.

Status: Ongoing

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.

Status: Ongoing

Goal 9: Undertake projects to lessen losses from a number of different hazards.

Objective 9.1: Minimize effects of extreme power outages on community.

Strategy 9.1.1: Educate the public on preparedness and response.

Status: Completed

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.

Status: Ongoing

Objective 9.3: Minimize effects of extreme power outages on community.

Strategy 9.3.1: Coordinate with utility companies to ensure restoration of utility services.

Status: Completed

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.

Status: Ongoing

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

Status: Ongoing

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.

Status: Completed

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

Status: Ongoing

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.

Status: Ongoing

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.

Status: Completed

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.).

Status: Completed

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

Status: Ongoing

Strategy 13.1.4: Work with airport safety officials to determine how best to respond to a crash involving larger planes.

Status: Ongoing

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.

Status: Completed

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.

Status: Ongoing

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.

Status: Deferred

REGION 9 PLANNING AND DEVELOPMENT COUNCIL AREA: MORGAN COUNTY

Goal 1: Minimize Flood Damages and Risks from flood hazards in Morgan County

Objective 1.1: Evaluate and update existing floodplain ordinances to meet or exceed the NFIP standards.

Strategy 1.1.1: Work with municipalities to update and improve on all floodplain ordinances.

Status: Completed

Strategy 1.1.2: Provide additional training to county and municipal development officials on NFIP requirements.

Status: Deferred

Strategy 1.1.3: Ensure that flood insurance policies remain affordable through the county and municipal government programs.

Status: Ongoing

Strategy 1.1.4: Support Morgan County's efforts in the CRS program, and provide training to municipalities on the CRS program and encourage them to participate.

Status: Ongoing

Strategy 1.1.5: Obtain updates information on the number of NFIP policyholders in Morgan County and its municipalities

Status: Deferred

Goal 2: Reduce the current and future risks from hazards in Morgan County

Objective 2.1: Identify all repetitive loss structures throughout the county

Strategy 2.1.1: Collect updated information on the number and location of all repetitive loss properties throughout the county and develop a database and maps for storage.

Status: Ongoing

Strategy 2.1.2: Identify owners of repetitive and severe repetitive loss properties that may be willing to participate in future property acquisition and relocation projects

Status: Ongoing

Objective 2.2: Direct new development away from hazard areas.

Strategy 2.2.1: Review all existing regulations to ensure adequacy in reducing the amount of future identified hazard areas

Status: Ongoing

Strategy 2.2.2 Review all comprehensive plans to ensure that designated growth areas are not in hazard areas.

Status: Ongoing

Strategy 2.2.2 Review all capital improvement plans to ensure that infrastructure improvements are not directed towards hazardous areas.

Status: Ongoing

Objective 2.3: Evaluate and update existing floodplain ordinances to meet or exceed the NFIP standards.

Strategy 2.3.1: Review existing floodplain ordinance to ensure adequacy in reducing the potential danger to public health and safety.

Status: Completed

Strategy 2.3.2: Work with municipalities to update floodplain ordinances.

Status: Completed

Objective 2.4: Improve the enforcement of existing floodplain regulations.

Strategy 2.4.1: Provide training to municipalities on the CRS program and encourage them to participate.

Status: Ongoing

Objective 2.5: Ensure that flood insurance policies remain affordable through the county and municipal government programs.

Strategy 2.5.1: Provide training to municipalities on the CRS program and encourage them to participate.

Status: Ongoing

Objective 2.6: Update flood hazard mapping.

Strategy 2.6.1: Work with FEMA and WVOES on the Map Modernization Program to improve FIRMS.

Status: Completed

Objective 2.7: Assess vulnerability of transportation systems and assets located in hazard areas.

Strategy 2.7.1: Work with WV Department of Highways to identify areas of frequent roadway flooding and develop mitigation strategies.

Status: Ongoing

Strategy 2.7.2: Contact commercial and commuter rail lines to ensure that measures are being taken to address hazard risks.

Status: Deferred

Objective 2.8: Conduct a Hazardous Materials Survey to better understand the nature and extent of hazardous material risks throughout the county.

Strategy 2.8.1: Identify strategies to mitigate risks from the transportation and/or storage of hazardous materials in Morgan County.

Status: Ongoing

Strategy 2.8.1 Apply for hazardous Materials Emergency Preparedness (HMEP) grant from WVOES to finance the development of a hazardous materials survey for Morgan County

Status: Ongoing

Goal 3: Improve emergency preparedness in Morgan County, Bath, and Paw Paw

Objective 3.1: Update Emergency Operations Plans (EOP).

Strategy 3.1.1 Review the existing Morgan County EOP and update where necessary based on the recommendations of the Morgan County Hazard Mitigation Plan.

Status: Completed

Strategy 3.1.2: Ensure that the county and all municipalities adopt the revised EOP.

Status: Completed

Objective 3.2: Equipment assessment at the 911 Communications Center.

Strategy 3.2.1: Develop a plan to implement the Needs Assessment recommendations developed by the Public Safety System Consultant.

Status: Ongoing

Objective 3.3: Improve coordination and communication among disaster response organizations, local and county governments.

Strategy 3.3.1: Establish a protocol for the sharing of annual shelter survey information between the local Red Cross chapter and the Morgan County Office of Emergency Services

Status: Ongoing

Strategy 3.3.2: Expand the mission and membership of the Morgan County Local Emergency Planning Committee to act as a countywide disaster task force.

Status: Ongoing

Strategy 3.3.3: Develop adequate emergency shelter and evacuation plans for citizens and animals (domestic pets, livestock and wildlife).

Status: Ongoing

Objective 3.4: Improve coordination of mitigation efforts between the National Park Service and the Town of Paw Paw.

Strategy 3.4.1: Establish a formal process for the city and the Park Service to coordinate disaster related efforts, which will include defining boundaries and establishing responsibilities

Status: Ongoing

Strategy 3.4.2: Conduct training exercises that include representatives from the city and the Park Service to facilitate increased coordination.

Status: Ongoing

Goal 4: Reduce the potential impact of natural and man-made disasters on private property.

Objective 4.1: Encourage participation in the National Flood Insurance program

Strategy 4.1.1: Continue to enforce ordinances that new structures do not interfere with flood mitigation measures.

Status: Ongoing

Strategy 4.1.2: Obtain updated information on the number of NFIP policyholders in Morgan County and its municipalities.

Status: Ongoing

Objective 4.2: Develop public/private partnerships toward the protection of private properties.

Strategy 4.2.1: Continue to support initiatives established under the Morgan County Office of Emergency Services.

Status: Ongoing

Strategy 4.2.2 Evaluate the feasibility of a funded Project Impact Coordinator position for Morgan County

Status: Deleted

Goal 5: Reduce the potential impact of natural disasters on the county's historic treasures

Objective 5.1: Identify and protect other historic structures throughout the county that are at risk of hazards

Strategy 5.1.1: Develop mitigation strategies to protect any at-risk historic properties

Status: Ongoing

Strategy 5.1.2: Conduct a survey of all historic sites that are located in hazard areas.

Status: Ongoing

3.2 IDENTIFICATION AND ANALYSIS OF MITIGATION ACTIONS

§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.

This portion of the plan builds on the strategies list presented in Section 3.1. Whereas Section 3.1 simply lists the mitigation goals, objectives, and strategies, this section analyzes those strategies as projects and discusses how they should be implemented. (*NOTE: “Strategies” are considered mitigation “projects”.) Each strategy is listed along with a timeframe, primary coordinator, support agencies, potential funding source (and cost estimate), and its current status. Strategies are also categorized by six (6) different types of mitigation projects:

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

It is important to note that the cost estimates are tentative and meant as a starting point for research on project feasibility. More specifically, these cost estimates are only ranges of probable project costs; all figures are approximations. At the time the implementation of any strategy is considered, a full cost estimate should be sought prior to securing funding. The Benefit-Cost Review was emphasized in the prioritization process. Mitigation actions were evaluated by their pros and cons, which are represented as costs and benefits.

Finally, as a navigational note, this section only contains current mitigation projects (organized by jurisdiction). If the status indicator in Section 3.1 classified as project as “Completed”, “Deleted”, or “Deferred”, it will not be listed below (unless the Hazard Mitigation Core Planning Committee chose to re-list the project because of a future benefit). As a result (especially during future updates), the strategy numbers may not run consecutively (e.g., Strategy X.1.5 may follow Strategy X.1.3).

REGION 9 PLANNING & DEVELOPMENT COUNCIL AREA

Strategy A.1.1: Maintain compliance with the National Flood Insurance Program (NFIP) at the jurisdictional level by attending training, monitoring development, and ensuring that local floodplain regulations are as current and applicable as possible.

Timeframe: 5 years
Cost Estimate (*Potential Funding*): Maintaining compliance is typically an administrative undertaking that would require little to no additional funding (N/A)
Coordinating Agency: Local Floodplain Coordinators
Local Planning Commissions
Support Agencies: County Commissions
Municipal Councils
Mitigation Type: Prevention
Status: This strategy was added as part of this update.

Strategy A.1.2: Undertake buyout, elevation, and/or relocation projects in the Region VI Planning and Development Council area when and if funding is available.

Timeframe: 5 years
Cost Estimate (*Potential Funding*): Up to $100,000 (avg.) per property purchased (Hazard Mitigation Grant Program [HMGP])
Coordinating Agency: Local Floodplain Coordinators
Local Planning Commissions
Support Agencies: County Commissions
Municipal Councils
Mitigation Type: Prevention
Status: This strategy was added as part of this update.

Strategy B.1.1: Coordinate, as appropriate, with partners throughout the region to identify the location of privately-owned dams.

Timeframe: On-going
Cost Estimate (*Potential Funding*): Coordination with partner entities should require little to no additional funding (N/A)
Coordinating Agency: County Emergency Managers
Support Agencies: N/A
Mitigation Type: Public Education and Awareness
Status: This strategy was added as part of this update.

REGION 9 PLANNING & DEVELOPMENT COUNCIL AREA: BERKELEY COUNTY

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

Timeframe: Ongoing

Cost Estimate (*Potential Funding*): Floodplain coordinator, WV flood mitigation office, FEMA

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

Support Agencies: County Commissions, Municipal Councils

Mitigation Type: Public Education and Awareness

Status: Ongoing: 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 1.2.1: Evaluate current system to identify the most feasible locations to construct upgrades.

Timeframe: Ongoing

Cost Estimate (*Potential Funding*): Local funding

Coordinating Agency: Local Public Service District,

Support Agencies: County Commissions, Municipal Councils

Mitigation Type: Prevention, Structural Projects

Status: On-going: 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: On-going

Cost Estimate (*Potential Funding*): CDBG, IJDC

Coordinating Agency: Local Public Service District, County Commission

Support Agencies: County Commissions, Municipal Councils

Mitigation Type: Prevention, Structural Projects

Status: On-going: 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

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: On-going

Cost Estimate (*Potential Funding*): PDM, Local funding

Coordinating Agency: Office of Emergency Services, WVOES

Support Agencies: County Commission

Mitigation Type: Public Education and Awareness

Status: 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.

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

Timeframe: On-going

Cost Estimate (*Potential Funding*): No additional funding necessary; however, administrative costs may be associated with code enforcement

Coordinating Agency: County Commission

Support Agencies: Local PSD's

Mitigation Type: Prevention

Status: 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

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: On-going
Cost Estimate (*Potential Funding*): Coordination with partner entities should require little to no additional funding (N/A)
Coordinating Agency: County Emergency Managers
Support Agencies: N/A
Mitigation Type: Public Education and Awareness
Status: The Berkeley County Planning Commission is currently amending the plan.

Strategy 4.2.3: Consider conducting acquisition and relocation projects (buyouts) in flood-prone areas. This includes repetitive, severe repetitive loss and non repetitive and severe repetitive loss structures.

Timeframe: On-going
Cost Estimate (*Potential Funding*): HMGP, PDM, FMA, SRL
Coordinating Agency: County Commission
Support Agencies: Region 9 Planning & Development Council (PDC)
Mitigation Type: Prevention, Property Protection
Status: To date Berkeley County has purchased 32 properties in the flood zone at Sportsman's Paradise through the FEMA mitigation strategies.

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

Timeframe: Deferred
Cost Estimate (*Potential Funding*): NRCS, PDM, Local funding
Coordinating Agency: NRCS, OES, County Commission
Mitigation Type: Natural Resource Protection, Prevention
Status: No action has been taken to date. However, it is still under consideration

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

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): No additional funding necessary
Coordinating Agency: County Commission
Mitigation Type: Prevention, Property Protection, Public Education and Awareness
Status: The Berkeley County Planning Department continues to strive for this effort. Therefore, at this time, it is ongoing

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

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): USACOE, WVDEP
Coordinating Agency: USACOE, WVDEP
Mitigation Type: Prevention, Structural
Status: Due to the unavailability of funds, this initiative is still ongoing

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

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): No additional funding necessary
Coordinating Agency: OES, Local media outlets
Support Agencies: NWS
Mitigation Type: Public Education and Awareness
Status: 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.

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

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): USDA (if necessary), WVDNR
Coordinating Agency: Farm Bureau, Natural Resource Conservation Service, WVDNR
Mitigation Type: Public Education and Awareness

Status: Berkeley County continues to coordinate public awareness and inquiries with the West Virginia Department of Agriculture, Farm Bureau and National Resource Conservation Service.

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: Ongoing

Cost Estimate (*Potential Funding*): No additional funding necessary; however, administrative costs may be associated with code enforcement

Coordinating Agency: County Commission

Mitigation Type: Prevention, Property Protection

Status: 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: Ongoing

Cost Estimate (*Potential Funding*): Local funding

Coordinating Agency: Municipal Building Departments

Mitigation Type: Prevention

Status: 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: Ongoing

Cost Estimate (*Potential Funding*): Local funding

Coordinating Agency: Municipal Building Departments

Support Agencies: County Commission

Mitigation Type: Public Education, Awareness

Status: 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.

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

Timeframe: Ongoing

Cost Estimate (*Potential Funding*): Little to no additional funding should be required as this is a part of existing programs (N/A)

Coordinating Agency: WVDOH

Mitigation Type: Prevention, Structural

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

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

Timeframe: Ongoing

Cost Estimate (*Potential Funding*): No additional funding necessary

Coordinating Agency: OES, National Weather Service

Mitigation Type: Public Education and Awareness

Status: The National Weather Service Office in Sterling, VA has an extensive website 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

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: 2 years

Cost Estimate (*Potential Funding*): No additional funding necessary; however, administrative costs may be associated with code enforcement

Coordinating Agency: County Commission

Mitigation Type: Property Protection

Status: 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.

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: Ongoing

Cost Estimate (*Potential Funding*): No additional funding necessary; however, administrative costs may be associated with code enforcement

Coordinating Agency: County Commission

Support Agencies: WVU Extension Service
Berkeley County Local Emergency Planning Committee (LEPC)

Mitigation Type: Property Protection

Status: 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

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

Timeframe: Ongoing

Cost Estimate (*Potential Funding*): Local funding

Coordinating Agency: Municipal Building Departments

Mitigation Type: Prevention

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

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

Timeframe: Ongoing

Cost Estimate (*Potential Funding*): Local funding, PDM

Coordinating Agency: Local Public Service District

Mitigation Type: Public Education and Awareness

Status: 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.

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

Timeframe: Ongoing

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

Coordinating Agency: WVDNR, State Parks Commission

Mitigation Type: Public Education and Awareness

Status: 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.

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

Timeframe: Ongoing

Cost Estimate (*Potential Funding*): Local funding

Coordinating Agency: Office of Emergency Services

Mitigation Type: Prevention

Status: 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: Ongoing

Cost Estimate (*Potential Funding*): Local funding

Coordinating Agency: County Commission, Railroad Companies

Support Agencies: Office of Emergency Services

Mitigation Type: Emergency Services

Status: 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.

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

Timeframe: Ongoing

Cost Estimate (*Potential Funding*): County Commission

Coordinating Agency: OES, LEPC

Mitigation Type: Prevention

Status: 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

REGION 9 PLANNING & DEVELOPMENT COUNCIL AREA: MORGAN COUNTY

Strategy 1.1.3: Ensure that flood insurance policies remain affordable through the county and municipal government programs.

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): No additional funding necessary
Coordinating Agency: Floodplain Coordinators
Support Agencies: WV flood mitigation office, FEMA
Mitigation Type: Public Education and Awareness
Status:

Strategy 1.1.4: Support Morgan County's efforts in the CRS program, and provide training to municipalities on the CRS program and encourage them to participate.

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): N/A (Coordination requires little to no additional funding.)
Coordinating Agency: Floodplain Coordinators
Support Agencies: WV flood mitigation office, FEMA
Mitigation Type: Prevention
Status: .

Strategy 2.1.1: Collect updated information on the number and location of all repetitive loss properties throughout the county and develop a database and maps for storage.

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): No funding necessary
Coordinating Agency: Floodplain Coordinators
Support Agencies: WV flood mitigation office, FEMA
Mitigation Type: Prevention
Status: This project remains in the plan because it represents an on-going element of Morgan County's NFIP compliance.

Strategy 2.1.2: Identify owners of repetitive and severe repetitive loss properties that may be willing to participate in future property acquisition and relocation projects

Timeframe: Ongoing
Cost Estimate County Commission

(*Potential Funding*):

Coordinating Agency: Floodplain Coordinators

Support Agencies: WV flood mitigation office, FEMA

Mitigation Type: Prevention

Status: This project remains in the plan because it represents an on-going element of Morgan County's NFIP compliance.

Strategy 2.2.1: Review all existing regulations to ensure adequacy in reducing the amount of future identified hazard areas

Timeframe: Ongoing

Cost Estimate County funding/grant funding when available

(*Potential Funding*):

Coordinating Agency: Planning Commission, Floodplain Coordinator, County Commission, OES and FEMA

Mitigation Type: Prevention

Status: .

Strategy 2.2.2 Review all comprehensive plans to ensure that designated growth areas are not in hazard areas

Timeframe: Ongoing

Cost Estimate Local funds, F&W Federation

(*Potential Funding*):

Coordinating Agency: Planning Commission, Floodplain Coordinator

Support Agencies: County Commission, WVOES

Mitigation Type: Prevention

Status:

Strategy 2.2.3 Review all capital improvement plans to ensure that infrastructure improvements are not directed towards hazardous areas.

Timeframe: Ongoing

Cost Estimate Local Funding

(*Potential Funding*):

Coordinating Agency: County Commission, Planning Commission

Mitigation Type: Prevention

Status: This project remains in the plan because it represents an on-going element of Morgan County's NFIP compliance.

Strategy 2.4.1: Provide training to municipalities on the CRS program and encourage them to participate

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): Local Funding
Coordinating Agency: Town Councils, Floodplain Coordinator, Planning Commission
Support Agencies: OES, FEMA, County Commission
Mitigation Type: Public Education and Awareness
Status: This project was left in the plan as a part of an on-going, all-hazards public outreach program.

Strategy 2.5.1: Provide training to municipalities on the CRS program and encourage them to participate.

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): N/A (Coordination requires little to no additional funding.)
Coordinating Agency: Morgan County Planning
Support Agencies: N/A
Mitigation Type: Prevention
Status: This project was remains in the plan as a part of the county's NFIP compliance.

Strategy 2.7.1: Work with WV Department of Highways to identify areas of frequent roadway flooding and develop mitigation strategies.

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): Local Funds
Coordinating Agency: DOT, OES, Floodplain Coordinator
Mitigation Type: Prevention
Status:

Strategy 2.8.1: Identify strategies to mitigate risks from the transportation and/or storage of hazardous materials in Morgan County.

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): HMEP, Local funds when available

Coordinating Agency: OES, LEPC
Mitigation Type: Prevention
Status: Continuing to review Tier II reports

Strategy 2.8.1 Apply for hazardous Materials Emergency Preparedness (HMEP) grant from WVOES to finance the development of a hazardous materials survey for Morgan County

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): HMEP, Local funds when available
Coordinating Agency: OES, LEPC
Mitigation Type: Emergency Services
Status:

Strategy 3.2.1: Develop a plan to implement the Needs Assessment recommendations developed by the Public Safety System Consultant.

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): Local Funding, FEMA, EMA
Coordinating Agency: OES, County Commission
Mitigation Type: Emergency Services
Status:

Strategy 3.3.1: Establish a protocol for the sharing of annual shelter survey information between the local Red Cross chapter and the Morgan County Office of Emergency Services

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): N/A (Exploration of options should require little to no additional funding.)
Coordinating Agency: Red Cross, OES
Support Agencies: Sheriff's Office, State Police, LEPC
Mitigation Type: Public Education, Awareness
Status:

Strategy 3.3.2: Expand the mission and membership of the Morgan County Local Emergency Planning Committee to act as a countywide disaster task force.

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): No funding necessary
Coordinating Agency: LEPC, OES
Support Agencies: Sheriff's Office, State Police
Mitigation Type: Emergency Services
Status:

Strategy 3.3.3: Develop adequate emergency shelter and evacuation plans for citizens and animals (domestic pets, livestock and wildlife).

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): Local funding, USDA Programs
Coordinating Agency: County Commission, OES, LEPC, Red Cross, DNR, Humane Society, Sheriff's Office
Support Agencies: N/A
Mitigation Type: Emergency Services
Status:

Strategy 3.4.1: Establish a formal process for the city and the Park Service to coordinate disaster related efforts, which will include defining boundaries and establishing responsibilities.

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): Local Funding when available, FEMA, EMA
Coordinating Agency: OES, County Commission
Mitigation Type: Public Education and Awareness
Status:

Strategy 3.4.2: Conduct training exercises that include representatives from the city and the Park Service to facilitate increased coordination.

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): FEMA Flood Emergency Program, Local funds, Town of Paw Paw
Coordinating Agency: Local WVDOH
Support Agencies: Town of Paw Paw, National Park Service

Mitigation Type: Prevention

Status: This project remains in the plan as indicative of Morgan County's whole community approach.

Strategy 4.1.1: Conduct outreach efforts to educate municipalities about the NFIP and its policyholders in Morgan County and its Municipalities.

Timeframe: Ongoing

Cost Estimate (*Potential Funding*): Local funding, FEMA, EMA

Coordinating Agency: Floodplain Coordinator, OES, FEMA

Mitigation Type: Public Awareness

Status: This project remains in the plan as a part of the county's NFIP compliance.

Strategy 4.1.2: Obtain updated information on the number of NFIP policyholders in Morgan County and its municipalities

Timeframe: Ongoing

Cost Estimate (*Potential Funding*): No funding necessary

Coordinating Agency: OES, FEMA, Floodplain Coordinator

Mitigation Type: Prevention

Status: This project remains in the plan as a part of the county's NFIP compliance.

Strategy 4.2.1: Continue to support initiatives established under the Morgan County Office of Emergency Services.

Timeframe: Ongoing

Cost Estimate (*Potential Funding*): No funding necessary

Coordinating Agency: OES, Planning Commission

Support Agencies: Morgan County Office of Emergency Management

Mitigation Type: Emergency Services

Status: This project remains in the plan but was revised to be inclusive of the health department's increased role in planning.

Strategy 5.1.1: Develop mitigation strategies to protect any at-risk historic properties

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): No funds necessary
Coordinating Agency: County Historic Society, Floodplain Coordinator
Support Agencies: OES, FEMA
Mitigation Type: Prevention
Status: .

Strategy 5.1.2: Conduct a survey of all historic sites that are located in hazard areas.

Timeframe: Ongoing
Cost Estimate (*Potential Funding*): N/A (Coordination requires little to no additional funding. Further, WVDOH budgets include snow removal during the winter months.)
Coordinating Agency: County Historic Society, Floodplain Coordinator
Support Agencies: OES, FEMA
Mitigation Type: Prevention
Status: .

3.3 IMPLEMENTATION OF MITIGATION ACTIONS

§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.

This section identifies the priority for implementing the projects identified in Sections 3.1 and 3.2. Each current project is listed with a "primary coordinator" in Section 3.2 that should be responsible for the overall implementation of the project.

Project (i.e., strategy) prioritization occurred in two (2) phases. First, the projects generated by the core planning team were grouped into categories based on shared characteristics. Each category of projects received a score of High (H), Moderate (M), or Low (L) for each of the following criteria; the projects under category receiving the highest score each received the highest priority ranking of one (1). Secondly, the categories were considered against the following criteria. It should be noted that a jurisdiction may have multiple top-ranked projects.

- **Social Impacts:** Consider whether the public would support implementation of the project. If so, priority likely rises.
- **Technical Feasibility:** Consider whether the project can be done and if it will yield the intended outcomes. If yes, priority would likely rise.
- **Administrative Requirements:** Consider the staffing, funding, and maintenance requirements of the project. If current capabilities can successfully manage and sustain the project, priority would be strengthened.
- **Political Impacts:** Consider the acceptability of the project from the political frame. If it is likely to cause political upheaval, it would receive a lower priority.
- **Legal Ramifications:** Consider whether the project can be lawfully implemented. If not, the project cannot be listed.
- **Environmental Impacts:** Consider whether there would be negative consequences to environmental assets should the project be implemented. If assets are impact, priority would be likely to fall.
- **Economic Impacts/Cost Benefit:** A brief "benefit cost review" per Federal Emergency Management Agency (FEMA) Publication 386-5: Using Benefit Cost

Review in Mitigation Planning was conducted for each project to determine the "pros" and "cons" of each project as it related to project prioritization. Maximizing the use of available funds would positively affect a project's priority.

*NOTE: The cost benefit review referenced in the Final Rule cannot be completed as it has not been released by the US Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA).

REGION 9 PLANNING & DEVELOPMENT COUNCIL AREA

Project Number	Strategy	Priority
A.1.1	Maintain compliance with the National Flood Insurance Program (NFIP) at the jurisdictional level by attending training, monitoring development, and ensuring that local floodplain regulations are as current and applicable as possible.	**H**
A.1.2	Undertake buyout, elevation, and/or relocation projects in the Region VI Planning and Development Council area when and if funding is available.	**H**
B.1.1	Coordinate, as appropriate, with partners throughout the region to identify the location of privately-owned dams.	**M**

REGION 9 PLANNING & DEVELOPMENT COUNCIL AREA
BERKELEY COUNTY

Project Number	Strategy	Number	Priority
1.1.1	Develop an informational brochure to distribute to local farmers and residents.	**1**	**H**
1.2.1	Evaluate current system to identify the most feasible locations to construct upgrades.	**2**	**H**

Project Number	Strategy	Number	Priority
1.2.2	Consider upgrades or extensions to the current public service district.	**3**	**M**
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.	**4**	**M**
4.1.1	Develop stringent storm water management codes for future development.	**5**	**H**
4.2.3	Consider conducting acquisition and relocation projects (buyouts) in flood-prone areas. This includes repetitive, severe repetitive loss and non repetitive and severe repetitive loss structures.	**6**	**H**
4.4.1	Coordinate county efforts to meet the requirements of becoming a participant in the CRS.	**7**	**M**
4.5.1	Assess the feasibility of erecting floodwalls in flood prone areas.	**8**	**M**
5.1.1	Coordinate efforts with local media to post advance warnings of hailstorms.	**9**	**H**
6.1.1	Develop an informational brochure to distribute to local farmers and residents concerning the potential effects of an infestation.	**10**	**M**
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.	**11**	**M**
7.1.2	Enforce existing building codes that are already in place.	**12**	**H**
7.1.3	Educate the public as to the benefits of building codes and advantages to mitigation planning.	**13**	**H**

Project Number	Strategy	Number	Priority
7.2.1	Construct a stabilization wall or safety fence along roadways which pass through areas that are prone to landslides.	**14**	**M**
8.1.1	Coordinate with the National Weather Service in Sterling, Virginia to warn residents of impending severe thunderstorm conditions.	**15**	**H**
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.	**16**	**M**
10.1.1	Instate or update countywide building codes, which will regulate the materials used in construction with respect to snow and ice weight.	**17**	**M**
11.1.2	*:* Educate local residents on the benefits of conserving water during a heat wave.	**18**	**H**
12.1.1	Distribute information concerning the leading causes of wildfires and steps the general public can take to avoid starting wildfires	**19**	**H**

Project Number	Strategy		Priority
13.1.3	Work with airport safety officials to determine how best to respond to a crash involving larger planes.	**20**	**H**
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	**21**	**M**
13.3.1	Consider updating the existing Tier 2 report to include agricultural substances such as herbicides.	**22**	**L**

REGION 9 PLANNING & DEVELOPMENT COUNCIL AREA

MORGAN COUNTY

Project Number	Strategy	Number	Priority
1.1.3	Ensure that flood insurance policies remain affordable through the county and municipal government programs.	**1**	**M**
1.1.4	Support Morgan County's efforts in the CRS program, and provide training to municipalities on the CRS program and encourage them to participate.	**2**	**M**
2.1.1	Collect updated information on the number and location of all repetitive loss properties throughout the county and develop a database and maps for storage.	**3**	**M**
2.1.2	Identify owners of repetitive and severe repetitive loss properties that may be willing to participate in future property acquisition and relocation projects	**4**	**M**
2.2.1	Review all existing regulations to ensure adequacy in reducing the amount of future identified hazard areas	**5**	**H**
2.2.2	Review all comprehensive plans to ensure that designated growth areas are not in hazard areas.	**6**	**M**
2.4.1	Provide training to municipalities on the CRS program and encourage them to participate..	**7**	**M**
2.7.1	Work with WV Department of Highways to identify areas of frequent roadway flooding and develop mitigation strategies.	**8**	**M**
2.8.1	Identify strategies to mitigate risks from the transportation and/or storage of hazardous materials in Morgan County.	**9**	**M**
3.2.1	Develop a plan to implement the Needs Assessment recommendations developed by the Public Safety System Consultant.	**10**	**M**

Project Number	Strategy	Number	Priority
3.3.1	Establish a protocol for the sharing of annual shelter survey information between the local Red Cross chapter and the Morgan County Office of Emergency Services	**11**	**M**
3.3.2	Expand the mission and membership of the Morgan County Local Emergency Planning Committee to act as a countywide disaster task force.	**12**	**H**
3.3.3	Develop adequate emergency shelter and evacuation plans for citizens and animals (domestic pets, livestock and wildlife).	**13**	**H**
3.4.1	Establish a formal process for the city and the Park Service to coordinate disaster related efforts, which will include defining boundaries and establishing responsibilities.	**14**	**M**
3.4.2	Conduct training exercises that include representatives from the city and the Park Service to facilitate increased coordination	**15**	**M**
4.1.1	Continue to enforce ordinances that new structures do not interfere with flood mitigation measures.	**16**	**M**
4.1.2	Obtain updated information on the number of NFIP policyholders in Morgan County and its municipalities.	**17**	**M**
5.1.1	Develop mitigation strategies to protect any at-risk historic properties	**18**	**M**
5.1.2	Conduct a survey of all historic sites that are located in hazard areas.	**19**	**M**

3.4 REGIONAL IMPLICATIONS

In most cases, the individual implementation of the projects listed in Sections 3.1 through 3.3 would not have a large impact on the region as a whole. There should, however, be several things kept in mind as these projects are undertaken. For example, several member governments expressed a desire to upgrade communications capabilities. As these capabilities are updated, community leaders should bear interoperability in mind – not only within their own jurisdiction, but also with neighboring jurisdictions (including other counties in the region).

Other projects, such as public education and awareness efforts, could be accomplished through partnerships with neighboring jurisdictions. As such, individual jurisdictions could share costs and reduce duplication of effort. As can be seen by the above risk assessment, many of the communities in Region 9 are susceptible to the same types of hazards.

Though this document is a plan, it calls for a number of other planning initiatives to be completed. Those initiatives should keep this process as a part of the overall planning process. In other words, community leaders should not plan for the sake of planning. This document can provide evidence as to the hazards most likely faced by the communities and planning should strengthen capabilities to lessen the effects of these types of emergencies.

Finally, community leaders should remember that large structural projects could change the topography enough to affect neighboring jurisdictions, primarily with respect to the flooding hazard. For example, a stream bank stabilization project may channel water to another low-lying area (because it had previously dissipated by flooding upstream areas) and put additional structures at risk. Other projects, not related to mitigation, could have the same effect. For example, the construction of a shopping plaza with large parking lots could cause run-off to back up in unexpected places, many of which had not previously been susceptible to flooding. As with planning projects, local leaders would be encouraged to share their intentions (of implementing mitigation projects) with their neighbors.

SECTION 4.0

PLAN MAINTENANCE PROCESS

4.0 PLAN MAINTENANCE PROCESS

§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.
§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.
§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.

As with any plan, this document must be actively maintained in order to be a viable mitigation tool for Region 9's member governments. Section 4.0 outlines the general process that will be used to maintain this document.

The long-term success of this document depends in large part on routine monitoring, evaluating, and updating so that it will remain a valid tool for the participating communities to use. Also critical to the overall success of this strategy is the continued implementation of the local-level multi-jurisdictional mitigation efforts in accordance with this document.

Formal Plan Adoption

This plan covers a portion of Region 9 consisting of Berkeley and Morgan counties with a total of six (6) local governments being represented. Jefferson County maintains it own plan covering its municipalities and jurisdictions. At the municipal level, cities and towns participated directly in the development of the county-specific hazard mitigation plans that served as one (1) of the primary bases of this document. Municipal jurisdictions were given ample opportunity to review and approve their sections of this document. Counties coordinated that process as well as participated in this process (which was spearheaded by the Region 9 Planning and Development Council [PDC]).

This regional document has been designed to illustrate the impacts of hazards across the Berkeley and Morgan counties and to highlight the benefits of a coordinated approach to hazard mitigation. Each of the jurisdictions affected by this document formally adopted it by a resolution of their governing board.

The adoption process included the delivery of a copy of this document to the

local jurisdiction, along with a sample adopting resolution. The Region 9 PDC coordinated this delivery. Region 9 officials explained to municipal and county leaders that this document serves as updates to the local-level mitigation plans they had adopted and updated between 2003 and 2010. Adopting resolutions were collected by the Region 9 PDC. Copies of all resolutions were scanned upon receipt and included alphabetically in Appendix 4 of this document.

The document was submitted to the West Virginia Division of Homeland Security and Emergency Management (WVDHSEM) and the Federal Emergency Management Agency (FEMA) Region III prior to the adoption process to ensure that all federal and state planning regulations had been met. Doing so prior to adoption meant two (2) things: first, the plan was initially issued an "Approved Pending Adoption" status, and secondly, the adoption process was ultimately more efficient (because re-adoptions following revisions were not necessary).

Implementation

The implementation of this plan will likely prove to be more difficult than its adoption. While this plan puts forth many worthwhile and "high" priority recommendations, there may be competition among the participating communities throughout Region 9 for limited mitigation funds. The decision of which action (i.e., project) to undertake first will be the primary issue that the PDC's communities face. Fortunately, this plan has been designed with this issue in mind; as such, high priority actions have been included for each participating jurisdiction so each jurisdiction can pursue high-priority actions independently. Secondly, many of the jurisdictions in the region represent economically distressed areas, meaning that funding for large scale projects such as those advocated by this plan is often an issue. To ensure that mitigation efforts get underway, this document includes several low or no-cost recommendations.

An example of a low-cost, high-priority recommendation would be to pursue the education efforts necessary for elected officials and the general public as they relate to participation in the National Flood Insurance Program (NFIP). In other cases, jurisdictions may considering updating and/or revising their local floodplain ordinances and assisting state and federal authorities as they update flood mapping in their communities.

Another example of a low-cost project would be to integrate mitigation awareness into the many other pre-emergency public information campaigns that local-level

emergency managers distribute on a routine basis. As an example, a variety of information on preparedness for hazardous material emergencies is frequently disseminated by each county's Local Emergency Planning Committee (LEPC). Those efforts could be integrated into the counties' (and region's) overall mitigation strategy. Other public education efforts during such events as winter weather awareness week, etc. could equip the public with the knowledge necessary to "mitigate for themselves", which supports the concept of implementing mitigation at the lowest level possible.

Additionally, it should be noted that county emergency managers work with their counterparts in community and economic development planning to ensure that mitigation and emergency preparedness are integrated into other planning efforts, such as:

- Comprehensive planning,
- Capital improvement planning, and
- Economic development goals and incentives.

These emergency managers make risk information available to their local economic development agencies. Further, the presence of the Region 9 PDC can help ensure that future development does not add to the region's overall vulnerability. In fact, the Region 9 PDC serves as a clearinghouse of sorts for a variety of projects throughout the region, including mitigation projects

The guiding principle under the implementation of this plan is that mitigation should be incorporated as much as possible into the daily actions of the coordinating agencies responsible for project implementation. During the development of the individual county Comprehensive Plans in 2003 and 2007, county mitigation planning committees attempted to align as many existing programs as possible with mitigation efforts. Such an approach was also incorporated into this document. This approach ensures that mitigation efforts occur by default. While ensuring these efforts occur certainly helps show progress when this document is updated, it also builds buy-in for the strengthening of the community by not asking certain coordinating agencies to shoulder an entire list of new responsibilities.

It is also important to continually monitor funding opportunities that can be utilized to implement some of the larger mitigation recommendations in this document. County commissions, municipal councils, and county-level emergency managers are often the Points of Contact (POCs) for such communication. Fortunately, emergency managers throughout the region (and West Virginia) frequently share these opportunities

with colleagues. The PDC actually serves as a watchdog for funding opportunities as well. As such, a repository of funding options should be easy to maintain. Funding opportunities often present themselves in the aftermath of large-scale disasters, but they can also be present on a rotating cycle. The communities participating in this process have been cognizant of ranking both high and low-projects as "high priority" so that they can be in a position to take advantage of whatever funding opportunities arise.

By adopting this plan, communities served by the Region 9 PDC commit to the following:

- Pursuing the implementation of high-priority, low/no cost recommended actions,
- Keeping the concept of mitigation in the forefront of community decision-making by identifying and stressing the recommendations of the hazard mitigation plan when other community goals, plans, and activities are discussed, and
- Maintaining a constant monitoring of multi-objective, cost-share opportunities to assist the participating communities in implementing the recommended actions of this plan for which no current funding or support exists.

Integration into Existing Planning Mechanisms

As the custodial agency of the regional Hazard Mitigation Plan (HMP), the Region 9 PDC should ensure that mitigation planning is incorporated, as appropriate, into other planning mechanisms. Such a statement is not meant to say that mitigation planning should not inhibit other types of planning, such as community and economic development efforts. Ensuring compatibility between these initiatives, rather, should provide an opportunity for all types of planners to understand the interplay between risk and development and the potential future vulnerabilities of fully-developed areas. Integration can open a dialogue between planners about how to responsibly plan the future of the communities throughout Region 9.

As mentioned, the Region 9 PDC acts as a sort of clearinghouse for planning initiatives around its region. The PDC does not "regulate" or "supervise" these efforts, but it does maintain a central repository of efforts that are underway throughout the planning area. It maintains such documents as a Comprehensive Economic Development Strategy (CEDS), housing and community development assessments, etc. Region 9 personnel ensure that mitigation strategies within this plan are complimentary

of the transportation planning strategies maintained by the Hagerstown/Eastern Panhandle Metropolitan Planning Organization. The PDC can compare these areas highlighted for development and other projects through its documents with this mitigation plan. For instance, some traditional PDC projects, such as supporting infrastructure (e.g., water and sewer) system extensions, may support mitigation efforts for such hazards as drought and public health emergencies. These extensions may not have any effect on hazards such as flooding. In any circumstance, the PDC may be able to use support of a mitigation effort as further justification for the funding of a project.

Additional agencies throughout the region, such as the county-level offices of emergency management, will actively integrate the information contained in this risk assessment into other planning initiatives, such as the maintenance of their jurisdiction-specific Emergency Operations Plans (EOPs). These documents should support the strengthening of capabilities to respond to the hazards identified by the risk assessment. As mitigation projects are implemented and risk is thus reduced, the emergency services community may need to “re-plan” its response to address what has become (thanks to the mitigation project) a more critical risk.

A number of projects have been identified and/ or started throughout the region that relate to mitigation. Several agencies serve as the coordinating agencies for these projects. The projects are as follows:

Region 9 PDC

- Continue to hold NFIP classes for realtors, bankers and insurers
- Provide NFIP training to county and municipal development officials
- Work directly with the NFIP State Coordinator to conduct training
- Created public displays to be used at public events (health fairs, public awareness days and county fairs. Specific NFIP guides are used for these displays
- Update building codes to control construction within floodplains
- Review capital improvement projects to ensure infrastructure improvements are not made in floodplains or within known hazard areas
- Review floodplain ordinances to ensure compliance with NFIP
- Conduct outreach programs to the general public and business community

Berkeley County

- **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.

Morgan County

- **Morgan County Flood Plain Area and Improvement Location Permit Ordinance** – Continued review and improvement of the ordinance will eliminate flood damage to buildings and infrastructure.
- **Morgan County Subdivision Regulations**- Assist in orderly land use development and ensure coordination between development and infrastructure (e.g. water, sewer, roads, utilities, etc.).
- **Morgan County Comprehensive Development Plan** – To provide continuing updated information related to topography, waterways, land use groundwater recharge areas, etc.

- **Morgan County Emergency Operation Plan** – review and update plans as needed to ensure current support to protect local citizens.
- **Warm Springs Run Emergency Action Plan** – continued monitoring, inspection and improvement of flood control structures within Warm Springs Run.
- **Morgan County E-911 Ordinance** – continued maintenance and improvements to the call system to automatically provide emergency responders with vital information to accurately respond to local emergencies.
- **Contingency Plan for Privately Owned Dams** – Continued maintenance of information related to privately owned dams within Morgan County.
- **Town of Bath and Town of Paw Paw Ordinance** – continued monitoring and updating treated to flood plain data within the municipalities and within Morgan County

Finally, it is significant to note that all 6 participating governments are represented by the PDC itself. As the custodial agency of this document, the PDC can schedule a regular review with its member governments at one of its council meetings to ensure that local officials are educated as to the plan's contents – and in agreement with its contents – even as those officials change and this document is updated. This representation should also facilitate local government comment on both the risks facing their jurisdictions and the types and numbers of mitigation projects that could be implemented.

Maintenance

Plan maintenance requires an ongoing effort to monitor and evaluate the implementation of the plan, and to update the plan as progress, roadblocks, or changing circumstances are recognized. Berkeley and Morgan counties identified their county-level emergency management office as the coordinator of local reviews. Local reviews are to occur at no less than five (5)-year intervals. The counties also indicated that they may facilitate reviews following major disasters.

Each county identified several conceptual elements that can guide a review of this document. Those elements are as follows:

- **Ease of Implementation:** How smoothly has implementing the project (or similar types of projects) been? Have programs been readily available to assist in funding the implementation of the project (or similar types of projects)?
- **Cost Effectiveness:** Have sufficient funding sources been available to implement the project at a cost manageable by the local government? Have the costs of implementing the project been significantly less than the cumulative future costs potentially incurred by an un-corrected situation?
- **Social Impacts:** Has the public perceived that the project has positively lessened hazard-related losses? Has implementing the project adversely affected any segment of the population?
- **Political Impacts:** Has implementing a particular project (or type of project) been delayed due to the political consequences of its implementation?
- **Economic Impacts:** Has the cost/benefit ratio of implementing the project been acceptable? Has implementing a project adversely affected a particular segment of the local economy?
- **Overall Positive Impacts:** Have local leaders generally agreed that implementing a particular project was beneficial to the community?

When each county convenes for a review, it should coordinate with the Region 9 PDC to ensure that this document is updated appropriately. Public participation should be assured as the plan is updated. The Region 9 PDC will ensure that a public review process *for the entire regional document* is undertaken at least once per five (5)-year period. This public review will include two (2) initiatives: (a) publishing an advertisement in the primary newspaper of the represented counties that invites the public to review the existing document with a list of proposed updates (i.e., the public comment form in Appendix 4 can be used to document these comments even during future updates), and (b) placing discussion of the plan on the agenda of one of the council's regularly-scheduled meetings (which are always advertised and open to the public).

This plan should be updated in written form at least once during the five (5)-year cycle. Such updates should be resubmitted to the WVDHSEM and FEMA Region III for approval. Upon approval, participating jurisdictions should re-adopt the plan by resolution.

Continued Public Involvement

Each county in the Eastern Panhandle will seek input from local citizens, businesses and other organizations to create a more complete Hazard Mitigation Plan. Individuals and businesses living and operating in different parts of the region may have the best first-hand knowledge of real and potential hazards affecting an area. With the public's input, the plan will be more complete and can better serve the region.

Citizens will be encouraged to participate during the annual review of the hazard mitigation plan by providing input to the plan and by reviewing the plans accuracy and content. Continued public involvement will be carried out as follows:

- Public access to the plan
  - Copies of the Hazard Mitigation Plan will be maintained online on each county's website.
  - Printed copies will be available to the general public at the county commission's office in each county.
  - Other sites within the region will be used as they become available.
- Public notification
  - The public will be notified of upcoming changes to the Hazard Mitigation Plan by public services announcements placed in local newspapers (*The Journal*, Martinsburg WV; the *Herald-Mail*, Hagerstown MD; *The Spirit of Jefferson*, Jefferson County and the *Morgan Messenger*, Morgan County).
  - There are two radio stations in Martinsburg that may be used for public service announcements).
  - Notification will be placed on the County Commission website for each county.
  - Local cable access station will be used to announce changes.
- Meetings and forums
  - Meetings will be held in each county to discuss changes to the plan.
  - The general public (as individuals or working through local organizations) will be encouraged to comment on the plan and to [provide their input to creating a more complete mitigation plan.
- Review process
  - The general public will be able to review and comment on drafts of the Hazard Mitigation Plan.

All comments received during the review process will be evaluated and implemented into the plan where appropriate.

APPENDIX 1

HAZUS FLOOD REPORTS FOR ALL PARTICIPATING REGION 9 COUNTIES

West Virginia Statewide HAZUS Level I Flood Analysis Project

BERKELEY COUNTY

WEST VIRGINIA

HAZUS-MH: FLOOD EVENT REPORT

10 Year Flood Scenario

DISCLAIMER

Totals only reflect data for those census tracts/blocks included in the user's study region. The estimates of social and economic impacts contained in this report were produced using HAZUS loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific flood. These results can be improved by using enhanced inventory data and flood hazard information.

Report Date: May 14, 2010

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General Description of the Region

HAZUS is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of HAZUS is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- West Virginia

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 321 square miles and contains 1,883 census blocks. The region contains over 30 thousand households and has a total population of 75,905 people (2000 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 34,683 buildings in the region with a total building replacement value (excluding contents) of 5,497 million dollars (2006 dollars). Approximately 94.01% of the buildings (and 81.55% of the building value) are associated with residential housing.

General Building Stock

HAZUS estimates that there are 34,683 buildings in the region which have an aggregate total replacement value of 5,497 million (2006 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	4,482,824	81.5%
Commercial	652,718	11.9%
Industrial	183,761	3.3%
Agricultural	32,404	0.6%
Religion	71,528	1.3%
Government	31,953	0.6%
Education	42,062	0.8%
Total	**5,497,250**	**100.00%**

Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	981,065	92.5%
Commercial	40,747	3.8%
Industrial	25,646	2.4%
Agricultural	3,249	0.3%
Religion	6,734	0.6%
Government	1,351	0.1%
Education	2,283	0.2%
Total	**1,061,075**	**100.00%**

Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 162 beds. There are 22 schools, 3 fire stations, 2 police stations and no emergency operation centers.

Flood Scenario Parameters

HAZUS used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	Berkeley2
Scenario Name:	10-YR
Return Period Analyzed:	10
Analysis Options Analyzed:	No What-Ifs

General Building Stock Damage

HAZUS estimates that about 91 buildings will be at least moderately damaged. This is over 24% of the total number of buildings in the scenario. There are an estimated 18 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the HAZUS Flood technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	0	0.00	0	0.00	28	31.11	8	8.89	36	40.00	18	20.00
Total	**0**		**1**		**28**		**8**		**36**		**18**	

Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Concrete	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
ManufHousing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	18	100.00
Masonry	0	0.00	0	0.00	7	46.67	1	6.67	7	46.67	0	0.00
Steel	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Wood	0	0.00	0	0.00	21	36.84	7	12.28	29	50.88	0	0.00

Essential Facility Damage

Before the flood analyzed in this scenario, the region had hospital beds available for use. On the day of the scenario flood event, the model estimates that hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	3	0	0	0
Hospitals	1	0	0	0
Police Stations	2	0	0	0
Schools	22	0	0	0

If this report displays all zeros or is blank, two possibilities can explain this.

(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

HAZUS estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 8,080 tons of debris will be generated. Of the total amount, Finishes comprises 38% of the total, Structure comprises 26% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 323 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

HAZUS estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. HAZUS also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 335 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 243 people (out of a total population of 75,905) will seek temporary shelter in public shelters.

Economic Loss

The total economic loss estimated for the flood is 38.83 million dollars, which represents 3.19 % of the total replacement value of the scenario buildings.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 38.60 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 80.31% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	19.63	1.13	0.51	0.28	21.54
	Content	11.52	2.84	0.92	1.45	16.74
	Inventory	0.00	0.09	0.21	0.02	0.32
	Subtotal	**31.15**	**4.06**	**1.64**	**1.75**	**38.60**
Business Interruption						
	Income	0.00	0.01	0.00	0.00	0.01
	Relocation	0.03	0.00	0.00	0.00	0.03
	Rental Income	0.00	0.00	0.00	0.00	0.00
	Wage	0.00	0.01	0.00	0.09	0.10
	Subtotal	**0.03**	**0.02**	**0.00**	**0.09**	**0.14**
ALL	**Total**	**31.18**	**4.08**	**1.64**	**1.84**	**38.74**

Appendix A: County Listing for the Region

West Virginia

- Berkeley

Appendix B: Regional Population and Building Value Data

		Building Value (thousands of dollars)		
	Population	Residential	Non-Residential	Total
West Virginia				
Berkeley	75,905	4,482,824	1,014,426	5,497,250
Total	**75,905**	**4,482,824**	**1,014,426**	**5,497,250**
Total Study Region	**75,905**	**4,482,824**	**1,014,426**	**5,497,250**

West Virginia Statewide HAZUS Level I Flood Analysis Project

BERKELEY COUNTY

WEST VIRGINIA

HAZUS-MH: FLOOD EVENT REPORT

25 Year Flood Scenario

DISCLAIMER

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Report Date: May 14, 2010

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The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

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Note:
Appendix A contains a complete listing of the counties contained in the region.

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There are an estimated 34,683 buildings in the region with a total building replacement value (excluding contents) of 5,497 million dollars (2006 dollars). Approximately 94.01% of the buildings (and 81.55% of the building value) are associated with residential housing.

General Building Stock

HAZUS estimates that there are 34,683 buildings in the region which have an aggregate total replacement value of 5,497 million (2006 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

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Occupancy	Exposure ($1000)	Percent of Total
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Commercial	652,718	11.9%
Industrial	183,761	3.3%
Agricultural	32,404	0.6%
Religion	71,528	1.3%
Government	31,953	0.6%
Education	42,062	0.8%
Total	**5,497,250**	**100.00%**

Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	1,201,281	90.4%
Commercial	76,981	5.8%
Industrial	30,742	2.3%
Agricultural	3,645	0.3%
Religion	9,770	0.7%
Government	3,036	0.2%
Education	3,657	0.3%
Total	**1,329,112**	**100.00%**

Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 162 beds. There are 22 schools, 3 fire stations, 2 police stations and no emergency operation centers.

Flood Scenario Parameters

HAZUS used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	Berkeley2
Scenario Name:	25-YR
Return Period Analyzed:	25
Analysis Options Analyzed:	No What-Ifs

General Building Stock Damage

HAZUS estimates that about 155 buildings will be at least moderately damaged. This is over 24% of the total number of buildings in the scenario. There are an estimated 31 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the HAZUS Flood technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	0	0.00	3	1.95	45	29.22	17	11.04	58	37.66	31	20.13
Total	**0**		**4**		**45**		**17**		**58**		**31**	

Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Concrete	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
ManufHousing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	27	100.00
Masonry	0	0.00	1	3.57	11	39.29	3	10.71	13	46.43	0	0.00
Steel	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Wood	0	0.00	3	3.00	34	34.00	14	14.00	45	45.00	4	4.00

Essential Facility Damage

Before the flood analyzed in this scenario, the region had hospital beds available for use. On the day of the scenario flood event, the model estimates that hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	3	0	0	0
Hospitals	1	0	0	0
Police Stations	2	0	0	0
Schools	22	0	0	0

If this report displays all zeros or is blank, two possibilities can explain this.

(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

HAZUS estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 11,079 tons of debris will be generated. Of the total amount, Finishes comprises 38% of the total, Structure comprises 27% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 443 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

HAZUS estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. HAZUS also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 463 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 465 people (out of a total population of 75,905) will seek temporary shelter in public shelters.

Economic Loss

The total economic loss estimated for the flood is 56.42 million dollars, which represents 4.64 % of the total replacement value of the scenario buildings.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 56.05 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 75.10% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	26.62	1.82	1.09	0.38	29.92
	Content	15.70	5.32	2.58	1.66	25.26
	Inventory	0.00	0.13	0.71	0.03	0.87
	Subtotal	**42.32**	**7.27**	**4.39**	**2.07**	**56.05**
Business Interruption						
	Income	0.00	0.03	0.00	0.00	0.03
	Relocation	0.04	0.00	0.00	0.00	0.05
	Rental Income	0.00	0.00	0.00	0.00	0.01
	Wage	0.00	0.03	0.00	0.11	0.14
	Subtotal	**0.05**	**0.06**	**0.00**	**0.11**	**0.22**
ALL	**Total**	**42.37**	**7.34**	**4.39**	**2.18**	**56.27**

Appendix A: County Listing for the Region

West Virginia

- Berkeley

Appendix B: Regional Population and Building Value Data

		Building Value (thousands of dollars)		
	Population	Residential	Non-Residential	Total
West Virginia				
Berkeley	75,905	4,482,824	1,014,426	5,497,250
Total	**75,905**	**4,482,824**	**1,014,426**	**5,497,250**
Total Study Region	**75,905**	**4,482,824**	**1,014,426**	**5,497,250**

West Virginia Statewide HAZUS Level I Flood Analysis Project

BERKELEY COUNTY

WEST VIRGINIA

HAZUS-MH: FLOOD EVENT REPORT

50 Year Flood Scenario

DISCLAIMER

Totals only reflect data for those census tracts/blocks included in the user's study region. The estimates of social and economic impacts contained in this report were produced using HAZUS loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific flood. These results can be improved by using enhanced inventory data and flood hazard information.

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General Description of the Region

HAZUS is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of HAZUS is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- West Virginia

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 321 square miles and contains 1,883 census blocks. The region contains over 30 thousand households and has a total population of 75,905 people (2000 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 34,683 buildings in the region with a total building replacement value (excluding contents) of 5,497 million dollars (2006 dollars). Approximately 94.01% of the buildings (and 81.55% of the building value) are associated with residential housing.

General Building Stock

HAZUS estimates that there are 34,683 buildings in the region which have an aggregate total replacement value of 5,497 million (2006 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	4,482,824	81.5%
Commercial	652,718	11.9%
Industrial	183,761	3.3%
Agricultural	32,404	0.6%
Religion	71,528	1.3%
Government	31,953	0.6%
Education	42,062	0.8%
Total	**5,497,250**	**100.00%**

Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	1,035,057	92.4%
Commercial	43,460	3.9%
Industrial	26,594	2.4%
Agricultural	3,173	0.3%
Religion	6,734	0.6%
Government	935	0.1%
Education	3,710	0.3%
Total	**1,119,663**	**100.00%**

Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 162 beds. There are 22 schools, 3 fire stations, 2 police stations and no emergency operation centers.

Flood Scenario Parameters

HAZUS used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	Berkeley2
Scenario Name:	50-YR
Return Period Analyzed:	50
Analysis Options Analyzed:	No What-Ifs

General Building Stock Damage

HAZUS estimates that about 128 buildings will be at least moderately damaged. This is over 18% of the total number of buildings in the scenario. There are an estimated 33 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the HAZUS Flood technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	0	0.00	0	0.00	28	21.88	11	8.59	56	43.75	33	25.78
Total	**0**		**0**		**28**		**11**		**56**		**33**	

Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Concrete	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
ManufHousing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	27	100.00
Masonry	0	0.00	0	0.00	6	30.00	2	10.00	12	60.00	0	0.00
Steel	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Wood	0	0.00	0	0.00	22	27.16	9	11.11	44	54.32	6	7.41

Essential Facility Damage

Before the flood analyzed in this scenario, the region had hospital beds available for use. On the day of the scenario flood event, the model estimates that hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	3	0	0	0
Hospitals	1	0	0	0
Police Stations	2	0	0	0
Schools	22	0	0	0

If this report displays all zeros or is blank, two possibilities can explain this.

(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

HAZUS estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 11,098 tons of debris will be generated. Of the total amount, Finishes comprises 34% of the total, Structure comprises 29% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 444 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

HAZUS estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. HAZUS also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 386 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 324 people (out of a total population of 75,905) will seek temporary shelter in public shelters.

Economic Loss

The total economic loss estimated for the flood is 48.25 million dollars, which represents 3.96 % of the total replacement value of the scenario buildings.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 47.98 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 81.29% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	24.73	1.38	0.62	0.42	27.15
	Content	14.45	3.24	1.12	1.64	20.45
	Inventory	0.00	0.11	0.25	0.02	0.38
	Subtotal	**39.18**	**4.73**	**1.99**	**2.09**	**47.98**
Business Interruption						
	Income	0.00	0.02	0.00	0.00	0.02
	Relocation	0.04	0.00	0.00	0.00	0.04
	Rental Income	0.01	0.00	0.00	0.00	0.01
	Wage	0.00	0.01	0.00	0.10	0.12
	Subtotal	**0.05**	**0.03**	**0.00**	**0.10**	**0.18**
ALL	**Total**	**39.22**	**4.76**	**1.99**	**2.19**	**48.16**

Appendix A: County Listing for the Region

West Virginia

- Berkeley

Appendix B: Regional Population and Building Value Data

		Building Value (thousands of dollars)		
	Population	Residential	Non-Residential	Total
West Virginia				
Berkeley	75,905	4,482,824	1,014,426	5,497,250
Total	**75,905**	**4,482,824**	**1,014,426**	**5,497,250**
Total Study Region	**75,905**	**4,482,824**	**1,014,426**	**5,497,250**

West Virginia Statewide HAZUS Level I Flood Analysis Project

BERKELEY COUNTY

WEST VIRGINIA

HAZUS-MH: FLOOD EVENT REPORT

100 Year Flood Scenario

DISCLAIMER

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General Description of the Region

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The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- West Virginia

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 321 square miles and contains 1,883 census blocks. The region contains over 30 thousand households and has a total population of 75,905 people (2000 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 34,683 buildings in the region with a total building replacement value (excluding contents) of 5,497 million dollars (2006 dollars). Approximately 94.01% of the buildings (and 81.55% of the building value) are associated with residential housing.

General Building Stock

HAZUS estimates that there are 34,683 buildings in the region which have an aggregate total replacement value of 5,497 million (2006 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	4,482,824	81.5%
Commercial	652,718	11.9%
Industrial	183,761	3.3%
Agricultural	32,404	0.6%
Religion	71,528	1.3%
Government	31,953	0.6%
Education	42,062	0.8%
Total	**5,497,250**	**100.00%**

Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	1,229,471	90.5%
Commercial	78,233	5.8%
Industrial	31,148	2.3%
Agricultural	3,514	0.3%
Religion	10,069	0.7%
Government	2,620	0.2%
Education	3,710	0.3%
Total	**1,358,765**	**100.00%**

Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 162 beds. There are 22 schools, 3 fire stations, 2 police stations and no emergency operation centers.

Flood Scenario Parameters

HAZUS used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	Berkeley2
Scenario Name:	100-YR
Return Period Analyzed:	100
Analysis Options Analyzed:	No What-Ifs

General Building Stock Damage

HAZUS estimates that about 188 buildings will be at least moderately damaged. This is over 20% of the total number of buildings in the scenario. There are an estimated 48 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the HAZUS Flood technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	0	0.00	4	2.14	43	22.99	15	8.02	77	41.18	48	25.67
Total	**0**		**5**		**43**		**15**		**77**		**48**	

Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Concrete	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
ManufHousing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	38	100.00
Masonry	0	0.00	1	2.94	11	32.35	2	5.88	19	55.88	1	2.94
Steel	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Wood	0	0.00	3	2.61	32	27.83	13	11.30	58	50.43	9	7.83

Essential Facility Damage

Before the flood analyzed in this scenario, the region had hospital beds available for use. On the day of the scenario flood event, the model estimates that hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	3	0	0	0
Hospitals	1	0	0	0
Police Stations	2	0	0	0
Schools	22	0	0	0

If this report displays all zeros or is blank, two possibilities can explain this.

(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

HAZUS estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 14,984 tons of debris will be generated. Of the total amount, Finishes comprises 33% of the total, Structure comprises 30% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 599 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

HAZUS estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. HAZUS also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 525 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 591 people (out of a total population of 75,905) will seek temporary shelter in public shelters.

Economic Loss

The total economic loss estimated for the flood is 68.51 million dollars, which represents 5.63 % of the total replacement value of the scenario buildings.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 68.07 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 75.74% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	32.66	2.23	1.36	0.54	36.79
	Content	19.16	6.08	3.15	1.85	30.24
	Inventory	0.00	0.15	0.85	0.03	1.04
	Subtotal	**51.83**	**8.47**	**5.36**	**2.42**	**68.07**
Business Interruption						
	Income	0.00	0.03	0.00	0.00	0.04
	Relocation	0.06	0.00	0.00	0.00	0.06
	Rental Income	0.01	0.00	0.00	0.00	0.01
	Wage	0.00	0.04	0.00	0.12	0.17
	Subtotal	**0.07**	**0.08**	**0.00**	**0.12**	**0.28**
ALL	**Total**	**51.90**	**8.55**	**5.36**	**2.55**	**68.35**

Appendix A: County Listing for the Region

West Virginia

- Berkeley

Appendix B: Regional Population and Building Value Data

		Building Value (thousands of dollars)		
	Population	Residential	Non-Residential	Total
West Virginia				
Berkeley	75,905	4,482,824	1,014,426	5,497,250
Total	**75,905**	**4,482,824**	**1,014,426**	**5,497,250**
Total Study Region	**75,905**	**4,482,824**	**1,014,426**	**5,497,250**

West Virginia Statewide HAZUS Level I Flood Analysis Project

MORGAN COUNTY

WEST VIRGINIA

HAZUS-MH: FLOOD EVENT REPORT

10 Year Flood Scenario

DISCLAIMER

Totals only reflect data for those census tracts/blocks included in the user's study region. The estimates of social and economic impacts contained in this report were produced using HAZUS loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific flood. These results can be improved by using enhanced inventory data and flood hazard information.

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General Description of the Region

HAZUS is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of HAZUS is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- West Virginia

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 229 square miles and contains 826 census blocks. The region contains over 6 thousand households and has a total population of 14,943 people (2000 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 9,336 buildings in the region with a total building replacement value (excluding contents) of 1,204 million dollars (2006 dollars). Approximately 95.70% of the buildings (and 85.76% of the building value) are associated with residential housing.

General Building Stock

HAZUS estimates that there are 9,336 buildings in the region which have an aggregate total replacement value of 1,204 million (2006 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	1,032,546	85.8%
Commercial	117,710	9.8%
Industrial	23,567	2.0%
Agricultural	3,225	0.3%
Religion	11,348	0.9%
Government	6,579	0.5%
Education	9,004	0.7%
Total	**1,203,979**	**100.00%**

Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	348,167	93.6%
Commercial	19,514	5.2%
Industrial	2,113	0.6%
Agricultural	656	0.2%
Religion	343	0.1%
Government	0	0.0%
Education	1,053	0.3%
Total	**371,846**	**100.00%**

Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 44 beds. There are 5 schools, 2 fire stations, 2 police stations and no emergency operation centers.

Flood Scenario Parameters

HAZUS used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	MorganCounty
Scenario Name:	10-YR
Return Period Analyzed:	10
Analysis Options Analyzed:	No What-Ifs

General Building Stock Damage

HAZUS estimates that about 15 buildings will be at least moderately damaged. This is over 26% of the total number of buildings in the scenario. There are an estimated 1 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the HAZUS Flood technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	0	0.00	0	0.00	5	33.33	1	6.67	8	53.33	1	6.67
Total	**0**		**0**		**5**		**1**		**8**		**1**	

Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Concrete	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
ManufHousing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00
Masonry	0	0.00	0	0.00	1	50.00	0	0.00	1	50.00	0	0.00
Steel	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Wood	0	0.00	0	0.00	4	33.33	1	8.33	7	58.33	0	0.00

Essential Facility Damage

Before the flood analyzed in this scenario, the region had hospital beds available for use. On the day of the scenario flood event, the model estimates that hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	2	0	0	0
Hospitals	1	0	0	0
Police Stations	2	0	0	0
Schools	5	0	0	0

If this report displays all zeros or is blank, two possibilities can explain this.

(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

HAZUS estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 2,335 tons of debris will be generated. Of the total amount, Finishes comprises 49% of the total, Structure comprises 22% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 93 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

HAZUS estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. HAZUS also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 98 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 70 people (out of a total population of 14,943) will seek temporary shelter in public shelters.

Economic Loss

The total economic loss estimated for the flood is 13.60 million dollars, which represents 3.53 % of the total replacement value of the scenario buildings.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 13.45 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 82.52% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	6.29	0.69	0.06	0.01	7.05
	Content	4.92	1.32	0.09	0.02	6.36
	Inventory	0.00	0.02	0.02	0.00	0.04
	Subtotal	**11.22**	**2.04**	**0.17**	**0.03**	**13.45**
Business Interruption						
	Income	0.00	0.02	0.00	0.00	0.02
	Relocation	0.00	0.01	0.00	0.00	0.01
	Rental Income	0.00	0.00	0.00	0.00	0.00
	Wage	0.00	0.04	0.00	0.00	0.04
	Subtotal	**0.00**	**0.06**	**0.00**	**0.00**	**0.07**
ALL	**Total**	**11.22**	**2.10**	**0.17**	**0.03**	**13.52**

Appendix A: County Listing for the Region

West Virginia

- Morgan

Appendix B: Regional Population and Building Value Data

		Building Value (thousands of dollars)		
	Population	Residential	Non-Residential	Total
West Virginia				
Morgan	14,943	1,032,546	171,433	1,203,979
Total	**14,943**	**1,032,546**	**171,433**	**1,203,979**
Total Study Region	**14,943**	**1,032,546**	**171,433**	**1,203,979**

West Virginia Statewide HAZUS Level I Flood Analysis Project

MORGAN COUNTY

WEST VIRGINIA

HAZUS-MH: FLOOD EVENT REPORT

25 Year Flood Scenario

DISCLAIMER

Totals only reflect data for those census tracts/blocks included in the user's study region. The estimates of social and economic impacts contained in this report were produced using HAZUS loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific flood. These results can be improved by using enhanced inventory data and flood hazard information.

Report Date: May 14, 2010

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General Description of the Region

HAZUS is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of HAZUS is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- West Virginia

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 229 square miles and contains 826 census blocks. The region contains over 6 thousand households and has a total population of 14,943 people (2000 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 9,336 buildings in the region with a total building replacement value (excluding contents) of 1,204 million dollars (2006 dollars). Approximately 95.70% of the buildings (and 85.76% of the building value) are associated with residential housing.

General Building Stock

HAZUS estimates that there are 9,336 buildings in the region which have an aggregate total replacement value of 1,204 million (2006 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	1,032,546	85.8%
Commercial	117,710	9.8%
Industrial	23,567	2.0%
Agricultural	3,225	0.3%
Religion	11,348	0.9%
Government	6,579	0.5%
Education	9,004	0.7%
Total	**1,203,979**	**100.00%**

Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	350,371	93.8%
Commercial	19,125	5.1%
Industrial	2,113	0.6%
Agricultural	656	0.2%
Religion	343	0.1%
Government	0	0.0%
Education	1,053	0.3%
Total	**373,661**	**100.00%**

Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 44 beds. There are 5 schools, 2 fire stations, 2 police stations and no emergency operation centers.

Flood Scenario Parameters

HAZUS used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	MorganCounty
Scenario Name:	25-YR
Return Period Analyzed:	25
Analysis Options Analyzed:	No What-Ifs

General Building Stock Damage

HAZUS estimates that about 23 buildings will be at least moderately damaged. This is over 15% of the total number of buildings in the scenario. There are an estimated 2 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the HAZUS Flood technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	0	0.00	0	0.00	4	17.39	2	8.70	15	65.22	2	8.70
Total	**0**		**0**		**4**		**2**		**15**		**2**	

Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Concrete	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
ManufHousing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00
Masonry	0	0.00	0	0.00	1	25.00	0	0.00	3	75.00	0	0.00
Steel	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Wood	0	0.00	0	0.00	3	16.67	2	11.11	12	66.67	1	5.56

Essential Facility Damage

Before the flood analyzed in this scenario, the region had hospital beds available for use. On the day of the scenario flood event, the model estimates that hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	2	0	0	0
Hospitals	1	0	0	0
Police Stations	2	0	0	0
Schools	5	0	0	0

If this report displays all zeros or is blank, two possibilities can explain this.

(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

HAZUS estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 3,209 tons of debris will be generated. Of the total amount, Finishes comprises 43% of the total, Structure comprises 26% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 128 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

HAZUS estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. HAZUS also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 112 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 77 people (out of a total population of 14,943) will seek temporary shelter in public shelters.

Economic Loss

The total economic loss estimated for the flood is 16.41 million dollars, which represents 4.27 % of the total replacement value of the scenario buildings.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 16.27 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 84.35% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	7.88	0.77	0.06	0.01	8.72
	Content	5.96	1.43	0.10	0.03	7.51
	Inventory	0.00	0.02	0.02	0.00	0.05
	Subtotal	**13.84**	**2.22**	**0.18**	**0.04**	**16.27**
Business Interruption						
	Income	0.00	0.02	0.00	0.00	0.02
	Relocation	0.01	0.01	0.00	0.00	0.02
	Rental Income	0.00	0.00	0.00	0.00	0.00
	Wage	0.00	0.03	0.00	0.00	0.03
	Subtotal	**0.01**	**0.06**	**0.00**	**0.00**	**0.07**
ALL	**Total**	**13.85**	**2.28**	**0.18**	**0.04**	**16.34**

Appendix A: County Listing for the Region

West Virginia

- Morgan

Appendix B: Regional Population and Building Value Data

		Building Value (thousands of dollars)		
	Population	Residential	Non-Residential	Total
West Virginia				
Morgan	14,943	1,032,546	171,433	1,203,979
Total	**14,943**	**1,032,546**	**171,433**	**1,203,979**
Total Study Region	**14,943**	**1,032,546**	**171,433**	**1,203,979**

West Virginia Statewide HAZUS Level I Flood Analysis Project

MORGAN COUNTY

WEST VIRGINIA

HAZUS-MH: FLOOD EVENT REPORT

50 Year Flood Scenario

DISCLAIMER

Totals only reflect data for those census tracts/blocks included in the user's study region. The estimates of social and economic impacts contained in this report were produced using HAZUS loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific flood. These results can be improved by using enhanced inventory data and flood hazard information.

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General Description of the Region

HAZUS is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of HAZUS is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- West Virginia

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 229 square miles and contains 826 census blocks. The region contains over 6 thousand households and has a total population of 14,943 people (2000 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 9,336 buildings in the region with a total building replacement value (excluding contents) of 1,204 million dollars (2006 dollars). Approximately 95.70% of the buildings (and 85.76% of the building value) are associated with residential housing.

General Building Stock

HAZUS estimates that there are 9,336 buildings in the region which have an aggregate total replacement value of 1,204 million (2006 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	1,032,546	85.8%
Commercial	117,710	9.8%
Industrial	23,567	2.0%
Agricultural	3,225	0.3%
Religion	11,348	0.9%
Government	6,579	0.5%
Education	9,004	0.7%
Total	**1,203,979**	**100.00%**

Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	362,695	93.6%
Commercial	20,250	5.2%
Industrial	2,620	0.7%
Agricultural	656	0.2%
Religion	343	0.1%
Government	0	0.0%
Education	1,053	0.3%
Total	**387,617**	**100.00%**

Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 44 beds. There are 5 schools, 2 fire stations, 2 police stations and no emergency operation centers.

Flood Scenario Parameters

HAZUS used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	MorganCounty
Scenario Name:	50-YR
Return Period Analyzed:	50
Analysis Options Analyzed:	No What-Ifs

General Building Stock Damage

HAZUS estimates that about 29 buildings will be at least moderately damaged. This is over 14% of the total number of buildings in the scenario. There are an estimated 2 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the HAZUS Flood technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	0	0.00	0	0.00	5	17.24	1	3.45	21	72.41	2	6.90
Total	**0**		**0**		**5**		**1**		**21**		**2**	

Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Concrete	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
ManufHousing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00
Masonry	0	0.00	0	0.00	1	25.00	0	0.00	3	75.00	0	0.00
Steel	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Wood	0	0.00	0	0.00	4	16.67	1	4.17	18	75.00	1	4.17

Essential Facility Damage

Before the flood analyzed in this scenario, the region had hospital beds available for use. On the day of the scenario flood event, the model estimates that hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	2	0	0	0
Hospitals	1	0	0	0
Police Stations	2	0	0	0
Schools	5	0	0	0

If this report displays all zeros or is blank, two possibilities can explain this.

(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

HAZUS estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 3,863 tons of debris will be generated. Of the total amount, Finishes comprises 40% of the total, Structure comprises 28% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 155 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

HAZUS estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. HAZUS also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 118 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 82 people (out of a total population of 14,943) will seek temporary shelter in public shelters.

Economic Loss

The total economic loss estimated for the flood is 19.18 million dollars, which represents 4.99 % of the total replacement value of the scenario buildings.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 19.02 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 81.74% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	8.96	1.09	0.08	0.01	10.14
	Content	6.71	1.98	0.12	0.03	8.83
	Inventory	0.00	0.03	0.02	0.00	0.06
	Subtotal	**15.67**	**3.09**	**0.22**	**0.04**	**19.02**
Business Interruption						
	Income	0.00	0.02	0.00	0.00	0.02
	Relocation	0.01	0.01	0.00	0.00	0.02
	Rental Income	0.00	0.00	0.00	0.00	0.00
	Wage	0.00	0.04	0.00	0.00	0.04
	Subtotal	**0.01**	**0.07**	**0.00**	**0.00**	**0.08**
ALL	**Total**	**15.68**	**3.16**	**0.22**	**0.04**	**19.10**

Appendix A: County Listing for the Region

West Virginia

- Morgan

Appendix B: Regional Population and Building Value Data

		Building Value (thousands of dollars)		
	Population	Residential	Non-Residential	Total
West Virginia				
Morgan	14,943	1,032,546	171,433	1,203,979
Total	**14,943**	**1,032,546**	**171,433**	**1,203,979**
Total Study Region	**14,943**	**1,032,546**	**171,433**	**1,203,979**

West Virginia Statewide HAZUS Level I Flood Analysis Project

MORGAN COUNTY

WEST VIRGINIA

HAZUS-MH: FLOOD EVENT REPORT

100 Year Flood Scenario

DISCLAIMER

Totals only reflect data for those census tracts/blocks included in the user's study region. The estimates of social and economic impacts contained in this report were produced using HAZUS loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific flood. These results can be improved by using enhanced inventory data and flood hazard information.

Report Date: May 14, 2010

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General Description of the Region

HAZUS is a regional multi-hazard loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of HAZUS is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The flood loss estimates provided in this report were based on a region that included 1 county(ies) from the following state(s):

- West Virginia

Note:
Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 229 square miles and contains 826 census blocks. The region contains over 6 thousand households and has a total population of 14,943 people (2000 Census Bureau data). The distribution of population by State and County for the study region is provided in Appendix B.

There are an estimated 9,336 buildings in the region with a total building replacement value (excluding contents) of 1,204 million dollars (2006 dollars). Approximately 95.70% of the buildings (and 85.76% of the building value) are associated with residential housing.

General Building Stock

HAZUS estimates that there are 9,336 buildings in the region which have an aggregate total replacement value of 1,204 million (2006 dollars). Table 1 and Table 2 present the relative distribution of the value with respect to the general occupancies by Study Region and Scenario respectively. Appendix B provides a general distribution of the building value by State and County.

Table 1
Building Exposure by Occupancy Type for the Study Region

Occupancy	Exposure ($1000)	Percent of Total
Residential	1,032,546	85.8%
Commercial	117,710	9.8%
Industrial	23,567	2.0%
Agricultural	3,225	0.3%
Religion	11,348	0.9%
Government	6,579	0.5%
Education	9,004	0.7%
Total	**1,203,979**	**100.00%**

Table 2
Building Exposure by Occupancy Type for the Scenario

Occupancy	Exposure ($1000)	Percent of Total
Residential	380,863	93.8%
Commercial	20,395	5.0%
Industrial	2,620	0.6%
Agricultural	656	0.2%
Religion	343	0.1%
Government	0	0.0%
Education	1,053	0.3%
Total	**405,930**	**100.00%**

Essential Facility Inventory

For essential facilities, there are 1 hospitals in the region with a total bed capacity of 44 beds. There are 5 schools, 2 fire stations, 2 police stations and no emergency operation centers.

Flood Scenario Parameters

HAZUS used the following set of information to define the flood parameters for the flood loss estimate provided in this report.

Study Region Name:	MorganCounty
Scenario Name:	100-YR
Return Period Analyzed:	100
Analysis Options Analyzed:	No What-Ifs

General Building Stock Damage

HAZUS estimates that about 30 buildings will be at least moderately damaged. This is over 14% of the total number of buildings in the scenario. There are an estimated 2 buildings that will be completely destroyed. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the HAZUS Flood technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 summarizes the expected damage by general building type.

Table 3: Expected Building Damage by Occupancy

	1-10		11-20		21-30		31-40		41-50		Substantially	
Occupancy	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Agriculture	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Commercial	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Government	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Industrial	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Religion	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Residential	0	0.00	0	0.00	5	16.67	1	3.33	22	73.33	2	6.67
Total	**0**		**0**		**5**		**1**		**22**		**2**	

Table 4: Expected Building Damage by Building Type

Building Type	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**	**Count**	**(%)**
Concrete	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
ManufHousing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00
Masonry	0	0.00	0	0.00	1	25.00	0	0.00	3	75.00	0	0.00
Steel	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Wood	0	0.00	0	0.00	4	16.00	1	4.00	19	76.00	1	4.00

Essential Facility Damage

Before the flood analyzed in this scenario, the region had hospital beds available for use. On the day of the scenario flood event, the model estimates that hospital beds are available in the region.

Table 5: Expected Damage to Essential Facilities

		# Facilities		
Classification	Total	At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	2	0	0	0
Hospitals	1	0	0	0
Police Stations	2	0	0	0
Schools	5	0	0	0

If this report displays all zeros or is blank, two possibilities can explain this.

(1) None of your facilities were flooded. This can be checked by mapping the inventory data on the depth grid.

(2) The analysis was not run. This can be tested by checking the run box on the Analysis Menu and seeing if a message box asks you to replace the existing results.

Induced Flood Damage

Debris Generation

HAZUS estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories: 1) Finishes (dry wall, insulation, etc.), 2) Structural (wood, brick, etc.) and 3) Foundations (concrete slab, concrete block, rebar, etc.). This distinction is made because of the different types of material handling equipment required to handle the debris.

The model estimates that a total of 4,675 tons of debris will be generated. Of the total amount, Finishes comprises 37% of the total, Structure comprises 30% of the total. If the debris tonnage is converted into an estimated number of truckloads, it will require 187 truckloads (@25 tons/truck) to remove the debris generated by the flood.

Social Impact

Shelter Requirements

HAZUS estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. HAZUS also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 127 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 90 people (out of a total population of 14,943) will seek temporary shelter in public shelters.

Economic Loss

The total economic loss estimated for the flood is 22.20 million dollars, which represents 5.77 % of the total replacement value of the scenario buildings.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The total building-related losses were 22.02 million dollars. 0% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 79.45% of the total loss. Table 6 below provides a summary of the losses associated with the building damage.

Table 6: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	10.15	1.46	0.08	0.01	11.70
	Content	7.47	2.63	0.12	0.03	10.25
	Inventory	0.00	0.04	0.02	0.00	0.06
	Subtotal	**17.63**	**4.12**	**0.23**	**0.05**	**22.02**
Business Interruption						
	Income	0.00	0.02	0.00	0.00	0.02
	Relocation	0.01	0.01	0.00	0.00	0.02
	Rental Income	0.00	0.00	0.00	0.00	0.01
	Wage	0.00	0.04	0.00	0.00	0.04
	Subtotal	**0.01**	**0.07**	**0.00**	**0.00**	**0.09**
ALL	**Total**	**17.64**	**4.20**	**0.23**	**0.05**	**22.11**

Appendix A: County Listing for the Region

West Virginia

- Morgan

Appendix B: Regional Population and Building Value Data

		Building Value (thousands of dollars)		
	Population	Residential	Non-Residential	Total
West Virginia				
Morgan	14,943	1,032,546	171,433	1,203,979
Total	**14,943**	**1,032,546**	**171,433**	**1,203,979**
Total Study Region	**14,943**	**1,032,546**	**171,433**	**1,203,979**

APPENDIX 2

LOSS ESTIMATES FOR BERKELEY AND MORGAN COUNTIES

BERKELEY COUNTY

Hazard: Dam Failure

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	44,762	1,000	2	$8,670,399,400	$193,696,723	2	104,169	2,327	2
Commercial	1,411	20	1	$352,750,000	$4,998,468	1	10,629	151	1
Industrial	181	1	1	$362,000,000	$1,998,240	1	1,366	8	1
Agricultural	833	100	12	$21,715,000	$2,606,886	12	2,141	257	12
Religious/Non-Profit	83	5	6	$12,450,000	$749,988	6	4,150	250	6
Government	11	0	0	$5,115,000	$0	0	8,479	0	0
Education	31	0	0	$136,000,000	$0	0	22,693	0	0
Utilities	32	0	0	$71,232,000	$0	0	565	0	0
Total	47,344	1,126	2	$9,631,661,400	$204,050,304	2	154,192	2,992	2

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Drought

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	44,762	0	0	$8,670,399,400	$0	0	104,169	0	0
Commercial	1,411	0	0	$352,750,000	$0	0	10,629	0	0
Industrial	181	0	0	$362,000,000	$0	0	1,366	0	0
Agricultural	833	833	100	$21,715,000	$0	0	2,141	2,141	100
Religious/Non-Profit	83	0	0	$12,450,000	$0	0	4,150	0	0
Government	11	0	0	$5,115,000	$0	0	8,479	0	0
Education	31	0	0	$136,000,000	$0	0	22,693	0	0
Utilities	32	32	100	$71,232,000	$0	0	565	565	100
Total	47,344	865	2	$9,631,661,400	$0	0	154,192	2,706	2

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Earthquake

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	44,762	44,762	100	$8,670,399,400	$0	0	104,169	104,169	100
Commercial	1,411	1,411	100	$352,750,000	$0	0	10,629	10,629	100
Industrial	181	181	100	$362,000,000	$0	0	1,366	1,366	100
Agricultural	833	833	100	$21,715,000	$0	0	2,141	2,141	100
Religious/Non-Profit	83	83	100	$12,450,000	$0	0	4,150	4,150	100
Government	11	11	100	$5,115,000	$0	0	8,479	8,479	100
Education	31	31	100	$136,000,000	$0	0	22,693	22,693	100
Utilities	32	32	100	$71,232,000	$0	0	565	565	100
Total	47,344	47,344	100	$9,631,661,400	$0	0	154,192	154,192	100

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Epidemic

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	44,762	0	0	$8,670,399,400	$0	0	104,169	104,169	100
Commercial	1,411	0	0	$352,750,000	$0	0	10,629	10,629	100
Industrial	181	0	0	$362,000,000	$0	0	1,366	1,366	100
Agricultural	833	0	0	$21,715,000	$0	0	2,141	2,141	100
Religious/Non-Profit	83	0	0	$12,450,000	$0	0	4,150	4,150	100
Government	11	0	0	$5,115,000	$0	0	8,479	8,479	100
Education	31	0	0	$136,000,000	$0	0	22,693	22,693	100
Utilities	32	0	0	$71,232,000	$0	0	565	565	100
Total	47,344	0	0	$9,631,661,400	$0	0	154,192	154,192	100

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Flooding

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	44,762	9,692	22	$8,670,399,400	$1,907,487,868	22	104,169	22,917	22
Commercial	1,411	298	21	$352,750,000	$74,077,500	21	10,629	2,232	21
Industrial	181	12	7	$362,000,000	$25,340,000	7	1,366	96	7
Agricultural	833	8	1	$21,715,000	$217,150	1	2,141	21	1
Religious/Non-Profit	83	12	14	$12,450,000	$1,743,000	14	4,150	581	14
Government	11	0	0	$5,115,000	$0	0	8,479	0	0
Education	31	6	19	$136,000,000	$25,840,000	19	22,693	4,312	19
Utilities	32	16	50	$71,232,000	$35,616,000	50	565	283	50
Total	47,344	10,044	21	$9,631,661,400	$2,070,321,518	21	154,192	30,441	20

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Hailstorm

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	44,762	44,762	100	$8,670,399,400	$867,040	0.01%	104,169	104,169	100
Commercial	1,411	1,411	100	$352,750,000	$35,275	0.01%	10,629	10,629	100
Industrial	181	181	100	$362,000,000	$36,200	0.01%	1,366	1,366	100
Agricultural	833	833	100	$21,715,000	$2,172	0.01%	2,141	2,141	100
Religious/Non-Profit	83	83	100	$12,450,000	$1,245	0.01%	4,150	4,150	100
Government	11	11	100	$5,115,000	$512	0.01%	8,479	8,479	100
Education	31	31	100	$136,000,000	$13,600	0.01%	22,693	22,693	100
Utilities	32	32	100	$71,232,000	$7,123	0.01%	565	565	100
Total	47,344	47,344	100	$9,631,661,400	$963,166	0	154,192	154,192	100

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Hazardous Materials

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	44,762	7,386	17	$8,670,399,400	$1,430,615,901	17%	104,169	17,188	17
Commercial	1,411	1,000	71	$352,750,000	$250,452,500	71%	10,629	1,754	71
Industrial	181	125	69	$362,000,000	$249,780,000	69%	1,366	943	69
Agricultural	833	50	6	$21,715,000	$1,302,900	6%	2,141	128	6
Religious/Non-Profit	83	14	17	$12,450,000	$2,054,250	17%	4,150	685	17
Government	11	7	64	$5,115,000	$3,273,600	64%	8,479	5,427	64
Education	31	5	17	$136,000,000	$23,120,000	17%	22,693	3,744	17
Utilities	32	32	100	$71,232,000	$71,232,000	100%	565	565	100
Total	47,344	8,619	18	$9,631,661,400	$2,031,831,151	21	154,192	30,433	20

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Infestation

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	44,762	0	0	$8,670,399,400	$0	0	104,169	0	0
Commercial	1,411	0	0	$352,750,000	$0	0	10,629	0	0
Industrial	181	0	0	$362,000,000	$0	0	1,366	0	0
Agricultural	833	833	100	$21,715,000	$0	0	2,141	0	0
Religious/Non-Profit	83	0	0	$12,450,000	$0	0	4,150	0	0
Government	11	0	0	$5,115,000	$0	0	8,479	0	0
Education	31	0	0	$136,000,000	$0	0	22,693	0	0
Utilities	32	0	0	$71,232,000	$0	0	565	0	0
Total	47,344	833	2	$9,631,661,400	$0	0	154,192	0	0

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Land Subsidence

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	44,762	5,895	13	$8,670,399,400	$1,127,151,922	13	104,169	13,542	13
Commercial	1,411	181	13	$352,750,000	$45,857,500	13	10,629	1,382	13
Industrial	181	7	4	$362,000,000	$14,480,000	4	1,366	55	4
Agricultural	833	5	1	$21,715,000	$217,150	1	2,141	21	1
Religious/Non-Profit	83	7	8	$12,450,000	$996,000	8	4,150	332	8
Government	11	5	45	$5,115,000	$2,301,750	45	8,479	3,816	45
Education	31	4	13	$136,000,000	$17,680,000	13	22,693	2,950	13
Utilities	32	1	3	$71,232,000	$2,136,960	3	565	17	3
Total	47,344	6,105	13	$9,631,661,400	$1,210,821,282	13	154,192	22,114	14

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Terrorism

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	44,762	23,490	52	$8,670,399,400	$4,508,607,688	52	104,169	54,168	52
Commercial	1,411	723	51	$352,750,000	$179,902,500	51	10,629	5,421	51
Industrial	181	30	17	$362,000,000	$61,540,000	17	1,366	232	17
Agricultural	833	20	2	$21,715,000	$434,300	2	2,141	43	2
Religious/Non-Profit	83	29	35	$12,450,000	$4,357,500	35	4,150	1,453	35
Government	11	11	100	$5,115,000	$5,115,000	100	8,479	8,479	100
Education	31	15	48	$136,000,000	$65,280,000	48	22,693	10,893	48
Utilities	32	15	47	$71,232,000	$33,479,040	47	565	266	47
Total	47,344	24,333	51	$9,631,661,400	$4,858,716,028	50	154,192	80,953	53

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Thunderstorm

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	44,762	44,762	100	$8,670,399,400	$86,703,994	1%	104,169	104,169	100
Commercial	1,411	1,411	100	$352,750,000	$3,527,500	1%	10,629	10,629	100
Industrial	181	181	100	$362,000,000	$3,620,000	1%	1,366	1,366	100
Agricultural	833	833	100	$21,715,000	$217,150	1%	2,141	2,141	100
Religious/Non-Profit	83	83	100	$12,450,000	$124,500	1%	4,150	4,150	100
Government	11	11	100	$5,115,000	$51,150	1%	8,479	8,479	100
Education	31	31	100	$136,000,000	$1,360,000	1%	22,693	22,693	100
Utilities	32	32	100	$71,232,000	$712,320	1%	565	565	100
Total	47,344	47,344	100	$9,631,661,400	$96,316,614	1	154,192	154,192	100

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Wildfire

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	44,762	14,230	32	$8,670,399,400	$2,774,527,808	32	104,169	33,334	32
Commercial	1,411	438	31	$352,750,000	$109,352,500	31	10,629	3,295	31
Industrial	181	18	10	$362,000,000	$36,200,000	10	1,366	137	10
Agricultural	833	12	1	$21,715,000	$217,150	1	2,141	21	1
Religious/Non-Profit	83	17	20	$12,450,000	$2,490,000	20	4,150	830	20
Government	11	3	27	$5,115,000	$1,381,050	27	8,479	2,289	27
Education	31	9	29	$136,000,000	$39,440,000	29	22,693	6,581	29
Utilities	32	2	6	$71,232,000	$4,273,920	6	565	34	6
Total	47,344	14,729	31	$9,631,661,400	$2,967,882,428	31	154,192	46,521	30

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Wind

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	44,762	44,762	100	$8,670,399,400	$130,055,991	2%	104,169	104,169	100
Commercial	1,411	1,411	100	$352,750,000	$5,291,250	2%	10,629	10,629	100
Industrial	181	181	100	$362,000,000	$5,430,000	2%	1,366	1,366	100
Agricultural	833	833	100	$21,715,000	$325,725	2%	2,141	2,141	100
Religious/Non-Profit	83	83	100	$12,450,000	$186,750	2%	4,150	4,150	100
Government	11	11	100	$5,115,000	$76,725	2%	8,479	8,479	100
Education	31	31	100	$136,000,000	$2,040,000	2%	22,693	22,693	100
Utilities	32	32	100	$71,232,000	$1,068,480	2%	565	565	100
Total	47,344	47,344	100	$9,631,661,400	$144,474,921	2	154,192	154,192	100

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Winter Storm

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	44,762	44,762	100	$8,670,399,400	$151,731,990	2%	104,169	104,169	100
Commercial	1,411	1,411	100	$352,750,000	$6,173,125	2%	10,629	10,629	100
Industrial	181	181	100	$362,000,000	$6,335,000	2%	1,366	1,366	100
Agricultural	833	833	100	$21,715,000	$380,013	2%	2,141	2,141	100
Religious/Non-Profit	83	83	100	$12,450,000	$217,875	2%	4,150	4,150	100
Government	11	11	100	$5,115,000	$89,513	2%	8,479	8,479	100
Education	31	31	100	$136,000,000	$2,380,000	2%	22,693	22,693	100
Utilities	32	32	100	$71,232,000	$1,246,560	2%	565	565	100
Total	47,344	47,344	100	$9,631,661,400	$168,554,075	2	154,192	154,192	100

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Dam Failure (BerkeleyCounty)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Back Creek ES	$1,400,000	X	0%	=	$0	$635,000	X	0%	=	$0
Bedington ES	$1,475,000	X	0%	=	$0	$625,000	X	0%	=	$0
Berkeley Heights ES	$1,625,000	X	0%	=	$0	$640,000	X	0%	=	$0
Bunker Hill ES	$1,425,000	X	0%	=	$0	$635,000	X	0%	=	$0
Burke Street ES	$1,750,000	X	0%	=	$0	$600,000	X	0%	=	$0
Gerrardstown ES	$1,325,000	X	0%	=	$0	$615,000	X	0%	=	$0
Hedgesville ES	$1,700,000	X	0%	=	$0	$650,000	X	0%	=	$0
Inwood ES	$2,700,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Marlowe ES	$1,215,000	X	0%	=	$0	$575,000	X	0%	=	$0
Opequon ES	$1,235,000	X	0%	=	$0	$600,000	X	0%	=	$0
Rosemont ES	$1,245,000	X	0%	=	$0	$600,000	X	0%	=	$0
Tomahawk ES	$1,345,000	X	0%	=	$0	$610,000	X	0%	=	$0
Tuscarora ES	$1,275,000	X	0%	=	$0	$605,000	X	0%	=	$0
Valley View ES	$1,235,000	X	0%	=	$0	$600,000	X	0%	=	$0
Winchester Ave. ES	$1,435,000	X	0%	=	$0	$615,000	X	0%	=	$0
Hedgesville MS	$9,325,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Martinsburg North MS	$14,325,000	X	0%	=	$0	$3,400,000	X	0%	=	$0
Martinsburg South MS	$14,325,000	X	0%	=	$0	$3,400,000	X	0%	=	$0
Mussleman MS	$12,425,000	X	0%	=	$0	$3,235,000	X	0%	=	$0
Mussleman HS	$19,425,000	X	0%	=	$0	$7,235,000	X	0%	=	$0
Spring Hills MS	$3,000,000	X	0%	=	$0	$850,000	X	0%	=	$0
Eagle School IS	$3,400,000	X	0%	=	$0	$735,000	X	0%	=	$0
Mill Creek IS	$3,250,000	X	0%	=	$0	$700,000	X	0%	=	$0
Potomac IS	$3,350,000	X	0%	=	$0	$710,000	X	0%	=	$0
Mountain Ridge IS	$3,000,000	X	0%	=	$0	$685,000	X	0%	=	$0
Orchard View IS	$3,125,000	X	0%	=	$0	$685,000	X	0%	=	$0
Hedgesville HS	$18,125,000	X	0%	=	$0	$7,350,000	X	0%	=	$0
Martinsburg HS	$17,625,000	X	0%	=	$0	$7,500,000	X	0%	=	$0
James Rumsey Vo-Tech	$11,425,000	X	0%	=	$0	$9,235,000	X	0%	=	$0
Pikeside Pre-Vocational	$3,250,000	X	0%	=	$0	$2,750,000	X	0%	=	$0
Ramer Center	$750,000	X	0%	=	$0	$175,000	X	0%	=	$0
WV State Police	$235,000	X	0%	=	$0	$85,000	X	0%	=	$0
Berkeley Co. Sheriff's Dept.	$185,000	X	0%	=	$0	$60,000	X	0%	=	$0
Martinsburg Police Dept.	$205,000	X	0%	=	$0	$63,000	X	0%	=	$0
Back Creek Valley FD	$250,000	X	0%	=	$0	$985,000	X	0%	=	$0
Baker Heights VFD	$725,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Bedington VFD	$325,000	X	0%	=	$0	$965,000	X	0%	=	$0
Hedgesville VFD	$1,250,000	X	0%	=	$0	$1,750,000	X	0%	=	$0
Martinsburg FD	$2,500,000	X	0%	=	$0	$4,750,000	X	0%	=	$0
South Berkeley VFD	$750,000	X	0%	=	$0	$1,225,000	X	0%	=	$0
Veterans Affairs Med Ctr FD	$2,250,000	X	0%	=	$0	$3,125,000	X	0%	=	$0

WV Air Natl. Guard FD	$2,500,000	X	0%	=	$0	$4,250,000	X	0%	=	$0
Veterans Affairs Medical Center	$150,000,000	X	0%	=	$0	$65,000,000	X	0%	=	$0
Shenandoah Health Services	$185,000	X	0%	=	$0	$65,000	X	0%	=	$0
Martinsburg City Hospital	$245,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Naylor Memorial Library	$115,000	X	0%	=	$0	$875,000	X	0%	=	$0
Martinsburg-Berkeley Co. Public Library	$625,000	X	0%	=	$0	$3,250,000	X	0%	=	$0
Berkeley County Courthouse	$3,250,000	X	0%	=	$0	$475,000	X	0%	=	$0
Martinsburg City Hall	$1,115,000	X	0%	=	$0	$305,000	X	0%	=	$0
RESA VIII	$255,000	X	0%	=	$0	$35,000	X	0%	=	$0
Martinsburg Water Works	$200,000	X	0%	=	$0	$33,000,000	X	0%	=	$0
Martinsburg WWTP	$225,000	X	0%	=	$0	$25,000,000	X	0%	=	$0
Bekeley County Animal Control	$125,000	X	0%	=	$0	$15,000	X	0%	=	$0
Capitol Cement	$13,750,000	X	0%	=	$0	$75,000,000	X	0%	=	$0
Martinsburg City Garage	$250,000	X	0%	=	$0	$325,000	X	0%	=	$0
Martinsburg Train Station	$3,250,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Co OHSEM	$75,000	X	0%	=	$0	$35,000	X	0%	=	$0
Berkeley Co. Senior Center	$145,000	X	0%	=	$0	$53,000	X	0%	=	$0
Berkeley Co. Central Dispatch	$1,250,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Bekeley County Health Dept.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Cabin Museum	$1,785,000	X	0%	=	$0	$325,000	X	0%	=	$0
Eastern WV Regional Airport	$875,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Martinsburg PO (24504)	$165,000	X	0%	=	$0	$25,000	X	0%	=	$0
Martinsburg PO (24501)	$225,000	X	0%	=	$0	$37,000	X	0%	=	$0
Hedgesville PO	$125,000	X	0%	=	$0	$21,000	X	0%	=	$0
Inwood PO	$135,000	X	0%	=	$0	$20,000	X	0%	=	$0
Bunker Hill PO	$85,000	X	0%	=	$0	$12,000	X	0%	=	$0
Gerrardstown PO	$75,000	X	0%	=	$0	$12,400	X	0%	=	$0
Pleasant View ES	$1,225,000	X	0%	=	$0	$525,000	X	0%	=	$0
					$0					$0

Hazard: Drought (Berkeley County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Back Creek ES	$109,500	X	0	+	$300	X	0	=	$0	$0
Bedington ES	$113,150	X	0	+	$310	X	0	=	$0	$0
Berkeley Heights ES	$138,700	X	0	+	$380	X	0	=	$0	$0
Bunker Hill ES	$129,575	X	0	+	$355	X	0	=	$0	$0
Burke Street ES	$131,400	X	0	+	$360	X	0	=	$0	$0
Gerrardstown ES	$138,700	X	0	+	$380	X	0	=	$0	$0
Hedgesville ES	$447,125	X	0	+	$1,225	X	0	=	$0	$0
Inwood ES	$173,375	X	0	+	$475	X	0	=	$0	$0
Marlowe ES	$114,975	X	0	+	$315	X	0	=	$0	$0
Opequon ES	$113,150	X	0	+	$310	X	0	=	$0	$0
Rosemont ES	$113,150	X	0	+	$310	X	0	=	$0	$0
Tomahawk ES	$116,800	X	0	+	$320	X	0	=	$0	$0
Tuscarora ES	$122,275	X	0	+	$335	X	0	=	$0	$0
Valley View ES	$118,625	X	0	+	$325	X	0	=	$0	$0
Winchester Ave. ES	$164,250	X	0	+	$450	X	0	=	$0	$0
Hedgesville MS	$237,250	X	0	+	$650	X	0	=	$0	$0
Martinsburg North MS	$273,750	X	0	+	$750	X	0	=	$0	$0
Martinsburg South MS	$273,750	X	0	+	$750	X	0	=	$0	$0
Mussleman MS	$456,250	X	0	+	$1,250	X	0	=	$0	$0
Mussleman HS	$401,500	X	0	+	$1,100	X	0	=	$0	$0
Spring Hills MS	$173,375	X	0	+	$475	X	0	=	$0	$0
Eagle School IS	$155,125	X	0	+	$425	X	0	=	$0	$0
Mill Creek IS	$155,125	X	0	+	$425	X	0	=	$0	$0
Potomac IS	$158,775	X	0	+	$435	X	0	=	$0	$0
Mountain Ridge IS	$151,475	X	0	+	$415	X	0	=	$0	$0
Orchard View IS	$153,300	X	0	+	$420	X	0	=	$0	$0
Hedgesville HS	$346,750	X	0	+	$950	X	0	=	$0	$0
Martinsburg HS	$438,000	X	0	+	$1,200	X	0	=	$0	$0
James Rumsey Vo-Tech	$447,125	X	0	+	$1,225	X	0	=	$0	$0
Pikeside Pre-Vocational	$337,625	X	0	+	$925	X	0	=	$0	$0
Ramer Center	$109,500	X	0	+	$300	X	0	=	$0	$0
WV State Police	$164,250	X	0	+	$450	X	0	=	$0	$0
Berkeley Co. Sheriff's Dept.	$401,500	X	0	+	$1,100	X	0	=	$0	$0
Martinsburg Police Dept.	$346,750	X	0	+	$950	X	0	=	$0	$0
Back Creek Valley FD	$41,975	X	0	+	$115	X	0	=	$0	$0
Baker Heights VFD	$49,275	X	0	+	$135	X	0	=	$0	$0

Bedington VFD	$41,975	X	0	+	$115	X	0	=	$0		$0
Hedgesville VFD	$54,750	X	0	+	$150	X	0	=	$0		$0
Martinsburg FD	$912,500	X	0	+	$2,500	X	0	=	$0		$0
South Berkeley VFD	$49,275	X	0	+	$135	X	0	=	$0		$0
Veterans Affairs Med Ctr FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$0
WV Air Natl. Guard FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$0
Veterans Affairs Medical Center	$31,536,000	X	0	+	$86,400	X	0	=	$0		$0
Shenandoah Health Services	$584,000	X	0	+	$1,600	X	0	=	$0		$0
Martinsburg City Hospital	$28,470,000	X	0	+	$78,000	X	0	=	$0		$0
Naylor Memorial Library	$63,875	X	0	+	$175	X	0	=	$0		$0
Martinsburg-Berkeley Co. Public Library	$127,750	X	0	+	$350	X	0	=	$0		$0
Berkeley County Courthouse	$164,250	X	0	+	$450	X	0	=	$0		$0
Martinsburg City Hall	$200,750	X	0	+	$550	X	0	=	$0		$0
RESA VIII	$45,625	X	0	+	$125	X	0	=	$0		$0
Martinsburg Water Works	$118,625	X	0	+	$325	X	0	=	$0		$0
Martinsburg WWTP	$118,625	X	0	+	$325	X	0	=	$0		$0
Bekeley County Animal Control	$45,625	X	0	+	$125	X	0	=	$0		$0
Capitol Cement	$122,275	X	0	+	$3,350	X	0	=	$0		$0
Martinsburg City Garage	$164,250	X	0	+	$450	X	0	=	$0		$0
Martinsburg Train Station	$173,375	X	0	+	$475	X	0	=	$0		$0
Berkeley Co OHSEM	$140,525	X	0	+	$385	X	0	=	$0		$0
Berkeley Co. Senior Center	$49,275	X	0	+	$135	X	0	=	$0		$0
Berkeley Co. Central Dispatch	$127,750	X	0	+	$350	X	0	=	$0		$0
Bekeley County Health Dept.	$136,875	X	0	+	$375	X	0	=	$0		$0
Morgan Cabin Museum	$27,375	X	0	+	$75	X	0	=	$0		$0
Eastern WV Regional Airport	$2,737,500	X	0	+	$7,500	X	0	=	$0		$0
Martinsburg PO (24504)	$136,875	X	0	+	$375	X	0	=	$0		$0
Martinsburg PO (24501)	$228,125	X	0	+	$625	X	0	=	$0		$0
Hedgesville PO	$67,525	X	0	+	$185	X	0	=	$0		$0
Inwood PO	$60,225	X	0	+	$165	X	0	=	$0		$0

Bunker Hill PO	$36,500	X	0	+	$100	X	0	=	$0	$0
Gerrardstown PO	$38,325	X	0	+	$105	X	0	=	$0	$0
Pleasant View ES	$140,525	X	0	+	$385	X	0	=	$0	$0
									$0	**$0**

Hazard: Drought (BerkeleyCounty)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Back Creek ES	$1,400,000	X	0%	=	$0	$635,000	X	0%	=	$0
Bedington ES	$1,475,000	X	0%	=	$0	$625,000	X	0%	=	$0
Berkeley Heights ES	$1,625,000	X	0%	=	$0	$640,000	X	0%	=	$0
Bunker Hill ES	$1,425,000	X	0%	=	$0	$635,000	X	0%	=	$0
Burke Street ES	$1,750,000	X	0%	=	$0	$600,000	X	0%	=	$0
Gerrardstown ES	$1,325,000	X	0%	=	$0	$615,000	X	0%	=	$0
Hedgesville ES	$1,700,000	X	0%	=	$0	$650,000	X	0%	=	$0
Inwood ES	$2,700,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Marlowe ES	$1,215,000	X	0%	=	$0	$575,000	X	0%	=	$0
Opequon ES	$1,235,000	X	0%	=	$0	$600,000	X	0%	=	$0
Rosemont ES	$1,245,000	X	0%	=	$0	$600,000	X	0%	=	$0
Tomahawk ES	$1,345,000	X	0%	=	$0	$610,000	X	0%	=	$0
Tuscarora ES	$1,275,000	X	0%	=	$0	$605,000	X	0%	=	$0
Valley View ES	$1,235,000	X	0%	=	$0	$600,000	X	0%	=	$0
Winchester Ave. ES	$1,435,000	X	0%	=	$0	$615,000	X	0%	=	$0
Hedgesville MS	$9,325,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Martinsburg North MS	$14,325,000	X	0%	=	$0	$3,400,000	X	0%	=	$0
Martinsburg South MS	$14,325,000	X	0%	=	$0	$3,400,000	X	0%	=	$0
Mussleman MS	$12,425,000	X	0%	=	$0	$3,235,000	X	0%	=	$0
Mussleman HS	$19,425,000	X	0%	=	$0	$7,235,000	X	0%	=	$0
Spring Hills MS	$3,000,000	X	0%	=	$0	$850,000	X	0%	=	$0
Eagle School IS	$3,400,000	X	0%	=	$0	$735,000	X	0%	=	$0
Mill Creek IS	$3,250,000	X	0%	=	$0	$700,000	X	0%	=	$0
Potomac IS	$3,350,000	X	0%	=	$0	$710,000	X	0%	=	$0
Mountain Ridge IS	$3,000,000	X	0%	=	$0	$685,000	X	0%	=	$0
Orchard View IS	$3,125,000	X	0%	=	$0	$685,000	X	0%	=	$0
Hedgesville HS	$18,125,000	X	0%	=	$0	$7,350,000	X	0%	=	$0
Martinsburg HS	$17,625,000	X	0%	=	$0	$7,500,000	X	0%	=	$0
James Rumsey Vo-Tech	$11,425,000	X	0%	=	$0	$9,235,000	X	0%	=	$0
Pikeside Pre-Vocational	$3,250,000	X	0%	=	$0	$2,750,000	X	0%	=	$0
Ramer Center	$750,000	X	0%	=	$0	$175,000	X	0%	=	$0
WV State Police	$235,000	X	0%	=	$0	$85,000	X	0%	=	$0
Berkeley Co. Sheriff's Dept.	$185,000	X	0%	=	$0	$60,000	X	0%	=	$0
Martinsburg Police Dept.	$205,000	X	0%	=	$0	$63,000	X	0%	=	$0
Back Creek Valley FD	$250,000	X	0%	=	$0	$985,000	X	0%	=	$0
Baker Heights VFD	$725,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Bedington VFD	$325,000	X	0%	=	$0	$965,000	X	0%	=	$0
Hedgesville VFD	$1,250,000	X	0%	=	$0	$1,750,000	X	0%	=	$0
Martinsburg FD	$2,500,000	X	0%	=	$0	$4,750,000	X	0%	=	$0
South Berkeley VFD	$750,000	X	0%	=	$0	$1,225,000	X	0%	=	$0
Veterans Affairs Med Ctr FD	$2,250,000	X	0%	=	$0	$3,125,000	X	0%	=	$0

WV Air Natl. Guard FD	$2,500,000	X	0%	=	$0	$4,250,000	X	0%	=	$0
Veterans Affairs Medical Center	$150,000,000	X	0%	=	$0	$65,000,000	X	0%	=	$0
Shenandoah Health Services	$185,000	X	0%	=	$0	$65,000	X	0%	=	$0
Martinsburg City Hospital	$245,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Naylor Memorial Library	$115,000	X	0%	=	$0	$875,000	X	0%	=	$0
Martinsburg-Berkeley Co. Public Library	$625,000	X	0%	=	$0	$3,250,000	X	0%	=	$0
Berkeley County Courthouse	$3,250,000	X	0%	=	$0	$475,000	X	0%	=	$0
Martinsburg City Hall	$1,115,000	X	0%	=	$0	$305,000	X	0%	=	$0
RESA VIII	$255,000	X	0%	=	$0	$35,000	X	0%	=	$0
Martinsburg Water Works	$200,000	X	0%	=	$0	$33,000,000	X	0%	=	$0
Martinsburg WWTP	$225,000	X	0%	=	$0	$25,000,000	X	0%	=	$0
Bekeley County Animal Control	$125,000	X	0%	=	$0	$15,000	X	0%	=	$0
Capitol Cement	$13,750,000	X	0%	=	$0	$75,000,000	X	0%	=	$0
Martinsburg City Garage	$250,000	X	0%	=	$0	$325,000	X	0%	=	$0
Martinsburg Train Station	$3,250,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Co OHSEM	$75,000	X	0%	=	$0	$35,000	X	0%	=	$0
Berkeley Co. Senior Center	$145,000	X	0%	=	$0	$53,000	X	0%	=	$0
Berkeley Co. Central Dispatch	$1,250,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Bekeley County Health Dept.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Cabin Museum	$1,785,000	X	0%	=	$0	$325,000	X	0%	=	$0
Eastern WV Regional Airport	$875,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Martinsburg PO (24504)	$165,000	X	0%	=	$0	$25,000	X	0%	=	$0
Martinsburg PO (24501)	$225,000	X	0%	=	$0	$37,000	X	0%	=	$0
Hedgesville PO	$125,000	X	0%	=	$0	$21,000	X	0%	=	$0
Inwood PO	$135,000	X	0%	=	$0	$20,000	X	0%	=	$0
Bunker Hill PO	$85,000	X	0%	=	$0	$12,000	X	0%	=	$0
Gerrardstown PO	$75,000	X	0%	=	$0	$12,400	X	0%	=	$0
Pleasant View ES	$1,225,000	X	0%	=	$0	$525,000	X	0%	=	$0
					$0					$0

Hazard: Drought (Berkeley County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Back Creek ES	$109,500	X	0	+	$300	X	0	=	$0	$0
Bedington ES	$113,150	X	0	+	$310	X	0	=	$0	$0
Berkeley Heights ES	$138,700	X	0	+	$380	X	0	=	$0	$0
Bunker Hill ES	$129,575	X	0	+	$355	X	0	=	$0	$0
Burke Street ES	$131,400	X	0	+	$360	X	0	=	$0	$0
Gerrardstown ES	$138,700	X	0	+	$380	X	0	=	$0	$0
Hedgesville ES	$447,125	X	0	+	$1,225	X	0	=	$0	$0
Inwood ES	$173,375	X	0	+	$475	X	0	=	$0	$0
Marlowe ES	$114,975	X	0	+	$315	X	0	=	$0	$0
Opequon ES	$113,150	X	0	+	$310	X	0	=	$0	$0
Rosemont ES	$113,150	X	0	+	$310	X	0	=	$0	$0
Tomahawk ES	$116,800	X	0	+	$320	X	0	=	$0	$0
Tuscarora ES	$122,275	X	0	+	$335	X	0	=	$0	$0
Valley View ES	$118,625	X	0	+	$325	X	0	=	$0	$0
Winchester Ave. ES	$164,250	X	0	+	$450	X	0	=	$0	$0
Hedgesville MS	$237,250	X	0	+	$650	X	0	=	$0	$0
Martinsburg North MS	$273,750	X	0	+	$750	X	0	=	$0	$0
Martinsburg South MS	$273,750	X	0	+	$750	X	0	=	$0	$0
Mussleman MS	$456,250	X	0	+	$1,250	X	0	=	$0	$0
Mussleman HS	$401,500	X	0	+	$1,100	X	0	=	$0	$0
Spring Hills MS	$173,375	X	0	+	$475	X	0	=	$0	$0
Eagle School IS	$155,125	X	0	+	$425	X	0	=	$0	$0
Mill Creek IS	$155,125	X	0	+	$425	X	0	=	$0	$0
Potomac IS	$158,775	X	0	+	$435	X	0	=	$0	$0
Mountain Ridge IS	$151,475	X	0	+	$415	X	0	=	$0	$0
Orchard View IS	$153,300	X	0	+	$420	X	0	=	$0	$0
Hedgesville HS	$346,750	X	0	+	$950	X	0	=	$0	$0
Martinsburg HS	$438,000	X	0	+	$1,200	X	0	=	$0	$0
James Rumsey Vo-Tech	$447,125	X	0	+	$1,225	X	0	=	$0	$0
Pikeside Pre-Vocational	$337,625	X	0	+	$925	X	0	=	$0	$0
Ramer Center	$109,500	X	0	+	$300	X	0	=	$0	$0
WV State Police	$164,250	X	0	+	$450	X	0	=	$0	$0
Berkeley Co. Sheriff's Dept.	$401,500	X	0	+	$1,100	X	0	=	$0	$0
Martinsburg Police Dept.	$346,750	X	0	+	$950	X	0	=	$0	$0
Back Creek Valley FD	$41,975	X	0	+	$115	X	0	=	$0	$0
Baker Heights VFD	$49,275	X	0	+	$135	X	0	=	$0	$0

Bedington VFD	$41,975	X	0	+	$115	X	0	=	$0		$0
Hedgesville VFD	$54,750	X	0	+	$150	X	0	=	$0		$0
Martinsburg FD	$912,500	X	0	+	$2,500	X	0	=	$0		$0
South Berkeley VFD	$49,275	X	0	+	$135	X	0	=	$0		$0
Veterans Affairs Med Ctr FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$0
WV Air Natl. Guard FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$0
Veterans Affairs Medical Center	$31,536,000	X	0	+	$86,400	X	0	=	$0		$0
Shenandoah Health Services	$584,000	X	0	+	$1,600	X	0	=	$0		$0
Martinsburg City Hospital	$28,470,000	X	0	+	$78,000	X	0	=	$0		$0
Naylor Memorial Library	$63,875	X	0	+	$175	X	0	=	$0		$0
Martinsburg-Berkeley Co. Public Library	$127,750	X	0	+	$350	X	0	=	$0		$0
Berkeley County Courthouse	$164,250	X	0	+	$450	X	0	=	$0		$0
Martinsburg City Hall	$200,750	X	0	+	$550	X	0	=	$0		$0
RESA VIII	$45,625	X	0	+	$125	X	0	=	$0		$0
Martinsburg Water Works	$118,625	X	0	+	$325	X	0	=	$0		$0
Martinsburg WWTP	$118,625	X	0	+	$325	X	0	=	$0		$0
Bekeley County Animal Control	$45,625	X	0	+	$125	X	0	=	$0		$0
Capitol Cement	$122,275	X	0	+	$3,350	X	0	=	$0		$0
Martinsburg City Garage	$164,250	X	0	+	$450	X	0	=	$0		$0
Martinsburg Train Station	$173,375	X	0	+	$475	X	0	=	$0		$0
Berkeley Co OHSEM	$140,525	X	0	+	$385	X	0	=	$0		$0
Berkeley Co. Senior Center	$49,275	X	0	+	$135	X	0	=	$0		$0
Berkeley Co. Central Dispatch	$127,750	X	0	+	$350	X	0	=	$0		$0
Bekeley County Health Dept.	$136,875	X	0	+	$375	X	0	=	$0		$0
Morgan Cabin Museum	$27,375	X	0	+	$75	X	0	=	$0		$0
Eastern WV Regional Airport	$2,737,500	X	0	+	$7,500	X	0	=	$0		$0
Martinsburg PO (24504)	$136,875	X	0	+	$375	X	0	=	$0		$0
Martinsburg PO (24501)	$228,125	X	0	+	$625	X	0	=	$0		$0
Hedgesville PO	$67,525	X	0	+	$185	X	0	=	$0		$0
Inwood PO	$60,225	X	0	+	$165	X	0	=	$0		$0

Bunker Hill PO	$36,500	X	0	+	$100	X	0	=	$0	$0
Gerrardstown PO	$38,325	X	0	+	$105	X	0	=	$0	$0
Pleasant View ES	$140,525	X	0	+	$385	X	0	=	$0	$0
									$0	**$0**

Hazard: Earthquake (BerkeleyCounty)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Back Creek ES	$1,400,000	X	0.00%	=	$0	$635,000	X	0.00%	=	$0
Bedington ES	$1,475,000	X	0.00%	=	$0	$625,000	X	0.00%	=	$0
Berkeley Heights ES	$1,625,000	X	0.00%	=	$0	$640,000	X	0.00%	=	$0
Bunker Hill ES	$1,425,000	X	0.00%	=	$0	$635,000	X	0.00%	=	$0
Burke Street ES	$1,750,000	X	0.00%	=	$0	$600,000	X	0.00%	=	$0
Gerrardstown ES	$1,325,000	X	0.00%	=	$0	$615,000	X	0.00%	=	$0
Hedgesville ES	$1,700,000	X	0.00%	=	$0	$650,000	X	0.00%	=	$0
Inwood ES	$2,700,000	X	0.00%	=	$0	$1,250,000	X	0.00%	=	$0
Marlowe ES	$1,215,000	X	0.00%	=	$0	$575,000	X	0.00%	=	$0
Opequon ES	$1,235,000	X	0.00%	=	$0	$600,000	X	0.00%	=	$0
Rosemont ES	$1,245,000	X	0.00%	=	$0	$600,000	X	0.00%	=	$0
Tomahawk ES	$1,345,000	X	0.00%	=	$0	$610,000	X	0.00%	=	$0
Tuscarora ES	$1,275,000	X	0.00%	=	$0	$605,000	X	0.00%	=	$0
Valley View ES	$1,235,000	X	0.00%	=	$0	$600,000	X	0.00%	=	$0
Winchester Ave. ES	$1,435,000	X	0.00%	=	$0	$615,000	X	0.00%	=	$0
Hedgesville MS	$9,325,000	X	0.00%	=	$0	$1,250,000	X	0.00%	=	$0
Martinsburg North MS	$14,325,000	X	0.00%	=	$0	$3,400,000	X	0.00%	=	$0
Martinsburg South MS	$14,325,000	X	0.00%	=	$0	$3,400,000	X	0.00%	=	$0
Mussleman MS	$12,425,000	X	0.00%	=	$0	$3,235,000	X	0.00%	=	$0
Mussleman HS	$19,425,000	X	0.00%	=	$0	$7,235,000	X	0.00%	=	$0
Spring Hills MS	$3,000,000	X	0.00%	=	$0	$850,000	X	0.00%	=	$0
Eagle School IS	$3,400,000	X	0.00%	=	$0	$735,000	X	0.00%	=	$0
Mill Creek IS	$3,250,000	X	0.00%	=	$0	$700,000	X	0.00%	=	$0
Potomac IS	$3,350,000	X	0.00%	=	$0	$710,000	X	0.00%	=	$0
Mountain Ridge IS	$3,000,000	X	0.00%	=	$0	$685,000	X	0.00%	=	$0
Orchard View IS	$3,125,000	X	0.00%	=	$0	$685,000	X	0.00%	=	$0
Hedgesville HS	$18,125,000	X	0.00%	=	$0	$7,350,000	X	0.00%	=	$0
Martinsburg HS	$17,625,000	X	0.00%	=	$0	$7,500,000	X	0.00%	=	$0
James Rumsey Vo-Tech	$11,425,000	X	0.00%	=	$0	$9,235,000	X	0.00%	=	$0
Pikeside Pre-Vocational	$3,250,000	X	0.00%	=	$0	$2,750,000	X	0.00%	=	$0
Ramer Center	$750,000	X	0.00%	=	$0	$175,000	X	0.00%	=	$0
WV State Police	$235,000	X	0.00%	=	$0	$85,000	X	0.00%	=	$0
Berkeley Co. Sheriff's Dept.	$185,000	X	0.00%	=	$0	$60,000	X	0.00%	=	$0
Martinsburg Police Dept.	$205,000	X	0.00%	=	$0	$63,000	X	0.00%	=	$0
Back Creek Valley FD	$250,000	X	0.00%	=	$0	$985,000	X	0.00%	=	$0
Baker Heights VFD	$725,000	X	0.00%	=	$0	$1,150,000	X	0.00%	=	$0
Bedington VFD	$325,000	X	0.00%	=	$0	$965,000	X	0.00%	=	$0
Hedgesville VFD	$1,250,000	X	0.00%	=	$0	$1,750,000	X	0.00%	=	$0
Martinsburg FD	$2,500,000	X	0.00%	=	$0	$4,750,000	X	0.00%	=	$0
South Berkeley VFD	$750,000	X	0.00%	=	$0	$1,225,000	X	0.00%	=	$0
Veterans Affairs Med Ctr FD	$2,250,000	X	0.00%	=	$0	$3,125,000	X	0.00%	=	$0

WV Air Natl. Guard FD	$2,500,000	X	0.00%	=	$0	$4,250,000	X	0.00%	=	$0
Veterans Affairs Medical Center	$150,000,000	X	0.00%	=	$0	$65,000,000	X	0.00%	=	$0
Shenandoah Health Services	$185,000	X	0.00%	=	$0	$65,000	X	0.00%	=	$0
Martinsburg City Hospital	$245,000,000	X	0.00%	=	$0	$125,000,000	X	0.00%	=	$0
Naylor Memorial Library	$115,000	X	0.00%	=	$0	$875,000	X	0.00%	=	$0
Martinsburg-Berkeley Co. Public Library	$625,000	X	0.00%	=	$0	$3,250,000	X	0.00%	=	$0
Berkeley County Courthouse	$3,250,000	X	0.00%	=	$0	$475,000	X	0.00%	=	$0
Martinsburg City Hall	$1,115,000	X	0.00%	=	$0	$305,000	X	0.00%	=	$0
RESA VIII	$255,000	X	0.00%	=	$0	$35,000	X	0.00%	=	$0
Martinsburg Water Works	$200,000	X	0.00%	=	$0	$33,000,000	X	0.00%	=	$0
Martinsburg WWTP	$225,000	X	0.00%	=	$0	$25,000,000	X	0.00%	=	$0
Bekeley County Animal Control	$125,000	X	0.00%	=	$0	$15,000	X	0.00%	=	$0
Capitol Cement	$13,750,000	X	0.00%	=	$0	$75,000,000	X	0.00%	=	$0
Martinsburg City Garage	$250,000	X	0.00%	=	$0	$325,000	X	0.00%	=	$0
Martinsburg Train Station	$3,250,000	X	0.00%	=	$0	$65,000	X	0.00%	=	$0
Berkeley Co OHSEM	$75,000	X	0.00%	=	$0	$35,000	X	0.00%	=	$0
Berkeley Co. Senior Center	$145,000	X	0.00%	=	$0	$53,000	X	0.00%	=	$0
Berkeley Co. Central Dispatch	$1,250,000	X	0.00%	=	$0	$2,250,000	X	0.00%	=	$0
Bekeley County Health Dept.	$125,000	X	0.00%	=	$0	$25,000	X	0.00%	=	$0
Morgan Cabin Museum	$1,785,000	X	0.00%	=	$0	$325,000	X	0.00%	=	$0
Eastern WV Regional Airport	$875,000,000	X	0.00%	=	$0	$125,000,000	X	0.00%	=	$0
Martinsburg PO (24504)	$165,000	X	0.00%	=	$0	$25,000	X	0.00%	=	$0
Martinsburg PO (24501)	$225,000	X	0.00%	=	$0	$37,000	X	0.00%	=	$0
Hedgesville PO	$125,000	X	0.00%	=	$0	$21,000	X	0.00%	=	$0
Inwood PO	$135,000	X	0.00%	=	$0	$20,000	X	0.00%	=	$0
Bunker Hill PO	$85,000	X	0.00%	=	$0	$12,000	X	0.00%	=	$0
Gerrardstown PO	$75,000	X	0.00%	=	$0	$12,400	X	0.00%	=	$0
Pleasant View ES	$1,225,000	X	0.00%	=	$0	$525,000	X	0.00%	=	$0
					$0					$0

Hazard: Earthquake (Berkeley County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Back Creek ES	$109,500	X	0	+	$300	X	0	=	$0	$0
Bedington ES	$113,150	X	0	+	$310	X	0	=	$0	$0
Berkeley Heights ES	$138,700	X	0	+	$380	X	0	=	$0	$0
Bunker Hill ES	$129,575	X	0	+	$355	X	0	=	$0	$0
Burke Street ES	$131,400	X	0	+	$360	X	0	=	$0	$0
Gerrardstown ES	$138,700	X	0	+	$380	X	0	=	$0	$0
Hedgesville ES	$447,125	X	0	+	$1,225	X	0	=	$0	$0
Inwood ES	$173,375	X	0	+	$475	X	0	=	$0	$0
Marlowe ES	$114,975	X	0	+	$315	X	0	=	$0	$0
Opequon ES	$113,150	X	0	+	$310	X	0	=	$0	$0
Rosemont ES	$113,150	X	0	+	$310	X	0	=	$0	$0
Tomahawk ES	$116,800	X	0	+	$320	X	0	=	$0	$0
Tuscarora ES	$122,275	X	0	+	$335	X	0	=	$0	$0
Valley View ES	$118,625	X	0	+	$325	X	0	=	$0	$0
Winchester Ave. ES	$164,250	X	0	+	$450	X	0	=	$0	$0
Hedgesville MS	$237,250	X	0	+	$650	X	0	=	$0	$0
Martinsburg North MS	$273,750	X	0	+	$750	X	0	=	$0	$0
Martinsburg South MS	$273,750	X	0	+	$750	X	0	=	$0	$0
Mussleman MS	$456,250	X	0	+	$1,250	X	0	=	$0	$0
Mussleman HS	$401,500	X	0	+	$1,100	X	0	=	$0	$0
Spring Hills MS	$173,375	X	0	+	$475	X	0	=	$0	$0
Eagle School IS	$155,125	X	0	+	$425	X	0	=	$0	$0
Mill Creek IS	$155,125	X	0	+	$425	X	0	=	$0	$0
Potomac IS	$158,775	X	0	+	$435	X	0	=	$0	$0
Mountain Ridge IS	$151,475	X	0	+	$415	X	0	=	$0	$0
Orchard View IS	$153,300	X	0	+	$420	X	0	=	$0	$0
Hedgesville HS	$346,750	X	0	+	$950	X	0	=	$0	$0
Martinsburg HS	$438,000	X	0	+	$1,200	X	0	=	$0	$0
James Rumsey Vo-Tech	$447,125	X	0	+	$1,225	X	0	=	$0	$0
Pikeside Pre-Vocational	$337,625	X	0	+	$925	X	0	=	$0	$0
Ramer Center	$109,500	X	0	+	$300	X	0	=	$0	$0
WV State Police	$164,250	X	0	+	$450	X	0	=	$0	$0
Berkeley Co. Sheriff's Dept.	$401,500	X	0	+	$1,100	X	0	=	$0	$0
Martinsburg Police Dept.	$346,750	X	0	+	$950	X	0	=	$0	$0
Back Creek Valley FD	$41,975	X	0	+	$115	X	0	=	$0	$0
Baker Heights VFD	$49,275	X	0	+	$135	X	0	=	$0	$0

Bedington VFD	$41,975	X	0	+	$115	X	0	=	$0		$0
Hedgesville VFD	$54,750	X	0	+	$150	X	0	=	$0		$0
Martinsburg FD	$912,500	X	0	+	$2,500	X	0	=	$0		$0
South Berkeley VFD	$49,275	X	0	+	$135	X	0	=	$0		$0
Veterans Affairs Med Ctr FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$0
WV Air Natl. Guard FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$0
Veterans Affairs Medical Center	$31,536,000	X	0	+	$86,400	X	0	=	$0		$0
Shenandoah Health Services	$584,000	X	0	+	$1,600	X	0	=	$0		$0
Martinsburg City Hospital	$28,470,000	X	0	+	$78,000	X	0	=	$0		$0
Naylor Memorial Library	$63,875	X	0	+	$175	X	0	=	$0		$0
Martinsburg-Berkeley Co. Public Library	$127,750	X	0	+	$350	X	0	=	$0		$0
Berkeley County Courthouse	$164,250	X	0	+	$450	X	0	=	$0		$0
Martinsburg City Hall	$200,750	X	0	+	$550	X	0	=	$0		$0
RESA VIII	$45,625	X	0	+	$125	X	0	=	$0		$0
Martinsburg Water Works	$118,625	X	0	+	$325	X	0	=	$0		$0
Martinsburg WWTP	$118,625	X	0	+	$325	X	0	=	$0		$0
Bekeley County Animal Control	$45,625	X	0	+	$125	X	0	=	$0		$0
Capitol Cement	$122,275	X	0	+	$3,350	X	0	=	$0		$0
Martinsburg City Garage	$164,250	X	0	+	$450	X	0	=	$0		$0
Martinsburg Train Station	$173,375	X	0	+	$475	X	0	=	$0		$0
Berkeley Co OHSEM	$140,525	X	0	+	$385	X	0	=	$0		$0
Berkeley Co. Senior Center	$49,275	X	0	+	$135	X	0	=	$0		$0
Berkeley Co. Central Dispatch	$127,750	X	0	+	$350	X	0	=	$0		$0
Bekeley County Health Dept.	$136,875	X	0	+	$375	X	0	=	$0		$0
Morgan Cabin Museum	$27,375	X	0	+	$75	X	0	=	$0		$0
Eastern WV Regional Airport	$2,737,500	X	0	+	$7,500	X	0	=	$0		$0
Martinsburg PO (24504)	$136,875	X	0	+	$375	X	0	=	$0		$0
Martinsburg PO (24501)	$228,125	X	0	+	$625	X	0	=	$0		$0
Hedgesville PO	$67,525	X	0	+	$185	X	0	=	$0		$0
Inwood PO	$60,225	X	0	+	$165	X	0	=	$0		$0

Bunker Hill PO	$36,500	X	0	+	$100	X	0	=	$0	$0
Gerrardstown PO	$38,325	X	0	+	$105	X	0	=	$0	$0
Pleasant View ES	$140,525	X	0	+	$385	X	0	=	$0	$0
									$0	**$0**

Hazard: Epidemic (BerkeleyCounty)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Back Creek ES	$1,400,000	X	0%	=	$0	$635,000	X	0%	=	$0
Bedington ES	$1,475,000	X	0%	=	$0	$625,000	X	0%	=	$0
Berkeley Heights ES	$1,625,000	X	0%	=	$0	$640,000	X	0%	=	$0
Bunker Hill ES	$1,425,000	X	0%	=	$0	$635,000	X	0%	=	$0
Burke Street ES	$1,750,000	X	0%	=	$0	$600,000	X	0%	=	$0
Gerrardstown ES	$1,325,000	X	0%	=	$0	$615,000	X	0%	=	$0
Hedgesville ES	$1,700,000	X	0%	=	$0	$650,000	X	0%	=	$0
Inwood ES	$2,700,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Marlowe ES	$1,215,000	X	0%	=	$0	$575,000	X	0%	=	$0
Opequon ES	$1,235,000	X	0%	=	$0	$600,000	X	0%	=	$0
Rosemont ES	$1,245,000	X	0%	=	$0	$600,000	X	0%	=	$0
Tomahawk ES	$1,345,000	X	0%	=	$0	$610,000	X	0%	=	$0
Tuscarora ES	$1,275,000	X	0%	=	$0	$605,000	X	0%	=	$0
Valley View ES	$1,235,000	X	0%	=	$0	$600,000	X	0%	=	$0
Winchester Ave. ES	$1,435,000	X	0%	=	$0	$615,000	X	0%	=	$0
Hedgesville MS	$9,325,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Martinsburg North MS	$14,325,000	X	0%	=	$0	$3,400,000	X	0%	=	$0
Martinsburg South MS	$14,325,000	X	0%	=	$0	$3,400,000	X	0%	=	$0
Mussleman MS	$12,425,000	X	0%	=	$0	$3,235,000	X	0%	=	$0
Mussleman HS	$19,425,000	X	0%	=	$0	$7,235,000	X	0%	=	$0
Spring Hills MS	$3,000,000	X	0%	=	$0	$850,000	X	0%	=	$0
Eagle School IS	$3,400,000	X	0%	=	$0	$735,000	X	0%	=	$0
Mill Creek IS	$3,250,000	X	0%	=	$0	$700,000	X	0%	=	$0
Potomac IS	$3,350,000	X	0%	=	$0	$710,000	X	0%	=	$0
Mountain Ridge IS	$3,000,000	X	0%	=	$0	$685,000	X	0%	=	$0
Orchard View IS	$3,125,000	X	0%	=	$0	$685,000	X	0%	=	$0
Hedgesville HS	$18,125,000	X	0%	=	$0	$7,350,000	X	0%	=	$0
Martinsburg HS	$17,625,000	X	0%	=	$0	$7,500,000	X	0%	=	$0
James Rumsey Vo-Tech	$11,425,000	X	0%	=	$0	$9,235,000	X	0%	=	$0
Pikeside Pre-Vocational	$3,250,000	X	0%	=	$0	$2,750,000	X	0%	=	$0
Ramer Center	$750,000	X	0%	=	$0	$175,000	X	0%	=	$0
WV State Police	$235,000	X	0%	=	$0	$85,000	X	0%	=	$0
Berkeley Co. Sheriff's Dept.	$185,000	X	0%	=	$0	$60,000	X	0%	=	$0
Martinsburg Police Dept.	$205,000	X	0%	=	$0	$63,000	X	0%	=	$0
Back Creek Valley FD	$250,000	X	0%	=	$0	$985,000	X	0%	=	$0
Baker Heights VFD	$725,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Bedington VFD	$325,000	X	0%	=	$0	$965,000	X	0%	=	$0
Hedgesville VFD	$1,250,000	X	0%	=	$0	$1,750,000	X	0%	=	$0
Martinsburg FD	$2,500,000	X	0%	=	$0	$4,750,000	X	0%	=	$0
South Berkeley VFD	$750,000	X	0%	=	$0	$1,225,000	X	0%	=	$0
Veterans Affairs Med Ctr FD	$2,250,000	X	0%	=	$0	$3,125,000	X	0%	=	$0

WV Air Natl. Guard FD	$2,500,000	X	0%	=	$0	$4,250,000	X	0%	=	$0
Veterans Affairs Medical Center	$150,000,000	X	0%	=	$0	$65,000,000	X	0%	=	$0
Shenandoah Health Services	$185,000	X	0%	=	$0	$65,000	X	0%	=	$0
Martinsburg City Hospital	$245,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Naylor Memorial Library	$115,000	X	0%	=	$0	$875,000	X	0%	=	$0
Martinsburg-Berkeley Co. Public Library	$625,000	X	0%	=	$0	$3,250,000	X	0%	=	$0
Berkeley County Courthouse	$3,250,000	X	0%	=	$0	$475,000	X	0%	=	$0
Martinsburg City Hall	$1,115,000	X	0%	=	$0	$305,000	X	0%	=	$0
RESA VIII	$255,000	X	0%	=	$0	$35,000	X	0%	=	$0
Martinsburg Water Works	$200,000	X	0%	=	$0	$33,000,000	X	0%	=	$0
Martinsburg WWTP	$225,000	X	0%	=	$0	$25,000,000	X	0%	=	$0
Bekeley County Animal Control	$125,000	X	0%	=	$0	$15,000	X	0%	=	$0
Capitol Cement	$13,750,000	X	0%	=	$0	$75,000,000	X	0%	=	$0
Martinsburg City Garage	$250,000	X	0%	=	$0	$325,000	X	0%	=	$0
Martinsburg Train Station	$3,250,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Co OHSEM	$75,000	X	0%	=	$0	$35,000	X	0%	=	$0
Berkeley Co. Senior Center	$145,000	X	0%	=	$0	$53,000	X	0%	=	$0
Berkeley Co. Central Dispatch	$1,250,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Bekeley County Health Dept.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Cabin Museum	$1,785,000	X	0%	=	$0	$325,000	X	0%	=	$0
Eastern WV Regional Airport	$875,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Martinsburg PO (24504)	$165,000	X	0%	=	$0	$25,000	X	0%	=	$0
Martinsburg PO (24501)	$225,000	X	0%	=	$0	$37,000	X	0%	=	$0
Hedgesville PO	$125,000	X	0%	=	$0	$21,000	X	0%	=	$0
Inwood PO	$135,000	X	0%	=	$0	$20,000	X	0%	=	$0
Bunker Hill PO	$85,000	X	0%	=	$0	$12,000	X	0%	=	$0
Gerrardstown PO	$75,000	X	0%	=	$0	$12,400	X	0%	=	$0
Pleasant View ES	$1,225,000	X	0%	=	$0	$525,000	X	0%	=	$0
					$0					$0

Hazard: Epidemic (Berkeley County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Back Creek ES	$109,500	X	3	+	$300	X	0	=	$328,500	$328,500
Bedington ES	$113,150	X	3	+	$310	X	0	=	$339,450	$339,450
Berkeley Heights ES	$138,700	X	3	+	$380	X	0	=	$416,100	$416,100
Bunker Hill ES	$129,575	X	3	+	$355	X	0	=	$388,725	$388,725
Burke Street ES	$131,400	X	3	+	$360	X	0	=	$394,200	$394,200
Gerrardstown ES	$138,700	X	3	+	$380	X	0	=	$416,100	$416,100
Hedgesville ES	$447,125	X	3	+	$1,225	X	0	=	$1,341,375	$1,341,375
Inwood ES	$173,375	X	3	+	$475	X	0	=	$520,125	$520,125
Marlowe ES	$114,975	X	3	+	$315	X	0	=	$344,925	$344,925
Opequon ES	$113,150	X	3	+	$310	X	0	=	$339,450	$339,450
Rosemont ES	$113,150	X	3	+	$310	X	0	=	$339,450	$339,450
Tomahawk ES	$116,800	X	3	+	$320	X	0	=	$350,400	$350,400
Tuscarora ES	$122,275	X	3	+	$335	X	0	=	$366,825	$366,825
Valley View ES	$118,625	X	3	+	$325	X	0	=	$355,875	$355,875
Winchester Ave. ES	$164,250	X	3	+	$450	X	0	=	$492,750	$492,750
Hedgesville MS	$237,250	X	3	+	$650	X	0	=	$711,750	$711,750
Martinsburg North MS	$273,750	X	3	+	$750	X	0	=	$821,250	$821,250
Martinsburg South MS	$273,750	X	3	+	$750	X	0	=	$821,250	$821,250
Mussleman MS	$456,250	X	3	+	$1,250	X	0	=	$1,368,750	$1,368,750
Mussleman HS	$401,500	X	3	+	$1,100	X	0	=	$1,204,500	$1,204,500
Spring Hills MS	$173,375	X	3	+	$475	X	0	=	$520,125	$520,125
Eagle School IS	$155,125	X	3	+	$425	X	0	=	$465,375	$465,375
Mill Creek IS	$155,125	X	3	+	$425	X	0	=	$465,375	$465,375
Potomac IS	$158,775	X	3	+	$435	X	0	=	$476,325	$476,325
Mountain Ridge IS	$151,475	X	3	+	$415	X	0	=	$454,425	$454,425
Orchard View IS	$153,300	X	3	+	$420	X	0	=	$459,900	$459,900
Hedgesville HS	$346,750	X	3	+	$950	X	0	=	$1,040,250	$1,040,250
Martinsburg HS	$438,000	X	3	+	$1,200	X	0	=	$1,314,000	$1,314,000
James Rumsey Vo-Tech	$447,125	X	3	+	$1,225	X	0	=	$1,341,375	$1,341,375
Pikeside Pre-Vocational	$337,625	X	3	+	$925	X	0	=	$1,012,875	$1,012,875
Ramer Center	$109,500	X	3	+	$300	X	0	=	$328,500	$328,500
WV State Police	$164,250	X	0	+	$450	X	0	=	$0	$0
Berkeley Co. Sheriff's Dept.	$401,500	X	0	+	$1,100	X	0	=	$0	$0
Martinsburg Police Dept.	$346,750	X	0	+	$950	X	0	=	$0	$0
Back Creek Valley FD	$41,975	X	0	+	$115	X	0	=	$0	$0
Baker Heights VFD	$49,275	X	0	+	$135	X	0	=	$0	$0

Bedington VFD	$41,975	X	0	+	$115	X	0	=	$0		$0
Hedgesville VFD	$54,750	X	0	+	$150	X	0	=	$0		$0
Martinsburg FD	$912,500	X	0	+	$2,500	X	0	=	$0		$0
South Berkeley VFD	$49,275	X	0	+	$135	X	0	=	$0		$0
Veterans Affairs Med Ctr FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$0
WV Air Natl. Guard FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$0
Veterans Affairs Medical Center	$31,536,000	X	0	+	$86,400	X	0	=	$0		$0
Shenandoah Health Services	$584,000	X	0	+	$1,600	X	0	=	$0		$0
Martinsburg City Hospital	$28,470,000	X	0	+	$78,000	X	0	=	$0		$0
Naylor Memorial Library	$63,875	X	0	+	$175	X	0	=	$0		$0
Martinsburg-Berkeley Co. Public Library	$127,750	X	0	+	$350	X	0	=	$0		$0
Berkeley County Courthouse	$164,250	X	0	+	$450	X	0	=	$0		$0
Martinsburg City Hall	$200,750	X	0	+	$550	X	0	=	$0		$0
RESA VIII	$45,625	X	0	+	$125	X	0	=	$0		$0
Martinsburg Water Works	$118,625	X	0	+	$325	X	0	=	$0		$0
Martinsburg WWTP	$118,625	X	0	+	$325	X	0	=	$0		$0
Bekeley County Animal Control	$45,625	X	0	+	$125	X	0	=	$0		$0
Capitol Cement	$122,275	X	0	+	$3,350	X	0	=	$0		$0
Martinsburg City Garage	$164,250	X	0	+	$450	X	0	=	$0		$0
Martinsburg Train Station	$173,375	X	0	+	$475	X	0	=	$0		$0
Berkeley Co OHSEM	$140,525	X	0	+	$385	X	0	=	$0		$0
Berkeley Co. Senior Center	$49,275	X	0	+	$135	X	0	=	$0		$0
Berkeley Co. Central Dispatch	$127,750	X	0	+	$350	X	0	=	$0		$0
Bekeley County Health Dept.	$136,875	X	0	+	$375	X	0	=	$0		$0
Morgan Cabin Museum	$27,375	X	0	+	$75	X	0	=	$0		$0
Eastern WV Regional Airport	$2,737,500	X	0	+	$7,500	X	0	=	$0		$0
Martinsburg PO (24504)	$136,875	X	0	+	$375	X	0	=	$0		$0
Martinsburg PO (24501)	$228,125	X	0	+	$625	X	0	=	$0		$0
Hedgesville PO	$67,525	X	0	+	$185	X	0	=	$0		$0
Inwood PO	$60,225	X	0	+	$165	X	0	=	$0		$0

Bunker Hill PO	$36,500	X	0	+	$100	X	0	=	$0	$0
Gerrardstown PO	$38,325	X	0	+	$105	X	0	=	$0	$0
Pleasant View ES	$140,525	X	3	+	$385	X	0	=	$421,575	$421,575
									$19,961,850	**$19,961,850**

Hazard: Flooding (BerkeleyCounty)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Back Creek ES	$1,400,000	X	1%	=	$14,000	$635,000	X	15%	=	$95,250
Bedington ES	$1,475,000	X	1%	=	$14,750	$625,000	X	15%	=	$93,750
Berkeley Heights ES	$1,625,000	X	1%	=	$16,250	$640,000	X	15%	=	$96,000
Bunker Hill ES	$1,425,000	X	1%	=	$14,250	$635,000	X	15%	=	$95,250
Burke Street ES	$1,750,000	X	1%	=	$17,500	$600,000	X	15%	=	$90,000
Gerrardstown ES	$1,325,000	X	1%	=	$13,250	$615,000	X	15%	=	$92,250
Hedgesville ES	$1,700,000	X	1%	=	$17,000	$650,000	X	15%	=	$97,500
Inwood ES	$2,700,000	X	1%	=	$27,000	$1,250,000	X	15%	=	$187,500
Marlowe ES	$1,215,000	X	1%	=	$12,150	$575,000	X	15%	=	$86,250
Opequon ES	$1,235,000	X	1%	=	$12,350	$600,000	X	15%	=	$90,000
Rosemont ES	$1,245,000	X	1%	=	$12,450	$600,000	X	15%	=	$90,000
Tomahawk ES	$1,345,000	X	1%	=	$13,450	$610,000	X	15%	=	$91,500
Tuscarora ES	$1,275,000	X	1%	=	$12,750	$605,000	X	15%	=	$90,750
Valley View ES	$1,235,000	X	1%	=	$12,350	$600,000	X	15%	=	$90,000
Winchester Ave. ES	$1,435,000	X	1%	=	$14,350	$615,000	X	15%	=	$92,250
Hedgesville MS	$9,325,000	X	1%	=	$93,250	$1,250,000	X	15%	=	$187,500
Martinsburg North MS	$14,325,000	X	1%	=	$143,250	$3,400,000	X	15%	=	$510,000
Martinsburg South MS	$14,325,000	X	1%	=	$143,250	$3,400,000	X	15%	=	$510,000
Mussleman MS	$12,425,000	X	1%	=	$124,250	$3,235,000	X	15%	=	$485,250
Mussleman HS	$19,425,000	X	1%	=	$194,250	$7,235,000	X	15%	=	$1,085,250
Spring Hills MS	$3,000,000	X	1%	=	$30,000	$850,000	X	15%	=	$127,500
Eagle School IS	$3,400,000	X	1%	=	$34,000	$735,000	X	15%	=	$110,250
Mill Creek IS	$3,250,000	X	1%	=	$32,500	$700,000	X	15%	=	$105,000
Potomac IS	$3,350,000	X	1%	=	$33,500	$710,000	X	15%	=	$106,500
Mountain Ridge IS	$3,000,000	X	1%	=	$30,000	$685,000	X	15%	=	$102,750
Orchard View IS	$3,125,000	X	1%	=	$31,250	$685,000	X	15%	=	$102,750
Hedgesville HS	$18,125,000	X	1%	=	$181,250	$7,350,000	X	15%	=	$1,102,500
Martinsburg HS	$17,625,000	X	1%	=	$176,250	$7,500,000	X	15%	=	$1,125,000
James Rumsey Vo-Tech	$11,425,000	X	1%	=	$114,250	$9,235,000	X	15%	=	$1,385,250
Pikeside Pre-Vocational	$3,250,000	X	1%	=	$32,500	$2,750,000	X	15%	=	$412,500
Ramer Center	$750,000	X	1%	=	$7,500	$175,000	X	15%	=	$26,250
WV State Police	$235,000	X	0%	=	$0	$85,000	X	0%	=	$0
Berkeley Co. Sheriff's Dept.	$185,000	X	0%	=	$0	$60,000	X	0%	=	$0
Martinsburg Police Dept.	$205,000	X	0%	=	$0	$63,000	X	0%	=	$0
Back Creek Valley FD	$250,000	X	0%	=	$0	$985,000	X	0%	=	$0
Baker Heights VFD	$725,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Bedington VFD	$325,000	X	0%	=	$0	$965,000	X	0%	=	$0
Hedgesville VFD	$1,250,000	X	0%	=	$0	$1,750,000	X	0%	=	$0
Martinsburg FD	$2,500,000	X	0%	=	$0	$4,750,000	X	0%	=	$0
South Berkeley VFD	$750,000	X	0%	=	$0	$1,225,000	X	0%	=	$0
Veterans Affairs Med Ctr FD	$2,250,000	X	0%	=	$0	$3,125,000	X	0%	=	$0

WV Air Natl. Guard FD	$2,500,000	X	0%	=	$0	$4,250,000	X	0%	=	$0
Veterans Affairs Medical Center	$150,000,000	X	0%	=	$0	$65,000,000	X	0%	=	$0
Shenandoah Health Services	$185,000	X	0%	=	$0	$65,000	X	0%	=	$0
Martinsburg City Hospital	$245,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Naylor Memorial Library	$115,000	X	0%	=	$0	$875,000	X	0%	=	$0
Martinsburg-Berkeley Co. Public Library	$625,000	X	0%	=	$0	$3,250,000	X	0%	=	$0
Berkeley County Courthouse	$3,250,000	X	0%	=	$0	$475,000	X	0%	=	$0
Martinsburg City Hall	$1,115,000	X	0%	=	$0	$305,000	X	0%	=	$0
RESA VIII	$255,000	X	0%	=	$0	$35,000	X	0%	=	$0
Martinsburg Water Works	$200,000	X	0%	=	$0	$33,000,000	X	0%	=	$0
Martinsburg WWTP	$225,000	X	0%	=	$0	$25,000,000	X	0%	=	$0
Bekeley County Animal Control	$125,000	X	0%	=	$0	$15,000	X	0%	=	$0
Capitol Cement	$13,750,000	X	0%	=	$0	$75,000,000	X	0%	=	$0
Martinsburg City Garage	$250,000	X	0%	=	$0	$325,000	X	0%	=	$0
Martinsburg Train Station	$3,250,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Co OHSEM	$75,000	X	0%	=	$0	$35,000	X	0%	=	$0
Berkeley Co. Senior Center	$145,000	X	0%	=	$0	$53,000	X	0%	=	$0
Berkeley Co. Central Dispatch	$1,250,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Bekeley County Health Dept.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Cabin Museum	$1,785,000	X	0%	=	$0	$325,000	X	0%	=	$0
Eastern WV Regional Airport	$875,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Martinsburg PO (24504)	$165,000	X	0%	=	$0	$25,000	X	5%	=	$1,250
Martinsburg PO (24501)	$225,000	X	0%	=	$0	$37,000	X	5%	=	$1,850
Hedgesville PO	$125,000	X	1%	=	$625	$21,000	X	5%	=	$1,050
Inwood PO	$135,000	X	1%	=	$675	$20,000	X	5%	=	$1,000
Bunker Hill PO	$85,000	X	1%	=	$425	$12,000	X	5%	=	$600
Gerrardstown PO	$75,000	X	1%	=	$375	$12,400	X	5%	=	$620
Pleasant View ES	$1,225,000	X	1%	=	$12,250	$525,000	X	15%	=	$78,750
					$1,639,450					$9,047,620

Hazard: Flooding (Berkeley County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Back Creek ES	$109,500	X	2	+	$300	X	7	=	$221,100	$330,350
Bedington ES	$113,150	X	2	+	$310	X	7	=	$228,470	$336,970
Berkeley Heights ES	$138,700	X	2	+	$380	X	7	=	$280,060	$392,310
Bunker Hill ES	$129,575	X	2	+	$355	X	7	=	$261,635	$371,135
Burke Street ES	$131,400	X	2	+	$360	X	7	=	$265,320	$372,820
Gerrardstown ES	$138,700	X	2	+	$380	X	7	=	$280,060	$385,560
Hedgesville ES	$447,125	X	2	+	$1,225	X	7	=	$902,825	$1,017,325
Inwood ES	$173,375	X	2	+	$475	X	7	=	$350,075	$564,575
Marlowe ES	$114,975	X	2	+	$315	X	7	=	$232,155	$330,555
Opequon ES	$113,150	X	2	+	$310	X	7	=	$228,470	$330,820
Rosemont ES	$113,150	X	2	+	$310	X	7	=	$228,470	$330,920
Tomahawk ES	$116,800	X	2	+	$320	X	7	=	$235,840	$340,790
Tuscarora ES	$122,275	X	2	+	$335	X	7	=	$246,895	$350,395
Valley View ES	$118,625	X	2	+	$325	X	7	=	$239,525	$341,875
Winchester Ave. ES	$164,250	X	2	+	$450	X	7	=	$331,650	$438,250
Hedgesville MS	$237,250	X	2	+	$650	X	7	=	$479,050	$759,800
Martinsburg North MS	$273,750	X	2	+	$750	X	7	=	$552,750	$1,206,000
Martinsburg South MS	$273,750	X	2	+	$750	X	7	=	$552,750	$1,206,000
Mussleman MS	$456,250	X	2	+	$1,250	X	7	=	$921,250	$1,530,750
Mussleman HS	$401,500	X	2	+	$1,100	X	7	=	$810,700	$2,090,200
Spring Hills MS	$173,375	X	2	+	$475	X	7	=	$350,075	$507,575
Eagle School IS	$155,125	X	2	+	$425	X	7	=	$313,225	$457,475
Mill Creek IS	$155,125	X	2	+	$425	X	7	=	$313,225	$450,725
Potomac IS	$158,775	X	2	+	$435	X	7	=	$320,595	$460,595
Mountain Ridge IS	$151,475	X	2	+	$415	X	7	=	$305,855	$438,605
Orchard View IS	$153,300	X	2	+	$420	X	7	=	$309,540	$443,540
Hedgesville HS	$346,750	X	2	+	$950	X	7	=	$700,150	$1,983,900
Martinsburg HS	$438,000	X	2	+	$1,200	X	7	=	$884,400	$2,185,650
James Rumsey Vo-Tech	$447,125	X	2	+	$1,225	X	7	=	$902,825	$2,402,325
Pikeside Pre-Vocational	$337,625	X	2	+	$925	X	7	=	$681,725	$1,126,725
Ramer Center	$109,500	X	2	+	$300	X	7	=	$221,100	$254,850
WV State Police	$164,250	X	0	+	$450	X	0	=	$0	$0
Berkeley Co. Sheriff's Dept.	$401,500	X	0	+	$1,100	X	0	=	$0	$0
Martinsburg Police Dept.	$346,750	X	0	+	$950	X	0	=	$0	$0
Back Creek Valley FD	$41,975	X	0	+	$115	X	0	=	$0	$0
Baker Heights VFD	$49,275	X	0	+	$135	X	0	=	$0	$0

Bedington VFD	$41,975	X	0	+	$115	X	0	=	$0		$0
Hedgesville VFD	$54,750	X	0	+	$150	X	0	=	$0		$0
Martinsburg FD	$912,500	X	0	+	$2,500	X	0	=	$0		$0
South Berkeley VFD	$49,275	X	0	+	$135	X	0	=	$0		$0
Veterans Affairs Med Ctr FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$0
WV Air Natl. Guard FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$0
Veterans Affairs Medical Center	$31,536,000	X	0	+	$86,400	X	0	=	$0		$0
Shenandoah Health Services	$584,000	X	0	+	$1,600	X	0	=	$0		$0
Martinsburg City Hospital	$28,470,000	X	0	+	$78,000	X	0	=	$0		$0
Naylor Memorial Library	$63,875	X	0	+	$175	X	0	=	$0		$0
Martinsburg-Berkeley Co. Public Library	$127,750	X	0	+	$350	X	0	=	$0		$0
Berkeley County Courthouse	$164,250	X	0	+	$450	X	0	=	$0		$0
Martinsburg City Hall	$200,750	X	0	+	$550	X	0	=	$0		$0
RESA VIII	$45,625	X	0	+	$125	X	0	=	$0		$0
Martinsburg Water Works	$118,625	X	1	+	$325	X	0	=	$118,625		$118,625
Martinsburg WWTP	$118,625	X	0	+	$325	X	0	=	$0		$0
Bekeley County Animal Control	$45,625	X	0	+	$125	X	0	=	$0		$0
Capitol Cement	$122,275	X	0	+	$3,350	X	0	=	$0		$0
Martinsburg City Garage	$164,250	X	0	+	$450	X	0	=	$0		$0
Martinsburg Train Station	$173,375	X	0	+	$475	X	0	=	$0		$0
Berkeley Co OHSEM	$140,525	X	0	+	$385	X	0	=	$0		$0
Berkeley Co. Senior Center	$49,275	X	0	+	$135	X	0	=	$0		$0
Berkeley Co. Central Dispatch	$127,750	X	0	+	$350	X	0	=	$0		$0
Bekeley County Health Dept.	$136,875	X	0	+	$375	X	0	=	$0		$0
Morgan Cabin Museum	$27,375	X	0	+	$75	X	0	=	$0		$0
Eastern WV Regional Airport	$2,737,500	X	0	+	$7,500	X	0	=	$0		$0
Martinsburg PO (24504)	$136,875	X	0	+	$375	X	0	=	$0		$1,250
Martinsburg PO (24501)	$228,125	X	0	+	$625	X	0	=	$0		$1,850
Hedgesville PO	$67,525	X	0	+	$185	X	0	=	$0		$1,675
Inwood PO	$60,225	X	0	+	$165	X	0	=	$0		$1,675

Bunker Hill PO	$36,500	X	0	+	$100	X	0	=	$0	$1,025
Gerrardstown PO	$38,325	X	0	+	$105	X	0	=	$0	$995
Pleasant View ES	$140,525	X	2	+	$385	X	7	=	$283,745	$374,745
									$13,554,135	**$24,241,205**

Hazard: Hailstorm (BerkeleyCounty)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Back Creek ES	$1,400,000	X	0.25%	=	$3,500	$635,000	X	0%	=	$0
Bedington ES	$1,475,000	X	0.25%	=	$3,688	$625,000	X	0%	=	$0
Berkeley Heights ES	$1,625,000	X	0.25%	=	$4,063	$640,000	X	0%	=	$0
Bunker Hill ES	$1,425,000	X	0.25%	=	$3,563	$635,000	X	0%	=	$0
Burke Street ES	$1,750,000	X	0.25%	=	$4,375	$600,000	X	0%	=	$0
Gerrardstown ES	$1,325,000	X	0.25%	=	$3,313	$615,000	X	0%	=	$0
Hedgesville ES	$1,700,000	X	0.25%	=	$4,250	$650,000	X	0%	=	$0
Inwood ES	$2,700,000	X	0.25%	=	$6,750	$1,250,000	X	0%	=	$0
Marlowe ES	$1,215,000	X	0.25%	=	$3,038	$575,000	X	0%	=	$0
Opequon ES	$1,235,000	X	0.25%	=	$3,088	$600,000	X	0%	=	$0
Rosemont ES	$1,245,000	X	0.25%	=	$3,113	$600,000	X	0%	=	$0
Tomahawk ES	$1,345,000	X	0.25%	=	$3,363	$610,000	X	0%	=	$0
Tuscarora ES	$1,275,000	X	0.25%	=	$3,188	$605,000	X	0%	=	$0
Valley View ES	$1,235,000	X	0.25%	=	$3,088	$600,000	X	0%	=	$0
Winchester Ave. ES	$1,435,000	X	0.25%	=	$3,588	$615,000	X	0%	=	$0
Hedgesville MS	$9,325,000	X	0.25%	=	$23,313	$1,250,000	X	0%	=	$0
Martinsburg North MS	$14,325,000	X	0.25%	=	$35,813	$3,400,000	X	0%	=	$0
Martinsburg South MS	$14,325,000	X	0.25%	=	$35,813	$3,400,000	X	0%	=	$0
Mussleman MS	$12,425,000	X	0.25%	=	$31,063	$3,235,000	X	0%	=	$0
Mussleman HS	$19,425,000	X	0.25%	=	$48,563	$7,235,000	X	0%	=	$0
Spring Hills MS	$3,000,000	X	0.25%	=	$7,500	$850,000	X	0%	=	$0
Eagle School IS	$3,400,000	X	0.25%	=	$8,500	$735,000	X	0%	=	$0
Mill Creek IS	$3,250,000	X	0.25%	=	$8,125	$700,000	X	0%	=	$0
Potomac IS	$3,350,000	X	0.25%	=	$8,375	$710,000	X	0%	=	$0
Mountain Ridge IS	$3,000,000	X	0.25%	=	$7,500	$685,000	X	0%	=	$0
Orchard View IS	$3,125,000	X	0.25%	=	$7,813	$685,000	X	0%	=	$0
Hedgesville HS	$18,125,000	X	0.25%	=	$45,313	$7,350,000	X	0%	=	$0
Martinsburg HS	$17,625,000	X	0.25%	=	$44,063	$7,500,000	X	0%	=	$0
James Rumsey Vo-Tech	$11,425,000	X	0.25%	=	$28,563	$9,235,000	X	0%	=	$0
Pikeside Pre-Vocational	$3,250,000	X	0.25%	=	$8,125	$2,750,000	X	0%	=	$0
Ramer Center	$750,000	X	0.25%	=	$1,875	$175,000	X	0%	=	$0
WV State Police	$235,000	X	0.25%	=	$588	$85,000	X	0%	=	$0
Berkeley Co. Sheriff's Dept.	$185,000	X	0.25%	=	$463	$60,000	X	0%	=	$0
Martinsburg Police Dept.	$205,000	X	0.25%	=	$513	$63,000	X	0%	=	$0
Back Creek Valley FD	$250,000	X	0.25%	=	$625	$985,000	X	0%	=	$0
Baker Heights VFD	$725,000	X	0.25%	=	$1,813	$1,150,000	X	0%	=	$0
Bedington VFD	$325,000	X	0.25%	=	$813	$965,000	X	0%	=	$0
Hedgesville VFD	$1,250,000	X	0.25%	=	$3,125	$1,750,000	X	0%	=	$0
Martinsburg FD	$2,500,000	X	0.25%	=	$6,250	$4,750,000	X	0%	=	$0
South Berkeley VFD	$750,000	X	0.25%	=	$1,875	$1,225,000	X	0%	=	$0
Veterans Affairs Med Ctr FD	$2,250,000	X	0.25%	=	$5,625	$3,125,000	X	0%	=	$0

WV Air Natl. Guard FD	$2,500,000	X	0.25%	=	$6,250	$4,250,000	X	0%	=	$0
Veterans Affairs Medical Center	$150,000,000	X	0.25%	=	$375,000	$65,000,000	X	0%	=	$0
Shenandoah Health Services	$185,000	X	0.25%	=	$463	$65,000	X	0%	=	$0
Martinsburg City Hospital	$245,000,000	X	0.25%	=	$612,500	$125,000,000	X	0%	=	$0
Naylor Memorial Library	$115,000	X	0.25%	=	$288	$875,000	X	0%	=	$0
Martinsburg-Berkeley Co. Public Library	$625,000	X	0.25%	=	$1,563	$3,250,000	X	0%	=	$0
Berkeley County Courthouse	$3,250,000	X	0.25%	=	$8,125	$475,000	X	0%	=	$0
Martinsburg City Hall	$1,115,000	X	0.25%	=	$2,788	$305,000	X	0%	=	$0
RESA VIII	$255,000	X	0.25%	=	$638	$35,000	X	0%	=	$0
Martinsburg Water Works	$200,000	X	0.25%	=	$500	$33,000,000	X	0%	=	$0
Martinsburg WWTP	$225,000	X	0.25%	=	$563	$25,000,000	X	0%	=	$0
Bekeley County Animal Control	$125,000	X	0.25%	=	$313	$15,000	X	0%	=	$0
Capitol Cement	$13,750,000	X	0.25%	=	$34,375	$75,000,000	X	0%	=	$0
Martinsburg City Garage	$250,000	X	0.25%	=	$625	$325,000	X	0%	=	$0
Martinsburg Train Station	$3,250,000	X	0.25%	=	$8,125	$65,000	X	0%	=	$0
Berkeley Co OHSEM	$75,000	X	0.25%	=	$188	$35,000	X	0%	=	$0
Berkeley Co. Senior Center	$145,000	X	0.25%	=	$363	$53,000	X	0%	=	$0
Berkeley Co. Central Dispatch	$1,250,000	X	0.25%	=	$3,125	$2,250,000	X	0%	=	$0
Bekeley County Health Dept.	$125,000	X	0.25%	=	$313	$25,000	X	0%	=	$0
Morgan Cabin Museum	$1,785,000	X	0.25%	=	$4,463	$325,000	X	0%	=	$0
Eastern WV Regional Airport	$875,000,000	X	0.25%	=	$2,187,500	$125,000,000	X	0%	=	$0
Martinsburg PO (24504)	$165,000	X	0.25%	=	$413	$25,000	X	0%	=	$0
Martinsburg PO (24501)	$225,000	X	0.25%	=	$563	$37,000	X	0%	=	$0
Hedgesville PO	$125,000	X	0.25%	=	$313	$21,000	X	0%	=	$0
Inwood PO	$135,000	X	0.25%	=	$338	$20,000	X	0%	=	$0
Bunker Hill PO	$85,000	X	0.25%	=	$213	$12,000	X	0%	=	$0
Gerrardstown PO	$75,000	X	0.25%	=	$188	$12,400	X	0%	=	$0
Pleasant View ES	$1,225,000	X	0.25%	=	$3,063	$525,000	X	0%	=	$0
					$3,681,113					$0

Hazard: Hailstorm (Berkeley County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Back Creek ES	$109,500	X	0	+	$300	X	0	=	$0	$3,500
Bedington ES	$113,150	X	0	+	$310	X	0	=	$0	$3,688
Berkeley Heights ES	$138,700	X	0	+	$380	X	0	=	$0	$4,063
Bunker Hill ES	$129,575	X	0	+	$355	X	0	=	$0	$3,563
Burke Street ES	$131,400	X	0	+	$360	X	0	=	$0	$4,375
Gerrardstown ES	$138,700	X	0	+	$380	X	0	=	$0	$3,313
Hedgesville ES	$447,125	X	0	+	$1,225	X	0	=	$0	$4,250
Inwood ES	$173,375	X	0	+	$475	X	0	=	$0	$6,750
Marlowe ES	$114,975	X	0	+	$315	X	0	=	$0	$3,038
Opequon ES	$113,150	X	0	+	$310	X	0	=	$0	$3,088
Rosemont ES	$113,150	X	0	+	$310	X	0	=	$0	$3,113
Tomahawk ES	$116,800	X	0	+	$320	X	0	=	$0	$3,363
Tuscarora ES	$122,275	X	0	+	$335	X	0	=	$0	$3,188
Valley View ES	$118,625	X	0	+	$325	X	0	=	$0	$3,088
Winchester Ave. ES	$164,250	X	0	+	$450	X	0	=	$0	$3,588
Hedgesville MS	$237,250	X	0	+	$650	X	0	=	$0	$23,313
Martinsburg North MS	$273,750	X	0	+	$750	X	0	=	$0	$35,813
Martinsburg South MS	$273,750	X	0	+	$750	X	0	=	$0	$35,813
Mussleman MS	$456,250	X	0	+	$1,250	X	0	=	$0	$31,063
Mussleman HS	$401,500	X	0	+	$1,100	X	0	=	$0	$48,563
Spring Hills MS	$173,375	X	0	+	$475	X	0	=	$0	$7,500
Eagle School IS	$155,125	X	0	+	$425	X	0	=	$0	$8,500
Mill Creek IS	$155,125	X	0	+	$425	X	0	=	$0	$8,125
Potomac IS	$158,775	X	0	+	$435	X	0	=	$0	$8,375
Mountain Ridge IS	$151,475	X	0	+	$415	X	0	=	$0	$7,500
Orchard View IS	$153,300	X	0	+	$420	X	0	=	$0	$7,813
Hedgesville HS	$346,750	X	0	+	$950	X	0	=	$0	$45,313
Martinsburg HS	$438,000	X	0	+	$1,200	X	0	=	$0	$44,063
James Rumsey Vo-Tech	$447,125	X	0	+	$1,225	X	0	=	$0	$28,563
Pikeside Pre-Vocational	$337,625	X	0	+	$925	X	0	=	$0	$8,125
Ramer Center	$109,500	X	0	+	$300	X	0	=	$0	$1,875
WV State Police	$164,250	X	0	+	$450	X	0	=	$0	$588
Berkeley Co. Sheriff's Dept.	$401,500	X	0	+	$1,100	X	0	=	$0	$463
Martinsburg Police Dept.	$346,750	X	0	+	$950	X	0	=	$0	$513
Back Creek Valley FD	$41,975	X	0	+	$115	X	0	=	$0	$625
Baker Heights VFD	$49,275	X	0	+	$135	X	0	=	$0	$1,813

Bedington VFD	$41,975	X	0	+	$115	X	0	=	$0		$813
Hedgesville VFD	$54,750	X	0	+	$150	X	0	=	$0		$3,125
Martinsburg FD	$912,500	X	0	+	$2,500	X	0	=	$0		$6,250
South Berkeley VFD	$49,275	X	0	+	$135	X	0	=	$0		$1,875
Veterans Affairs Med Ctr FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$5,625
WV Air Natl. Guard FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$6,250
Veterans Affairs Medical Center	$31,536,000	X	0	+	$86,400	X	0	=	$0		$375,000
Shenandoah Health Services	$584,000	X	0	+	$1,600	X	0	=	$0		$463
Martinsburg City Hospital	$28,470,000	X	0	+	$78,000	X	0	=	$0		$612,500
Naylor Memorial Library	$63,875	X	0	+	$175	X	0	=	$0		$288
Martinsburg-Berkeley Co. Public Library	$127,750	X	0	+	$350	X	0	=	$0		$1,563
Berkeley County Courthouse	$164,250	X	0	+	$450	X	0	=	$0		$8,125
Martinsburg City Hall	$200,750	X	0	+	$550	X	0	=	$0		$2,788
RESA VIII	$45,625	X	0	+	$125	X	0	=	$0		$638
Martinsburg Water Works	$118,625	X	0	+	$325	X	0	=	$0		$500
Martinsburg WWTP	$118,625	X	0	+	$325	X	0	=	$0		$563
Bekeley County Animal Control	$45,625	X	0	+	$125	X	0	=	$0		$313
Capitol Cement	$122,275	X	0	+	$3,350	X	0	=	$0		$34,375
Martinsburg City Garage	$164,250	X	0	+	$450	X	0	=	$0		$625
Martinsburg Train Station	$173,375	X	0	+	$475	X	0	=	$0		$8,125
Berkeley Co OHSEM	$140,525	X	0	+	$385	X	0	=	$0		$188
Berkeley Co. Senior Center	$49,275	X	0	+	$135	X	0	=	$0		$363
Berkeley Co. Central Dispatch	$127,750	X	0	+	$350	X	0	=	$0		$3,125
Bekeley County Health Dept.	$136,875	X	0	+	$375	X	0	=	$0		$313
Morgan Cabin Museum	$27,375	X	0	+	$75	X	0	=	$0		$4,463
Eastern WV Regional Airport	$2,737,500	X	0	+	$7,500	X	0	=	$0		$2,187,500
Martinsburg PO (24504)	$136,875	X	0	+	$375	X	0	=	$0		$413
Martinsburg PO (24501)	$228,125	X	0	+	$625	X	0	=	$0		$563
Hedgesville PO	$67,525	X	0	+	$185	X	0	=	$0		$313
Inwood PO	$60,225	X	0	+	$165	X	0	=	$0		$338

Bunker Hill PO	$36,500	X	0	+	$100	X	0	=	$0	$213
Gerrardstown PO	$38,325	X	0	+	$105	X	0	=	$0	$188
Pleasant View ES	$140,525	X	0	+	$385	X	0	=	$0	$3,063
									$0	**$3,681,113**

Hazard: HazMat (BerkeleyCounty)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Back Creek ES	$1,400,000	X	0%	=	$0	$635,000	X	0%	=	$0
Bedington ES	$1,475,000	X	0%	=	$0	$625,000	X	0%	=	$0
Berkeley Heights ES	$1,625,000	X	0%	=	$0	$640,000	X	0%	=	$0
Bunker Hill ES	$1,425,000	X	0%	=	$0	$635,000	X	0%	=	$0
Burke Street ES	$1,750,000	X	0%	=	$0	$600,000	X	0%	=	$0
Gerrardstown ES	$1,325,000	X	0%	=	$0	$615,000	X	0%	=	$0
Hedgesville ES	$1,700,000	X	0%	=	$0	$650,000	X	0%	=	$0
Inwood ES	$2,700,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Marlowe ES	$1,215,000	X	0%	=	$0	$575,000	X	0%	=	$0
Opequon ES	$1,235,000	X	0%	=	$0	$600,000	X	0%	=	$0
Rosemont ES	$1,245,000	X	0%	=	$0	$600,000	X	0%	=	$0
Tomahawk ES	$1,345,000	X	0%	=	$0	$610,000	X	0%	=	$0
Tuscarora ES	$1,275,000	X	0%	=	$0	$605,000	X	0%	=	$0
Valley View ES	$1,235,000	X	0%	=	$0	$600,000	X	0%	=	$0
Winchester Ave. ES	$1,435,000	X	0%	=	$0	$615,000	X	0%	=	$0
Hedgesville MS	$9,325,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Martinsburg North MS	$14,325,000	X	0%	=	$0	$3,400,000	X	0%	=	$0
Martinsburg South MS	$14,325,000	X	0%	=	$0	$3,400,000	X	0%	=	$0
Mussleman MS	$12,425,000	X	0%	=	$0	$3,235,000	X	0%	=	$0
Mussleman HS	$19,425,000	X	0%	=	$0	$7,235,000	X	0%	=	$0
Spring Hills MS	$3,000,000	X	0%	=	$0	$850,000	X	0%	=	$0
Eagle School IS	$3,400,000	X	0%	=	$0	$735,000	X	0%	=	$0
Mill Creek IS	$3,250,000	X	0%	=	$0	$700,000	X	0%	=	$0
Potomac IS	$3,350,000	X	0%	=	$0	$710,000	X	0%	=	$0
Mountain Ridge IS	$3,000,000	X	0%	=	$0	$685,000	X	0%	=	$0
Orchard View IS	$3,125,000	X	0%	=	$0	$685,000	X	0%	=	$0
Hedgesville HS	$18,125,000	X	0%	=	$0	$7,350,000	X	0%	=	$0
Martinsburg HS	$17,625,000	X	0%	=	$0	$7,500,000	X	0%	=	$0
James Rumsey Vo-Tech	$11,425,000	X	0%	=	$0	$9,235,000	X	0%	=	$0
Pikeside Pre-Vocational	$3,250,000	X	0%	=	$0	$2,750,000	X	0%	=	$0
Ramer Center	$750,000	X	0%	=	$0	$175,000	X	0%	=	$0
WV State Police	$235,000	X	0%	=	$0	$85,000	X	0%	=	$0
Berkeley Co. Sheriff's Dept.	$185,000	X	0%	=	$0	$60,000	X	0%	=	$0
Martinsburg Police Dept.	$205,000	X	0%	=	$0	$63,000	X	0%	=	$0
Back Creek Valley FD	$250,000	X	0%	=	$0	$985,000	X	0%	=	$0
Baker Heights VFD	$725,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Bedington VFD	$325,000	X	0%	=	$0	$965,000	X	0%	=	$0
Hedgesville VFD	$1,250,000	X	0%	=	$0	$1,750,000	X	0%	=	$0
Martinsburg FD	$2,500,000	X	0%	=	$0	$4,750,000	X	0%	=	$0
South Berkeley VFD	$750,000	X	0%	=	$0	$1,225,000	X	0%	=	$0
Veterans Affairs Med Ctr FD	$2,250,000	X	0%	=	$0	$3,125,000	X	0%	=	$0

WV Air Natl. Guard FD	$2,500,000	X	0%	=	$0	$4,250,000	X	0%	=	$0
Veterans Affairs Medical Center	$150,000,000	X	0%	=	$0	$65,000,000	X	0%	=	$0
Shenandoah Health Services	$185,000	X	0%	=	$0	$65,000	X	0%	=	$0
Martinsburg City Hospital	$245,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Naylor Memorial Library	$115,000	X	0%	=	$0	$875,000	X	0%	=	$0
Martinsburg-Berkeley Co. Public Library	$625,000	X	0%	=	$0	$3,250,000	X	0%	=	$0
Berkeley County Courthouse	$3,250,000	X	0%	=	$0	$475,000	X	0%	=	$0
Martinsburg City Hall	$1,115,000	X	0%	=	$0	$305,000	X	0%	=	$0
RESA VIII	$255,000	X	0%	=	$0	$35,000	X	0%	=	$0
Martinsburg Water Works	$200,000	X	0%	=	$0	$33,000,000	X	0%	=	$0
Martinsburg WWTP	$225,000	X	0%	=	$0	$25,000,000	X	0%	=	$0
Bekeley County Animal Control	$125,000	X	0%	=	$0	$15,000	X	0%	=	$0
Capitol Cement	$13,750,000	X	0%	=	$0	$75,000,000	X	0%	=	$0
Martinsburg City Garage	$250,000	X	0%	=	$0	$325,000	X	0%	=	$0
Martinsburg Train Station	$3,250,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Co OHSEM	$75,000	X	0%	=	$0	$35,000	X	0%	=	$0
Berkeley Co. Senior Center	$145,000	X	0%	=	$0	$53,000	X	0%	=	$0
Berkeley Co. Central Dispatch	$1,250,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Bekeley County Health Dept.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Cabin Museum	$1,785,000	X	0%	=	$0	$325,000	X	0%	=	$0
Eastern WV Regional Airport	$875,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Martinsburg PO (24504)	$165,000	X	0%	=	$0	$25,000	X	0%	=	$0
Martinsburg PO (24501)	$225,000	X	0%	=	$0	$37,000	X	0%	=	$0
Hedgesville PO	$125,000	X	0%	=	$0	$21,000	X	0%	=	$0
Inwood PO	$135,000	X	0%	=	$0	$20,000	X	0%	=	$0
Bunker Hill PO	$85,000	X	0%	=	$0	$12,000	X	0%	=	$0
Gerrardstown PO	$75,000	X	0%	=	$0	$12,400	X	0%	=	$0
Pleasant View ES	$1,225,000	X	0%	=	$0	$525,000	X	0%	=	$0
					$0					$0

Hazard: HazMat (Berkeley County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Back Creek ES	$109,500	X	1	+	$300	X	1	=	$109,800	$109,800
Bedington ES	$113,150	X	1	+	$310	X	1	=	$113,460	$113,460
Berkeley Heights ES	$138,700	X	1	+	$380	X	1	=	$139,080	$139,080
Bunker Hill ES	$129,575	X	1	+	$355	X	1	=	$129,930	$129,930
Burke Street ES	$131,400	X	1	+	$360	X	1	=	$131,760	$131,760
Gerrardstown ES	$138,700	X	1	+	$380	X	1	=	$139,080	$139,080
Hedgesville ES	$447,125	X	1	+	$1,225	X	1	=	$448,350	$448,350
Inwood ES	$173,375	X	1	+	$475	X	1	=	$173,850	$173,850
Marlowe ES	$114,975	X	1	+	$315	X	1	=	$115,290	$115,290
Opequon ES	$113,150	X	1	+	$310	X	1	=	$113,460	$113,460
Rosemont ES	$113,150	X	1	+	$310	X	1	=	$113,460	$113,460
Tomahawk ES	$116,800	X	1	+	$320	X	1	=	$117,120	$117,120
Tuscarora ES	$122,275	X	1	+	$335	X	1	=	$122,610	$122,610
Valley View ES	$118,625	X	1	+	$325	X	1	=	$118,950	$118,950
Winchester Ave. ES	$164,250	X	1	+	$450	X	1	=	$164,700	$164,700
Hedgesville MS	$237,250	X	1	+	$650	X	1	=	$237,900	$237,900
Martinsburg North MS	$273,750	X	1	+	$750	X	1	=	$274,500	$274,500
Martinsburg South MS	$273,750	X	1	+	$750	X	1	=	$274,500	$274,500
Mussleman MS	$456,250	X	1	+	$1,250	X	1	=	$457,500	$457,500
Mussleman HS	$401,500	X	1	+	$1,100	X	1	=	$402,600	$402,600
Spring Hills MS	$173,375	X	1	+	$475	X	1	=	$173,850	$173,850
Eagle School IS	$155,125	X	1	+	$425	X	1	=	$155,550	$155,550
Mill Creek IS	$155,125	X	1	+	$425	X	1	=	$155,550	$155,550
Potomac IS	$158,775	X	1	+	$435	X	1	=	$159,210	$159,210
Mountain Ridge IS	$151,475	X	1	+	$415	X	1	=	$151,890	$151,890
Orchard View IS	$153,300	X	1	+	$420	X	1	=	$153,720	$153,720
Hedgesville HS	$346,750	X	1	+	$950	X	1	=	$347,700	$347,700
Martinsburg HS	$438,000	X	1	+	$1,200	X	1	=	$439,200	$439,200
James Rumsey Vo-Tech	$447,125	X	1	+	$1,225	X	1	=	$448,350	$448,350
Pikeside Pre-Vocational	$337,625	X	1	+	$925	X	1	=	$338,550	$338,550
Ramer Center	$109,500	X	1	+	$300	X	1	=	$109,800	$109,800
WV State Police	$164,250	X	0	+	$450	X	1	=	$450	$450
Berkeley Co. Sheriff's Dept.	$401,500	X	0	+	$1,100	X	1	=	$1,100	$1,100
Martinsburg Police Dept.	$346,750	X	0	+	$950	X	1	=	$950	$950
Back Creek Valley FD	$41,975	X	1	+	$115	X	1	=	$42,090	$42,090
Baker Heights VFD	$49,275	X	1	+	$135	X	1	=	$49,410	$49,410

Bedington VFD	$41,975	X	1	+	$115	X	1	=	$42,090	$42,090
Hedgesville VFD	$54,750	X	1	+	$150	X	1	=	$54,900	$54,900
Martinsburg FD	$912,500	X	1	+	$2,500	X	1	=	$915,000	$915,000
South Berkeley VFD	$49,275	X	1	+	$135	X	1	=	$49,410	$49,410
Veterans Affairs Med Ctr FD	$1,277,500	X	1	+	$3,500	X	1	=	$1,281,000	$1,281,000
WV Air Natl. Guard FD	$1,277,500	X	1	+	$3,500	X	1	=	$1,281,000	$1,281,000
Veterans Affairs Medical Center	$31,536,000	X	1	+	$86,400	X	1	=	$31,622,400	$31,622,400
Shenandoah Health Services	$584,000	X	1	+	$1,600	X	1	=	$585,600	$585,600
Martinsburg City Hospital	$28,470,000	X	1	+	$78,000	X	1	=	$28,548,000	$28,548,000
Naylor Memorial Library	$63,875	X	1	+	$175	X	1	=	$64,050	$64,050
Martinsburg-Berkeley Co. Public Library	$127,750	X	1	+	$350	X	1	=	$128,100	$128,100
Berkeley County Courthouse	$164,250	X	1	+	$450	X	1	=	$164,700	$164,700
Martinsburg City Hall	$200,750	X	1	+	$550	X	1	=	$201,300	$201,300
RESA VIII	$45,625	X	1	+	$125	X	1	=	$45,750	$45,750
Martinsburg Water Works	$118,625	X	1	+	$325	X	1	=	$118,950	$118,950
Martinsburg WWTP	$118,625	X	1	+	$325	X	1	=	$118,950	$118,950
Bekeley County Animal Control	$45,625	X	1	+	$125	X	1	=	$45,750	$45,750
Capitol Cement	$122,275	X	1	+	$3,350	X	1	=	$125,625	$125,625
Martinsburg City Garage	$164,250	X	1	+	$450	X	1	=	$164,700	$164,700
Martinsburg Train Station	$173,375	X	1	+	$475	X	1	=	$173,850	$173,850
Berkeley Co OHSEM	$140,525	X	1	+	$385	X	1	=	$140,910	$140,910
Berkeley Co. Senior Center	$49,275	X	1	+	$135	X	1	=	$49,410	$49,410
Berkeley Co. Central Dispatch	$127,750	X	0	+	$350	X	1	=	$350	$350
Bekeley County Health Dept.	$136,875	X	1	+	$375	X	1	=	$137,250	$137,250
Morgan Cabin Museum	$27,375	X	1	+	$75	X	1	=	$27,450	$27,450
Eastern WV Regional Airport	$2,737,500	X	1	+	$7,500	X	1	=	$2,745,000	$2,745,000
Martinsburg PO (24504)	$136,875	X	1	+	$375	X	1	=	$137,250	$137,250
Martinsburg PO (24501)	$228,125	X	1	+	$625	X	1	=	$228,750	$228,750
Hedgesville PO	$67,525	X	1	+	$185	X	1	=	$67,710	$67,710
Inwood PO	$60,225	X	1	+	$165	X	1	=	$60,390	$60,390

Bunker Hill PO	$36,500	X	1	+	$100	X	1	=	$36,600
Gerrardstown PO	$38,325	X	1	+	$105	X	1	=	$38,430
Pleasant View ES	$140,525	X	1	+	$385	X	1	=	$140,910
									$76,166,805

$36,600
$38,430
$140,910
$76,166,805

Hazard: Infestation (BerkeleyCounty)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Back Creek ES	$1,400,000	X	0%	=	$0	$635,000	X	0%	=	$0
Bedington ES	$1,475,000	X	0%	=	$0	$625,000	X	0%	=	$0
Berkeley Heights ES	$1,625,000	X	0%	=	$0	$640,000	X	0%	=	$0
Bunker Hill ES	$1,425,000	X	0%	=	$0	$635,000	X	0%	=	$0
Burke Street ES	$1,750,000	X	0%	=	$0	$600,000	X	0%	=	$0
Gerrardstown ES	$1,325,000	X	0%	=	$0	$615,000	X	0%	=	$0
Hedgesville ES	$1,700,000	X	0%	=	$0	$650,000	X	0%	=	$0
Inwood ES	$2,700,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Marlowe ES	$1,215,000	X	0%	=	$0	$575,000	X	0%	=	$0
Opequon ES	$1,235,000	X	0%	=	$0	$600,000	X	0%	=	$0
Rosemont ES	$1,245,000	X	0%	=	$0	$600,000	X	0%	=	$0
Tomahawk ES	$1,345,000	X	0%	=	$0	$610,000	X	0%	=	$0
Tuscarora ES	$1,275,000	X	0%	=	$0	$605,000	X	0%	=	$0
Valley View ES	$1,235,000	X	0%	=	$0	$600,000	X	0%	=	$0
Winchester Ave. ES	$1,435,000	X	0%	=	$0	$615,000	X	0%	=	$0
Hedgesville MS	$9,325,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Martinsburg North MS	$14,325,000	X	0%	=	$0	$3,400,000	X	0%	=	$0
Martinsburg South MS	$14,325,000	X	0%	=	$0	$3,400,000	X	0%	=	$0
Mussleman MS	$12,425,000	X	0%	=	$0	$3,235,000	X	0%	=	$0
Mussleman HS	$19,425,000	X	0%	=	$0	$7,235,000	X	0%	=	$0
Spring Hills MS	$3,000,000	X	0%	=	$0	$850,000	X	0%	=	$0
Eagle School IS	$3,400,000	X	0%	=	$0	$735,000	X	0%	=	$0
Mill Creek IS	$3,250,000	X	0%	=	$0	$700,000	X	0%	=	$0
Potomac IS	$3,350,000	X	0%	=	$0	$710,000	X	0%	=	$0
Mountain Ridge IS	$3,000,000	X	0%	=	$0	$685,000	X	0%	=	$0
Orchard View IS	$3,125,000	X	0%	=	$0	$685,000	X	0%	=	$0
Hedgesville HS	$18,125,000	X	0%	=	$0	$7,350,000	X	0%	=	$0
Martinsburg HS	$17,625,000	X	0%	=	$0	$7,500,000	X	0%	=	$0
James Rumsey Vo-Tech	$11,425,000	X	0%	=	$0	$9,235,000	X	0%	=	$0
Pikeside Pre-Vocational	$3,250,000	X	0%	=	$0	$2,750,000	X	0%	=	$0
Ramer Center	$750,000	X	0%	=	$0	$175,000	X	0%	=	$0
WV State Police	$235,000	X	0%	=	$0	$85,000	X	0%	=	$0
Berkeley Co. Sheriff's Dept.	$185,000	X	0%	=	$0	$60,000	X	0%	=	$0
Martinsburg Police Dept.	$205,000	X	0%	=	$0	$63,000	X	0%	=	$0
Back Creek Valley FD	$250,000	X	0%	=	$0	$985,000	X	0%	=	$0
Baker Heights VFD	$725,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Bedington VFD	$325,000	X	0%	=	$0	$965,000	X	0%	=	$0
Hedgesville VFD	$1,250,000	X	0%	=	$0	$1,750,000	X	0%	=	$0
Martinsburg FD	$2,500,000	X	0%	=	$0	$4,750,000	X	0%	=	$0
South Berkeley VFD	$750,000	X	0%	=	$0	$1,225,000	X	0%	=	$0
Veterans Affairs Med Ctr FD	$2,250,000	X	0%	=	$0	$3,125,000	X	0%	=	$0

WV Air Natl. Guard FD	$2,500,000	X	0%	=	$0	$4,250,000	X	0%	=	$0
Veterans Affairs Medical Center	$150,000,000	X	0%	=	$0	$65,000,000	X	0%	=	$0
Shenandoah Health Services	$185,000	X	0%	=	$0	$65,000	X	0%	=	$0
Martinsburg City Hospital	$245,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Naylor Memorial Library	$115,000	X	0%	=	$0	$875,000	X	0%	=	$0
Martinsburg-Berkeley Co. Public Library	$625,000	X	0%	=	$0	$3,250,000	X	0%	=	$0
Berkeley County Courthouse	$3,250,000	X	0%	=	$0	$475,000	X	0%	=	$0
Martinsburg City Hall	$1,115,000	X	0%	=	$0	$305,000	X	0%	=	$0
RESA VIII	$255,000	X	0%	=	$0	$35,000	X	0%	=	$0
Martinsburg Water Works	$200,000	X	0%	=	$0	$33,000,000	X	0%	=	$0
Martinsburg WWTP	$225,000	X	0%	=	$0	$25,000,000	X	0%	=	$0
Bekeley County Animal Control	$125,000	X	0%	=	$0	$15,000	X	0%	=	$0
Capitol Cement	$13,750,000	X	0%	=	$0	$75,000,000	X	0%	=	$0
Martinsburg City Garage	$250,000	X	0%	=	$0	$325,000	X	0%	=	$0
Martinsburg Train Station	$3,250,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Co OHSEM	$75,000	X	0%	=	$0	$35,000	X	0%	=	$0
Berkeley Co. Senior Center	$145,000	X	0%	=	$0	$53,000	X	0%	=	$0
Berkeley Co. Central Dispatch	$1,250,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Bekeley County Health Dept.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Cabin Museum	$1,785,000	X	0%	=	$0	$325,000	X	0%	=	$0
Eastern WV Regional Airport	$875,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Martinsburg PO (24504)	$165,000	X	0%	=	$0	$25,000	X	0%	=	$0
Martinsburg PO (24501)	$225,000	X	0%	=	$0	$37,000	X	0%	=	$0
Hedgesville PO	$125,000	X	0%	=	$0	$21,000	X	0%	=	$0
Inwood PO	$135,000	X	0%	=	$0	$20,000	X	0%	=	$0
Bunker Hill PO	$85,000	X	0%	=	$0	$12,000	X	0%	=	$0
Gerrardstown PO	$75,000	X	0%	=	$0	$12,400	X	0%	=	$0
Pleasant View ES	$1,225,000	X	0%	=	$0	$525,000	X	0%	=	$0
					$0					$0

Hazard: Infestation (Berkeley County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Back Creek ES	$109,500	X	0	+	$300	X	0	=	$0	$0
Bedington ES	$113,150	X	0	+	$310	X	0	=	$0	$0
Berkeley Heights ES	$138,700	X	0	+	$380	X	0	=	$0	$0
Bunker Hill ES	$129,575	X	0	+	$355	X	0	=	$0	$0
Burke Street ES	$131,400	X	0	+	$360	X	0	=	$0	$0
Gerrardstown ES	$138,700	X	0	+	$380	X	0	=	$0	$0
Hedgesville ES	$447,125	X	0	+	$1,225	X	0	=	$0	$0
Inwood ES	$173,375	X	0	+	$475	X	0	=	$0	$0
Marlowe ES	$114,975	X	0	+	$315	X	0	=	$0	$0
Opequon ES	$113,150	X	0	+	$310	X	0	=	$0	$0
Rosemont ES	$113,150	X	0	+	$310	X	0	=	$0	$0
Tomahawk ES	$116,800	X	0	+	$320	X	0	=	$0	$0
Tuscarora ES	$122,275	X	0	+	$335	X	0	=	$0	$0
Valley View ES	$118,625	X	0	+	$325	X	0	=	$0	$0
Winchester Ave. ES	$164,250	X	0	+	$450	X	0	=	$0	$0
Hedgesville MS	$237,250	X	0	+	$650	X	0	=	$0	$0
Martinsburg North MS	$273,750	X	0	+	$750	X	0	=	$0	$0
Martinsburg South MS	$273,750	X	0	+	$750	X	0	=	$0	$0
Mussleman MS	$456,250	X	0	+	$1,250	X	0	=	$0	$0
Mussleman HS	$401,500	X	0	+	$1,100	X	0	=	$0	$0
Spring Hills MS	$173,375	X	0	+	$475	X	0	=	$0	$0
Eagle School IS	$155,125	X	0	+	$425	X	0	=	$0	$0
Mill Creek IS	$155,125	X	0	+	$425	X	0	=	$0	$0
Potomac IS	$158,775	X	0	+	$435	X	0	=	$0	$0
Mountain Ridge IS	$151,475	X	0	+	$415	X	0	=	$0	$0
Orchard View IS	$153,300	X	0	+	$420	X	0	=	$0	$0
Hedgesville HS	$346,750	X	0	+	$950	X	0	=	$0	$0
Martinsburg HS	$438,000	X	0	+	$1,200	X	0	=	$0	$0
James Rumsey Vo-Tech	$447,125	X	0	+	$1,225	X	0	=	$0	$0
Pikeside Pre-Vocational	$337,625	X	0	+	$925	X	0	=	$0	$0
Ramer Center	$109,500	X	0	+	$300	X	0	=	$0	$0
WV State Police	$164,250	X	0	+	$450	X	0	=	$0	$0
Berkeley Co. Sheriff's Dept.	$401,500	X	0	+	$1,100	X	0	=	$0	$0
Martinsburg Police Dept.	$346,750	X	0	+	$950	X	0	=	$0	$0
Back Creek Valley FD	$41,975	X	0	+	$115	X	0	=	$0	$0
Baker Heights VFD	$49,275	X	0	+	$135	X	0	=	$0	$0

Bedington VFD	$41,975	X	0	+	$115	X	0	=	$0		$0
Hedgesville VFD	$54,750	X	0	+	$150	X	0	=	$0		$0
Martinsburg FD	$912,500	X	0	+	$2,500	X	0	=	$0		$0
South Berkeley VFD	$49,275	X	0	+	$135	X	0	=	$0		$0
Veterans Affairs Med Ctr FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$0
WV Air Natl. Guard FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$0
Veterans Affairs Medical Center	$31,536,000	X	0	+	$86,400	X	0	=	$0		$0
Shenandoah Health Services	$584,000	X	0	+	$1,600	X	0	=	$0		$0
Martinsburg City Hospital	$28,470,000	X	0	+	$78,000	X	0	=	$0		$0
Naylor Memorial Library	$63,875	X	0	+	$175	X	0	=	$0		$0
Martinsburg-Berkeley Co. Public Library	$127,750	X	0	+	$350	X	0	=	$0		$0
Berkeley County Courthouse	$164,250	X	0	+	$450	X	0	=	$0		$0
Martinsburg City Hall	$200,750	X	0	+	$550	X	0	=	$0		$0
RESA VIII	$45,625	X	0	+	$125	X	0	=	$0		$0
Martinsburg Water Works	$118,625	X	0	+	$325	X	0	=	$0		$0
Martinsburg WWTP	$118,625	X	0	+	$325	X	0	=	$0		$0
Bekeley County Animal Control	$45,625	X	0	+	$125	X	0	=	$0		$0
Capitol Cement	$122,275	X	0	+	$3,350	X	0	=	$0		$0
Martinsburg City Garage	$164,250	X	0	+	$450	X	0	=	$0		$0
Martinsburg Train Station	$173,375	X	0	+	$475	X	0	=	$0		$0
Berkeley Co OHSEM	$140,525	X	0	+	$385	X	0	=	$0		$0
Berkeley Co. Senior Center	$49,275	X	0	+	$135	X	0	=	$0		$0
Berkeley Co. Central Dispatch	$127,750	X	0	+	$350	X	0	=	$0		$0
Bekeley County Health Dept.	$136,875	X	0	+	$375	X	0	=	$0		$0
Morgan Cabin Museum	$27,375	X	0	+	$75	X	0	=	$0		$0
Eastern WV Regional Airport	$2,737,500	X	0	+	$7,500	X	0	=	$0		$0
Martinsburg PO (24504)	$136,875	X	0	+	$375	X	0	=	$0		$0
Martinsburg PO (24501)	$228,125	X	0	+	$625	X	0	=	$0		$0
Hedgesville PO	$67,525	X	0	+	$185	X	0	=	$0		$0
Inwood PO	$60,225	X	0	+	$165	X	0	=	$0		$0

Bunker Hill PO	$36,500	X	0	+	$100	X	0	=	$0	$0
Gerrardstown PO	$38,325	X	0	+	$105	X	0	=	$0	$0
Pleasant View ES	$140,525	X	0	+	$385	X	0	=	$0	$0
									$0	**$0**

Hazard: Land Subsidence (BerkeleyCounty)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Back Creek ES	$1,400,000	X	3%	=	$42,000	$635,000	X	0%	=	$0
Bedington ES	$1,475,000	X	3%	=	$44,250	$625,000	X	0%	=	$0
Berkeley Heights ES	$1,625,000	X	3%	=	$48,750	$640,000	X	0%	=	$0
Bunker Hill ES	$1,425,000	X	3%	=	$42,750	$635,000	X	0%	=	$0
Burke Street ES	$1,750,000	X	3%	=	$52,500	$600,000	X	0%	=	$0
Gerrardstown ES	$1,325,000	X	3%	=	$39,750	$615,000	X	0%	=	$0
Hedgesville ES	$1,700,000	X	3%	=	$51,000	$650,000	X	0%	=	$0
Inwood ES	$2,700,000	X	3%	=	$81,000	$1,250,000	X	0%	=	$0
Marlowe ES	$1,215,000	X	3%	=	$36,450	$575,000	X	0%	=	$0
Opequon ES	$1,235,000	X	3%	=	$37,050	$600,000	X	0%	=	$0
Rosemont ES	$1,245,000	X	3%	=	$37,350	$600,000	X	0%	=	$0
Tomahawk ES	$1,345,000	X	3%	=	$40,350	$610,000	X	0%	=	$0
Tuscarora ES	$1,275,000	X	3%	=	$38,250	$605,000	X	0%	=	$0
Valley View ES	$1,235,000	X	3%	=	$37,050	$600,000	X	0%	=	$0
Winchester Ave. ES	$1,435,000	X	3%	=	$43,050	$615,000	X	0%	=	$0
Hedgesville MS	$9,325,000	X	3%	=	$279,750	$1,250,000	X	0%	=	$0
Martinsburg North MS	$14,325,000	X	3%	=	$429,750	$3,400,000	X	0%	=	$0
Martinsburg South MS	$14,325,000	X	3%	=	$429,750	$3,400,000	X	0%	=	$0
Mussleman MS	$12,425,000	X	3%	=	$372,750	$3,235,000	X	0%	=	$0
Mussleman HS	$19,425,000	X	3%	=	$582,750	$7,235,000	X	0%	=	$0
Spring Hills MS	$3,000,000	X	3%	=	$90,000	$850,000	X	0%	=	$0
Eagle School IS	$3,400,000	X	3%	=	$102,000	$735,000	X	0%	=	$0
Mill Creek IS	$3,250,000	X	3%	=	$97,500	$700,000	X	0%	=	$0
Potomac IS	$3,350,000	X	3%	=	$100,500	$710,000	X	0%	=	$0
Mountain Ridge IS	$3,000,000	X	3%	=	$90,000	$685,000	X	0%	=	$0
Orchard View IS	$3,125,000	X	3%	=	$93,750	$685,000	X	0%	=	$0
Hedgesville HS	$18,125,000	X	3%	=	$543,750	$7,350,000	X	0%	=	$0
Martinsburg HS	$17,625,000	X	3%	=	$528,750	$7,500,000	X	0%	=	$0
James Rumsey Vo-Tech	$11,425,000	X	3%	=	$342,750	$9,235,000	X	0%	=	$0
Pikeside Pre-Vocational	$3,250,000	X	3%	=	$97,500	$2,750,000	X	0%	=	$0
Ramer Center	$750,000	X	3%	=	$22,500	$175,000	X	0%	=	$0
WV State Police	$235,000	X	3%	=	$7,050	$85,000	X	0%	=	$0
Berkeley Co. Sheriff's Dept.	$185,000	X	3%	=	$5,550	$60,000	X	0%	=	$0
Martinsburg Police Dept.	$205,000	X	3%	=	$6,150	$63,000	X	0%	=	$0
Back Creek Valley FD	$250,000	X	3%	=	$7,500	$985,000	X	0%	=	$0
Baker Heights VFD	$725,000	X	3%	=	$21,750	$1,150,000	X	0%	=	$0
Bedington VFD	$325,000	X	3%	=	$9,750	$965,000	X	0%	=	$0
Hedgesville VFD	$1,250,000	X	3%	=	$37,500	$1,750,000	X	0%	=	$0
Martinsburg FD	$2,500,000	X	3%	=	$75,000	$4,750,000	X	0%	=	$0
South Berkeley VFD	$750,000	X	3%	=	$22,500	$1,225,000	X	0%	=	$0
Veterans Affairs Med Ctr FD	$2,250,000	X	3%	=	$67,500	$3,125,000	X	0%	=	$0

WV Air Natl. Guard FD	$2,500,000	X	3%	=	$75,000	$4,250,000	X	0%	=	$0
Veterans Affairs Medical Center	$150,000,000	X	3%	=	$4,500,000	$65,000,000	X	0%	=	$0
Shenandoah Health Services	$185,000	X	3%	=	$5,550	$65,000	X	0%	=	$0
Martinsburg City Hospital	$245,000,000	X	3%	=	$7,350,000	$125,000,000	X	0%	=	$0
Naylor Memorial Library	$115,000	X	3%	=	$3,450	$875,000	X	0%	=	$0
Martinsburg-Berkeley Co. Public Library	$625,000	X	3%	=	$18,750	$3,250,000	X	0%	=	$0
Berkeley County Courthouse	$3,250,000	X	3%	=	$97,500	$475,000	X	0%	=	$0
Martinsburg City Hall	$1,115,000	X	3%	=	$33,450	$305,000	X	0%	=	$0
RESA VIII	$255,000	X	3%	=	$7,650	$35,000	X	0%	=	$0
Martinsburg Water Works	$200,000	X	3%	=	$6,000	$33,000,000	X	0%	=	$0
Martinsburg WWTP	$225,000	X	3%	=	$6,750	$25,000,000	X	0%	=	$0
Bekeley County Animal Control	$125,000	X	3%	=	$3,750	$15,000	X	0%	=	$0
Capitol Cement	$13,750,000	X	3%	=	$412,500	$75,000,000	X	0%	=	$0
Martinsburg City Garage	$250,000	X	3%	=	$7,500	$325,000	X	0%	=	$0
Martinsburg Train Station	$3,250,000	X	3%	=	$97,500	$65,000	X	0%	=	$0
Berkeley Co OHSEM	$75,000	X	3%	=	$2,250	$35,000	X	0%	=	$0
Berkeley Co. Senior Center	$145,000	X	3%	=	$4,350	$53,000	X	0%	=	$0
Berkeley Co. Central Dispatch	$1,250,000	X	3%	=	$37,500	$2,250,000	X	0%	=	$0
Bekeley County Health Dept.	$125,000	X	3%	=	$3,750	$25,000	X	0%	=	$0
Morgan Cabin Museum	$1,785,000	X	3%	=	$53,550	$325,000	X	0%	=	$0
Eastern WV Regional Airport	$875,000,000	X	3%	=	$26,250,000	$125,000,000	X	0%	=	$0
Martinsburg PO (24504)	$165,000	X	3%	=	$4,950	$25,000	X	0%	=	$0
Martinsburg PO (24501)	$225,000	X	3%	=	$6,750	$37,000	X	0%	=	$0
Hedgesville PO	$125,000	X	3%	=	$3,750	$21,000	X	0%	=	$0
Inwood PO	$135,000	X	3%	=	$4,050	$20,000	X	0%	=	$0
Bunker Hill PO	$85,000	X	3%	=	$2,550	$12,000	X	0%	=	$0
Gerrardstown PO	$75,000	X	3%	=	$2,250	$12,400	X	0%	=	$0
Pleasant View ES	$1,225,000	X	3%	=	$36,750	$525,000	X	0%	=	$0
					$44,173,350					$0

Hazard: Land Subsidence (Berkeley County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Back Creek ES	$109,500	X	3	+	$300	X	0.50	=	$328,650	$370,650
Bedington ES	$113,150	X	3	+	$310	X	0.50	=	$339,605	$383,855
Berkeley Heights ES	$138,700	X	3	+	$380	X	0.50	=	$416,290	$465,040
Bunker Hill ES	$129,575	X	3	+	$355	X	0.50	=	$388,903	$431,653
Burke Street ES	$131,400	X	3	+	$360	X	0.50	=	$394,380	$446,880
Gerrardstown ES	$138,700	X	3	+	$380	X	0.50	=	$416,290	$456,040
Hedgesville ES	$447,125	X	3	+	$1,225	X	0.50	=	$1,341,988	$1,392,988
Inwood ES	$173,375	X	3	+	$475	X	0.50	=	$520,363	$601,363
Marlowe ES	$114,975	X	3	+	$315	X	0.50	=	$345,083	$381,533
Opequon ES	$113,150	X	3	+	$310	X	0.50	=	$339,605	$376,655
Rosemont ES	$113,150	X	3	+	$310	X	0.50	=	$339,605	$376,955
Tomahawk ES	$116,800	X	3	+	$320	X	0.50	=	$350,560	$390,910
Tuscarora ES	$122,275	X	3	+	$335	X	0.50	=	$366,993	$405,243
Valley View ES	$118,625	X	3	+	$325	X	0.50	=	$356,038	$393,088
Winchester Ave. ES	$164,250	X	3	+	$450	X	0.50	=	$492,975	$536,025
Hedgesville MS	$237,250	X	3	+	$650	X	0.50	=	$712,075	$991,825
Martinsburg North MS	$273,750	X	3	+	$750	X	0.50	=	$821,625	$1,251,375
Martinsburg South MS	$273,750	X	3	+	$750	X	0.50	=	$821,625	$1,251,375
Mussleman MS	$456,250	X	3	+	$1,250	X	0.50	=	$1,369,375	$1,742,125
Mussleman HS	$401,500	X	3	+	$1,100	X	0.50	=	$1,205,050	$1,787,800
Spring Hills MS	$173,375	X	3	+	$475	X	0.50	=	$520,363	$610,363
Eagle School IS	$155,125	X	3	+	$425	X	0.50	=	$465,588	$567,588
Mill Creek IS	$155,125	X	3	+	$425	X	0.50	=	$465,588	$563,088
Potomac IS	$158,775	X	3	+	$435	X	0.50	=	$476,543	$577,043
Mountain Ridge IS	$151,475	X	3	+	$415	X	0.50	=	$454,633	$544,633
Orchard View IS	$153,300	X	3	+	$420	X	0.50	=	$460,110	$553,860
Hedgesville HS	$346,750	X	3	+	$950	X	0.50	=	$1,040,725	$1,584,475
Martinsburg HS	$438,000	X	3	+	$1,200	X	0.50	=	$1,314,600	$1,843,350
James Rumsey Vo-Tech	$447,125	X	3	+	$1,225	X	0.50	=	$1,341,988	$1,684,738
Pikeside Pre-Vocational	$337,625	X	3	+	$925	X	0.50	=	$1,013,338	$1,110,838
Ramer Center	$109,500	X	3	+	$300	X	0.50	=	$328,650	$351,150
WV State Police	$164,250	X	3	+	$450	X	0.50	=	$492,975	$500,025
Berkeley Co. Sheriff's Dept.	$401,500	X	3	+	$1,100	X	0.50	=	$1,205,050	$1,210,600
Martinsburg Police Dept.	$346,750	X	3	+	$950	X	0.50	=	$1,040,725	$1,046,875
Back Creek Valley FD	$41,975	X	3	+	$115	X	0.50	=	$125,983	$133,483
Baker Heights VFD	$49,275	X	3	+	$135	X	0.50	=	$147,893	$169,643

Bedington VFD	$41,975	X	3	+	$115	X	0.50	=	$125,983		$135,733
Hedgesville VFD	$54,750	X	3	+	$150	X	0.50	=	$164,325		$201,825
Martinsburg FD	$912,500	X	3	+	$2,500	X	0.50	=	$2,738,750		$2,813,750
South Berkeley VFD	$49,275	X	3	+	$135	X	0.50	=	$147,893		$170,393
Veterans Affairs Med Ctr FD	$1,277,500	X	3	+	$3,500	X	0.50	=	$3,834,250		$3,901,750
WV Air Natl. Guard FD	$1,277,500	X	3	+	$3,500	X	0.50	=	$3,834,250		$3,909,250
Veterans Affairs Medical Center	$31,536,000	X	3	+	$86,400	X	0.50	=	$94,651,200		$99,151,200
Shenandoah Health Services	$584,000	X	3	+	$1,600	X	0.50	=	$1,752,800		$1,758,350
Martinsburg City Hospital	$28,470,000	X	3	+	$78,000	X	0.50	=	$85,449,000		$92,799,000
Naylor Memorial Library	$63,875	X	3	+	$175	X	0.50	=	$191,713		$195,163
Martinsburg-Berkeley Co. Public Library	$127,750	X	3	+	$350	X	0.50	=	$383,425		$402,175
Berkeley County Courthouse	$164,250	X	3	+	$450	X	0.50	=	$492,975		$590,475
Martinsburg City Hall	$200,750	X	3	+	$550	X	0.50	=	$602,525		$635,975
RESA VIII	$45,625	X	3	+	$125	X	0.50	=	$136,938		$144,588
Martinsburg Water Works	$118,625	X	3	+	$325	X	0.50	=	$356,038		$362,038
Martinsburg WWTP	$118,625	X	3	+	$325	X	0.50	=	$356,038		$362,788
Bekeley County Animal Control	$45,625	X	3	+	$125	X	0.50	=	$136,938		$140,688
Capitol Cement	$122,275	X	3	+	$3,350	X	0.50	=	$368,500		$781,000
Martinsburg City Garage	$164,250	X	3	+	$450	X	0.50	=	$492,975		$500,475
Martinsburg Train Station	$173,375	X	3	+	$475	X	0.50	=	$520,363		$617,863
Berkeley Co OHSEM	$140,525	X	3	+	$385	X	0.50	=	$421,768		$424,018
Berkeley Co. Senior Center	$49,275	X	3	+	$135	X	0.50	=	$147,893		$152,243
Berkeley Co. Central Dispatch	$127,750	X	3	+	$350	X	0.50	=	$383,425		$420,925
Bekeley County Health Dept.	$136,875	X	3	+	$375	X	0.50	=	$410,813		$414,563
Morgan Cabin Museum	$27,375	X	3	+	$75	X	0.50	=	$82,163		$135,713
Eastern WV Regional Airport	$2,737,500	X	3	+	$7,500	X	0.50	=	$8,216,250		$34,466,250
Martinsburg PO (24504)	$136,875	X	3	+	$375	X	0.50	=	$410,813		$415,763
Martinsburg PO (24501)	$228,125	X	3	+	$625	X	0.50	=	$684,688		$691,438
Hedgesville PO	$67,525	X	3	+	$185	X	0.50	=	$202,668		$206,418
Inwood PO	$60,225	X	3	+	$165	X	0.50	=	$180,758		$184,808

Bunker Hill PO	$36,500	X	3	+	$100	X	0.50	=	$109,550	$112,100
Gerrardstown PO	$38,325	X	3	+	$105	X	0.50	=	$115,028	$117,278
Pleasant View ES	$140,525	X	3	+	$385	X	0.50	=	$421,768	$458,518
									$231,086,278	**$275,259,628**

Hazard: Severe Thunderstorm (BerkeleyCounty)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Back Creek ES	$1,400,000	X	0.01%	=	$140	$635,000	X	0%	=	$0
Bedington ES	$1,475,000	X	0.01%	=	$148	$625,000	X	0%	=	$0
Berkeley Heights ES	$1,625,000	X	0.01%	=	$163	$640,000	X	0%	=	$0
Bunker Hill ES	$1,425,000	X	0.01%	=	$143	$635,000	X	0%	=	$0
Burke Street ES	$1,750,000	X	0.01%	=	$175	$600,000	X	0%	=	$0
Gerrardstown ES	$1,325,000	X	0.01%	=	$133	$615,000	X	0%	=	$0
Hedgesville ES	$1,700,000	X	0.01%	=	$170	$650,000	X	0%	=	$0
Inwood ES	$2,700,000	X	0.01%	=	$270	$1,250,000	X	0%	=	$0
Marlowe ES	$1,215,000	X	0.01%	=	$122	$575,000	X	0%	=	$0
Opequon ES	$1,235,000	X	0.01%	=	$124	$600,000	X	0%	=	$0
Rosemont ES	$1,245,000	X	0.01%	=	$125	$600,000	X	0%	=	$0
Tomahawk ES	$1,345,000	X	0.01%	=	$135	$610,000	X	0%	=	$0
Tuscarora ES	$1,275,000	X	0.01%	=	$128	$605,000	X	0%	=	$0
Valley View ES	$1,235,000	X	0.01%	=	$124	$600,000	X	0%	=	$0
Winchester Ave. ES	$1,435,000	X	0.01%	=	$144	$615,000	X	0%	=	$0
Hedgesville MS	$9,325,000	X	0.01%	=	$933	$1,250,000	X	0%	=	$0
Martinsburg North MS	$14,325,000	X	0.01%	=	$1,433	$3,400,000	X	0%	=	$0
Martinsburg South MS	$14,325,000	X	0.01%	=	$1,433	$3,400,000	X	0%	=	$0
Mussleman MS	$12,425,000	X	0.01%	=	$1,243	$3,235,000	X	0%	=	$0
Mussleman HS	$19,425,000	X	0.01%	=	$1,943	$7,235,000	X	0%	=	$0
Spring Hills MS	$3,000,000	X	0.01%	=	$300	$850,000	X	0%	=	$0
Eagle School IS	$3,400,000	X	0.01%	=	$340	$735,000	X	0%	=	$0
Mill Creek IS	$3,250,000	X	0.01%	=	$325	$700,000	X	0%	=	$0
Potomac IS	$3,350,000	X	0.01%	=	$335	$710,000	X	0%	=	$0
Mountain Ridge IS	$3,000,000	X	0.01%	=	$300	$685,000	X	0%	=	$0
Orchard View IS	$3,125,000	X	0.01%	=	$313	$685,000	X	0%	=	$0
Hedgesville HS	$18,125,000	X	0.01%	=	$1,813	$7,350,000	X	0%	=	$0
Martinsburg HS	$17,625,000	X	0.01%	=	$1,763	$7,500,000	X	0%	=	$0
James Rumsey Vo-Tech	$11,425,000	X	0.01%	=	$1,143	$9,235,000	X	0%	=	$0
Pikeside Pre-Vocational	$3,250,000	X	0.01%	=	$325	$2,750,000	X	0%	=	$0
Ramer Center	$750,000	X	0.01%	=	$75	$175,000	X	0%	=	$0
WV State Police	$235,000	X	0.01%	=	$24	$85,000	X	0%	=	$0
Berkeley Co. Sheriff's Dept.	$185,000	X	0.01%	=	$19	$60,000	X	0%	=	$0
Martinsburg Police Dept.	$205,000	X	0.01%	=	$21	$63,000	X	0%	=	$0
Back Creek Valley FD	$250,000	X	0.01%	=	$25	$985,000	X	0%	=	$0
Baker Heights VFD	$725,000	X	0.01%	=	$73	$1,150,000	X	0%	=	$0
Bedington VFD	$325,000	X	0.01%	=	$33	$965,000	X	0%	=	$0
Hedgesville VFD	$1,250,000	X	0.01%	=	$125	$1,750,000	X	0%	=	$0
Martinsburg FD	$2,500,000	X	0.01%	=	$250	$4,750,000	X	0%	=	$0
South Berkeley VFD	$750,000	X	0.01%	=	$75	$1,225,000	X	0%	=	$0
Veterans Affairs Med Ctr FD	$2,250,000	X	0.01%	=	$225	$3,125,000	X	0%	=	$0

WV Air Natl. Guard FD	$2,500,000	X	0.01%	=	$250	$4,250,000	X	0%	=	$0
Veterans Affairs Medical Center	$150,000,000	X	0.01%	=	$15,000	$65,000,000	X	0%	=	$0
Shenandoah Health Services	$185,000	X	0.01%	=	$19	$65,000	X	0%	=	$0
Martinsburg City Hospital	$245,000,000	X	0.01%	=	$24,500	$125,000,000	X	0%	=	$0
Naylor Memorial Library	$115,000	X	0.01%	=	$12	$875,000	X	0%	=	$0
Martinsburg-Berkeley Co. Public Library	$625,000	X	0.01%	=	$63	$3,250,000	X	0%	=	$0
Berkeley County Courthouse	$3,250,000	X	0.01%	=	$325	$475,000	X	0%	=	$0
Martinsburg City Hall	$1,115,000	X	0.01%	=	$112	$305,000	X	0%	=	$0
RESA VIII	$255,000	X	0.01%	=	$26	$35,000	X	0%	=	$0
Martinsburg Water Works	$200,000	X	0.01%	=	$20	$33,000,000	X	0%	=	$0
Martinsburg WWTP	$225,000	X	0.01%	=	$23	$25,000,000	X	0%	=	$0
Bekeley County Animal Control	$125,000	X	0.01%	=	$13	$15,000	X	0%	=	$0
Capitol Cement	$13,750,000	X	0.01%	=	$1,375	$75,000,000	X	0%	=	$0
Martinsburg City Garage	$250,000	X	0.01%	=	$25	$325,000	X	0%	=	$0
Martinsburg Train Station	$3,250,000	X	0.01%	=	$325	$65,000	X	0%	=	$0
Berkeley Co OHSEM	$75,000	X	0.00%	=	$0	$35,000	X	0%	=	$0
Berkeley Co. Senior Center	$145,000	X	0.01%	=	$15	$53,000	X	0%	=	$0
Berkeley Co. Central Dispatch	$1,250,000	X	1.00%	=	$12,500	$2,250,000	X	0%	=	$0
Bekeley County Health Dept.	$125,000	X	0.01%	=	$13	$25,000	X	0%	=	$0
Morgan Cabin Museum	$1,785,000	X	1.00%	=	$17,850	$325,000	X	0%	=	$0
Eastern WV Regional Airport	$875,000,000	X	0.50%	=	$4,375,000	$125,000,000	X	0%	=	$0
Martinsburg PO (24504)	$165,000	X	0.01%	=	$17	$25,000	X	0%	=	$0
Martinsburg PO (24501)	$225,000	X	0.01%	=	$23	$37,000	X	0%	=	$0
Hedgesville PO	$125,000	X	0.01%	=	$13	$21,000	X	0%	=	$0
Inwood PO	$135,000	X	0.01%	=	$14	$20,000	X	0%	=	$0
Bunker Hill PO	$85,000	X	0.01%	=	$9	$12,000	X	0%	=	$0
Gerrardstown PO	$75,000	X	0.01%	=	$8	$12,400	X	0%	=	$0
Pleasant View ES	$1,225,000	X	0.01%	=	$123	$525,000	X	0%	=	$0
					$4,464,784					$0

Hazard: Severe Thunderstorm (Berkeley County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Back Creek ES	$109,500	X	0	+	$300	X	0	=	$0	$140
Bedington ES	$113,150	X	0	+	$310	X	0	=	$0	$148
Berkeley Heights ES	$138,700	X	0	+	$380	X	0	=	$0	$163
Bunker Hill ES	$129,575	X	0	+	$355	X	0	=	$0	$143
Burke Street ES	$131,400	X	0	+	$360	X	0	=	$0	$175
Gerrardstown ES	$138,700	X	0	+	$380	X	0	=	$0	$133
Hedgesville ES	$447,125	X	0	+	$1,225	X	0	=	$0	$170
Inwood ES	$173,375	X	0	+	$475	X	0	=	$0	$270
Marlowe ES	$114,975	X	0	+	$315	X	0	=	$0	$122
Opequon ES	$113,150	X	0	+	$310	X	0	=	$0	$124
Rosemont ES	$113,150	X	0	+	$310	X	0	=	$0	$125
Tomahawk ES	$116,800	X	0	+	$320	X	0	=	$0	$135
Tuscarora ES	$122,275	X	0	+	$335	X	0	=	$0	$128
Valley View ES	$118,625	X	0	+	$325	X	0	=	$0	$124
Winchester Ave. ES	$164,250	X	0	+	$450	X	0	=	$0	$144
Hedgesville MS	$237,250	X	0	+	$650	X	0	=	$0	$933
Martinsburg North MS	$273,750	X	0	+	$750	X	0	=	$0	$1,433
Martinsburg South MS	$273,750	X	0	+	$750	X	0	=	$0	$1,433
Mussleman MS	$456,250	X	0	+	$1,250	X	0	=	$0	$1,243
Mussleman HS	$401,500	X	0	+	$1,100	X	0	=	$0	$1,943
Spring Hills MS	$173,375	X	0	+	$475	X	0	=	$0	$300
Eagle School IS	$155,125	X	0	+	$425	X	0	=	$0	$340
Mill Creek IS	$155,125	X	0	+	$425	X	0	=	$0	$325
Potomac IS	$158,775	X	0	+	$435	X	0	=	$0	$335
Mountain Ridge IS	$151,475	X	0	+	$415	X	0	=	$0	$300
Orchard View IS	$153,300	X	0	+	$420	X	0	=	$0	$313
Hedgesville HS	$346,750	X	0	+	$950	X	0	=	$0	$1,813
Martinsburg HS	$438,000	X	0	+	$1,200	X	0	=	$0	$1,763
James Rumsey Vo-Tech	$447,125	X	0	+	$1,225	X	0	=	$0	$1,143
Pikeside Pre-Vocational	$337,625	X	0	+	$925	X	0	=	$0	$325
Ramer Center	$109,500	X	0	+	$300	X	0	=	$0	$75
WV State Police	$164,250	X	0	+	$450	X	0	=	$0	$24
Berkeley Co. Sheriff's Dept.	$401,500	X	0	+	$1,100	X	0	=	$0	$19
Martinsburg Police Dept.	$346,750	X	0	+	$950	X	0	=	$0	$21
Back Creek Valley FD	$41,975	X	0	+	$115	X	0	=	$0	$25
Baker Heights VFD	$49,275	X	0	+	$135	X	0	=	$0	$73

Bedington VFD	$41,975	X	0	+	$115	X	0	=	$0		$33
Hedgesville VFD	$54,750	X	0	+	$150	X	0	=	$0		$125
Martinsburg FD	$912,500	X	0	+	$2,500	X	0	=	$0		$250
South Berkeley VFD	$49,275	X	0	+	$135	X	0	=	$0		$75
Veterans Affairs Med Ctr FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$225
WV Air Natl. Guard FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$250
Veterans Affairs Medical Center	$31,536,000	X	0	+	$86,400	X	0	=	$0		$15,000
Shenandoah Health Services	$584,000	X	0	+	$1,600	X	0	=	$0		$19
Martinsburg City Hospital	$28,470,000	X	0	+	$78,000	X	0	=	$0		$24,500
Naylor Memorial Library	$63,875	X	0	+	$175	X	0	=	$0		$12
Martinsburg-Berkeley Co. Public Library	$127,750	X	0	+	$350	X	0	=	$0		$63
Berkeley County Courthouse	$164,250	X	0	+	$450	X	0	=	$0		$325
Martinsburg City Hall	$200,750	X	0	+	$550	X	0	=	$0		$112
RESA VIII	$45,625	X	0	+	$125	X	0	=	$0		$26
Martinsburg Water Works	$118,625	X	0	+	$325	X	0	=	$0		$20
Martinsburg WWTP	$118,625	X	0	+	$325	X	0	=	$0		$23
Bekeley County Animal Control	$45,625	X	0	+	$125	X	0	=	$0		$13
Capitol Cement	$122,275	X	1	+	$3,350	X	0	=	$122,275		$123,650
Martinsburg City Garage	$164,250	X	0	+	$450	X	0	=	$0		$25
Martinsburg Train Station	$173,375	X	0	+	$475	X	0	=	$0		$325
Berkeley Co OHSEM	$140,525	X	0	+	$385	X	0	=	$0		$0
Berkeley Co. Senior Center	$49,275	X	0	+	$135	X	0	=	$0		$15
Berkeley Co. Central Dispatch	$127,750	X	0.01	+	$350	X	0	=	$1,278		$13,778
Bekeley County Health Dept.	$136,875	X	0	+	$375	X	0	=	$0		$13
Morgan Cabin Museum	$27,375	X	0.25	+	$75	X	0	=	$6,844		$24,694
Eastern WV Regional Airport	$2,737,500	X	0.5	+	$7,500	X	0	=	$1,368,750		$5,743,750
Martinsburg PO (24504)	$136,875	X	0	+	$375	X	0	=	$0		$17
Martinsburg PO (24501)	$228,125	X	0	+	$625	X	0	=	$0		$23
Hedgesville PO	$67,525	X	0	+	$185	X	0	=	$0		$13
Inwood PO	$60,225	X	0	+	$165	X	0	=	$0		$14

Bunker Hill PO	$36,500	X	0	+	$100	X	0	=	$0
Gerrardstown PO	$38,325	X	0	+	$105	X	0	=	$0
Pleasant View ES	$140,525	X	0	+	$385	X	0	=	$0
									$1,499,146

$9
$8
$123
$5,963,930

Hazard: Severe Wind (BerkeleyCounty)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Back Creek ES	$1,400,000	X	2%	=	$28,000	$635,000	X	0%	=	$0
Bedington ES	$1,475,000	X	2%	=	$29,500	$625,000	X	0%	=	$0
Berkeley Heights ES	$1,625,000	X	2%	=	$32,500	$640,000	X	0%	=	$0
Bunker Hill ES	$1,425,000	X	2%	=	$28,500	$635,000	X	0%	=	$0
Burke Street ES	$1,750,000	X	2%	=	$35,000	$600,000	X	0%	=	$0
Gerrardstown ES	$1,325,000	X	2%	=	$26,500	$615,000	X	0%	=	$0
Hedgesville ES	$1,700,000	X	2%	=	$34,000	$650,000	X	0%	=	$0
Inwood ES	$2,700,000	X	2%	=	$54,000	$1,250,000	X	0%	=	$0
Marlowe ES	$1,215,000	X	2%	=	$24,300	$575,000	X	0%	=	$0
Opequon ES	$1,235,000	X	2%	=	$24,700	$600,000	X	0%	=	$0
Rosemont ES	$1,245,000	X	2%	=	$24,900	$600,000	X	0%	=	$0
Tomahawk ES	$1,345,000	X	2%	=	$26,900	$610,000	X	0%	=	$0
Tuscarora ES	$1,275,000	X	2%	=	$25,500	$605,000	X	0%	=	$0
Valley View ES	$1,235,000	X	2%	=	$24,700	$600,000	X	0%	=	$0
Winchester Ave. ES	$1,435,000	X	2%	=	$28,700	$615,000	X	0%	=	$0
Hedgesville MS	$9,325,000	X	2%	=	$186,500	$1,250,000	X	0%	=	$0
Martinsburg North MS	$14,325,000	X	2%	=	$286,500	$3,400,000	X	0%	=	$0
Martinsburg South MS	$14,325,000	X	2%	=	$286,500	$3,400,000	X	0%	=	$0
Mussleman MS	$12,425,000	X	2%	=	$248,500	$3,235,000	X	0%	=	$0
Mussleman HS	$19,425,000	X	2%	=	$388,500	$7,235,000	X	0%	=	$0
Spring Hills MS	$3,000,000	X	2%	=	$60,000	$850,000	X	0%	=	$0
Eagle School IS	$3,400,000	X	2%	=	$68,000	$735,000	X	0%	=	$0
Mill Creek IS	$3,250,000	X	2%	=	$65,000	$700,000	X	0%	=	$0
Potomac IS	$3,350,000	X	2%	=	$67,000	$710,000	X	0%	=	$0
Mountain Ridge IS	$3,000,000	X	2%	=	$60,000	$685,000	X	0%	=	$0
Orchard View IS	$3,125,000	X	2%	=	$62,500	$685,000	X	0%	=	$0
Hedgesville HS	$18,125,000	X	2%	=	$362,500	$7,350,000	X	0%	=	$0
Martinsburg HS	$17,625,000	X	2%	=	$352,500	$7,500,000	X	0%	=	$0
James Rumsey Vo-Tech	$11,425,000	X	2%	=	$228,500	$9,235,000	X	0%	=	$0
Pikeside Pre-Vocational	$3,250,000	X	2%	=	$65,000	$2,750,000	X	0%	=	$0
Ramer Center	$750,000	X	2%	=	$15,000	$175,000	X	0%	=	$0
WV State Police	$235,000	X	2%	=	$4,700	$85,000	X	0%	=	$0
Berkeley Co. Sheriff's Dept.	$185,000	X	2%	=	$3,700	$60,000	X	0%	=	$0
Martinsburg Police Dept.	$205,000	X	2%	=	$4,100	$63,000	X	0%	=	$0
Back Creek Valley FD	$250,000	X	2%	=	$5,000	$985,000	X	0%	=	$0
Baker Heights VFD	$725,000	X	2%	=	$14,500	$1,150,000	X	0%	=	$0
Bedington VFD	$325,000	X	2%	=	$6,500	$965,000	X	0%	=	$0
Hedgesville VFD	$1,250,000	X	2%	=	$25,000	$1,750,000	X	0%	=	$0
Martinsburg FD	$2,500,000	X	2%	=	$50,000	$4,750,000	X	0%	=	$0
South Berkeley VFD	$750,000	X	2%	=	$15,000	$1,225,000	X	0%	=	$0
Veterans Affairs Med Ctr FD	$2,250,000	X	2%	=	$45,000	$3,125,000	X	0%	=	$0

WV Air Natl. Guard FD	$2,500,000	X	2%	=	$50,000	$4,250,000	X	0%	=	$0
Veterans Affairs Medical Center	$150,000,000	X	2%	=	$3,000,000	$65,000,000	X	0%	=	$0
Shenandoah Health Services	$185,000	X	2%	=	$3,700	$65,000	X	0%	=	$0
Martinsburg City Hospital	$245,000,000	X	2%	=	$4,900,000	$125,000,000	X	0%	=	$0
Naylor Memorial Library	$115,000	X	2%	=	$2,300	$875,000	X	0%	=	$0
Martinsburg-Berkeley Co. Public Library	$625,000	X	2%	=	$12,500	$3,250,000	X	0%	=	$0
Berkeley County Courthouse	$3,250,000	X	2%	=	$65,000	$475,000	X	0%	=	$0
Martinsburg City Hall	$1,115,000	X	2%	=	$22,300	$305,000	X	0%	=	$0
RESA VIII	$255,000	X	2%	=	$5,100	$35,000	X	0%	=	$0
Martinsburg Water Works	$200,000	X	1%	=	$2,000	$33,000,000	X	0%	=	$0
Martinsburg WWTP	$225,000	X	1%	=	$2,250	$25,000,000	X	0%	=	$0
Bekeley County Animal Control	$125,000	X	2%	=	$2,500	$15,000	X	0%	=	$0
Capitol Cement	$13,750,000	X	2%	=	$275,000	$75,000,000	X	0%	=	$0
Martinsburg City Garage	$250,000	X	2%	=	$5,000	$325,000	X	0%	=	$0
Martinsburg Train Station	$3,250,000	X	2%	=	$65,000	$65,000	X	0%	=	$0
Berkeley Co OHSEM	$75,000	X	1%	=	$750	$35,000	X	0%	=	$0
Berkeley Co. Senior Center	$145,000	X	2%	=	$2,900	$53,000	X	0%	=	$0
Berkeley Co. Central Dispatch	$1,250,000	X	2%	=	$25,000	$2,250,000	X	0%	=	$0
Bekeley County Health Dept.	$125,000	X	2%	=	$2,500	$25,000	X	0%	=	$0
Morgan Cabin Museum	$1,785,000	X	5%	=	$89,250	$325,000	X	0%	=	$0
Eastern WV Regional Airport	$875,000,000	X	5%	=	$43,750,000	$125,000,000	X	0%	=	$0
Martinsburg PO (24504)	$165,000	X	2%	=	$3,300	$25,000	X	0%	=	$0
Martinsburg PO (24501)	$225,000	X	2%	=	$4,500	$37,000	X	0%	=	$0
Hedgesville PO	$125,000	X	2%	=	$2,500	$21,000	X	0%	=	$0
Inwood PO	$135,000	X	2%	=	$2,700	$20,000	X	0%	=	$0
Bunker Hill PO	$85,000	X	2%	=	$1,700	$12,000	X	0%	=	$0
Gerrardstown PO	$75,000	X	2%	=	$1,500	$12,400	X	0%	=	$0
Pleasant View ES	$1,225,000	X	2%	=	$24,500	$525,000	X	0%	=	$0
					$55,747,450					$0

Hazard: Severe Wind (Berkeley County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Back Creek ES	$109,500	X	0	+	$300	X	0	=	$0	$28,000
Bedington ES	$113,150	X	0	+	$310	X	0	=	$0	$29,500
Berkeley Heights ES	$138,700	X	0	+	$380	X	0	=	$0	$32,500
Bunker Hill ES	$129,575	X	0	+	$355	X	0	=	$0	$28,500
Burke Street ES	$131,400	X	0	+	$360	X	0	=	$0	$35,000
Gerrardstown ES	$138,700	X	0	+	$380	X	0	=	$0	$26,500
Hedgesville ES	$447,125	X	0	+	$1,225	X	0	=	$0	$34,000
Inwood ES	$173,375	X	0	+	$475	X	0	=	$0	$54,000
Marlowe ES	$114,975	X	0	+	$315	X	0	=	$0	$24,300
Opequon ES	$113,150	X	0	+	$310	X	0	=	$0	$24,700
Rosemont ES	$113,150	X	0	+	$310	X	0	=	$0	$24,900
Tomahawk ES	$116,800	X	0	+	$320	X	0	=	$0	$26,900
Tuscarora ES	$122,275	X	0	+	$335	X	0	=	$0	$25,500
Valley View ES	$118,625	X	0	+	$325	X	0	=	$0	$24,700
Winchester Ave. ES	$164,250	X	0	+	$450	X	0	=	$0	$28,700
Hedgesville MS	$237,250	X	0	+	$650	X	0	=	$0	$186,500
Martinsburg North MS	$273,750	X	0	+	$750	X	0	=	$0	$286,500
Martinsburg South MS	$273,750	X	0	+	$750	X	0	=	$0	$286,500
Mussleman MS	$456,250	X	0	+	$1,250	X	0	=	$0	$248,500
Mussleman HS	$401,500	X	0	+	$1,100	X	0	=	$0	$388,500
Spring Hills MS	$173,375	X	0	+	$475	X	0	=	$0	$60,000
Eagle School IS	$155,125	X	0	+	$425	X	0	=	$0	$68,000
Mill Creek IS	$155,125	X	0	+	$425	X	0	=	$0	$65,000
Potomac IS	$158,775	X	0	+	$435	X	0	=	$0	$67,000
Mountain Ridge IS	$151,475	X	0	+	$415	X	0	=	$0	$60,000
Orchard View IS	$153,300	X	0	+	$420	X	0	=	$0	$62,500
Hedgesville HS	$346,750	X	0	+	$950	X	0	=	$0	$362,500
Martinsburg HS	$438,000	X	0	+	$1,200	X	0	=	$0	$352,500
James Rumsey Vo-Tech	$447,125	X	0	+	$1,225	X	0	=	$0	$228,500
Pikeside Pre-Vocational	$337,625	X	0	+	$925	X	0	=	$0	$65,000
Ramer Center	$109,500	X	0	+	$300	X	0	=	$0	$15,000
WV State Police	$164,250	X	0	+	$450	X	0	=	$0	$4,700
Berkeley Co. Sheriff's Dept.	$401,500	X	0	+	$1,100	X	0	=	$0	$3,700
Martinsburg Police Dept.	$346,750	X	0	+	$950	X	0	=	$0	$4,100
Back Creek Valley FD	$41,975	X	0	+	$115	X	0	=	$0	$5,000
Baker Heights VFD	$49,275	X	0	+	$135	X	0	=	$0	$14,500

Bedington VFD	$41,975	X	0	+	$115	X	0	=	$0	$6,500
Hedgesville VFD	$54,750	X	0	+	$150	X	0	=	$0	$25,000
Martinsburg FD	$912,500	X	0	+	$2,500	X	0	=	$0	$50,000
South Berkeley VFD	$49,275	X	0	+	$135	X	0	=	$0	$15,000
Veterans Affairs Med Ctr FD	$1,277,500	X	0	+	$3,500	X	0	=	$0	$45,000
WV Air Natl. Guard FD	$1,277,500	X	0	+	$3,500	X	0	=	$0	$50,000
Veterans Affairs Medical Center	$31,536,000	X	0	+	$86,400	X	0	=	$0	$3,000,000
Shenandoah Health Services	$584,000	X	0	+	$1,600	X	0	=	$0	$3,700
Martinsburg City Hospital	$28,470,000	X	0	+	$78,000	X	0	=	$0	$4,900,000
Naylor Memorial Library	$63,875	X	0	+	$175	X	0	=	$0	$2,300
Martinsburg-Berkeley Co. Public Library	$127,750	X	0	+	$350	X	0	=	$0	$12,500
Berkeley County Courthouse	$164,250	X	0	+	$450	X	0	=	$0	$65,000
Martinsburg City Hall	$200,750	X	0	+	$550	X	0	=	$0	$22,300
RESA VIII	$45,625	X	0	+	$125	X	0	=	$0	$5,100
Martinsburg Water Works	$118,625	X	0	+	$325	X	0	=	$0	$2,000
Martinsburg WWTP	$118,625	X	0	+	$325	X	0	=	$0	$2,250
Bekeley County Animal Control	$45,625	X	0	+	$125	X	0	=	$0	$2,500
Capitol Cement	$122,275	X	0	+	$3,350	X	0	=	$0	$275,000
Martinsburg City Garage	$164,250	X	0	+	$450	X	0	=	$0	$5,000
Martinsburg Train Station	$173,375	X	0	+	$475	X	0	=	$0	$65,000
Berkeley Co OHSEM	$140,525	X	0	+	$385	X	0	=	$0	$750
Berkeley Co. Senior Center	$49,275	X	0	+	$135	X	0	=	$0	$2,900
Berkeley Co. Central Dispatch	$127,750	X	0	+	$350	X	0	=	$0	$25,000
Bekeley County Health Dept.	$136,875	X	0	+	$375	X	0	=	$0	$2,500
Morgan Cabin Museum	$27,375	X	0	+	$75	X	0	=	$0	$89,250
Eastern WV Regional Airport	$2,737,500	X	0.5	+	$7,500	X	0	=	$1,368,750	$45,118,750
Martinsburg PO (24504)	$136,875	X	0	+	$375	X	0	=	$0	$3,300
Martinsburg PO (24501)	$228,125	X	0	+	$625	X	0	=	$0	$4,500
Hedgesville PO	$67,525	X	0	+	$185	X	0	=	$0	$2,500
Inwood PO	$60,225	X	0	+	$165	X	0	=	$0	$2,700

Bunker Hill PO	$36,500	X	0	+	$100	X	0	=	$0	$1,700
Gerrardstown PO	$38,325	X	0	+	$105	X	0	=	$0	$1,500
Pleasant View ES	$140,525	X	0	+	$385	X	0	=	$0	$24,500
									$1,368,750	**$57,116,200**

Hazard:Severe Winter Storm (BerkeleyCounty)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Back Creek ES	$1,400,000	X	0%	=	$0	$635,000	X	0%	=	$0
Bedington ES	$1,475,000	X	0%	=	$0	$625,000	X	0%	=	$0
Berkeley Heights ES	$1,625,000	X	0%	=	$0	$640,000	X	0%	=	$0
Bunker Hill ES	$1,425,000	X	0%	=	$0	$635,000	X	0%	=	$0
Burke Street ES	$1,750,000	X	0%	=	$0	$600,000	X	0%	=	$0
Gerrardstown ES	$1,325,000	X	0%	=	$0	$615,000	X	0%	=	$0
Hedgesville ES	$1,700,000	X	0%	=	$0	$650,000	X	0%	=	$0
Inwood ES	$2,700,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Marlowe ES	$1,215,000	X	0%	=	$0	$575,000	X	0%	=	$0
Opequon ES	$1,235,000	X	0%	=	$0	$600,000	X	0%	=	$0
Rosemont ES	$1,245,000	X	0%	=	$0	$600,000	X	0%	=	$0
Tomahawk ES	$1,345,000	X	0%	=	$0	$610,000	X	0%	=	$0
Tuscarora ES	$1,275,000	X	0%	=	$0	$605,000	X	0%	=	$0
Valley View ES	$1,235,000	X	0%	=	$0	$600,000	X	0%	=	$0
Winchester Ave. ES	$1,435,000	X	0%	=	$0	$615,000	X	0%	=	$0
Hedgesville MS	$9,325,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Martinsburg North MS	$14,325,000	X	0%	=	$0	$3,400,000	X	0%	=	$0
Martinsburg South MS	$14,325,000	X	0%	=	$0	$3,400,000	X	0%	=	$0
Mussleman MS	$12,425,000	X	0%	=	$0	$3,235,000	X	0%	=	$0
Mussleman HS	$19,425,000	X	0%	=	$0	$7,235,000	X	0%	=	$0
Spring Hills MS	$3,000,000	X	0%	=	$0	$850,000	X	0%	=	$0
Eagle School IS	$3,400,000	X	0%	=	$0	$735,000	X	0%	=	$0
Mill Creek IS	$3,250,000	X	0%	=	$0	$700,000	X	0%	=	$0
Potomac IS	$3,350,000	X	0%	=	$0	$710,000	X	0%	=	$0
Mountain Ridge IS	$3,000,000	X	0%	=	$0	$685,000	X	0%	=	$0
Orchard View IS	$3,125,000	X	0%	=	$0	$685,000	X	0%	=	$0
Hedgesville HS	$18,125,000	X	0%	=	$0	$7,350,000	X	0%	=	$0
Martinsburg HS	$17,625,000	X	0%	=	$0	$7,500,000	X	0%	=	$0
James Rumsey Vo-Tech	$11,425,000	X	0%	=	$0	$9,235,000	X	0%	=	$0
Pikeside Pre-Vocational	$3,250,000	X	0%	=	$0	$2,750,000	X	0%	=	$0
Ramer Center	$750,000	X	0%	=	$0	$175,000	X	0%	=	$0
WV State Police	$235,000	X	0%	=	$0	$85,000	X	0%	=	$0
Berkeley Co. Sheriff's Dept.	$185,000	X	0%	=	$0	$60,000	X	0%	=	$0
Martinsburg Police Dept.	$205,000	X	0%	=	$0	$63,000	X	0%	=	$0
Back Creek Valley FD	$250,000	X	0%	=	$0	$985,000	X	0%	=	$0
Baker Heights VFD	$725,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Bedington VFD	$325,000	X	0%	=	$0	$965,000	X	0%	=	$0
Hedgesville VFD	$1,250,000	X	0%	=	$0	$1,750,000	X	0%	=	$0
Martinsburg FD	$2,500,000	X	0%	=	$0	$4,750,000	X	0%	=	$0
South Berkeley VFD	$750,000	X	0%	=	$0	$1,225,000	X	0%	=	$0
Veterans Affairs Med Ctr FD	$2,250,000	X	0%	=	$0	$3,125,000	X	0%	=	$0

WV Air Natl. Guard FD	$2,500,000	X	0%	=	$0	$4,250,000	X	0%	=	$0
Veterans Affairs Medical Center	$150,000,000	X	0%	=	$0	$65,000,000	X	0%	=	$0
Shenandoah Health Services	$185,000	X	0%	=	$0	$65,000	X	0%	=	$0
Martinsburg City Hospital	$245,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Naylor Memorial Library	$115,000	X	0%	=	$0	$875,000	X	0%	=	$0
Martinsburg-Berkeley Co. Public Library	$625,000	X	0%	=	$0	$3,250,000	X	0%	=	$0
Berkeley County Courthouse	$3,250,000	X	0%	=	$0	$475,000	X	0%	=	$0
Martinsburg City Hall	$1,115,000	X	0%	=	$0	$305,000	X	0%	=	$0
RESA VIII	$255,000	X	0%	=	$0	$35,000	X	0%	=	$0
Martinsburg Water Works	$200,000	X	0%	=	$0	$33,000,000	X	0%	=	$0
Martinsburg WWTP	$225,000	X	0%	=	$0	$25,000,000	X	0%	=	$0
Bekeley County Animal Control	$125,000	X	0%	=	$0	$15,000	X	0%	=	$0
Capitol Cement	$13,750,000	X	0%	=	$0	$75,000,000	X	0%	=	$0
Martinsburg City Garage	$250,000	X	0%	=	$0	$325,000	X	0%	=	$0
Martinsburg Train Station	$3,250,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Co OHSEM	$75,000	X	0%	=	$0	$35,000	X	0%	=	$0
Berkeley Co. Senior Center	$145,000	X	0%	=	$0	$53,000	X	0%	=	$0
Berkeley Co. Central Dispatch	$1,250,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Bekeley County Health Dept.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Cabin Museum	$1,785,000	X	0%	=	$0	$325,000	X	0%	=	$0
Eastern WV Regional Airport	$875,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Martinsburg PO (24504)	$165,000	X	0%	=	$0	$25,000	X	0%	=	$0
Martinsburg PO (24501)	$225,000	X	0%	=	$0	$37,000	X	0%	=	$0
Hedgesville PO	$125,000	X	0%	=	$0	$21,000	X	0%	=	$0
Inwood PO	$135,000	X	0%	=	$0	$20,000	X	0%	=	$0
Bunker Hill PO	$85,000	X	0%	=	$0	$12,000	X	0%	=	$0
Gerrardstown PO	$75,000	X	0%	=	$0	$12,400	X	0%	=	$0
Pleasant View ES	$1,225,000	X	0%	=	$0	$525,000	X	0%	=	$0
					$0					$0

Hazard: Severe Winter Storm (Berkeley County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Back Creek ES	$109,500	X	2	+	$300	X	0	=	$219,000	$219,000
Bedington ES	$113,150	X	2	+	$310	X	0	=	$226,300	$226,300
Berkeley Heights ES	$138,700	X	2	+	$380	X	0	=	$277,400	$277,400
Bunker Hill ES	$129,575	X	2	+	$355	X	0	=	$259,150	$259,150
Burke Street ES	$131,400	X	2	+	$360	X	0	=	$262,800	$262,800
Gerrardstown ES	$138,700	X	2	+	$380	X	0	=	$277,400	$277,400
Hedgesville ES	$447,125	X	2	+	$1,225	X	0	=	$894,250	$894,250
Inwood ES	$173,375	X	2	+	$475	X	0	=	$346,750	$346,750
Marlowe ES	$114,975	X	2	+	$315	X	0	=	$229,950	$229,950
Opequon ES	$113,150	X	2	+	$310	X	0	=	$226,300	$226,300
Rosemont ES	$113,150	X	2	+	$310	X	0	=	$226,300	$226,300
Tomahawk ES	$116,800	X	2	+	$320	X	0	=	$233,600	$233,600
Tuscarora ES	$122,275	X	2	+	$335	X	0	=	$244,550	$244,550
Valley View ES	$118,625	X	2	+	$325	X	0	=	$237,250	$237,250
Winchester Ave. ES	$164,250	X	2	+	$450	X	0	=	$328,500	$328,500
Hedgesville MS	$237,250	X	2	+	$650	X	0	=	$474,500	$474,500
Martinsburg North MS	$273,750	X	2	+	$750	X	0	=	$547,500	$547,500
Martinsburg South MS	$273,750	X	2	+	$750	X	0	=	$547,500	$547,500
Mussleman MS	$456,250	X	2	+	$1,250	X	0	=	$912,500	$912,500
Mussleman HS	$401,500	X	2	+	$1,100	X	0	=	$803,000	$803,000
Spring Hills MS	$173,375	X	2	+	$475	X	0	=	$346,750	$346,750
Eagle School IS	$155,125	X	2	+	$425	X	0	=	$310,250	$310,250
Mill Creek IS	$155,125	X	2	+	$425	X	0	=	$310,250	$310,250
Potomac IS	$158,775	X	2	+	$435	X	0	=	$317,550	$317,550
Mountain Ridge IS	$151,475	X	2	+	$415	X	0	=	$302,950	$302,950
Orchard View IS	$153,300	X	2	+	$420	X	0	=	$306,600	$306,600
Hedgesville HS	$346,750	X	2	+	$950	X	0	=	$693,500	$693,500
Martinsburg HS	$438,000	X	2	+	$1,200	X	0	=	$876,000	$876,000
James Rumsey Vo-Tech	$447,125	X	2	+	$1,225	X	0	=	$894,250	$894,250
Pikeside Pre-Vocational	$337,625	X	2	+	$925	X	0	=	$675,250	$675,250
Ramer Center	$109,500	X	2	+	$300	X	0	=	$219,000	$219,000
WV State Police	$164,250	X	0	+	$450	X	0	=	$0	$0
Berkeley Co. Sheriff's Dept.	$401,500	X	0	+	$1,100	X	0	=	$0	$0
Martinsburg Police Dept.	$346,750	X	0	+	$950	X	0	=	$0	$0
Back Creek Valley FD	$41,975	X	0	+	$115	X	0	=	$0	$0
Baker Heights VFD	$49,275	X	0	+	$135	X	0	=	$0	$0

Bedington VFD	$41,975	X	0	+	$115	X	0	=	$0	$0
Hedgesville VFD	$54,750	X	0	+	$150	X	0	=	$0	$0
Martinsburg FD	$912,500	X	0	+	$2,500	X	0	=	$0	$0
South Berkeley VFD	$49,275	X	0	+	$135	X	0	=	$0	$0
Veterans Affairs Med Ctr FD	$1,277,500	X	0	+	$3,500	X	0	=	$0	$0
WV Air Natl. Guard FD	$1,277,500	X	0	+	$3,500	X	0	=	$0	$0
Veterans Affairs Medical Center	$31,536,000	X	0	+	$86,400	X	0	=	$0	$0
Shenandoah Health Services	$584,000	X	0	+	$1,600	X	0	=	$0	$0
Martinsburg City Hospital	$28,470,000	X	0	+	$78,000	X	0	=	$0	$0
Naylor Memorial Library	$63,875	X	0	+	$175	X	0	=	$0	$0
Martinsburg-Berkeley Co. Public Library	$127,750	X	0	+	$350	X	0	=	$0	$0
Berkeley County Courthouse	$164,250	X	1	+	$450	X	0	=	$164,250	$164,250
Martinsburg City Hall	$200,750	X	1	+	$550	X	0	=	$200,750	$200,750
RESA VIII	$45,625	X	0	+	$125	X	0	=	$0	$0
Martinsburg Water Works	$118,625	X	0	+	$325	X	0	=	$0	$0
Martinsburg WWTP	$118,625	X	0	+	$325	X	0	=	$0	$0
Bekeley County Animal Control	$45,625	X	0	+	$125	X	0	=	$0	$0
Capitol Cement	$122,275	X	2	+	$3,350	X	0	=	$244,550	$244,550
Martinsburg City Garage	$164,250	X	1	+	$450	X	0	=	$164,250	$164,250
Martinsburg Train Station	$173,375	X	0	+	$475	X	0	=	$0	$0
Berkeley Co OHSEM	$140,525	X	0	+	$385	X	0	=	$0	$0
Berkeley Co. Senior Center	$49,275	X	2	+	$135	X	0	=	$98,550	$98,550
Berkeley Co. Central Dispatch	$127,750	X	0	+	$350	X	0	=	$0	$0
Bekeley County Health Dept.	$136,875	X	0	+	$375	X	0	=	$0	$0
Morgan Cabin Museum	$27,375	X	0	+	$75	X	0	=	$0	$0
Eastern WV Regional Airport	$2,737,500	X	0.5	+	$7,500	X	0	=	$1,368,750	$1,368,750
Martinsburg PO (24504)	$136,875	X	0	+	$375	X	0	=	$0	$0
Martinsburg PO (24501)	$228,125	X	0	+	$625	X	0	=	$0	$0
Hedgesville PO	$67,525	X	0	+	$185	X	0	=	$0	$0
Inwood PO	$60,225	X	0	+	$165	X	0	=	$0	$0

Bunker Hill PO	$36,500	X	0	+	$100	X	0	=	$0	$0
Gerrardstown PO	$38,325	X	0	+	$105	X	0	=	$0	$0
Pleasant View ES	$140,525	X	0	+	$385	X	0	=	$0	$0
									$15,267,950	**$15,267,950**

Hazard:Temperature Extreme (BerkeleyCounty)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Back Creek ES	$1,400,000	X	0%	=	$0	$635,000	X	0%	=	$0
Bedington ES	$1,475,000	X	0%	=	$0	$625,000	X	0%	=	$0
Berkeley Heights ES	$1,625,000	X	0%	=	$0	$640,000	X	0%	=	$0
Bunker Hill ES	$1,425,000	X	0%	=	$0	$635,000	X	0%	=	$0
Burke Street ES	$1,750,000	X	0%	=	$0	$600,000	X	0%	=	$0
Gerrardstown ES	$1,325,000	X	0%	=	$0	$615,000	X	0%	=	$0
Hedgesville ES	$1,700,000	X	0%	=	$0	$650,000	X	0%	=	$0
Inwood ES	$2,700,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Marlowe ES	$1,215,000	X	0%	=	$0	$575,000	X	0%	=	$0
Opequon ES	$1,235,000	X	0%	=	$0	$600,000	X	0%	=	$0
Rosemont ES	$1,245,000	X	0%	=	$0	$600,000	X	0%	=	$0
Tomahawk ES	$1,345,000	X	0%	=	$0	$610,000	X	0%	=	$0
Tuscarora ES	$1,275,000	X	0%	=	$0	$605,000	X	0%	=	$0
Valley View ES	$1,235,000	X	0%	=	$0	$600,000	X	0%	=	$0
Winchester Ave. ES	$1,435,000	X	0%	=	$0	$615,000	X	0%	=	$0
Hedgesville MS	$9,325,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Martinsburg North MS	$14,325,000	X	0%	=	$0	$3,400,000	X	0%	=	$0
Martinsburg South MS	$14,325,000	X	0%	=	$0	$3,400,000	X	0%	=	$0
Mussleman MS	$12,425,000	X	0%	=	$0	$3,235,000	X	0%	=	$0
Mussleman HS	$19,425,000	X	0%	=	$0	$7,235,000	X	0%	=	$0
Spring Hills MS	$3,000,000	X	0%	=	$0	$850,000	X	0%	=	$0
Eagle School IS	$3,400,000	X	0%	=	$0	$735,000	X	0%	=	$0
Mill Creek IS	$3,250,000	X	0%	=	$0	$700,000	X	0%	=	$0
Potomac IS	$3,350,000	X	0%	=	$0	$710,000	X	0%	=	$0
Mountain Ridge IS	$3,000,000	X	0%	=	$0	$685,000	X	0%	=	$0
Orchard View IS	$3,125,000	X	0%	=	$0	$685,000	X	0%	=	$0
Hedgesville HS	$18,125,000	X	0%	=	$0	$7,350,000	X	0%	=	$0
Martinsburg HS	$17,625,000	X	0%	=	$0	$7,500,000	X	0%	=	$0
James Rumsey Vo-Tech	$11,425,000	X	0%	=	$0	$9,235,000	X	0%	=	$0
Pikeside Pre-Vocational	$3,250,000	X	0%	=	$0	$2,750,000	X	0%	=	$0
Ramer Center	$750,000	X	0%	=	$0	$175,000	X	0%	=	$0
WV State Police	$235,000	X	0%	=	$0	$85,000	X	0%	=	$0
Berkeley Co. Sheriff's Dept.	$185,000	X	0%	=	$0	$60,000	X	0%	=	$0
Martinsburg Police Dept.	$205,000	X	0%	=	$0	$63,000	X	0%	=	$0
Back Creek Valley FD	$250,000	X	0%	=	$0	$985,000	X	0%	=	$0
Baker Heights VFD	$725,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Bedington VFD	$325,000	X	0%	=	$0	$965,000	X	0%	=	$0
Hedgesville VFD	$1,250,000	X	0%	=	$0	$1,750,000	X	0%	=	$0
Martinsburg FD	$2,500,000	X	0%	=	$0	$4,750,000	X	0%	=	$0
South Berkeley VFD	$750,000	X	0%	=	$0	$1,225,000	X	0%	=	$0
Veterans Affairs Med Ctr FD	$2,250,000	X	0%	=	$0	$3,125,000	X	0%	=	$0

WV Air Natl. Guard FD	$2,500,000	X	0%	=	$0	$4,250,000	X	0%	=	$0
Veterans Affairs Medical Center	$150,000,000	X	0%	=	$0	$65,000,000	X	0%	=	$0
Shenandoah Health Services	$185,000	X	0%	=	$0	$65,000	X	0%	=	$0
Martinsburg City Hospital	$245,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Naylor Memorial Library	$115,000	X	0%	=	$0	$875,000	X	0%	=	$0
Martinsburg-Berkeley Co. Public Library	$625,000	X	0%	=	$0	$3,250,000	X	0%	=	$0
Berkeley County Courthouse	$3,250,000	X	0%	=	$0	$475,000	X	0%	=	$0
Martinsburg City Hall	$1,115,000	X	0%	=	$0	$305,000	X	0%	=	$0
RESA VIII	$255,000	X	0%	=	$0	$35,000	X	0%	=	$0
Martinsburg Water Works	$200,000	X	0%	=	$0	$33,000,000	X	0%	=	$0
Martinsburg WWTP	$225,000	X	0%	=	$0	$25,000,000	X	0%	=	$0
Bekeley County Animal Control	$125,000	X	0%	=	$0	$15,000	X	0%	=	$0
Capitol Cement	$13,750,000	X	0%	=	$0	$75,000,000	X	0%	=	$0
Martinsburg City Garage	$250,000	X	0%	=	$0	$325,000	X	0%	=	$0
Martinsburg Train Station	$3,250,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Co OHSEM	$75,000	X	0%	=	$0	$35,000	X	0%	=	$0
Berkeley Co. Senior Center	$145,000	X	0%	=	$0	$53,000	X	0%	=	$0
Berkeley Co. Central Dispatch	$1,250,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Bekeley County Health Dept.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Cabin Museum	$1,785,000	X	0%	=	$0	$325,000	X	0%	=	$0
Eastern WV Regional Airport	$875,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Martinsburg PO (24504)	$165,000	X	0%	=	$0	$25,000	X	0%	=	$0
Martinsburg PO (24501)	$225,000	X	0%	=	$0	$37,000	X	0%	=	$0
Hedgesville PO	$125,000	X	0%	=	$0	$21,000	X	0%	=	$0
Inwood PO	$135,000	X	0%	=	$0	$20,000	X	0%	=	$0
Bunker Hill PO	$85,000	X	0%	=	$0	$12,000	X	0%	=	$0
Gerrardstown PO	$75,000	X	0%	=	$0	$12,400	X	0%	=	$0
Pleasant View ES	$1,225,000	X	0%	=	$0	$525,000	X	0%	=	$0
					$0					$0

Hazard: Temperature Extreme (Berkeley County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Back Creek ES	$109,500	X	0	+	$300	X	0	=	$0	$0
Bedington ES	$113,150	X	0	+	$310	X	0	=	$0	$0
Berkeley Heights ES	$138,700	X	0	+	$380	X	0	=	$0	$0
Bunker Hill ES	$129,575	X	0	+	$355	X	0	=	$0	$0
Burke Street ES	$131,400	X	0	+	$360	X	0	=	$0	$0
Gerrardstown ES	$138,700	X	0	+	$380	X	0	=	$0	$0
Hedgesville ES	$447,125	X	0	+	$1,225	X	0	=	$0	$0
Inwood ES	$173,375	X	0	+	$475	X	0	=	$0	$0
Marlowe ES	$114,975	X	0	+	$315	X	0	=	$0	$0
Opequon ES	$113,150	X	0	+	$310	X	0	=	$0	$0
Rosemont ES	$113,150	X	0	+	$310	X	0	=	$0	$0
Tomahawk ES	$116,800	X	0	+	$320	X	0	=	$0	$0
Tuscarora ES	$122,275	X	0	+	$335	X	0	=	$0	$0
Valley View ES	$118,625	X	0	+	$325	X	0	=	$0	$0
Winchester Ave. ES	$164,250	X	0	+	$450	X	0	=	$0	$0
Hedgesville MS	$237,250	X	0	+	$650	X	0	=	$0	$0
Martinsburg North MS	$273,750	X	0	+	$750	X	0	=	$0	$0
Martinsburg South MS	$273,750	X	0	+	$750	X	0	=	$0	$0
Mussleman MS	$456,250	X	0	+	$1,250	X	0	=	$0	$0
Mussleman HS	$401,500	X	0	+	$1,100	X	0	=	$0	$0
Spring Hills MS	$173,375	X	0	+	$475	X	0	=	$0	$0
Eagle School IS	$155,125	X	0	+	$425	X	0	=	$0	$0
Mill Creek IS	$155,125	X	0	+	$425	X	0	=	$0	$0
Potomac IS	$158,775	X	0	+	$435	X	0	=	$0	$0
Mountain Ridge IS	$151,475	X	0	+	$415	X	0	=	$0	$0
Orchard View IS	$153,300	X	0	+	$420	X	0	=	$0	$0
Hedgesville HS	$346,750	X	0	+	$950	X	0	=	$0	$0
Martinsburg HS	$438,000	X	0	+	$1,200	X	0	=	$0	$0
James Rumsey Vo-Tech	$447,125	X	0	+	$1,225	X	0	=	$0	$0
Pikeside Pre-Vocational	$337,625	X	0	+	$925	X	0	=	$0	$0
Ramer Center	$109,500	X	0	+	$300	X	0	=	$0	$0
WV State Police	$164,250	X	0	+	$450	X	0	=	$0	$0
Berkeley Co. Sheriff's Dept.	$401,500	X	0	+	$1,100	X	0	=	$0	$0
Martinsburg Police Dept.	$346,750	X	0	+	$950	X	0	=	$0	$0
Back Creek Valley FD	$41,975	X	0	+	$115	X	0	=	$0	$0
Baker Heights VFD	$49,275	X	0	+	$135	X	0	=	$0	$0

Bedington VFD	$41,975	X	0	+	$115	X	0	=	$0		$0
Hedgesville VFD	$54,750	X	0	+	$150	X	0	=	$0		$0
Martinsburg FD	$912,500	X	0	+	$2,500	X	0	=	$0		$0
South Berkeley VFD	$49,275	X	0	+	$135	X	0	=	$0		$0
Veterans Affairs Med Ctr FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$0
WV Air Natl. Guard FD	$1,277,500	X	0	+	$3,500	X	0	=	$0		$0
Veterans Affairs Medical Center	$31,536,000	X	0	+	$86,400	X	0	=	$0		$0
Shenandoah Health Services	$584,000	X	0	+	$1,600	X	0	=	$0		$0
Martinsburg City Hospital	$28,470,000	X	0	+	$78,000	X	0	=	$0		$0
Naylor Memorial Library	$63,875	X	0	+	$175	X	0	=	$0		$0
Martinsburg-Berkeley Co. Public Library	$127,750	X	0	+	$350	X	0	=	$0		$0
Berkeley County Courthouse	$164,250	X	0	+	$450	X	0	=	$0		$0
Martinsburg City Hall	$200,750	X	0	+	$550	X	0	=	$0		$0
RESA VIII	$45,625	X	0	+	$125	X	0	=	$0		$0
Martinsburg Water Works	$118,625	X	0	+	$325	X	0	=	$0		$0
Martinsburg WWTP	$118,625	X	0	+	$325	X	0	=	$0		$0
Bekeley County Animal Control	$45,625	X	0	+	$125	X	0	=	$0		$0
Capitol Cement	$122,275	X	0	+	$3,350	X	0	=	$0		$0
Martinsburg City Garage	$164,250	X	0	+	$450	X	0	=	$0		$0
Martinsburg Train Station	$173,375	X	0	+	$475	X	0	=	$0		$0
Berkeley Co OHSEM	$140,525	X	0	+	$385	X	0	=	$0		$0
Berkeley Co. Senior Center	$49,275	X	0	+	$135	X	0	=	$0		$0
Berkeley Co. Central Dispatch	$127,750	X	0	+	$350	X	0	=	$0		$0
Bekeley County Health Dept.	$136,875	X	0	+	$375	X	0	=	$0		$0
Morgan Cabin Museum	$27,375	X	0	+	$75	X	0	=	$0		$0
Eastern WV Regional Airport	$2,737,500	X	0	+	$7,500	X	0	=	$0		$0
Martinsburg PO (24504)	$136,875	X	0	+	$375	X	0	=	$0		$0
Martinsburg PO (24501)	$228,125	X	0	+	$625	X	0	=	$0		$0
Hedgesville PO	$67,525	X	0	+	$185	X	0	=	$0		$0
Inwood PO	$60,225	X	0	+	$165	X	0	=	$0		$0

Bunker Hill PO	$36,500	X	0	+	$100	X	0	=	$0	$0
Gerrardstown PO	$38,325	X	0	+	$105	X	0	=	$0	$0
Pleasant View ES	$140,525	X	0	+	$385	X	0	=	$0	$0
									$0	**$0**

Hazard: Terrorism (BerkeleyCounty)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Back Creek ES	$1,400,000	X	1%	=	$14,000	$635,000	X	5%	=	$31,750
Bedington ES	$1,475,000	X	1%	=	$14,750	$625,000	X	5%	=	$31,250
Berkeley Heights ES	$1,625,000	X	1%	=	$16,250	$640,000	X	5%	=	$32,000
Bunker Hill ES	$1,425,000	X	1%	=	$14,250	$635,000	X	5%	=	$31,750
Burke Street ES	$1,750,000	X	1%	=	$17,500	$600,000	X	5%	=	$30,000
Gerrardstown ES	$1,325,000	X	1%	=	$13,250	$615,000	X	5%	=	$30,750
Hedgesville ES	$1,700,000	X	1%	=	$17,000	$650,000	X	5%	=	$32,500
Inwood ES	$2,700,000	X	1%	=	$27,000	$1,250,000	X	5%	=	$62,500
Marlowe ES	$1,215,000	X	1%	=	$12,150	$575,000	X	5%	=	$28,750
Opequon ES	$1,235,000	X	1%	=	$12,350	$600,000	X	5%	=	$30,000
Rosemont ES	$1,245,000	X	1%	=	$12,450	$600,000	X	5%	=	$30,000
Tomahawk ES	$1,345,000	X	1%	=	$13,450	$610,000	X	5%	=	$30,500
Tuscarora ES	$1,275,000	X	1%	=	$12,750	$605,000	X	5%	=	$30,250
Valley View ES	$1,235,000	X	1%	=	$12,350	$600,000	X	5%	=	$30,000
Winchester Ave. ES	$1,435,000	X	1%	=	$14,350	$615,000	X	5%	=	$30,750
Hedgesville MS	$9,325,000	X	1%	=	$93,250	$1,250,000	X	5%	=	$62,500
Martinsburg North MS	$14,325,000	X	1%	=	$143,250	$3,400,000	X	5%	=	$170,000
Martinsburg South MS	$14,325,000	X	1%	=	$143,250	$3,400,000	X	5%	=	$170,000
Mussleman MS	$12,425,000	X	1%	=	$124,250	$3,235,000	X	5%	=	$161,750
Mussleman HS	$19,425,000	X	1%	=	$194,250	$7,235,000	X	5%	=	$361,750
Spring Hills MS	$3,000,000	X	1%	=	$30,000	$850,000	X	5%	=	$42,500
Eagle School IS	$3,400,000	X	1%	=	$34,000	$735,000	X	5%	=	$36,750
Mill Creek IS	$3,250,000	X	1%	=	$32,500	$700,000	X	5%	=	$35,000
Potomac IS	$3,350,000	X	1%	=	$33,500	$710,000	X	5%	=	$35,500
Mountain Ridge IS	$3,000,000	X	1%	=	$30,000	$685,000	X	5%	=	$34,250
Orchard View IS	$3,125,000	X	1%	=	$31,250	$685,000	X	5%	=	$34,250
Hedgesville HS	$18,125,000	X	1%	=	$181,250	$7,350,000	X	5%	=	$367,500
Martinsburg HS	$17,625,000	X	1%	=	$176,250	$7,500,000	X	5%	=	$375,000
James Rumsey Vo-Tech	$11,425,000	X	1%	=	$114,250	$9,235,000	X	5%	=	$461,750
Pikeside Pre-Vocational	$3,250,000	X	1%	=	$32,500	$2,750,000	X	5%	=	$137,500
Ramer Center	$750,000	X	1%	=	$7,500	$175,000	X	5%	=	$8,750
WV State Police	$235,000	X	0%	=	$0	$85,000	X	0%	=	$0
Berkeley Co. Sheriff's Dept.	$185,000	X	0%	=	$0	$60,000	X	0%	=	$0
Martinsburg Police Dept.	$205,000	X	0%	=	$0	$63,000	X	0%	=	$0
Back Creek Valley FD	$250,000	X	0%	=	$0	$985,000	X	0%	=	$0
Baker Heights VFD	$725,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Bedington VFD	$325,000	X	0%	=	$0	$965,000	X	0%	=	$0
Hedgesville VFD	$1,250,000	X	0%	=	$0	$1,750,000	X	0%	=	$0
Martinsburg FD	$2,500,000	X	0%	=	$0	$4,750,000	X	0%	=	$0
South Berkeley VFD	$750,000	X	0%	=	$0	$1,225,000	X	0%	=	$0
Veterans Affairs Med Ctr FD	$2,250,000	X	0%	=	$0	$3,125,000	X	0%	=	$0

WV Air Natl. Guard FD	$2,500,000	X	0%	=	$0	$4,250,000	X	0%	=	$0
Veterans Affairs Medical Center	$150,000,000	X	0%	=	$0	$65,000,000	X	0%	=	$0
Shenandoah Health Services	$185,000	X	0%	=	$0	$65,000	X	0%	=	$0
Martinsburg City Hospital	$245,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Naylor Memorial Library	$115,000	X	0%	=	$0	$875,000	X	0%	=	$0
Martinsburg-Berkeley Co. Public Library	$625,000	X	0%	=	$0	$3,250,000	X	0%	=	$0
Berkeley County Courthouse	$3,250,000	X	2%	=	$65,000	$475,000	X	10%	=	$47,500
Martinsburg City Hall	$1,115,000	X	2%	=	$22,300	$305,000	X	10%	=	$30,500
RESA VIII	$255,000	X	0%	=	$0	$35,000	X	0%	=	$0
Martinsburg Water Works	$200,000	X	0%	=	$0	$33,000,000	X	0%	=	$0
Martinsburg WWTP	$225,000	X	0%	=	$0	$25,000,000	X	0%	=	$0
Bekeley County Animal Control	$125,000	X	0%	=	$0	$15,000	X	0%	=	$0
Capitol Cement	$13,750,000	X	0%	=	$0	$75,000,000	X	0%	=	$0
Martinsburg City Garage	$250,000	X	0%	=	$0	$325,000	X	0%	=	$0
Martinsburg Train Station	$3,250,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Co OHSEM	$75,000	X	0%	=	$0	$35,000	X	0%	=	$0
Berkeley Co. Senior Center	$145,000	X	0%	=	$0	$53,000	X	0%	=	$0
Berkeley Co. Central Dispatch	$1,250,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Bekeley County Health Dept.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Cabin Museum	$1,785,000	X	0%	=	$0	$325,000	X	0%	=	$0
Eastern WV Regional Airport	$875,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Martinsburg PO (24504)	$165,000	X	0%	=	$0	$25,000	X	0%	=	$0
Martinsburg PO (24501)	$225,000	X	0%	=	$0	$37,000	X	0%	=	$0
Hedgesville PO	$125,000	X	0%	=	$0	$21,000	X	0%	=	$0
Inwood PO	$135,000	X	0%	=	$0	$20,000	X	0%	=	$0
Bunker Hill PO	$85,000	X	0%	=	$0	$12,000	X	0%	=	$0
Gerrardstown PO	$75,000	X	0%	=	$0	$12,400	X	0%	=	$0
Pleasant View ES	$1,225,000	X	1%	=	$12,250	$525,000	X	5%	=	$26,250
					$1,724,650					$3,091,750

Hazard: Terrorism (Berkeley County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Back Creek ES	$109,500	X	2	+	$300	X	0	=	$219,000	$264,750
Bedington ES	$113,150	X	2	+	$310	X	0	=	$226,300	$272,300
Berkeley Heights ES	$138,700	X	2	+	$380	X	0	=	$277,400	$325,650
Bunker Hill ES	$129,575	X	2	+	$355	X	0	=	$259,150	$305,150
Burke Street ES	$131,400	X	2	+	$360	X	0	=	$262,800	$310,300
Gerrardstown ES	$138,700	X	2	+	$380	X	0	=	$277,400	$321,400
Hedgesville ES	$447,125	X	2	+	$1,225	X	0	=	$894,250	$943,750
Inwood ES	$173,375	X	2	+	$475	X	0	=	$346,750	$436,250
Marlowe ES	$114,975	X	2	+	$315	X	0	=	$229,950	$270,850
Opequon ES	$113,150	X	2	+	$310	X	0	=	$226,300	$268,650
Rosemont ES	$113,150	X	2	+	$310	X	0	=	$226,300	$268,750
Tomahawk ES	$116,800	X	2	+	$320	X	0	=	$233,600	$277,550
Tuscarora ES	$122,275	X	2	+	$335	X	0	=	$244,550	$287,550
Valley View ES	$118,625	X	2	+	$325	X	0	=	$237,250	$279,600
Winchester Ave. ES	$164,250	X	2	+	$450	X	0	=	$328,500	$373,600
Hedgesville MS	$237,250	X	2	+	$650	X	0	=	$474,500	$630,250
Martinsburg North MS	$273,750	X	2	+	$750	X	0	=	$547,500	$860,750
Martinsburg South MS	$273,750	X	2	+	$750	X	0	=	$547,500	$860,750
Mussleman MS	$456,250	X	2	+	$1,250	X	0	=	$912,500	$1,198,500
Mussleman HS	$401,500	X	2	+	$1,100	X	0	=	$803,000	$1,359,000
Spring Hills MS	$173,375	X	2	+	$475	X	0	=	$346,750	$419,250
Eagle School IS	$155,125	X	2	+	$425	X	0	=	$310,250	$381,000
Mill Creek IS	$155,125	X	2	+	$425	X	0	=	$310,250	$377,750
Potomac IS	$158,775	X	2	+	$435	X	0	=	$317,550	$386,550
Mountain Ridge IS	$151,475	X	2	+	$415	X	0	=	$302,950	$367,200
Orchard View IS	$153,300	X	2	+	$420	X	0	=	$306,600	$372,100
Hedgesville HS	$346,750	X	2	+	$950	X	0	=	$693,500	$1,242,250
Martinsburg HS	$438,000	X	2	+	$1,200	X	0	=	$876,000	$1,427,250
James Rumsey Vo-Tech	$447,125	X	2	+	$1,225	X	0	=	$894,250	$1,470,250
Pikeside Pre-Vocational	$337,625	X	2	+	$925	X	0	=	$675,250	$845,250
Ramer Center	$109,500	X	2	+	$300	X	0	=	$219,000	$235,250
WV State Police	$164,250	X	0	+	$450	X	0	=	$0	$0
Berkeley Co. Sheriff's Dept.	$401,500	X	0	+	$1,100	X	0	=	$0	$0
Martinsburg Police Dept.	$346,750	X	0	+	$950	X	0	=	$0	$0
Back Creek Valley FD	$41,975	X	0	+	$115	X	0	=	$0	$0
Baker Heights VFD	$49,275	X	0	+	$135	X	0	=	$0	$0

Bedington VFD	$41,975	X	0	+	$115	X	0	=	$0	$0
Hedgesville VFD	$54,750	X	0	+	$150	X	0	=	$0	$0
Martinsburg FD	$912,500	X	0	+	$2,500	X	0	=	$0	$0
South Berkeley VFD	$49,275	X	0	+	$135	X	0	=	$0	$0
Veterans Affairs Med Ctr FD	$1,277,500	X	0	+	$3,500	X	0	=	$0	$0
WV Air Natl. Guard FD	$1,277,500	X	0	+	$3,500	X	0	=	$0	$0
Veterans Affairs Medical Center	$31,536,000	X	0	+	$86,400	X	0	=	$0	$0
Shenandoah Health Services	$584,000	X	0	+	$1,600	X	0	=	$0	$0
Martinsburg City Hospital	$28,470,000	X	0	+	$78,000	X	0	=	$0	$0
Naylor Memorial Library	$63,875	X	0	+	$175	X	0	=	$0	$0
Martinsburg-Berkeley Co. Public Library	$127,750	X	0	+	$350	X	0	=	$0	$0
Berkeley County Courthouse	$164,250	X	0	+	$450	X	0	=	$0	$112,500
Martinsburg City Hall	$200,750	X	2	+	$550	X	0	=	$401,500	$454,300
RESA VIII	$45,625	X	0	+	$125	X	0	=	$0	$0
Martinsburg Water Works	$118,625	X	0	+	$325	X	0	=	$0	$0
Martinsburg WWTP	$118,625	X	0	+	$325	X	0	=	$0	$0
Bekeley County Animal Control	$45,625	X	0	+	$125	X	0	=	$0	$0
Capitol Cement	$122,275	X	0	+	$3,350	X	0	=	$0	$0
Martinsburg City Garage	$164,250	X	0	+	$450	X	0	=	$0	$0
Martinsburg Train Station	$173,375	X	0	+	$475	X	0	=	$0	$0
Berkeley Co OHSEM	$140,525	X	0	+	$385	X	0	=	$0	$0
Berkeley Co. Senior Center	$49,275	X	0	+	$135	X	0	=	$0	$0
Berkeley Co. Central Dispatch	$127,750	X	0	+	$350	X	0	=	$0	$0
Bekeley County Health Dept.	$136,875	X	0	+	$375	X	0	=	$0	$0
Morgan Cabin Museum	$27,375	X	0	+	$75	X	0	=	$0	$0
Eastern WV Regional Airport	$2,737,500	X	2	+	$7,500	X	0	=	$5,475,000	$5,475,000
Martinsburg PO (24504)	$136,875	X	0	+	$375	X	0	=	$0	$0
Martinsburg PO (24501)	$228,125	X	0	+	$625	X	0	=	$0	$0
Hedgesville PO	$67,525	X	0	+	$185	X	0	=	$0	$0
Inwood PO	$60,225	X	0	+	$165	X	0	=	$0	$0

Bunker Hill PO	$36,500	X	0	+	$100	X	0	=	$0	$0
Gerrardstown PO	$38,325	X	0	+	$105	X	0	=	$0	$0
Pleasant View ES	$140,525	X	2	+	$385	X	0	=	$281,050	$319,550
									$19,184,400	**$24,000,800**

Hazard: Wildfires (BerkeleyCounty)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Back Creek ES	$1,400,000	X	1%	=	$14,000	$635,000	X	0%	=	$0
Bedington ES	$1,475,000	X	1%	=	$14,750	$625,000	X	0%	=	$0
Berkeley Heights ES	$1,625,000	X	1%	=	$16,250	$640,000	X	0%	=	$0
Bunker Hill ES	$1,425,000	X	1%	=	$14,250	$635,000	X	0%	=	$0
Burke Street ES	$1,750,000	X	1%	=	$17,500	$600,000	X	0%	=	$0
Gerrardstown ES	$1,325,000	X	1%	=	$13,250	$615,000	X	0%	=	$0
Hedgesville ES	$1,700,000	X	1%	=	$17,000	$650,000	X	0%	=	$0
Inwood ES	$2,700,000	X	1%	=	$27,000	$1,250,000	X	0%	=	$0
Marlowe ES	$1,215,000	X	1%	=	$12,150	$575,000	X	0%	=	$0
Opequon ES	$1,235,000	X	1%	=	$12,350	$600,000	X	0%	=	$0
Rosemont ES	$1,245,000	X	1%	=	$12,450	$600,000	X	0%	=	$0
Tomahawk ES	$1,345,000	X	1%	=	$13,450	$610,000	X	0%	=	$0
Tuscarora ES	$1,275,000	X	1%	=	$12,750	$605,000	X	0%	=	$0
Valley View ES	$1,235,000	X	1%	=	$12,350	$600,000	X	0%	=	$0
Winchester Ave. ES	$1,435,000	X	1%	=	$14,350	$615,000	X	0%	=	$0
Hedgesville MS	$9,325,000	X	1%	=	$93,250	$1,250,000	X	0%	=	$0
Martinsburg North MS	$14,325,000	X	1%	=	$143,250	$3,400,000	X	0%	=	$0
Martinsburg South MS	$14,325,000	X	1%	=	$143,250	$3,400,000	X	0%	=	$0
Mussleman MS	$12,425,000	X	1%	=	$124,250	$3,235,000	X	0%	=	$0
Mussleman HS	$19,425,000	X	1%	=	$194,250	$7,235,000	X	0%	=	$0
Spring Hills MS	$3,000,000	X	1%	=	$30,000	$850,000	X	0%	=	$0
Eagle School IS	$3,400,000	X	1%	=	$34,000	$735,000	X	0%	=	$0
Mill Creek IS	$3,250,000	X	1%	=	$32,500	$700,000	X	0%	=	$0
Potomac IS	$3,350,000	X	1%	=	$33,500	$710,000	X	0%	=	$0
Mountain Ridge IS	$3,000,000	X	1%	=	$30,000	$685,000	X	0%	=	$0
Orchard View IS	$3,125,000	X	1%	=	$31,250	$685,000	X	0%	=	$0
Hedgesville HS	$18,125,000	X	0%	=	$0	$7,350,000	X	0%	=	$0
Martinsburg HS	$17,625,000	X	0%	=	$0	$7,500,000	X	0%	=	$0
James Rumsey Vo-Tech	$11,425,000	X	1%	=	$114,250	$9,235,000	X	0%	=	$0
Pikeside Pre-Vocational	$3,250,000	X	1%	=	$32,500	$2,750,000	X	0%	=	$0
Ramer Center	$750,000	X	0%	=	$0	$175,000	X	0%	=	$0
WV State Police	$235,000	X	0%	=	$0	$85,000	X	0%	=	$0
Berkeley Co. Sheriff's Dept.	$185,000	X	0%	=	$0	$60,000	X	0%	=	$0
Martinsburg Police Dept.	$205,000	X	0%	=	$0	$63,000	X	0%	=	$0
Back Creek Valley FD	$250,000	X	1%	=	$2,500	$985,000	X	0%	=	$0
Baker Heights VFD	$725,000	X	1%	=	$7,250	$1,150,000	X	0%	=	$0
Bedington VFD	$325,000	X	1%	=	$3,250	$965,000	X	0%	=	$0
Hedgesville VFD	$1,250,000	X	0%	=	$0	$1,750,000	X	0%	=	$0
Martinsburg FD	$2,500,000	X	0%	=	$0	$4,750,000	X	0%	=	$0
South Berkeley VFD	$750,000	X	0%	=	$0	$1,225,000	X	0%	=	$0
Veterans Affairs Med Ctr FD	$2,250,000	X	0%	=	$0	$3,125,000	X	0%	=	$0

WV Air Natl. Guard FD	$2,500,000	X	0%	=	$0	$4,250,000	X	0%	=	$0
Veterans Affairs Medical Center	$150,000,000	X	0%	=	$0	$65,000,000	X	0%	=	$0
Shenandoah Health Services	$185,000	X	1%	=	$1,850	$65,000	X	0%	=	$0
Martinsburg City Hospital	$245,000,000	X	0%	=	$0	$125,000,000	X	0%	=	$0
Naylor Memorial Library	$115,000	X	1%	=	$1,150	$875,000	X	0%	=	$0
Martinsburg-Berkeley Co. Public Library	$625,000	X	0%	=	$0	$3,250,000	X	0%	=	$0
Berkeley County Courthouse	$3,250,000	X	0%	=	$0	$475,000	X	0%	=	$0
Martinsburg City Hall	$1,115,000	X	0%	=	$0	$305,000	X	0%	=	$0
RESA VIII	$255,000	X	0%	=	$0	$35,000	X	0%	=	$0
Martinsburg Water Works	$200,000	X	1%	=	$2,000	$33,000,000	X	0%	=	$0
Martinsburg WWTP	$225,000	X	1%	=	$2,250	$25,000,000	X	0%	=	$0
Bekeley County Animal Control	$125,000	X	1%	=	$1,250	$15,000	X	0%	=	$0
Capitol Cement	$13,750,000	X	0%	=	$0	$75,000,000	X	0%	=	$0
Martinsburg City Garage	$250,000	X	0%	=	$0	$325,000	X	0%	=	$0
Martinsburg Train Station	$3,250,000	X	1%	=	$32,500	$65,000	X	0%	=	$0
Berkeley Co OHSEM	$75,000	X	0%	=	$0	$35,000	X	0%	=	$0
Berkeley Co. Senior Center	$145,000	X	1%	=	$1,450	$53,000	X	0%	=	$0
Berkeley Co. Central Dispatch	$1,250,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Bekeley County Health Dept.	$125,000	X	1%	=	$1,250	$25,000	X	0%	=	$0
Morgan Cabin Museum	$1,785,000	X	1%	=	$17,850	$325,000	X	0%	=	$0
Eastern WV Regional Airport	$875,000,000	X	1%	=	$8,750,000	$125,000,000	X	0%	=	$0
Martinsburg PO (24504)	$165,000	X	0%	=	$0	$25,000	X	0%	=	$0
Martinsburg PO (24501)	$225,000	X	0%	=	$0	$37,000	X	0%	=	$0
Hedgesville PO	$125,000	X	1%	=	$1,250	$21,000	X	0%	=	$0
Inwood PO	$135,000	X	1%	=	$1,350	$20,000	X	0%	=	$0
Bunker Hill PO	$85,000	X	1%	=	$850	$12,000	X	0%	=	$0
Gerrardstown PO	$75,000	X	1%	=	$750	$12,400	X	0%	=	$0
Pleasant View ES	$1,225,000	X	1%	=	$12,250	$525,000	X	0%	=	$0
					$10,101,100					$0

Hazard: Wildfires (Berkeley County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Back Creek ES	$109,500	X	1	+	$300	X	0	=	$109,500	$123,500
Bedington ES	$113,150	X	1	+	$310	X	0	=	$113,150	$127,900
Berkeley Heights ES	$138,700	X	1	+	$380	X	0	=	$138,700	$154,950
Bunker Hill ES	$129,575	X	1	+	$355	X	0	=	$129,575	$143,825
Burke Street ES	$131,400	X	1	+	$360	X	0	=	$131,400	$148,900
Gerrardstown ES	$138,700	X	1	+	$380	X	0	=	$138,700	$151,950
Hedgesville ES	$447,125	X	1	+	$1,225	X	0	=	$447,125	$464,125
Inwood ES	$173,375	X	1	+	$475	X	0	=	$173,375	$200,375
Marlowe ES	$114,975	X	1	+	$315	X	0	=	$114,975	$127,125
Opequon ES	$113,150	X	1	+	$310	X	0	=	$113,150	$125,500
Rosemont ES	$113,150	X	1	+	$310	X	0	=	$113,150	$125,600
Tomahawk ES	$116,800	X	1	+	$320	X	0	=	$116,800	$130,250
Tuscarora ES	$122,275	X	1	+	$335	X	0	=	$122,275	$135,025
Valley View ES	$118,625	X	1	+	$325	X	0	=	$118,625	$130,975
Winchester Ave. ES	$164,250	X	0	+	$450	X	0	=	$0	$14,350
Hedgesville MS	$237,250	X	1	+	$650	X	0	=	$237,250	$330,500
Martinsburg North MS	$273,750	X	1	+	$750	X	0	=	$273,750	$417,000
Martinsburg South MS	$273,750	X	1	+	$750	X	0	=	$273,750	$417,000
Mussleman MS	$456,250	X	1	+	$1,250	X	0	=	$456,250	$580,500
Mussleman HS	$401,500	X	1	+	$1,100	X	0	=	$401,500	$595,750
Spring Hills MS	$173,375	X	1	+	$475	X	0	=	$173,375	$203,375
Eagle School IS	$155,125	X	1	+	$425	X	0	=	$155,125	$189,125
Mill Creek IS	$155,125	X	1	+	$425	X	0	=	$155,125	$187,625
Potomac IS	$158,775	X	1	+	$435	X	0	=	$158,775	$192,275
Mountain Ridge IS	$151,475	X	1	+	$415	X	0	=	$151,475	$181,475
Orchard View IS	$153,300	X	1	+	$420	X	0	=	$153,300	$184,550
Hedgesville HS	$346,750	X	1	+	$950	X	0	=	$346,750	$346,750
Martinsburg HS	$438,000	X	0	+	$1,200	X	0	=	$0	$0
James Rumsey Vo-Tech	$447,125	X	1	+	$1,225	X	0	=	$447,125	$561,375
Pikeside Pre-Vocational	$337,625	X	1	+	$925	X	0	=	$337,625	$370,125
Ramer Center	$109,500	X	1	+	$300	X	0	=	$109,500	$109,500
WV State Police	$164,250	X	0	+	$450	X	0	=	$0	$0
Berkeley Co. Sheriff's Dept.	$401,500	X	0	+	$1,100	X	0	=	$0	$0
Martinsburg Police Dept.	$346,750	X	0	+	$950	X	0	=	$0	$0
Back Creek Valley FD	$41,975	X	0	+	$115	X	0	=	$0	$2,500
Baker Heights VFD	$49,275	X	0	+	$135	X	0	=	$0	$7,250

Bedington VFD	$41,975	X	0	+	$115	X	0	=	$0	$3,250
Hedgesville VFD	$54,750	X	0	+	$150	X	0	=	$0	$0
Martinsburg FD	$912,500	X	0	+	$2,500	X	0	=	$0	$0
South Berkeley VFD	$49,275	X	0	+	$135	X	0	=	$0	$0
Veterans Affairs Med Ctr FD	$1,277,500	X	0	+	$3,500	X	0	=	$0	$0
WV Air Natl. Guard FD	$1,277,500	X	0	+	$3,500	X	0	=	$0	$0
Veterans Affairs Medical Center	$31,536,000	X	0	+	$86,400	X	0	=	$0	$0
Shenandoah Health Services	$584,000	X	0	+	$1,600	X	0	=	$0	$1,850
Martinsburg City Hospital	$28,470,000	X	0	+	$78,000	X	0	=	$0	$0
Naylor Memorial Library	$63,875	X	0	+	$175	X	0	=	$0	$1,150
Martinsburg-Berkeley Co. Public Library	$127,750	X	0	+	$350	X	0	=	$0	$0
Berkeley County Courthouse	$164,250	X	0	+	$450	X	0	=	$0	$0
Martinsburg City Hall	$200,750	X	0	+	$550	X	0	=	$0	$0
RESA VIII	$45,625	X	0	+	$125	X	0	=	$0	$0
Martinsburg Water Works	$118,625	X	0	+	$325	X	0	=	$0	$2,000
Martinsburg WWTP	$118,625	X	0	+	$325	X	0	=	$0	$2,250
Bekeley County Animal Control	$45,625	X	0	+	$125	X	0	=	$0	$1,250
Capitol Cement	$122,275	X	0	+	$3,350	X	0	=	$0	$0
Martinsburg City Garage	$164,250	X	0	+	$450	X	0	=	$0	$0
Martinsburg Train Station	$173,375	X	0	+	$475	X	0	=	$0	$32,500
Berkeley Co OHSEM	$140,525	X	0	+	$385	X	0	=	$0	$0
Berkeley Co. Senior Center	$49,275	X	0	+	$135	X	0	=	$0	$1,450
Berkeley Co. Central Dispatch	$127,750	X	0	+	$350	X	0	=	$0	$0
Bekeley County Health Dept.	$136,875	X	0	+	$375	X	0	=	$0	$1,250
Morgan Cabin Museum	$27,375	X	1	+	$75	X	0	=	$27,375	$45,225
Eastern WV Regional Airport	$2,737,500	X	0	+	$7,500	X	0	=	$0	$8,750,000
Martinsburg PO (24504)	$136,875	X	0	+	$375	X	0	=	$0	$0
Martinsburg PO (24501)	$228,125	X	0	+	$625	X	0	=	$0	$0
Hedgesville PO	$67,525	X	0	+	$185	X	0	=	$0	$1,250
Inwood PO	$60,225	X	0	+	$165	X	0	=	$0	$1,350

Bunker Hill PO	$36,500	X	0	+	$100	X	0	=	$0	$850
Gerrardstown PO	$38,325	X	0	+	$105	X	0	=	$0	$750
Pleasant View ES	$140,525	X	1	+	$385	X	0	=	$140,525	$152,775
									$6,079,075	**$16,180,175**

MORGAN COUNTY

Hazard: Dam Failure

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	7,068	700	10	$1,181,062,800	$118,106,280	10	17,541	1,754	10
Commercial	247	100	40	$61,750,000	$24,700,000	40	882	353	40
Industrial	16	2	13	$32,000,000	$4,160,000	13	179	23	13
Agricultural	212	50	24	$392,412,000	$94,178,880	24	519	125	24
Religious/Non-Profit	33	10	30	$4,950,000	$1,485,000	30	1,650	495	30
Government	13	5	38	$6,045,000	$2,297,100	38	879	334	38
Education	9	3	33	$69,500,000	$22,935,000	33	2,754	909	33
Utilities	11	5	45	$24,486,000	$11,018,700	45	244	110	45
Total	7,609	875	11	$1,772,205,800	$278,880,960	16	24,648	4,102	17

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Drought

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	7,068	0	0	$1,181,062,800	$0	0	17,541	0	0
Commercial	247	0	0	$61,750,000	$0	0	882	0	0
Industrial	16	0	0	$32,000,000	$0	0	179	0	0
Agricultural	212	212	100	$392,412,000	$0	0	519	519	100
Religious/Non-Profit	33	0	0	$4,950,000	$0	0	1,650	0	0
Government	13	0	0	$6,045,000	$0	0	879	0	0
Education	9	0	0	$69,500,000	$0	0	2,754	0	0
Utilities	11	11	100	$24,486,000	$0	0	244	244	100
Total	7,609	223	3	$1,772,205,800	$0	0	24,648	763	3

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Earthquake

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	7,068	7,068	100	$1,181,062,800	$0	0	17,541	17,541	100
Commercial	247	247	100	$61,750,000	$0	0	882	882	100
Industrial	16	16	100	$32,000,000	$0	0	179	179	100
Agricultural	212	212	100	$392,412,000	$0	0	519	519	100
Religious/Non-Profit	33	33	100	$4,950,000	$0	0	1,650	1,650	100
Government	13	13	100	$6,045,000	$0	0	879	879	100
Education	9	9	100	$69,500,000	$0	0	2,754	2,754	100
Utilities	11	11	100	$24,486,000	$0	0	244	244	100
Total	7,609	7,609	100	$1,772,205,800	$0	0	24,648	24,648	100

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Epidemic

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	7,068	0	0	$1,181,062,800	$0	0	17,541	17,541	100
Commercial	247	0	0	$61,750,000	$0	0	882	882	100
Industrial	16	0	0	$32,000,000	$0	0	179	179	100
Agricultural	212	0	0	$392,412,000	$0	0	519	519	100
Religious/Non-Profit	33	0	0	$4,950,000	$0	0	1,650	1,650	100
Government	13	0	0	$6,045,000	$0	0	879	879	100
Education	9	0	0	$69,500,000	$0	0	2,754	2,754	100
Utilities	11	0	0	$24,486,000	$0	0	244	244	100
Total	7,609	0	0	$1,772,205,800	$0	0	24,648	24,648	100

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Flooding

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	7,068	800	11	$1,181,062,800	$129,916,908	11	17,541	1,930	11
Commercial	247	10	4	$61,750,000	$2,470,000	4	882	35	4
Industrial	16	0	0	$32,000,000	$0	0	179	0	0
Agricultural	212	150	71	$392,412,000	$278,612,520	71	519	368	71
Religious/Non-Profit	33	12	36	$4,950,000	$1,782,000	36	1,650	594	36
Government	13	0	0	$6,045,000	$0	0	879	0	0
Education	9	0	0	$69,500,000	$0	0	2,754	0	0
Utilities	11	11	100	$24,486,000	$24,486,000	100	244	244	100
Total	7,609	983	13	$1,772,205,800	$437,267,428	25	24,648	3,171	13

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Hailstorm

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	7,068	7,068	100	$1,181,062,800	$118,106	0.01%	17,541	17,541	100
Commercial	247	247	100	$61,750,000	$6,175	0.01%	882	882	100
Industrial	16	16	100	$32,000,000	$3,200	0.01%	179	179	100
Agricultural	212	212	100	$392,412,000	$39,241	0.01%	519	519	100
Religious/Non-Profit	33	33	100	$4,950,000	$495	0.01%	1,650	1,650	100
Government	13	13	100	$6,045,000	$605	0.01%	879	879	100
Education	9	9	100	$69,500,000	$6,950	0.01%	2,754	2,754	100
Utilities	11	11	100	$24,486,000	$2,449	0.01%	244	244	100
Total	7,609	7,609	100	$1,772,205,800	$177,221	0	24,648	24,648	100

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Hazardous Materials

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	7,068	283	4	$1,181,062,800	$47,242,512	4	17,541	702	4
Commercial	247	10	4	$61,750,000	$2,470,000	4	882	35	4
Industrial	16	13	81	$32,000,000	$25,920,000	81	179	145	81
Agricultural	212	75	35	$392,412,000	$137,344,200	35	519	182	35
Religious/Non-Profit	33	1	4	$4,950,000	$198,000	4	1,650	66	4
Government	13	1	4	$6,045,000	$241,800	4	879	35	4
Education	9	2	22	$69,500,000	$15,290,000	22	2,754	606	22
Utilities	11	11	100	$24,486,000	$24,486,000	100	244	244	100
Total	7,609	395	5	$1,772,205,800	$253,192,512	14	24,648	2,015	8

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Infestation

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	7,068	0	0	$1,181,062,800	$0	0	17,541	0	0
Commercial	247	0	0	$61,750,000	$0	0	882	0	0
Industrial	16	0	0	$32,000,000	$0	0	179	0	0
Agricultural	212	212	100	$392,412,000	$0	0	519	0	0
Religious/Non-Profit	33	0	0	$4,950,000	$0	0	1,650	0	0
Government	13	0	0	$6,045,000	$0	0	879	0	0
Education	9	0	0	$69,500,000	$0	0	2,754	0	0
Utilities	11	0	0	$24,486,000	$0	0	244	0	0
Total	7,609	212	3	$1,772,205,800	$0	0	24,648	0	0

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Land Subsidence

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	7,068	5,000	71	$1,181,062,800	$838,554,588	71	17,541	12,454	71
Commercial	247	150	61	$61,750,000	$37,667,500	61	882	538	61
Industrial	16	10	63	$32,000,000	$20,160,000	63	179	113	63
Agricultural	212	175	83	$392,412,000	$325,701,960	83	519	431	83
Religious/Non-Profit	33	25	76	$4,950,000	$3,762,000	76	1,650	1,254	76
Government	13	10	77	$6,045,000	$4,654,650	77	879	677	77
Education	9	7	78	$69,500,000	$54,210,000	78	2,754	2,148	78
Utilities	11	8	73	$24,486,000	$17,874,780	73	244	178	73
Total	7,609	5,385	71	$1,772,205,800	$1,302,585,478	74	24,648	17,793	72

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Terrorism

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	7,068	1,000	14	$1,181,062,800	$165,348,792	14	17,541	2,456	14
Commercial	247	50	20	$61,750,000	$12,350,000	20	882	176	20
Industrial	16	10	63	$32,000,000	$20,160,000	63	179	113	63
Agricultural	212	0	0	$392,412,000	$0	0	519	0	0
Religious/Non-Profit	33	10	30	$4,950,000	$1,485,000	30	1,650	495	30
Government	13	13	100	$6,045,000	$6,045,000	100	879	879	100
Education	9	4	44	$69,500,000	$30,580,000	44	2,754	1,212	44
Utilities	11	5	45	$24,486,000	$11,018,700	45	244	110	45
Total	7,609	1,092	14	$1,772,205,800	$246,987,492	14	24,648	5,440	22

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Thunderstorm

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	7,068	7,068	100	$1,181,062,800	$11,810,628	1%	17,541	17,541	100
Commercial	247	247	100	$61,750,000	$617,500	1%	882	882	100
Industrial	16	16	100	$32,000,000	$320,000	1%	179	179	100
Agricultural	212	212	100	$392,412,000	$3,924,120	1%	519	519	100
Religious/Non-Profit	33	33	100	$4,950,000	$49,500	1%	1,650	1,650	100
Government	13	13	100	$6,045,000	$60,450	1%	879	879	100
Education	9	9	100	$69,500,000	$695,000	1%	2,754	2,754	100
Utilities	11	11	100	$24,486,000	$244,860	1%	244	244	100
Total	7,609	7,609	100	$1,772,205,800	$17,722,058	1	24,648	24,648	100

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Wildfire

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	7,068	6,429	91	$1,181,062,800	$1,074,767,148	91	17,541	16,409	94
Commercial	247	100	40	$61,750,000	$24,700,000	40	882	353	40
Industrial	16	2	13	$32,000,000	$4,160,000	13	179	23	13
Agricultural	212	200	94	$392,412,000	$368,867,280	94	519	488	94
Religious/Non-Profit	33	16	48	$4,950,000	$2,376,000	48	1,650	792	48
Government	13	0	0	$6,045,000	$0	0	879	0	0
Education	9	0	0	$69,500,000	$0	0	2,754	0	0
Utilities	11	5	45	$24,486,000	$11,018,700	45	244	110	45
Total	7,609	6,752	89	$1,772,205,800	$1,485,889,128	84	24,648	18,175	74

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Wind

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	7,068	7,068	100	$1,181,062,800	$17,715,942	2%	17,541	17,541	100
Commercial	247	247	100	$61,750,000	$926,250	2%	882	882	100
Industrial	16	16	100	$32,000,000	$480,000	2%	179	179	100
Agricultural	212	212	100	$392,412,000	$5,886,180	2%	519	519	100
Religious/Non-Profit	33	33	100	$4,950,000	$74,250	2%	1,650	1,650	100
Government	13	13	100	$6,045,000	$90,675	2%	879	879	100
Education	9	9	100	$69,500,000	$1,042,500	2%	2,754	2,754	100
Utilities	11	11	100	$24,486,000	$367,290	2%	244	244	100
Total	7,609	7,609	100	$1,772,205,800	$26,583,087	2	24,648	24,648	100

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Winter Storm

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	$ in Community	$ in Hazard Area	% in Hazard Area	# in Community	# in Hazard Area	% in Hazard Area
Residential	7,068	7,068	100	$1,181,062,800	$20,668,599	2%	17,541	17,541	100
Commercial	247	247	100	$61,750,000	$1,080,625	2%	882	882	100
Industrial	16	16	100	$32,000,000	$560,000	2%	179	179	100
Agricultural	212	212	100	$392,412,000	$6,867,210	2%	519	519	100
Religious/Non-Profit	33	33	100	$4,950,000	$86,625	2%	1,650	1,650	100
Government	13	13	100	$6,045,000	$105,788	2%	879	879	100
Education	9	9	100	$69,500,000	$1,216,250	2%	2,754	2,754	100
Utilities	11	11	100	$24,486,000	$428,505	2%	244	244	100
Total	7,609	7,609	100	$1,772,205,800	$31,013,602	2	24,648	24,648	100

	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 of historic, environmental, political, or cultural significance 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?		X

Hazard: Dam Failure (Morgan County)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Berkeley springs VFD	$465,000	X	0%	=	$0	$850,000	X	0%	=	$0
Warm Springs MS	$1,750,000	X	0%	=	$0	$725,000	X	0%	=	$0
Warm Springs PSD WWTP	$325,000	X	0%	=	$0	$16,325,000	X	0%	=	$0
Warm Springs PSD WWTP	$275,000	X	0%	=	$0	$14,250,000	X	0%	=	$0
Widmeyer ES	$1,125,000	X	0%	=	$0	$325,000	X	0%	=	$0
WVDOH	$425,000	X	0%	=	$0	$2,150,000	X	0%	=	$0
WV State Police	$125,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Springs WTP	$125,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Great Cacapon VFD	$150,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Greenwood ES	$1,150,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan Co. Emergency Comm. Ctr.	$125,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan County Courthouse	$2,250,000	X	0%	=	$0	$175,000	X	0%	=	$0
Morgan Co. EOC	$225,000	X	0%	=	$0	$75,000	X	0%	=	$0
Morgan Co. Sheriff's Dept.	$125,000	X	0%	=	$0	$85,000	X	0%	=	$0
Morgan Co. Rescue	$165,000	X	0%	=	$0	$575,000	X	0%	=	$0
Morgan Co. Magistrates Ofc.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Co. BOE	$125,000	X	0%	=	$0	$35,000	X	0%	=	$0
Paw Paw ES	$985,000	X	0%	=	$0	$275,000	X	0%	=	$0
Paw Paw PSD WWTP	$275,000	X	0%	=	$0	$14,235,000	X	0%	=	$0
Paw Paw Police Dept.	$65,000	X	0%	=	$0	$17,500	X	0%	=	$0
Paw Paw HS	$3,500,000	X	0%	=	$0	$650,000	X	0%	=	$0
Paw Paw VFD	$185,000	X	0%	=	$0	$985,000	X	0%	=	$0
Paw Paw Water Works WTP	$135,000	X	0%	=	$0	$16,250,000	X	0%	=	$0
Paw Paw Water Works Pump Station	$35,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
South Morgan Co. VFD	$325,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Town of Bath Municipal Ofc.	$65,000	X	0%	=	$0	$14,250	X	0%	=	$0
Town of Paw Paw Municipal Ofc.	$45,000	X	0%	=	$0	$9,000	X	0%	=	$0
Berkeley Springs PO	$115,000	X	0%	=	$0	$18,000	X	0%	=	$0
Great Cacapon PO	$75,000	X	0%	=	$0	$12,000	X	0%	=	$0

Paw Paw PO	$77,000	X	0%	=	$0	$11,625	X	0%	=	$0
War Memorial Hospital	$30,000,000	X	0%	=	$0	$18,000,000	X	0%	=	$0
					$0					$0

Hazard: Drought (Morgan County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Berkeley springs VFD	$164,250	X	0	+	$450	X	0	=	$0	$0
Warm Springs MS	$173,375	X	0	+	$475	X	0	=	$0	$0
Warm Springs PSD WWTP	$85,775	X	0	+	$235	X	0	=	$0	$0
Warm Springs PSD WWTP	$82,125	X	0	+	$225	X	0	=	$0	$0
Widmeyer ES	$116,800	X	0	+	$320	X	0	=	$0	$0
WVDOH	$164,250	X	0	+	$450	X	0	=	$0	$0
WV State Police	$118,625	X	0	+	$325	X	0	=	$0	$0
Berkeley Springs WTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon VFD	$45,625	X	0	+	$125	X	0	=	$0	$0
Greenwood ES	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Emergency Comm. Ctr.	$173,375	X	0	+	$475	X	0	=	$0	$0
Morgan County Courthouse	$91,250	X	0	+	$250	X	0	=	$0	$0
Morgan Co. EOC	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Sheriff's Dept.	$282,875	X	0	+	$775	X	0	=	$0	$0
Morgan Co. Rescue	$273,750	X	0	+	$750	X	0	=	$0	$0
Morgan Co. Magistrates Ofc.	$67,525	X	0	+	$185	X	0	=	$0	$0
Morgan Co. BOE	$118,625	X	0	+	$325	X	0	=	$0	$0
Paw Paw ES	$125,925	X	0	+	$345	X	0	=	$0	$0
Paw Paw PSD WWTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Paw Paw Police Dept.	$146,000	X	0	+	$400	X	0	=	$0	$0
Paw Paw HS	$151,475	X	0	+	$415	X	0	=	$0	$0
Paw Paw VFD	$60,225	X	0	+	$165	X	0	=	$0	$0
Paw Paw Water Works WTP	$45,625	X	0	+	$125	X	0	=	$0	$0
Paw Paw Water Works Pump Station	$36,500	X	0	+	$100	X	0	=	$0	$0
South Morgan Co. VFD	$149,650	X	0	+	$410	X	0	=	$0	$0
Town of Bath Municipal Ofc.	$133,225	X	0	+	$365	X	0	=	$0	$0
Town of Paw Paw Municipal Ofc.	$76,650	X	0	+	$210	X	0	=	$0	$0
Berkeley Springs PO	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon PO	$49,275	X	0	+	$135	X	0	=	$0	$0
Paw Paw PO	$41,975	X	0	+	$115	X	0	=	$0	$0

War Memorial Hospital	$1,642,500	X	0	+	$4,500	X	0	=	$0
									$0

$0
$0

Hazard: Drought (Morgan County)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Berkeley springs VFD	$465,000	X	0%	=	$0	$850,000	X	0%	=	$0
Warm Springs MS	$1,750,000	X	0%	=	$0	$725,000	X	0%	=	$0
Warm Springs PSD WWTP	$325,000	X	0%	=	$0	$16,325,000	X	0%	=	$0
Warm Springs PSD WWTP	$275,000	X	0%	=	$0	$14,250,000	X	0%	=	$0
Widmeyer ES	$1,125,000	X	0%	=	$0	$325,000	X	0%	=	$0
WVDOH	$425,000	X	0%	=	$0	$2,150,000	X	0%	=	$0
WV State Police	$125,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Springs WTP	$125,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Great Cacapon VFD	$150,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Greenwood ES	$1,150,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan Co. Emergency Comm. Ctr.	$125,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan County Courthouse	$2,250,000	X	0%	=	$0	$175,000	X	0%	=	$0
Morgan Co. EOC	$225,000	X	0%	=	$0	$75,000	X	0%	=	$0
Morgan Co. Sheriff's Dept.	$125,000	X	0%	=	$0	$85,000	X	0%	=	$0
Morgan Co. Rescue	$165,000	X	0%	=	$0	$575,000	X	0%	=	$0
Morgan Co. Magistrates Ofc.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Co. BOE	$125,000	X	0%	=	$0	$35,000	X	0%	=	$0
Paw Paw ES	$985,000	X	0%	=	$0	$275,000	X	0%	=	$0
Paw Paw PSD WWTP	$275,000	X	0%	=	$0	$14,235,000	X	0%	=	$0
Paw Paw Police Dept.	$65,000	X	0%	=	$0	$17,500	X	0%	=	$0
Paw Paw HS	$3,500,000	X	0%	=	$0	$650,000	X	0%	=	$0
Paw Paw VFD	$185,000	X	0%	=	$0	$985,000	X	0%	=	$0
Paw Paw Water Works WTP	$135,000	X	0%	=	$0	$16,250,000	X	0%	=	$0
Paw Paw Water Works Pump Station	$35,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
South Morgan Co. VFD	$325,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Town of Bath Municipal Ofc.	$65,000	X	0%	=	$0	$14,250	X	0%	=	$0
Town of Paw Paw Municipal Ofc.	$45,000	X	0%	=	$0	$9,000	X	0%	=	$0
Berkeley Springs PO	$115,000	X	0%	=	$0	$18,000	X	0%	=	$0
Great Cacapon PO	$75,000	X	0%	=	$0	$12,000	X	0%	=	$0

Paw Paw PO	$77,000	X	0%	=	$0	$11,625	X	0%	=	$0
War Memorial Hospital	$30,000,000	X	0%	=	$0	$18,000,000	X	0%	=	$0
					$0					$0

Hazard: Drought (Morgan County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Berkeley springs VFD	$164,250	X	0	+	$450	X	0	=	$0	$0
Warm Springs MS	$173,375	X	0	+	$475	X	0	=	$0	$0
Warm Springs PSD WWTP	$85,775	X	0	+	$235	X	0	=	$0	$0
Warm Springs PSD WWTP	$82,125	X	0	+	$225	X	0	=	$0	$0
Widmeyer ES	$116,800	X	0	+	$320	X	0	=	$0	$0
WVDOH	$164,250	X	0	+	$450	X	0	=	$0	$0
WV State Police	$118,625	X	0	+	$325	X	0	=	$0	$0
Berkeley Springs WTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon VFD	$45,625	X	0	+	$125	X	0	=	$0	$0
Greenwood ES	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Emergency Comm. Ctr.	$173,375	X	0	+	$475	X	0	=	$0	$0
Morgan County Courthouse	$91,250	X	0	+	$250	X	0	=	$0	$0
Morgan Co. EOC	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Sheriff's Dept.	$282,875	X	0	+	$775	X	0	=	$0	$0
Morgan Co. Rescue	$273,750	X	0	+	$750	X	0	=	$0	$0
Morgan Co. Magistrates Ofc.	$67,525	X	0	+	$185	X	0	=	$0	$0
Morgan Co. BOE	$118,625	X	0	+	$325	X	0	=	$0	$0
Paw Paw ES	$125,925	X	0	+	$345	X	0	=	$0	$0
Paw Paw PSD WWTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Paw Paw Police Dept.	$146,000	X	0	+	$400	X	0	=	$0	$0
Paw Paw HS	$151,475	X	0	+	$415	X	0	=	$0	$0
Paw Paw VFD	$60,225	X	0	+	$165	X	0	=	$0	$0
Paw Paw Water Works WTP	$45,625	X	0	+	$125	X	0	=	$0	$0
Paw Paw Water Works Pump Station	$36,500	X	0	+	$100	X	0	=	$0	$0
South Morgan Co. VFD	$149,650	X	0	+	$410	X	0	=	$0	$0
Town of Bath Municipal Ofc.	$133,225	X	0	+	$365	X	0	=	$0	$0
Town of Paw Paw Municipal Ofc.	$76,650	X	0	+	$210	X	0	=	$0	$0
Berkeley Springs PO	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon PO	$49,275	X	0	+	$135	X	0	=	$0	$0
Paw Paw PO	$41,975	X	0	+	$115	X	0	=	$0	$0

War Memorial Hospital	$1,642,500	X	0	+	$4,500	X	0	=	$0
									$0

$0
$0

Hazard: Drought (Morgan County)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Berkeley springs VFD	$465,000	X	0%	=	$0	$850,000	X	0%	=	$0
Warm Springs MS	$1,750,000	X	0%	=	$0	$725,000	X	0%	=	$0
Warm Springs PSD WWTP	$325,000	X	0%	=	$0	$16,325,000	X	0%	=	$0
Warm Springs PSD WWTP	$275,000	X	0%	=	$0	$14,250,000	X	0%	=	$0
Widmeyer ES	$1,125,000	X	0%	=	$0	$325,000	X	0%	=	$0
WVDOH	$425,000	X	0%	=	$0	$2,150,000	X	0%	=	$0
WV State Police	$125,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Springs WTP	$125,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Great Cacapon VFD	$150,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Greenwood ES	$1,150,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan Co. Emergency Comm. Ctr.	$125,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan County Courthouse	$2,250,000	X	0%	=	$0	$175,000	X	0%	=	$0
Morgan Co. EOC	$225,000	X	0%	=	$0	$75,000	X	0%	=	$0
Morgan Co. Sheriff's Dept.	$125,000	X	0%	=	$0	$85,000	X	0%	=	$0
Morgan Co. Rescue	$165,000	X	0%	=	$0	$575,000	X	0%	=	$0
Morgan Co. Magistrates Ofc.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Co. BOE	$125,000	X	0%	=	$0	$35,000	X	0%	=	$0
Paw Paw ES	$985,000	X	0%	=	$0	$275,000	X	0%	=	$0
Paw Paw PSD WWTP	$275,000	X	0%	=	$0	$14,235,000	X	0%	=	$0
Paw Paw Police Dept.	$65,000	X	0%	=	$0	$17,500	X	0%	=	$0
Paw Paw HS	$3,500,000	X	0%	=	$0	$650,000	X	0%	=	$0
Paw Paw VFD	$185,000	X	0%	=	$0	$985,000	X	0%	=	$0
Paw Paw Water Works WTP	$135,000	X	0%	=	$0	$16,250,000	X	0%	=	$0
Paw Paw Water Works Pump Station	$35,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
South Morgan Co. VFD	$325,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Town of Bath Municipal Ofc.	$65,000	X	0%	=	$0	$14,250	X	0%	=	$0
Town of Paw Paw Municipal Ofc.	$45,000	X	0%	=	$0	$9,000	X	0%	=	$0
Berkeley Springs PO	$115,000	X	0%	=	$0	$18,000	X	0%	=	$0
Great Cacapon PO	$75,000	X	0%	=	$0	$12,000	X	0%	=	$0

Paw Paw PO	$77,000	X	0%	=	$0	$11,625	X	0%	=	$0
War Memorial Hospital	$30,000,000	X	0%	=	$0	$18,000,000	X	0%	=	$0
					$0					$0

Hazard: Earthquake (Morgan County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Berkeley springs VFD	$164,250	X	0	+	$450	X	0	=	$0	$0
Warm Springs MS	$173,375	X	0	+	$475	X	0	=	$0	$0
Warm Springs PSD WWTP	$85,775	X	0	+	$235	X	0	=	$0	$0
Warm Springs PSD WWTP	$82,125	X	0	+	$225	X	0	=	$0	$0
Widmeyer ES	$116,800	X	0	+	$320	X	0	=	$0	$0
WVDOH	$164,250	X	0	+	$450	X	0	=	$0	$0
WV State Police	$118,625	X	0	+	$325	X	0	=	$0	$0
Berkeley Springs WTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon VFD	$45,625	X	0	+	$125	X	0	=	$0	$0
Greenwood ES	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Emergency Comm. Ctr.	$173,375	X	0	+	$475	X	0	=	$0	$0
Morgan County Courthouse	$91,250	X	0	+	$250	X	0	=	$0	$0
Morgan Co. EOC	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Sheriff's Dept.	$282,875	X	0	+	$775	X	0	=	$0	$0
Morgan Co. Rescue	$273,750	X	0	+	$750	X	0	=	$0	$0
Morgan Co. Magistrates Ofc.	$67,525	X	0	+	$185	X	0	=	$0	$0
Morgan Co. BOE	$118,625	X	0	+	$325	X	0	=	$0	$0
Paw Paw ES	$125,925	X	0	+	$345	X	0	=	$0	$0
Paw Paw PSD WWTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Paw Paw Police Dept.	$146,000	X	0	+	$400	X	0	=	$0	$0
Paw Paw HS	$151,475	X	0	+	$415	X	0	=	$0	$0
Paw Paw VFD	$60,225	X	0	+	$165	X	0	=	$0	$0
Paw Paw Water Works WTP	$45,625	X	0	+	$125	X	0	=	$0	$0
Paw Paw Water Works Pump Station	$36,500	X	0	+	$100	X	0	=	$0	$0
South Morgan Co. VFD	$149,650	X	0	+	$410	X	0	=	$0	$0
Town of Bath Municipal Ofc.	$133,225	X	0	+	$365	X	0	=	$0	$0
Town of Paw Paw Municipal Ofc.	$76,650	X	0	+	$210	X	0	=	$0	$0
Berkeley Springs PO	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon PO	$49,275	X	0	+	$135	X	0	=	$0	$0
Paw Paw PO	$41,975	X	0	+	$115	X	0	=	$0	$0

War Memorial Hospital	$1,642,500	X	0	+	$4,500	X	0	=	$0
									$0

$0
$0

Hazard:Epidemic (Morgan County)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Berkeley springs VFD	$465,000	X	0%	=	$0	$850,000	X	0%	=	$0
Warm Springs MS	$1,750,000	X	0%	=	$0	$725,000	X	0%	=	$0
Warm Springs PSD WWTP	$325,000	X	0%	=	$0	$16,325,000	X	0%	=	$0
Warm Springs PSD WWTP	$275,000	X	0%	=	$0	$14,250,000	X	0%	=	$0
Widmeyer ES	$1,125,000	X	0%	=	$0	$325,000	X	0%	=	$0
WVDOH	$425,000	X	0%	=	$0	$2,150,000	X	0%	=	$0
WV State Police	$125,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Springs WTP	$125,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Great Cacapon VFD	$150,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Greenwood ES	$1,150,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan Co. Emergency Comm. Ctr.	$125,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan County Courthouse	$2,250,000	X	0%	=	$0	$175,000	X	0%	=	$0
Morgan Co. EOC	$225,000	X	0%	=	$0	$75,000	X	0%	=	$0
Morgan Co. Sheriff's Dept.	$125,000	X	0%	=	$0	$85,000	X	0%	=	$0
Morgan Co. Rescue	$165,000	X	0%	=	$0	$575,000	X	0%	=	$0
Morgan Co. Magistrates Ofc.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Co. BOE	$125,000	X	0%	=	$0	$35,000	X	0%	=	$0
Paw Paw ES	$985,000	X	0%	=	$0	$275,000	X	0%	=	$0
Paw Paw PSD WWTP	$275,000	X	0%	=	$0	$14,235,000	X	0%	=	$0
Paw Paw Police Dept.	$65,000	X	0%	=	$0	$17,500	X	0%	=	$0
Paw Paw HS	$3,500,000	X	0%	=	$0	$650,000	X	0%	=	$0
Paw Paw VFD	$185,000	X	0%	=	$0	$985,000	X	0%	=	$0
Paw Paw Water Works WTP	$135,000	X	0%	=	$0	$16,250,000	X	0%	=	$0
Paw Paw Water Works Pump Station	$35,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
South Morgan Co. VFD	$325,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Town of Bath Municipal Ofc.	$65,000	X	0%	=	$0	$14,250	X	0%	=	$0
Town of Paw Paw Municipal Ofc.	$45,000	X	0%	=	$0	$9,000	X	0%	=	$0
Berkeley Springs PO	$115,000	X	0%	=	$0	$18,000	X	0%	=	$0
Great Cacapon PO	$75,000	X	0%	=	$0	$12,000	X	0%	=	$0

Paw Paw PO	$77,000	X	0%	=	$0	$11,625	X	0%	=	$0
War Memorial Hospital	$30,000,000	X	0%	=	$0	$18,000,000	X	0%	=	$0
					$0					$0

Hazard: Epidemic (Morgan County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Berkeley springs VFD	$164,250	X	0	+	$450	X	0	=	$0	$0
Warm Springs MS	$173,375	X	3	+	$475	X	0	=	$520,125	$520,125
Warm Springs PSD WWTP	$85,775	X	0	+	$235	X	0	=	$0	$0
Warm Springs PSD WWTP	$82,125	X	0	+	$225	X	0	=	$0	$0
Widmeyer ES	$116,800	X	3	+	$320	X	0	=	$350,400	$350,400
WVDOH	$164,250	X	0	+	$450	X	0	=	$0	$0
WV State Police	$118,625	X	0	+	$325	X	0	=	$0	$0
Berkeley Springs WTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon VFD	$45,625	X	0	+	$125	X	0	=	$0	$0
Greenwood ES	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Emergency Comm. Ctr.	$173,375	X	0	+	$475	X	0	=	$0	$0
Morgan County Courthouse	$91,250	X	0	+	$250	X	0	=	$0	$0
Morgan Co. EOC	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Sheriff's Dept.	$282,875	X	0	+	$775	X	0	=	$0	$0
Morgan Co. Rescue	$273,750	X	0	+	$750	X	0	=	$0	$0
Morgan Co. Magistrates Ofc.	$67,525	X	0	+	$185	X	0	=	$0	$0
Morgan Co. BOE	$118,625	X	0	+	$325	X	0	=	$0	$0
Paw Paw ES	$125,925	X	3	+	$345	X	0	=	$377,775	$377,775
Paw Paw PSD WWTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Paw Paw Police Dept.	$146,000	X	0	+	$400	X	0	=	$0	$0
Paw Paw HS	$151,475	X	3	+	$415	X	0	=	$454,425	$454,425
Paw Paw VFD	$60,225	X	0	+	$165	X	0	=	$0	$0
Paw Paw Water Works WTP	$45,625	X	0	+	$125	X	0	=	$0	$0
Paw Paw Water Works Pump Station	$36,500	X	0	+	$100	X	0	=	$0	$0
South Morgan Co. VFD	$149,650	X	0	+	$410	X	0	=	$0	$0
Town of Bath Municipal Ofc.	$133,225	X	0	+	$365	X	0	=	$0	$0
Town of Paw Paw Municipal Ofc.	$76,650	X	0	+	$210	X	0	=	$0	$0
Berkeley Springs PO	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon PO	$49,275	X	0	+	$135	X	0	=	$0	$0
Paw Paw PO	$41,975	X	0	+	$115	X	0	=	$0	$0

War Memorial Hospital	$1,642,500	X	0	+	$4,500	X	0	=	$0
									$1,702,725

$0
$1,702,725

Hazard: Flooding (Morgan County)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Berkeley springs VFD	$465,000	X	0%	=	$0	$850,000	X	0%	=	$0
Warm Springs MS	$1,750,000	X	0%	=	$0	$725,000	X	0%	=	$0
Warm Springs PSD WWTP	$325,000	X	0%	=	$0	$16,325,000	X	0%	=	$0
Warm Springs PSD WWTP	$275,000	X	0%	=	$0	$14,250,000	X	0%	=	$0
Widmeyer ES	$1,125,000	X	0%	=	$0	$325,000	X	0%	=	$0
WVDOH	$425,000	X	0%	=	$0	$2,150,000	X	0%	=	$0
WV State Police	$125,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Springs WTP	$125,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Great Cacapon VFD	$150,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Greenwood ES	$1,150,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan Co. Emergency Comm. Ctr.	$125,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan County Courthouse	$2,250,000	X	0%	=	$0	$175,000	X	0%	=	$0
Morgan Co. EOC	$225,000	X	0%	=	$0	$75,000	X	0%	=	$0
Morgan Co. Sheriff's Dept.	$125,000	X	0%	=	$0	$85,000	X	0%	=	$0
Morgan Co. Rescue	$165,000	X	0%	=	$0	$575,000	X	0%	=	$0
Morgan Co. Magistrates Ofc.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Co. BOE	$125,000	X	0%	=	$0	$35,000	X	0%	=	$0
Paw Paw ES	$985,000	X	0%	=	$0	$275,000	X	0%	=	$0
Paw Paw PSD WWTP	$275,000	X	0%	=	$0	$14,235,000	X	0%	=	$0
Paw Paw Police Dept.	$65,000	X	0%	=	$0	$17,500	X	0%	=	$0
Paw Paw HS	$3,500,000	X	0%	=	$0	$650,000	X	0%	=	$0
Paw Paw VFD	$185,000	X	0%	=	$0	$985,000	X	0%	=	$0
Paw Paw Water Works WTP	$135,000	X	2%	=	$2,700	$16,250,000	X	5%	=	$812,500
Paw Paw Water Works Pump Station	$35,000	X	10%	=	$3,500	$1,250,000	X	30%	=	$375,000
South Morgan Co. VFD	$325,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Town of Bath Municipal Ofc.	$65,000	X	0%	=	$0	$14,250	X	0%	=	$0
Town of Paw Paw Municipal Ofc.	$45,000	X	0%	=	$0	$9,000	X	0%	=	$0
Berkeley Springs PO	$115,000	X	0%	=	$0	$18,000	X	0%	=	$0
Great Cacapon PO	$75,000	X	0%	=	$0	$12,000	X	0%	=	$0

Paw Paw PO	$77,000	X	0%	=	$0	$11,625	X	0%	=	$0
War Memorial Hospital	$30,000,000	X	0%	=	$0	$18,000,000	X	0%	=	$0
					$6,200					$1,187,500

Hazard: Flooding (Morgan County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Berkeley springs VFD	$164,250	X	0	+	$450	X	0	=	$0	$0
Warm Springs MS	$173,375	X	2	+	$475	X	7	=	$350,075	$350,075
Warm Springs PSD WWTP	$85,775	X	0	+	$235	X	0	=	$0	$0
Warm Springs PSD WWTP	$82,125	X	0	+	$225	X	0	=	$0	$0
Widmeyer ES	$116,800	X	2	+	$320	X	7	=	$235,840	$235,840
WVDOH	$164,250	X	0	+	$450	X	0	=	$0	$0
WV State Police	$118,625	X	0	+	$325	X	0	=	$0	$0
Berkeley Springs WTP	$67,525	X	1	+	$185	X	0	=	$67,525	$67,525
Great Cacapon VFD	$45,625	X	0	+	$125	X	0	=	$0	$0
Greenwood ES	$118,625	X	2	+	$325	X	7	=	$239,525	$239,525
Morgan Co. Emergency Comm. Ctr.	$173,375	X	0	+	$475	X	0	=	$0	$0
Morgan County Courthouse	$91,250	X	0	+	$250	X	0	=	$0	$0
Morgan Co. EOC	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Sheriff's Dept.	$282,875	X	0	+	$775	X	0	=	$0	$0
Morgan Co. Rescue	$273,750	X	0	+	$750	X	0	=	$0	$0
Morgan Co. Magistrates Ofc.	$67,525	X	0	+	$185	X	0	=	$0	$0
Morgan Co. BOE	$118,625	X	0	+	$325	X	0	=	$0	$0
Paw Paw ES	$125,925	X	2	+	$345	X	7	=	$254,265	$254,265
Paw Paw PSD WWTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Paw Paw Police Dept.	$146,000	X	0	+	$400	X	0	=	$0	$0
Paw Paw HS	$151,475	X	2	+	$415	X	7	=	$305,855	$305,855
Paw Paw VFD	$60,225	X	0	+	$165	X	0	=	$0	$0
Paw Paw Water Works WTP	$45,625	X	1	+	$125	X	0	=	$45,625	$860,825
Paw Paw Water Works Pump Station	$36,500	X	1	+	$100	X	0	=	$36,500	$415,000
South Morgan Co. VFD	$149,650	X	0	+	$410	X	0	=	$0	$0
Town of Bath Municipal Ofc.	$133,225	X	0	+	$365	X	0	=	$0	$0
Town of Paw Paw Municipal Ofc.	$76,650	X	0	+	$210	X	0	=	$0	$0
Berkeley Springs PO	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon PO	$49,275	X	0	+	$135	X	0	=	$0	$0
Paw Paw PO	$41,975	X	0	+	$115	X	0	=	$0	$0

War Memorial Hospital	$1,642,500	X	0	+	$4,500	X	0	=	$0	$0
									$1,535,210	**$2,728,910**

Hazard: Hailstorm (Morgan County)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Berkeley springs VFD	$465,000	X	0.25%	=	$1,163	$850,000	X	0%	=	$0
Warm Springs MS	$1,750,000	X	0.25%	=	$4,375	$725,000	X	0%	=	$0
Warm Springs PSD WWTP	$325,000	X	0.25%	=	$813	$16,325,000	X	0%	=	$0
Warm Springs PSD WWTP	$275,000	X	0.25%	=	$688	$14,250,000	X	0%	=	$0
Widmeyer ES	$1,125,000	X	0.25%	=	$2,813	$325,000	X	0%	=	$0
WVDOH	$425,000	X	0.25%	=	$1,063	$2,150,000	X	0%	=	$0
WV State Police	$125,000	X	0.25%	=	$313	$65,000	X	0%	=	$0
Berkeley Springs WTP	$125,000	X	0.25%	=	$313	$2,250,000	X	0%	=	$0
Great Cacapon VFD	$150,000	X	0.25%	=	$375	$1,250,000	X	0%	=	$0
Greenwood ES	$1,150,000	X	0.25%	=	$2,875	$300,000	X	0%	=	$0
Morgan Co. Emergency Comm. Ctr.	$125,000	X	0.25%	=	$313	$300,000	X	0%	=	$0
Morgan County Courthouse	$2,250,000	X	0.25%	=	$5,625	$175,000	X	0%	=	$0
Morgan Co. EOC	$225,000	X	0.25%	=	$563	$75,000	X	0%	=	$0
Morgan Co. Sheriff's Dept.	$125,000	X	0.25%	=	$313	$85,000	X	0%	=	$0
Morgan Co. Rescue	$165,000	X	0.25%	=	$413	$575,000	X	0%	=	$0
Morgan Co. Magistrates Ofc.	$125,000	X	0.25%	=	$313	$25,000	X	0%	=	$0
Morgan Co. BOE	$125,000	X	0.25%	=	$313	$35,000	X	0%	=	$0
Paw Paw ES	$985,000	X	0.25%	=	$2,463	$275,000	X	0%	=	$0
Paw Paw PSD WWTP	$275,000	X	0.25%	=	$688	$14,235,000	X	0%	=	$0
Paw Paw Police Dept.	$65,000	X	0.25%	=	$163	$17,500	X	0%	=	$0
Paw Paw HS	$3,500,000	X	0.25%	=	$8,750	$650,000	X	0%	=	$0
Paw Paw VFD	$185,000	X	0.25%	=	$463	$985,000	X	0%	=	$0
Paw Paw Water Works WTP	$135,000	X	0.25%	=	$338	$16,250,000	X	0%	=	$0
Paw Paw Water Works Pump Station	$35,000	X	0.25%	=	$88	$1,250,000	X	0%	=	$0
South Morgan Co. VFD	$325,000	X	0.25%	=	$813	$1,150,000	X	0%	=	$0
Town of Bath Municipal Ofc.	$65,000	X	0.25%	=	$163	$14,250	X	0%	=	$0
Town of Paw Paw Municipal Ofc.	$45,000	X	0.25%	=	$113	$9,000	X	0%	=	$0
Berkeley Springs PO	$115,000	X	0.25%	=	$288	$18,000	X	0%	=	$0
Great Cacapon PO	$75,000	X	0.25%	=	$188	$12,000	X	0%	=	$0

Paw Paw PO	$77,000	X	0.25%	=	$193	$11,625	X	0%	=	$0
War Memorial Hospital	$30,000,000	X	0.25%	=	$75,000	$18,000,000	X	0%	=	$0
					$112,343					$0

Hazard: Hailstorm (Morgan County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Berkeley springs VFD	$164,250	X	0	+	$450	X	0	=	$0	$1,163
Warm Springs MS	$173,375	X	0	+	$475	X	0	=	$0	$4,375
Warm Springs PSD WWTP	$85,775	X	0	+	$235	X	0	=	$0	$813
Warm Springs PSD WWTP	$82,125	X	0	+	$225	X	0	=	$0	$688
Widmeyer ES	$116,800	X	0	+	$320	X	0	=	$0	$2,813
WVDOH	$164,250	X	0	+	$450	X	0	=	$0	$1,063
WV State Police	$118,625	X	0	+	$325	X	0	=	$0	$313
Berkeley Springs WTP	$67,525	X	0	+	$185	X	0	=	$0	$313
Great Cacapon VFD	$45,625	X	0	+	$125	X	0	=	$0	$375
Greenwood ES	$118,625	X	0	+	$325	X	0	=	$0	$2,875
Morgan Co. Emergency Comm. Ctr.	$173,375	X	0	+	$475	X	0	=	$0	$313
Morgan County Courthouse	$91,250	X	0	+	$250	X	0	=	$0	$5,625
Morgan Co. EOC	$118,625	X	0	+	$325	X	0	=	$0	$563
Morgan Co. Sheriff's Dept.	$282,875	X	0	+	$775	X	0	=	$0	$313
Morgan Co. Rescue	$273,750	X	0	+	$750	X	0	=	$0	$413
Morgan Co. Magistrates Ofc.	$67,525	X	0	+	$185	X	0	=	$0	$313
Morgan Co. BOE	$118,625	X	0	+	$325	X	0	=	$0	$313
Paw Paw ES	$125,925	X	0	+	$345	X	0	=	$0	$2,463
Paw Paw PSD WWTP	$67,525	X	0	+	$185	X	0	=	$0	$688
Paw Paw Police Dept.	$146,000	X	0	+	$400	X	0	=	$0	$163
Paw Paw HS	$151,475	X	0	+	$415	X	0	=	$0	$8,750
Paw Paw VFD	$60,225	X	0	+	$165	X	0	=	$0	$463
Paw Paw Water Works WTP	$45,625	X	0	+	$125	X	0	=	$0	$338
Paw Paw Water Works Pump Station	$36,500	X	0	+	$100	X	0	=	$0	$88
South Morgan Co. VFD	$149,650	X	0	+	$410	X	0	=	$0	$813
Town of Bath Municipal Ofc.	$133,225	X	0	+	$365	X	0	=	$0	$163
Town of Paw Paw Municipal Ofc.	$76,650	X	0	+	$210	X	0	=	$0	$113
Berkeley Springs PO	$67,525	X	0	+	$185	X	0	=	$0	$288
Great Cacapon PO	$49,275	X	0	+	$135	X	0	=	$0	$188
Paw Paw PO	$41,975	X	0	+	$115	X	0	=	$0	$193

War Memorial Hospital	$1,642,500	X	0	+	$4,500	X	0	=	$0	$75,000
									$0	**$112,343**

Hazard: HazMat (Morgan County)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Berkeley springs VFD	$465,000	X	0%	=	$0	$850,000	X	0%	=	$0
Warm Springs MS	$1,750,000	X	0%	=	$0	$725,000	X	0%	=	$0
Warm Springs PSD WWTP	$325,000	X	0%	=	$0	$16,325,000	X	0%	=	$0
Warm Springs PSD WWTP	$275,000	X	0%	=	$0	$14,250,000	X	0%	=	$0
Widmeyer ES	$1,125,000	X	0%	=	$0	$325,000	X	0%	=	$0
WVDOH	$425,000	X	0%	=	$0	$2,150,000	X	0%	=	$0
WV State Police	$125,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Springs WTP	$125,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Great Cacapon VFD	$150,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Greenwood ES	$1,150,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan Co. Emergency Comm. Ctr.	$125,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan County Courthouse	$2,250,000	X	0%	=	$0	$175,000	X	0%	=	$0
Morgan Co. EOC	$225,000	X	0%	=	$0	$75,000	X	0%	=	$0
Morgan Co. Sheriff's Dept.	$125,000	X	0%	=	$0	$85,000	X	0%	=	$0
Morgan Co. Rescue	$165,000	X	0%	=	$0	$575,000	X	0%	=	$0
Morgan Co. Magistrates Ofc.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Co. BOE	$125,000	X	0%	=	$0	$35,000	X	0%	=	$0
Paw Paw ES	$985,000	X	0%	=	$0	$275,000	X	0%	=	$0
Paw Paw PSD WWTP	$275,000	X	0%	=	$0	$14,235,000	X	0%	=	$0
Paw Paw Police Dept.	$65,000	X	0%	=	$0	$17,500	X	0%	=	$0
Paw Paw HS	$3,500,000	X	0%	=	$0	$650,000	X	0%	=	$0
Paw Paw VFD	$185,000	X	0%	=	$0	$985,000	X	0%	=	$0
Paw Paw Water Works WTP	$135,000	X	0%	=	$0	$16,250,000	X	0%	=	$0
Paw Paw Water Works Pump Station	$35,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
South Morgan Co. VFD	$325,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Town of Bath Municipal Ofc.	$65,000	X	0%	=	$0	$14,250	X	0%	=	$0
Town of Paw Paw Municipal Ofc.	$45,000	X	0%	=	$0	$9,000	X	0%	=	$0
Berkeley Springs PO	$115,000	X	0%	=	$0	$18,000	X	0%	=	$0
Great Cacapon PO	$75,000	X	0%	=	$0	$12,000	X	0%	=	$0

Paw Paw PO	$77,000	X	0%	=	$0	$11,625	X	0%	=	$0
War Memorial Hospital	$30,000,000	X	0%	=	$0	$18,000,000	X	0%	=	$0
					$0					$0

Hazard: HazMat (Morgan County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Berkeley springs VFD	$164,250	X	1	+	$450	X	1	=	$164,700	$164,700
Warm Springs MS	$173,375	X	1	+	$475	X	1	=	$173,850	$173,850
Warm Springs PSD WWTP	$85,775	X	1	+	$235	X	1	=	$86,010	$86,010
Warm Springs PSD WWTP	$82,125	X	1	+	$225	X	1	=	$82,350	$82,350
Widmeyer ES	$116,800	X	1	+	$320	X	1	=	$117,120	$117,120
WVDOH	$164,250	X	1	+	$450	X	1	=	$164,700	$164,700
WV State Police	$118,625	X	0	+	$325	X	1	=	$325	$325
Berkeley Springs WTP	$67,525	X	1	+	$185	X	1	=	$67,710	$67,710
Great Cacapon VFD	$45,625	X	1	+	$125	X	1	=	$45,750	$45,750
Greenwood ES	$118,625	X	1	+	$325	X	1	=	$118,950	$118,950
Morgan Co. Emergency Comm. Ctr.	$173,375	X	0	+	$475	X	1	=	$475	$475
Morgan County Courthouse	$91,250	X	1	+	$250	X	1	=	$91,500	$91,500
Morgan Co. EOC	$118,625	X	1	+	$325	X	1	=	$118,950	$118,950
Morgan Co. Sheriff's Dept.	$282,875	X	0	+	$775	X	1	=	$775	$775
Morgan Co. Rescue	$273,750	X	1	+	$750	X	1	=	$274,500	$274,500
Morgan Co. Magistrates Ofc.	$67,525	X	1	+	$185	X	1	=	$67,710	$67,710
Morgan Co. BOE	$118,625	X	1	+	$325	X	1	=	$118,950	$118,950
Paw Paw ES	$125,925	X	1	+	$345	X	1	=	$126,270	$126,270
Paw Paw PSD WWTP	$67,525	X	1	+	$185	X	1	=	$67,710	$67,710
Paw Paw Police Dept.	$146,000	X	1	+	$400	X	1	=	$146,400	$146,400
Paw Paw HS	$151,475	X	1	+	$415	X	1	=	$151,890	$151,890
Paw Paw VFD	$60,225	X	1	+	$165	X	1	=	$60,390	$60,390
Paw Paw Water Works WTP	$45,625	X	1	+	$125	X	1	=	$45,750	$45,750
Paw Paw Water Works Pump Station	$36,500	X	1	+	$100	X	1	=	$36,600	$36,600
South Morgan Co. VFD	$149,650	X	1	+	$410	X	1	=	$150,060	$150,060
Town of Bath Municipal Ofc.	$133,225	X	1	+	$365	X	1	=	$133,590	$133,590
Town of Paw Paw Municipal Ofc.	$76,650	X	1	+	$210	X	1	=	$76,860	$76,860
Berkeley Springs PO	$67,525	X	1	+	$185	X	1	=	$67,710	$67,710
Great Cacapon PO	$49,275	X	1	+	$135	X	1	=	$49,410	$49,410
Paw Paw PO	$41,975	X	1	+	$115	X	1	=	$42,090	$42,090

War Memorial Hospital	$1,642,500	X	1	+	$4,500	X	1	=	$1,647,000
									$4,496,055

$1,647,000
$4,496,055

Hazard: Infestation (Morgan County)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Berkeley springs VFD	$465,000	X	0%	=	$0	$850,000	X	0%	=	$0
Warm Springs MS	$1,750,000	X	0%	=	$0	$725,000	X	0%	=	$0
Warm Springs PSD WWTP	$325,000	X	0%	=	$0	$16,325,000	X	0%	=	$0
Warm Springs PSD WWTP	$275,000	X	0%	=	$0	$14,250,000	X	0%	=	$0
Widmeyer ES	$1,125,000	X	0%	=	$0	$325,000	X	0%	=	$0
WVDOH	$425,000	X	0%	=	$0	$2,150,000	X	0%	=	$0
WV State Police	$125,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Springs WTP	$125,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Great Cacapon VFD	$150,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Greenwood ES	$1,150,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan Co. Emergency Comm. Ctr.	$125,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan County Courthouse	$2,250,000	X	0%	=	$0	$175,000	X	0%	=	$0
Morgan Co. EOC	$225,000	X	0%	=	$0	$75,000	X	0%	=	$0
Morgan Co. Sheriff's Dept.	$125,000	X	0%	=	$0	$85,000	X	0%	=	$0
Morgan Co. Rescue	$165,000	X	0%	=	$0	$575,000	X	0%	=	$0
Morgan Co. Magistrates Ofc.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Co. BOE	$125,000	X	0%	=	$0	$35,000	X	0%	=	$0
Paw Paw ES	$985,000	X	0%	=	$0	$275,000	X	0%	=	$0
Paw Paw PSD WWTP	$275,000	X	0%	=	$0	$14,235,000	X	0%	=	$0
Paw Paw Police Dept.	$65,000	X	0%	=	$0	$17,500	X	0%	=	$0
Paw Paw HS	$3,500,000	X	0%	=	$0	$650,000	X	0%	=	$0
Paw Paw VFD	$185,000	X	0%	=	$0	$985,000	X	0%	=	$0
Paw Paw Water Works WTP	$135,000	X	0%	=	$0	$16,250,000	X	0%	=	$0
Paw Paw Water Works Pump Station	$35,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
South Morgan Co. VFD	$325,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Town of Bath Municipal Ofc.	$65,000	X	0%	=	$0	$14,250	X	0%	=	$0
Town of Paw Paw Municipal Ofc.	$45,000	X	0%	=	$0	$9,000	X	0%	=	$0
Berkeley Springs PO	$115,000	X	0%	=	$0	$18,000	X	0%	=	$0
Great Cacapon PO	$75,000	X	0%	=	$0	$12,000	X	0%	=	$0

Paw Paw PO	$77,000	X	0%	=	$0	$11,625	X	0%	=	$0
War Memorial Hospital	$30,000,000	X	0%	=	$0	$18,000,000	X	0%	=	$0
					$0					$0

Hazard: Infestation (Morgan County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Berkeley springs VFD	$164,250	X	0	+	$450	X	0	=	$0	$0
Warm Springs MS	$173,375	X	0	+	$475	X	0	=	$0	$0
Warm Springs PSD WWTP	$85,775	X	0	+	$235	X	0	=	$0	$0
Warm Springs PSD WWTP	$82,125	X	0	+	$225	X	0	=	$0	$0
Widmeyer ES	$116,800	X	0	+	$320	X	0	=	$0	$0
WVDOH	$164,250	X	0	+	$450	X	0	=	$0	$0
WV State Police	$118,625	X	0	+	$325	X	0	=	$0	$0
Berkeley Springs WTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon VFD	$45,625	X	0	+	$125	X	0	=	$0	$0
Greenwood ES	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Emergency Comm. Ctr.	$173,375	X	0	+	$475	X	0	=	$0	$0
Morgan County Courthouse	$91,250	X	0	+	$250	X	0	=	$0	$0
Morgan Co. EOC	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Sheriff's Dept.	$282,875	X	0	+	$775	X	0	=	$0	$0
Morgan Co. Rescue	$273,750	X	0	+	$750	X	0	=	$0	$0
Morgan Co. Magistrates Ofc.	$67,525	X	0	+	$185	X	0	=	$0	$0
Morgan Co. BOE	$118,625	X	0	+	$325	X	0	=	$0	$0
Paw Paw ES	$125,925	X	0	+	$345	X	0	=	$0	$0
Paw Paw PSD WWTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Paw Paw Police Dept.	$146,000	X	0	+	$400	X	0	=	$0	$0
Paw Paw HS	$151,475	X	0	+	$415	X	0	=	$0	$0
Paw Paw VFD	$60,225	X	0	+	$165	X	0	=	$0	$0
Paw Paw Water Works WTP	$45,625	X	0	+	$125	X	0	=	$0	$0
Paw Paw Water Works Pump Station	$36,500	X	0	+	$100	X	0	=	$0	$0
South Morgan Co. VFD	$149,650	X	0	+	$410	X	0	=	$0	$0
Town of Bath Municipal Ofc.	$133,225	X	0	+	$365	X	0	=	$0	$0
Town of Paw Paw Municipal Ofc.	$76,650	X	0	+	$210	X	0	=	$0	$0
Berkeley Springs PO	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon PO	$49,275	X	0	+	$135	X	0	=	$0	$0
Paw Paw PO	$41,975	X	0	+	$115	X	0	=	$0	$0

War Memorial Hospital	$1,642,500	X	0	+	$4,500	X	0	=	$0
									$0

$0
$0

Hazard: Land Subsidence (Morgan County)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Berkeley springs VFD	$465,000	X	3%	=	$13,950	$850,000	X	0%	=	$0
Warm Springs MS	$1,750,000	X	3%	=	$52,500	$725,000	X	0%	=	$0
Warm Springs PSD WWTP	$325,000	X	3%	=	$9,750	$16,325,000	X	0%	=	$0
Warm Springs PSD WWTP	$275,000	X	3%	=	$8,250	$14,250,000	X	0%	=	$0
Widmeyer ES	$1,125,000	X	3%	=	$33,750	$325,000	X	0%	=	$0
WVDOH	$425,000	X	3%	=	$12,750	$2,150,000	X	0%	=	$0
WV State Police	$125,000	X	3%	=	$3,750	$65,000	X	0%	=	$0
Berkeley Springs WTP	$125,000	X	3%	=	$3,750	$2,250,000	X	0%	=	$0
Great Cacapon VFD	$150,000	X	3%	=	$4,500	$1,250,000	X	0%	=	$0
Greenwood ES	$1,150,000	X	3%	=	$34,500	$300,000	X	0%	=	$0
Morgan Co. Emergency Comm. Ctr.	$125,000	X	3%	=	$3,750	$300,000	X	0%	=	$0
Morgan County Courthouse	$2,250,000	X	3%	=	$67,500	$175,000	X	0%	=	$0
Morgan Co. EOC	$225,000	X	3%	=	$6,750	$75,000	X	0%	=	$0
Morgan Co. Sheriff's Dept.	$125,000	X	3%	=	$3,750	$85,000	X	0%	=	$0
Morgan Co. Rescue	$165,000	X	3%	=	$4,950	$575,000	X	0%	=	$0
Morgan Co. Magistrates Ofc.	$125,000	X	3%	=	$3,750	$25,000	X	0%	=	$0
Morgan Co. BOE	$125,000	X	3%	=	$3,750	$35,000	X	0%	=	$0
Paw Paw ES	$985,000	X	3%	=	$29,550	$275,000	X	0%	=	$0
Paw Paw PSD WWTP	$275,000	X	3%	=	$8,250	$14,235,000	X	0%	=	$0
Paw Paw Police Dept.	$65,000	X	3%	=	$1,950	$17,500	X	0%	=	$0
Paw Paw HS	$3,500,000	X	3%	=	$105,000	$650,000	X	0%	=	$0
Paw Paw VFD	$185,000	X	3%	=	$5,550	$985,000	X	0%	=	$0
Paw Paw Water Works WTP	$135,000	X	3%	=	$4,050	$16,250,000	X	0%	=	$0
Paw Paw Water Works Pump Station	$35,000	X	3%	=	$1,050	$1,250,000	X	0%	=	$0
South Morgan Co. VFD	$325,000	X	3%	=	$9,750	$1,150,000	X	0%	=	$0
Town of Bath Municipal Ofc.	$65,000	X	3%	=	$1,950	$14,250	X	0%	=	$0
Town of Paw Paw Municipal Ofc.	$45,000	X	3%	=	$1,350	$9,000	X	0%	=	$0
Berkeley Springs PO	$115,000	X	3%	=	$3,450	$18,000	X	0%	=	$0
Great Cacapon PO	$75,000	X	3%	=	$2,250	$12,000	X	0%	=	$0

Paw Paw PO	$77,000	X	3%	=	$2,310	$11,625	X	0%	=	$0
War Memorial Hospital	$30,000,000	X	3%	=	$900,000	$18,000,000	X	0%	=	$0
					$1,348,110					$0

Hazard: Land Subsidence (Morgan County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	Structure + Contents + Function Loss
Berkeley springs VFD	$164,250	X	3	+	$450	X	1	=	$492,975	$506,925
Warm Springs MS	$173,375	X	3	+	$475	X	1	=	$520,363	$572,863
Warm Springs PSD WWTP	$85,775	X	3	+	$235	X	1	=	$257,443	$267,193
Warm Springs PSD WWTP	$82,125	X	3	+	$225	X	1	=	$246,488	$254,738
Widmeyer ES	$116,800	X	3	+	$320	X	1	=	$350,560	$384,310
WVDOH	$164,250	X	3	+	$450	X	1	=	$492,975	$505,725
WV State Police	$118,625	X	3	+	$325	X	1	=	$356,038	$359,788
Berkeley Springs WTP	$67,525	X	3	+	$185	X	1	=	$202,668	$206,418
Great Cacapon VFD	$45,625	X	3	+	$125	X	1	=	$136,938	$141,438
Greenwood ES	$118,625	X	3	+	$325	X	1	=	$356,038	$390,538
Morgan Co. Emergency Comm. Ctr.	$173,375	X	3	+	$475	X	1	=	$520,363	$524,113
Morgan County Courthouse	$91,250	X	3	+	$250	X	1	=	$273,875	$341,375
Morgan Co. EOC	$118,625	X	3	+	$325	X	1	=	$356,038	$362,788
Morgan Co. Sheriff's Dept.	$282,875	X	3	+	$775	X	1	=	$849,013	$852,763
Morgan Co. Rescue	$273,750	X	3	+	$750	X	1	=	$821,625	$826,575
Morgan Co. Magistrates Ofc.	$67,525	X	3	+	$185	X	1	=	$202,668	$206,418
Morgan Co. BOE	$118,625	X	3	+	$325	X	1	=	$356,038	$359,788
Paw Paw ES	$125,925	X	3	+	$345	X	1	=	$377,948	$407,498
Paw Paw PSD WWTP	$67,525	X	3	+	$185	X	1	=	$202,668	$210,918
Paw Paw Police Dept.	$146,000	X	3	+	$400	X	1	=	$438,200	$440,150
Paw Paw HS	$151,475	X	3	+	$415	X	1	=	$454,633	$559,633
Paw Paw VFD	$60,225	X	3	+	$165	X	1	=	$180,758	$186,308
Paw Paw Water Works WTP	$45,625	X	3	+	$125	X	1	=	$136,938	$140,988
Paw Paw Water Works Pump Station	$36,500	X	3	+	$100	X	1	=	$109,550	$110,600
South Morgan Co. VFD	$149,650	X	3	+	$410	X	1	=	$449,155	$458,905
Town of Bath Municipal Ofc.	$133,225	X	3	+	$365	X	1	=	$399,858	$401,808
Town of Paw Paw Municipal Ofc.	$76,650	X	3	+	$210	X	1	=	$230,055	$231,405
Berkeley Springs PO	$67,525	X	3	+	$185	X	1	=	$202,668	$206,118
Great Cacapon PO	$49,275	X	3	+	$135	X	1	=	$147,893	$150,143
Paw Paw PO	$41,975	X	3	+	$115	X	1	=	$125,983	$128,293

War Memorial Hospital	$1,642,500	X	3	+	$4,500	X	1	=	$4,929,750
									$15,178,153

$5,829,750
$16,526,263

Hazard: Severe Thunderstorm (Morgan County)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Berkeley springs VFD	$465,000	X	0.01%	=	$47	$850,000	X	0%	=	$0
Warm Springs MS	$1,750,000	X	0.01%	=	$175	$725,000	X	0%	=	$0
Warm Springs PSD WWTP	$325,000	X	0.01%	=	$33	$16,325,000	X	0%	=	$0
Warm Springs PSD WWTP	$275,000	X	0.01%	=	$28	$14,250,000	X	0%	=	$0
Widmeyer ES	$1,125,000	X	0.01%	=	$113	$325,000	X	0%	=	$0
WVDOH	$425,000	X	0.01%	=	$43	$2,150,000	X	0%	=	$0
WV State Police	$125,000	X	0.01%	=	$13	$65,000	X	0%	=	$0
Berkeley Springs WTP	$125,000	X	0.01%	=	$13	$2,250,000	X	0%	=	$0
Great Cacapon VFD	$150,000	X	0.01%	=	$15	$1,250,000	X	0%	=	$0
Greenwood ES	$1,150,000	X	0.01%	=	$115	$300,000	X	0%	=	$0
Morgan Co. Emergency Comm. Ctr.	$125,000	X	0.01%	=	$13	$300,000	X	0%	=	$0
Morgan County Courthouse	$2,250,000	X	0.01%	=	$225	$175,000	X	0%	=	$0
Morgan Co. EOC	$225,000	X	0.01%	=	$23	$75,000	X	0%	=	$0
Morgan Co. Sheriff's Dept.	$125,000	X	0.01%	=	$13	$85,000	X	0%	=	$0
Morgan Co. Rescue	$165,000	X	0.01%	=	$17	$575,000	X	0%	=	$0
Morgan Co. Magistrates Ofc.	$125,000	X	0.01%	=	$13	$25,000	X	0%	=	$0
Morgan Co. BOE	$125,000	X	0.01%	=	$13	$35,000	X	0%	=	$0
Paw Paw ES	$985,000	X	0.01%	=	$99	$275,000	X	0%	=	$0
Paw Paw PSD WWTP	$275,000	X	0.01%	=	$28	$14,235,000	X	0%	=	$0
Paw Paw Police Dept.	$65,000	X	0.01%	=	$7	$17,500	X	0%	=	$0
Paw Paw HS	$3,500,000	X	0.01%	=	$350	$650,000	X	0%	=	$0
Paw Paw VFD	$185,000	X	0.01%	=	$19	$985,000	X	0%	=	$0
Paw Paw Water Works WTP	$135,000	X	0.01%	=	$14	$16,250,000	X	0%	=	$0
Paw Paw Water Works Pump Station	$35,000	X	0.01%	=	$4	$1,250,000	X	0%	=	$0
South Morgan Co. VFD	$325,000	X	0.01%	=	$33	$1,150,000	X	0%	=	$0
Town of Bath Municipal Ofc.	$65,000	X	0.01%	=	$7	$14,250	X	0%	=	$0
Town of Paw Paw Municipal Ofc.	$45,000	X	0.01%	=	$5	$9,000	X	0%	=	$0
Berkeley Springs PO	$115,000	X	0.01%	=	$12	$18,000	X	0%	=	$0
Great Cacapon PO	$75,000	X	0.01%	=	$8	$12,000	X	0%	=	$0
Paw Paw PO	$77,000	X	0.01%	=	$8	$11,625	X	0%	=	$0

War Memorial Hospital	$30,000,000	X	0.01%	=	$3,000	$18,000,000	X	0%	=	$0
					$4,494					$0

Hazard: Severe Thunderstorm (Morgan County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Berkeley springs VFD	$164,250	X	0	+	$450	X	0	=	$0	$47
Warm Springs MS	$173,375	X	0	+	$475	X	0	=	$0	$0
Warm Springs PSD WWTP	$85,775	X	0	+	$235	X	0	=	$0	$0
Warm Springs PSD WWTP	$82,125	X	0	+	$225	X	0	=	$0	$0
Widmeyer ES	$116,800	X	0	+	$320	X	0	=	$0	$0
WVDOH	$164,250	X	0	+	$450	X	0	=	$0	$0
WV State Police	$118,625	X	0	+	$325	X	0	=	$0	$0
Berkeley Springs WTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon VFD	$45,625	X	0	+	$125	X	0	=	$0	$0
Greenwood ES	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Emergency Comm. Ctr.	$173,375	X	0.01	+	$475	X	0	=	$1,734	$1,734
Morgan County Courthouse	$91,250	X	0	+	$250	X	0	=	$0	$0
Morgan Co. EOC	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Sheriff's Dept.	$282,875	X	0	+	$775	X	0	=	$0	$0
Morgan Co. Rescue	$273,750	X	0	+	$750	X	0	=	$0	$0
Morgan Co. Magistrates Ofc.	$67,525	X	0	+	$185	X	0	=	$0	$0
Morgan Co. BOE	$118,625	X	0	+	$325	X	0	=	$0	$0
Paw Paw ES	$125,925	X	0	+	$345	X	0	=	$0	$0
Paw Paw PSD WWTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Paw Paw Police Dept.	$146,000	X	0	+	$400	X	0	=	$0	$0
Paw Paw HS	$151,475	X	0	+	$415	X	0	=	$0	$0
Paw Paw VFD	$60,225	X	0	+	$165	X	0	=	$0	$0
Paw Paw Water Works WTP	$45,625	X	0	+	$125	X	0	=	$0	$0
Paw Paw Water Works Pump Station	$36,500	X	0	+	$100	X	0	=	$0	$0
South Morgan Co. VFD	$149,650	X	0	+	$410	X	0	=	$0	$0
Town of Bath Municipal Ofc.	$133,225	X	0	+	$365	X	0	=	$0	$0
Town of Paw Paw Municipal Ofc.	$76,650	X	0	+	$210	X	0	=	$0	$0
Berkeley Springs PO	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon PO	$49,275	X	0	+	$135	X	0	=	$0	$0
Paw Paw PO	$41,975	X	0	+	$115	X	0	=	$0	$0

War Memorial Hospital	$1,642,500	X	0	+	$4,500	X	0	=	$0	$0
									$1,734	**$1,780**

Hazard: Severe Wind (Morgan County)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Berkeley springs VFD	$465,000	X	0%	=	$0	$850,000	X	0%	=	$0
Warm Springs MS	$1,750,000	X	0%	=	$0	$725,000	X	0%	=	$0
Warm Springs PSD WWTP	$325,000	X	0%	=	$0	$16,325,000	X	0%	=	$0
Warm Springs PSD WWTP	$275,000	X	0%	=	$0	$14,250,000	X	0%	=	$0
Widmeyer ES	$1,125,000	X	0%	=	$0	$325,000	X	0%	=	$0
WVDOH	$425,000	X	0%	=	$0	$2,150,000	X	0%	=	$0
WV State Police	$125,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Springs WTP	$125,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Great Cacapon VFD	$150,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Greenwood ES	$1,150,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan Co. Emergency Comm. Ctr.	$125,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan County Courthouse	$2,250,000	X	0%	=	$0	$175,000	X	0%	=	$0
Morgan Co. EOC	$225,000	X	0%	=	$0	$75,000	X	0%	=	$0
Morgan Co. Sheriff's Dept.	$125,000	X	0%	=	$0	$85,000	X	0%	=	$0
Morgan Co. Rescue	$165,000	X	0%	=	$0	$575,000	X	0%	=	$0
Morgan Co. Magistrates Ofc.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Co. BOE	$125,000	X	0%	=	$0	$35,000	X	0%	=	$0
Paw Paw ES	$985,000	X	0%	=	$0	$275,000	X	0%	=	$0
Paw Paw PSD WWTP	$275,000	X	0%	=	$0	$14,235,000	X	0%	=	$0
Paw Paw Police Dept.	$65,000	X	0%	=	$0	$17,500	X	0%	=	$0
Paw Paw HS	$3,500,000	X	0%	=	$0	$650,000	X	0%	=	$0
Paw Paw VFD	$185,000	X	0%	=	$0	$985,000	X	0%	=	$0
Paw Paw Water Works WTP	$135,000	X	0%	=	$0	$16,250,000	X	0%	=	$0
Paw Paw Water Works Pump Station	$35,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
South Morgan Co. VFD	$325,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Town of Bath Municipal Ofc.	$65,000	X	0%	=	$0	$14,250	X	0%	=	$0
Town of Paw Paw Municipal Ofc.	$45,000	X	0%	=	$0	$9,000	X	0%	=	$0
Berkeley Springs PO	$115,000	X	0%	=	$0	$18,000	X	0%	=	$0
Great Cacapon PO	$75,000	X	0%	=	$0	$12,000	X	0%	=	$0

Paw Paw PO	$77,000	X	0%	=	$0	$11,625	X	0%	=	$0
War Memorial Hospital	$30,000,000	X	0%	=	$0	$18,000,000	X	0%	=	$0
					$0					$0

Hazard: Severe Wind (Morgan County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Berkeley springs VFD	$164,250	X	0	+	$450	X	0	=	$0	$0
Warm Springs MS	$173,375	X	0	+	$475	X	0	=	$0	$0
Warm Springs PSD WWTP	$85,775	X	0	+	$235	X	0	=	$0	$0
Warm Springs PSD WWTP	$82,125	X	0	+	$225	X	0	=	$0	$0
Widmeyer ES	$116,800	X	0	+	$320	X	0	=	$0	$0
WVDOH	$164,250	X	0	+	$450	X	0	=	$0	$0
WV State Police	$118,625	X	0	+	$325	X	0	=	$0	$0
Berkeley Springs WTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon VFD	$45,625	X	0	+	$125	X	0	=	$0	$0
Greenwood ES	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Emergency Comm. Ctr.	$173,375	X	0	+	$475	X	0	=	$0	$0
Morgan County Courthouse	$91,250	X	0	+	$250	X	0	=	$0	$0
Morgan Co. EOC	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Sheriff's Dept.	$282,875	X	0	+	$775	X	0	=	$0	$0
Morgan Co. Rescue	$273,750	X	0	+	$750	X	0	=	$0	$0
Morgan Co. Magistrates Ofc.	$67,525	X	0	+	$185	X	0	=	$0	$0
Morgan Co. BOE	$118,625	X	0	+	$325	X	0	=	$0	$0
Paw Paw ES	$125,925	X	0	+	$345	X	0	=	$0	$0
Paw Paw PSD WWTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Paw Paw Police Dept.	$146,000	X	0	+	$400	X	0	=	$0	$0
Paw Paw HS	$151,475	X	0	+	$415	X	0	=	$0	$0
Paw Paw VFD	$60,225	X	0	+	$165	X	0	=	$0	$0
Paw Paw Water Works WTP	$45,625	X	0	+	$125	X	0	=	$0	$0
Paw Paw Water Works Pump Station	$36,500	X	0	+	$100	X	0	=	$0	$0
South Morgan Co. VFD	$149,650	X	0	+	$410	X	0	=	$0	$0
Town of Bath Municipal Ofc.	$133,225	X	0	+	$365	X	0	=	$0	$0
Town of Paw Paw Municipal Ofc.	$76,650	X	0	+	$210	X	0	=	$0	$0
Berkeley Springs PO	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon PO	$49,275	X	0	+	$135	X	0	=	$0	$0
Paw Paw PO	$41,975	X	0	+	$115	X	0	=	$0	$0

War Memorial Hospital	$1,642,500	X	0	+	$4,500	X	0	=	$0
									$0

$0
$0

Hazard: Severe Winter Storm (Morgan County)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Berkeley springs VFD	$465,000	X	0%	=	$0	$850,000	X	0%	=	$0
Warm Springs MS	$1,750,000	X	0%	=	$0	$725,000	X	0%	=	$0
Warm Springs PSD WWTP	$325,000	X	0%	=	$0	$16,325,000	X	0%	=	$0
Warm Springs PSD WWTP	$275,000	X	0%	=	$0	$14,250,000	X	0%	=	$0
Widmeyer ES	$1,125,000	X	0%	=	$0	$325,000	X	0%	=	$0
WVDOH	$425,000	X	0%	=	$0	$2,150,000	X	0%	=	$0
WV State Police	$125,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Springs WTP	$125,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Great Cacapon VFD	$150,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Greenwood ES	$1,150,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan Co. Emergency Comm. Ctr.	$125,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan County Courthouse	$2,250,000	X	0%	=	$0	$175,000	X	0%	=	$0
Morgan Co. EOC	$225,000	X	0%	=	$0	$75,000	X	0%	=	$0
Morgan Co. Sheriff's Dept.	$125,000	X	0%	=	$0	$85,000	X	0%	=	$0
Morgan Co. Rescue	$165,000	X	0%	=	$0	$575,000	X	0%	=	$0
Morgan Co. Magistrates Ofc.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Co. BOE	$125,000	X	0%	=	$0	$35,000	X	0%	=	$0
Paw Paw ES	$985,000	X	0%	=	$0	$275,000	X	0%	=	$0
Paw Paw PSD WWTP	$275,000	X	0%	=	$0	$14,235,000	X	0%	=	$0
Paw Paw Police Dept.	$65,000	X	0%	=	$0	$17,500	X	0%	=	$0
Paw Paw HS	$3,500,000	X	0%	=	$0	$650,000	X	0%	=	$0
Paw Paw VFD	$185,000	X	0%	=	$0	$985,000	X	0%	=	$0
Paw Paw Water Works WTP	$135,000	X	0%	=	$0	$16,250,000	X	0%	=	$0
Paw Paw Water Works Pump Station	$35,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
South Morgan Co. VFD	$325,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Town of Bath Municipal Ofc.	$65,000	X	0%	=	$0	$14,250	X	0%	=	$0
Town of Paw Paw Municipal Ofc.	$45,000	X	0%	=	$0	$9,000	X	0%	=	$0
Berkeley Springs PO	$115,000	X	0%	=	$0	$18,000	X	0%	=	$0
Great Cacapon PO	$75,000	X	0%	=	$0	$12,000	X	0%	=	$0

Paw Paw PO	$77,000	X	0%	=	$0	$11,625	X	0%	=	$0
War Memorial Hospital	$30,000,000	X	0%	=	$0	$18,000,000	X	0%	=	$0
					$0					$0

Hazard:Severe Winter Storm (Morgan County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Berkeley springs VFD	$164,250	X	0	+	$450	X	0	=	$0	$0
Warm Springs MS	$173,375	X	2	+	$475	X	0	=	$346,750	$346,750
Warm Springs PSD WWTP	$85,775	X	0	+	$235	X	0	=	$0	$0
Warm Springs PSD WWTP	$82,125	X	0	+	$225	X	0	=	$0	$0
Widmeyer ES	$116,800	X	0	+	$320	X	0	=	$0	$0
WVDOH	$164,250	X	0	+	$450	X	0	=	$0	$0
WV State Police	$118,625	X	0	+	$325	X	0	=	$0	$0
Berkeley Springs WTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon VFD	$45,625	X	0	+	$125	X	0	=	$0	$0
Greenwood ES	$118,625	X	2	+	$325	X	0	=	$237,250	$237,250
Morgan Co. Emergency Comm. Ctr.	$173,375	X	0	+	$475	X	0	=	$0	$0
Morgan County Courthouse	$91,250	X	1	+	$250	X	0	=	$91,250	$91,250
Morgan Co. EOC	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Sheriff's Dept.	$282,875	X	0	+	$775	X	0	=	$0	$0
Morgan Co. Rescue	$273,750	X	0	+	$750	X	0	=	$0	$0
Morgan Co. Magistrates Ofc.	$67,525	X	0	+	$185	X	0	=	$0	$0
Morgan Co. BOE	$118,625	X	0	+	$325	X	0	=	$0	$0
Paw Paw ES	$125,925	X	2	+	$345	X	0	=	$251,850	$251,850
Paw Paw PSD WWTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Paw Paw Police Dept.	$146,000	X	0	+	$400	X	0	=	$0	$0
Paw Paw HS	$151,475	X	2	+	$415	X	0	=	$302,950	$302,950
Paw Paw VFD	$60,225	X	0	+	$165	X	0	=	$0	$0
Paw Paw Water Works WTP	$45,625	X	0	+	$125	X	0	=	$0	$0
Paw Paw Water Works Pump Station	$36,500	X	0	+	$100	X	0	=	$0	$0
South Morgan Co. VFD	$149,650	X	0	+	$410	X	0	=	$0	$0
Town of Bath Municipal Ofc.	$133,225	X	1	+	$365	X	0	=	$133,225	$133,225
Town of Paw Paw Municipal Ofc.	$76,650	X	1	+	$210	X	0	=	$76,650	$76,650
Berkeley Springs PO	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon PO	$49,275	X	0	+	$135	X	0	=	$0	$0
Paw Paw PO	$41,975	X	0	+	$115	X	0	=	$0	$0

War Memorial Hospital	$1,642,500	X	0	+	$4,500	X	0	=	$0	$0
									$1,439,925	**$1,439,925**

Hazard:Temperature Extreme (Morgan County)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Berkeley springs VFD	$465,000	X	0%	=	$0	$850,000	X	0%	=	$0
Warm Springs MS	$1,750,000	X	0%	=	$0	$725,000	X	0%	=	$0
Warm Springs PSD WWTP	$325,000	X	0%	=	$0	$16,325,000	X	0%	=	$0
Warm Springs PSD WWTP	$275,000	X	0%	=	$0	$14,250,000	X	0%	=	$0
Widmeyer ES	$1,125,000	X	0%	=	$0	$325,000	X	0%	=	$0
WVDOH	$425,000	X	0%	=	$0	$2,150,000	X	0%	=	$0
WV State Police	$125,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Springs WTP	$125,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Great Cacapon VFD	$150,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Greenwood ES	$1,150,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan Co. Emergency Comm. Ctr.	$125,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan County Courthouse	$2,250,000	X	0%	=	$0	$175,000	X	0%	=	$0
Morgan Co. EOC	$225,000	X	0%	=	$0	$75,000	X	0%	=	$0
Morgan Co. Sheriff's Dept.	$125,000	X	0%	=	$0	$85,000	X	0%	=	$0
Morgan Co. Rescue	$165,000	X	0%	=	$0	$575,000	X	0%	=	$0
Morgan Co. Magistrates Ofc.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Co. BOE	$125,000	X	0%	=	$0	$35,000	X	0%	=	$0
Paw Paw ES	$985,000	X	0%	=	$0	$275,000	X	0%	=	$0
Paw Paw PSD WWTP	$275,000	X	0%	=	$0	$14,235,000	X	0%	=	$0
Paw Paw Police Dept.	$65,000	X	0%	=	$0	$17,500	X	0%	=	$0
Paw Paw HS	$3,500,000	X	0%	=	$0	$650,000	X	0%	=	$0
Paw Paw VFD	$185,000	X	0%	=	$0	$985,000	X	0%	=	$0
Paw Paw Water Works WTP	$135,000	X	0%	=	$0	$16,250,000	X	0%	=	$0
Paw Paw Water Works Pump Station	$35,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
South Morgan Co. VFD	$325,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Town of Bath Municipal Ofc.	$65,000	X	0%	=	$0	$14,250	X	0%	=	$0
Town of Paw Paw Municipal Ofc.	$45,000	X	0%	=	$0	$9,000	X	0%	=	$0
Berkeley Springs PO	$115,000	X	0%	=	$0	$18,000	X	0%	=	$0
Great Cacapon PO	$75,000	X	0%	=	$0	$12,000	X	0%	=	$0

Paw Paw PO	$77,000	X	0%	=	$0	$11,625	X	0%	=	$0
War Memorial Hospital	$30,000,000	X	0%	=	$0	$18,000,000	X	0%	=	$0
					$0					$0

Hazard: Temperature Extreme (Morgan County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Berkeley springs VFD	$164,250	X	0	+	$450	X	0	=	$0	$0
Warm Springs MS	$173,375	X	0	+	$475	X	0	=	$0	$0
Warm Springs PSD WWTP	$85,775	X	0	+	$235	X	0	=	$0	$0
Warm Springs PSD WWTP	$82,125	X	0	+	$225	X	0	=	$0	$0
Widmeyer ES	$116,800	X	0	+	$320	X	0	=	$0	$0
WVDOH	$164,250	X	0	+	$450	X	0	=	$0	$0
WV State Police	$118,625	X	0	+	$325	X	0	=	$0	$0
Berkeley Springs WTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon VFD	$45,625	X	0	+	$125	X	0	=	$0	$0
Greenwood ES	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Emergency Comm. Ctr.	$173,375	X	0	+	$475	X	0	=	$0	$0
Morgan County Courthouse	$91,250	X	0	+	$250	X	0	=	$0	$0
Morgan Co. EOC	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Sheriff's Dept.	$282,875	X	0	+	$775	X	0	=	$0	$0
Morgan Co. Rescue	$273,750	X	0	+	$750	X	0	=	$0	$0
Morgan Co. Magistrates Ofc.	$67,525	X	0	+	$185	X	0	=	$0	$0
Morgan Co. BOE	$118,625	X	0	+	$325	X	0	=	$0	$0
Paw Paw ES	$125,925	X	0	+	$345	X	0	=	$0	$0
Paw Paw PSD WWTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Paw Paw Police Dept.	$146,000	X	0	+	$400	X	0	=	$0	$0
Paw Paw HS	$151,475	X	0	+	$415	X	0	=	$0	$0
Paw Paw VFD	$60,225	X	0	+	$165	X	0	=	$0	$0
Paw Paw Water Works WTP	$45,625	X	0	+	$125	X	0	=	$0	$0
Paw Paw Water Works Pump Station	$36,500	X	0	+	$100	X	0	=	$0	$0
South Morgan Co. VFD	$149,650	X	0	+	$410	X	0	=	$0	$0
Town of Bath Municipal Ofc.	$133,225	X	0	+	$365	X	0	=	$0	$0
Town of Paw Paw Municipal Ofc.	$76,650	X	0	+	$210	X	0	=	$0	$0
Berkeley Springs PO	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon PO	$49,275	X	0	+	$135	X	0	=	$0	$0
Paw Paw PO	$41,975	X	0	+	$115	X	0	=	$0	$0

War Memorial Hospital	$1,642,500	X	0	+	$4,500	X	0	=	$0	$0
									$0	**$0**

Hazard: Terrorism (Morgan County)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Berkeley springs VFD	$465,000	X	0%	=	$0	$850,000	X	0%	=	$0
Warm Springs MS	$1,750,000	X	1%	=	$17,500	$725,000	X	5%	=	$36,250
Warm Springs PSD WWTP	$325,000	X	0%	=	$0	$16,325,000	X	0%	=	$0
Warm Springs PSD WWTP	$275,000	X	0%	=	$0	$14,250,000	X	0%	=	$0
Widmeyer ES	$1,125,000	X	1%	=	$11,250	$325,000	X	2%	=	$6,500
WVDOH	$425,000	X	0%	=	$0	$2,150,000	X	0%	=	$0
WV State Police	$125,000	X	0%	=	$0	$65,000	X	0%	=	$0
Berkeley Springs WTP	$125,000	X	0%	=	$0	$2,250,000	X	0%	=	$0
Great Cacapon VFD	$150,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
Greenwood ES	$1,150,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan Co. Emergency Comm. Ctr.	$125,000	X	0%	=	$0	$300,000	X	0%	=	$0
Morgan County Courthouse	$2,250,000	X	2%	=	$45,000	$175,000	X	10%	=	$17,500
Morgan Co. EOC	$225,000	X	0%	=	$0	$75,000	X	0%	=	$0
Morgan Co. Sheriff's Dept.	$125,000	X	0%	=	$0	$85,000	X	0%	=	$0
Morgan Co. Rescue	$165,000	X	0%	=	$0	$575,000	X	0%	=	$0
Morgan Co. Magistrates Ofc.	$125,000	X	0%	=	$0	$25,000	X	0%	=	$0
Morgan Co. BOE	$125,000	X	1%	=	$1,250	$35,000	X	5%	=	$1,750
Paw Paw ES	$985,000	X	1%	=	$9,850	$275,000	X	5%	=	$13,750
Paw Paw PSD WWTP	$275,000	X	0%	=	$0	$14,235,000	X	0%	=	$0
Paw Paw Police Dept.	$65,000	X	0%	=	$0	$17,500	X	0%	=	$0
Paw Paw HS	$3,500,000	X	1%	=	$35,000	$650,000	X	5%	=	$32,500
Paw Paw VFD	$185,000	X	0%	=	$0	$985,000	X	0%	=	$0
Paw Paw Water Works WTP	$135,000	X	0%	=	$0	$16,250,000	X	0%	=	$0
Paw Paw Water Works Pump Station	$35,000	X	0%	=	$0	$1,250,000	X	0%	=	$0
South Morgan Co. VFD	$325,000	X	0%	=	$0	$1,150,000	X	0%	=	$0
Town of Bath Municipal Ofc.	$65,000	X	0%	=	$0	$14,250	X	0%	=	$0
Town of Paw Paw Municipal Ofc.	$45,000	X	0%	=	$0	$9,000	X	0%	=	$0
Berkeley Springs PO	$115,000	X	0%	=	$0	$18,000	X	0%	=	$0
Great Cacapon PO	$75,000	X	0%	=	$0	$12,000	X	0%	=	$0

Paw Paw PO	$77,000	X	0%	=	$0	$11,625	X	0%	=	$0
War Memorial Hospital	$30,000,000	X	0%	=	$0	$18,000,000	X	0%	=	$0
					$119,850					$108,250

Hazard: Terrorism (Morgan County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Berkeley springs VFD	$164,250	X	0	+	$450	X	0	=	$0	$0
Warm Springs MS	$173,375	X	2	+	$475	X	0	=	$346,750	$400,500
Warm Springs PSD WWTP	$85,775	X	0	+	$235	X	0	=	$0	$0
Warm Springs PSD WWTP	$82,125	X	0	+	$225	X	0	=	$0	$0
Widmeyer ES	$116,800	X	0	+	$320	X	0	=	$0	$17,750
WVDOH	$164,250	X	0	+	$450	X	0	=	$0	$0
WV State Police	$118,625	X	0	+	$325	X	0	=	$0	$0
Berkeley Springs WTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon VFD	$45,625	X	0	+	$125	X	0	=	$0	$0
Greenwood ES	$118,625	X	2	+	$325	X	0	=	$237,250	$237,250
Morgan Co. Emergency Comm. Ctr.	$173,375	X	0	+	$475	X	0	=	$0	$0
Morgan County Courthouse	$91,250	X	3	+	$250	X	0	=	$273,750	$336,250
Morgan Co. EOC	$118,625	X	0	+	$325	X	0	=	$0	$0
Morgan Co. Sheriff's Dept.	$282,875	X	0	+	$775	X	0	=	$0	$0
Morgan Co. Rescue	$273,750	X	0	+	$750	X	0	=	$0	$0
Morgan Co. Magistrates Ofc.	$67,525	X	2	+	$185	X	0	=	$135,050	$135,050
Morgan Co. BOE	$118,625	X	2	+	$325	X	0	=	$237,250	$240,250
Paw Paw ES	$125,925	X	2	+	$345	X	0	=	$251,850	$275,450
Paw Paw PSD WWTP	$67,525	X	0	+	$185	X	0	=	$0	$0
Paw Paw Police Dept.	$146,000	X	0	+	$400	X	0	=	$0	$0
Paw Paw HS	$151,475	X	2	+	$415	X	0	=	$302,950	$370,450
Paw Paw VFD	$60,225	X	0	+	$165	X	0	=	$0	$0
Paw Paw Water Works WTP	$45,625	X	0	+	$125	X	0	=	$0	$0
Paw Paw Water Works Pump Station	$36,500	X	0	+	$100	X	0	=	$0	$0
South Morgan Co. VFD	$149,650	X	0	+	$410	X	0	=	$0	$0
Town of Bath Municipal Ofc.	$133,225	X	0	+	$365	X	0	=	$0	$0
Town of Paw Paw Municipal Ofc.	$76,650	X	0	+	$210	X	0	=	$0	$0
Berkeley Springs PO	$67,525	X	0	+	$185	X	0	=	$0	$0
Great Cacapon PO	$49,275	X	0	+	$135	X	0	=	$0	$0
Paw Paw PO	$41,975	X	0	+	$115	X	0	=	$0	$0

War Memorial Hospital	$1,642,500	X	0	+	$4,500	X	0	=	$0	$0
									$1,784,850	**$2,012,950**

Hazard: Wildfires (Morgan County)

	Structure Loss					Contents Loss				
Name/Description of Asset	Structure Replacement Value ($)	X	Percent Damage (%)	=	Loss to Structure ($)	Replacement Value of Contents ($)	X	Percent Damage (%)	=	Loss to Contents ($)
Berkeley springs VFD	$465,000	X	1%	=	$4,650	$850,000	X	0%	=	$0
Warm Springs MS	$1,750,000	X	1%	=	$17,500	$725,000	X	0%	=	$0
Warm Springs PSD WWTP	$325,000	X	1%	=	$3,250	$16,325,000	X	0%	=	$0
Warm Springs PSD WWTP	$275,000	X	1%	=	$2,750	$14,250,000	X	0%	=	$0
Widmeyer ES	$1,125,000	X	1%	=	$11,250	$325,000	X	0%	=	$0
WVDOH	$425,000	X	1%	=	$4,250	$2,150,000	X	0%	=	$0
WV State Police	$125,000	X	1%	=	$1,250	$65,000	X	0%	=	$0
Berkeley Springs WTP	$125,000	X	1%	=	$1,250	$2,250,000	X	0%	=	$0
Great Cacapon VFD	$150,000	X	1%	=	$1,500	$1,250,000	X	0%	=	$0
Greenwood ES	$1,150,000	X	1%	=	$11,500	$300,000	X	0%	=	$0
Morgan Co. Emergency Comm. Ctr.	$125,000	X	1%	=	$1,250	$300,000	X	0%	=	$0
Morgan County Courthouse	$2,250,000	X	1%	=	$22,500	$175,000	X	0%	=	$0
Morgan Co. EOC	$225,000	X	1%	=	$2,250	$75,000	X	0%	=	$0
Morgan Co. Sheriff's Dept.	$125,000	X	1%	=	$1,250	$85,000	X	0%	=	$0
Morgan Co. Rescue	$165,000	X	1%	=	$1,650	$575,000	X	0%	=	$0
Morgan Co. Magistrates Ofc.	$125,000	X	1%	=	$1,250	$25,000	X	0%	=	$0
Morgan Co. BOE	$125,000	X	1%	=	$1,250	$35,000	X	0%	=	$0
Paw Paw ES	$985,000	X	1%	=	$9,850	$275,000	X	0%	=	$0
Paw Paw PSD WWTP	$275,000	X	1%	=	$2,750	$14,235,000	X	0%	=	$0
Paw Paw Police Dept.	$65,000	X	1%	=	$650	$17,500	X	0%	=	$0
Paw Paw HS	$3,500,000	X	1%	=	$35,000	$650,000	X	0%	=	$0
Paw Paw VFD	$185,000	X	1%	=	$1,850	$985,000	X	0%	=	$0
Paw Paw Water Works WTP	$135,000	X	1%	=	$1,350	$16,250,000	X	0%	=	$0
Paw Paw Water Works Pump Station	$35,000	X	1%	=	$350	$1,250,000	X	0%	=	$0
South Morgan Co. VFD	$325,000	X	1%	=	$3,250	$1,150,000	X	0%	=	$0
Town of Bath Municipal Ofc.	$65,000	X	1%	=	$650	$14,250	X	0%	=	$0
Town of Paw Paw Municipal Ofc.	$45,000	X	1%	=	$450	$9,000	X	0%	=	$0
Berkeley Springs PO	$115,000	X	1%	=	$1,150	$18,000	X	0%	=	$0
Great Cacapon PO	$75,000	X	1%	=	$750	$12,000	X	0%	=	$0

Paw Paw PO	$77,000	X	1%	=	$770	$11,625	X	0%	=	$0
War Memorial Hospital	$30,000,000	X	1%	=	$300,000	$18,000,000	X	0%	=	$0
					$449,370					$0

Hazard: Wildfires (Morgan County)

	Structure Use and Function Loss									
Name/Description of Asset	Average Daily Operating Budget ($)	X	Functional Downtime (# of days)	+	Displacement Cost per Day ($)	X	Displacement Time (Days)	=	Structure Use & Function Loss ($)	**Structure + Contents + Function Loss**
Berkeley springs VFD	$164,250	X	0	+	$450	X	0	=	$0	$4,650
Warm Springs MS	$173,375	X	1	+	$475	X	0	=	$173,375	$190,875
Warm Springs PSD WWTP	$85,775	X	0	+	$235	X	0	=	$0	$3,250
Warm Springs PSD WWTP	$82,125	X	0	+	$225	X	0	=	$0	$2,750
Widmeyer ES	$116,800	X	1	+	$320	X	0	=	$116,800	$128,050
WVDOH	$164,250	X	0	+	$450	X	0	=	$0	$4,250
WV State Police	$118,625	X	0	+	$325	X	0	=	$0	$1,250
Berkeley Springs WTP	$67,525	X	0	+	$185	X	0	=	$0	$1,250
Great Cacapon VFD	$45,625	X	0	+	$125	X	0	=	$0	$1,500
Greenwood ES	$118,625	X	1	+	$325	X	0	=	$118,625	$130,125
Morgan Co. Emergency Comm. Ctr.	$173,375	X	0	+	$475	X	0	=	$0	$1,250
Morgan County Courthouse	$91,250	X	0	+	$250	X	0	=	$0	$22,500
Morgan Co. EOC	$118,625	X	0	+	$325	X	0	=	$0	$2,250
Morgan Co. Sheriff's Dept.	$282,875	X	0	+	$775	X	0	=	$0	$1,250
Morgan Co. Rescue	$273,750	X	0	+	$750	X	0	=	$0	$1,650
Morgan Co. Magistrates Ofc.	$67,525	X	0	+	$185	X	0	=	$0	$1,250
Morgan Co. BOE	$118,625	X	0	+	$325	X	0	=	$0	$1,250
Paw Paw ES	$125,925	X	0	+	$345	X	0	=	$0	$9,850
Paw Paw PSD WWTP	$67,525	X	0	+	$185	X	0	=	$0	$2,750
Paw Paw Police Dept.	$146,000	X	0	+	$400	X	0	=	$0	$650
Paw Paw HS	$151,475	X	1	+	$415	X	0	=	$151,475	$186,475
Paw Paw VFD	$60,225	X	0	+	$165	X	0	=	$0	$1,850
Paw Paw Water Works WTP	$45,625	X	0	+	$125	X	0	=	$0	$1,350
Paw Paw Water Works Pump Station	$36,500	X	0	+	$100	X	0	=	$0	$350
South Morgan Co. VFD	$149,650	X	0	+	$410	X	0	=	$0	$3,250
Town of Bath Municipal Ofc.	$133,225	X	0	+	$365	X	0	=	$0	$650
Town of Paw Paw Municipal Ofc.	$76,650	X	0	+	$210	X	0	=	$0	$450
Berkeley Springs PO	$67,525	X	0	+	$185	X	0	=	$0	$1,150
Great Cacapon PO	$49,275	X	0	+	$135	X	0	=	$0	$750
Paw Paw PO	$41,975	X	0	+	$115	X	0	=	$0	$770

War Memorial Hospital	$1,642,500	X	0	+	$4,500	X	0	=	$0
									$560,275

$300,000
$1,009,645

APPENDIX 3

Morgan County Land Use

CHAPTER 1 - LAND USE

Introduction

In order to determine how the County should grow and most benefit its citizens, it is important to first evaluate what factors have driven County growth to its current status. The Land Use Plan may then utilize these factors, including balancing the protection of natural and cultural resources with the extension of necessary public services to develop the most appropriate growth policies.

Although the County planning process does not currently provide for established zoning districts, mapping of existing land uses provides an outline of the natural progression of growth that has occurred. From these defined growth areas the Plan should provide direction on how best to manage and direct future growth patterns that will affect existing land use. This direction will then aid in the promotion of the designation of projected growth areas to serve an increasing population and economy, as well as define limitations that may affect the pace at which future growth occurs.

Existing Land Use

Residential land use comprises approximately 10,914 acres of the total area within Morgan County, with just over 6,500 acres estimated as developed. This is a significant increase from less than 4,700 acres in 1980. However, average lot size for this same period decreased from roughly one-acre per home in 1980 to just over 0.75 acres in 2000. This land use designation is made up primarily of three types of residential development. These areas include urban growth served by public water and sewer, newer suburban subdivisions, and the less defined rural pockets of residential dwellings. These types overlap other developed land use designations such as municipal as well as undeveloped land use designations such as woodlands and agricultural.

Commercial land use comprises 1,212 acres of the total area within the County, for those areas specifically outside of the incorporated towns and excluding industrial business parks. This is a new category from the 1985 Comprehensive Plan, and although it currently represents a small percent of the total County acreage is projected to increase throughout the County with the proliferation of new, larger residential development in areas where growth pressures did not previously exist. This land use designation is made up primarily of retail and service businesses that are located in and around residential development. Development of property for commercial use is also affected by the location of necessary public services as well as the adequacy of public infrastructure such as roads, water, and sewer.

Industrial land use comprises 3,014 acres of the total area within the County, most of which is owned by the US Silica Company. This area includes property that is part of undeveloped industrial property holdings, currently utilized for light and heavy industrial and manufacturing industries and underutilized developed land which may no longer serve its original purpose or be in full operation. Most of the land reflected in the 1985 Plan included more than 7,000 acres of

undeveloped property holdings under two companies, while the remainder was spread among nine smaller sites around the Berkeley Springs and Paw Paw areas. However, since that time the major landholders either sold off or changed their prospective use of the properties while most of the smaller sites have been developed or abandoned for industrial use and replaced with more appropriate locations. In order to designate and promote appropriate future industrial and manufacturing uses for these properties, it is important to understand the change in industries that provide the largest employment base for the local County workforce.

Agricultural land use comprises nearly 23,000 acres of the total area within the County. This is a decrease from more than 26,000 in 1980, and represents approximately 16% of the total County land area. Although the number of farms within the County has increased from 143 to 178, the average acreage per farm has decreased from 182 to 129 during this period. Further, the overall acreage being actively farmed has decreased from more than 13,000 acres in 1980 to less than 10,000 acres in 2005, with the remaining property primarily wooded.

Recreational land use comprises 11,562 acres of the total area within the County. The primary difference, or loss of recreational land over the 1985 Plan analysis is removing the 1,800 acre Coolfont Resort area that is privately owned, and therefore not available to be classified as public recreational area. Also, not included in this acreage is land designated as educational. However, it is reflected in Chapter 7 as part of the overall open space used by the public. Recreational land referred to in this chapter is owned and maintained primarily by the various governing entities for both active and passive use.

Educational land use, which totals 150 acres of the County land, comprises a small percentage of the total area within the County. This is primarily due to both a small and widely spread population that has not experienced a level of growth requiring construction of significant additional educational facilities and their accompanying school athletic field needs. However, given recent growth trends, including pace and location of new development, coupled with the fact that many existing schools are located on property with limited room for expansion and provision of adequate field space, it will be important for the school system to use the projections within the Comprehensive Plan to prepare to address future school needs. This is evident in the fact that over the last decade several older schools on smaller properties have been replaced by newer schools on larger campus settings, two of which make up two-thirds of the total acreage.

Municipal land use comprises 704 acres of the total land within the County. This land exists within the two incorporated towns including nearly 400 acres in the Town of Bath and the remainder in the Town of Paw Paw. The increase in acreage from 1980 to 2005 is due to differences in classification, whereas the 1985 Plan classified some areas in the County as “urban built-up area”, and the classification for this Plan refers to specifically those areas within the municipal limits. In reality there have been less than 50 acres of land annexed during that period. Due to the varying mixture of uses, and the continual evolution of these primarily built-up areas, it is difficult to classify any large single area within either Town under one particular land use designation. Therefore it is understood for purposes of this chapter that areas within each town contribute in some part to all of the land uses listed.

Public land use is defined in this chapter as land other than schools and parks owned by government for the provision of public utilities and services such as water and sewer, police, fire, libraries, and transportation. These uses comprise a small amount of the overall County acreage and are included in various designations as outlined in this chapter. More important, as reflected in Chapters 3, 4 and 5 of this Plan, is the current location of these services as it relates to their need and ability to physically expand in order to adequately address future growth.

Woodlands comprise 117,000 acres of the total area within the County. This land use makes up a large part of the County, covering vast areas across many types of land uses including more than 11,000 acres in recreational, 12,000 in agricultural and some smaller amounts in other classifications. The net acreage thus represents roughly 80% of the total County land area. This acreage has remained relatively constant over time due in large part to some areas previously in active agricultural production giving way to passive woodland, while in other areas previously wooded, new development has occurred. Although it is estimated that clear cutting for development accounts for only 130 acres of the total 1,130 acres cleared per year, consideration of preservation of these natural areas may be required in future planning process.

Historic and conservation land uses act more as an overlay of those areas previously outlined. The historic areas may include both natural and built features within the County that should be identified to protect their individual importance to the character of the community in which they are located. Conservation areas include both public and private properties. These areas may be protected through more stringent regulations that preserve the environmental integrity and sensitive elements that extensive growth would impair.

In addition to the various land use categories is the acreage for roads and water. Water coverage makes up less than 1% of the County's total landmass, which equates to just over 1,000 acres. This has remained relatively constant over time as development and environmental changes have not had significant effects on changing the County's waterways.

As residential development has nearly doubled since the 1985 Plan, local road systems have been added to serve new homes and accompanying commercial centers. Added to the nearly 400 lane miles of roads maintained by the West Virginia Department of Transportation, highway and road systems are estimated to cover approximately 3,000 acres of the total County land area.

Based on US Census data the total County land mass consists of 229.67 square miles. Converted to acres, the total County land mass is 146,988.8 acres. Subtracting out the total estimated acreage covered by water and roads, the total net land use acreage is approximately 142,970 acres.

In developing Table 1-1, all acreage for those types of land uses clearly documented were established first. From this calculation acreage for those land uses not documented, specifically residential and commercial, were estimated from the remainder.

Based on review of the 2006 County tax year statistics it was estimated that 10% of the remaining acreage could be classified as commercial and 90% residential with 80% and 61% developed respectively. Several notable changes from the 1985 Plan include:

- Reduction in total estimated County acreage from 149,277 to 146,989
- Increase in total residential acreage from more than doubling of housing stock
- Accounting for undeveloped acreage in the residential planning pipeline
- Reduction in total industrial acreage due to changes in designation of land holdings
- Reduction in recreational land due to removal of large private recreational property
- Increase in municipal acreage from 1985 which listed an "urban" acreage of 416

Table 1-1 Land Use (acres)

Land use	1980	1980 Net	2000	2000 Net	Change in Acreage
Residential	4,864	4,864	10,914	6,658	6,050
Commercial	N/A	N/A	1,212	971	N/A
Industrial	8,162	511	3,014	678	-5,148
Agricultural	26,068	13,635	22,953	9,475	-3,115
Woodlands	121,650	129,301	117,000	123,834	-4,650
Recreational	13,315	500	11,562	500	-1,753
Educational	50	50	150	150	100
Municipal	416	416	704	704	288
Total		**149,277**		**142,970**	

Source: Morgan County Government, USDA Census of Agriculture

Land Use Zoning Regulations

Under West Virginia State Code, Article 8A-7-1 provides counties the ability to enact zoning ordinances. Based on this provision, there have been considerations in the past of enactment, the most recent of which included the development of a tentative report and explanatory map which outlined comprehensive zoning ordinances and land use designations. This report was considered for adoption by the County in 1994 and ultimately turned down. The State Code specifically outlines the process by which a County must proceed with enactment including:

- Determining the area in which the ordinance will apply
- Consideration of the contents of the ordinance and its application
- Certification of zoning district boundaries and maps
- Completing a study and providing a report of existing and proposed land uses
- Providing public review and input through hearings prior to enactment

Although the land use map in this chapter does not serve as part of any process to establish zoning, it does provide the basic outline of many of the existing land use categories that could be used in development of zoning designations. This map merely provides all property within the County with a land use designation that reflects the current or proposed use of that property in

relation to the larger whole of the surrounding area. Therefore in certain instances it may not reflect the use of each property specifically, but rather should be used as a guide for uses in general within the defined area.

Although the County has not chosen to enact zoning through its process of consideration, the Town of Paw Paw does have zoning ordinances which apply to those area located within the corporate limits of the Town, and to all properties that would be annexed.

Population Trends

For purposes of development analysis and growth projections, this chapter is divided into 3 planning areas made up of 6 districts. These areas include: the small northeastern tip of the County known as the Sleepy Creek region, the Central Valley region, made up of four districts that encompass the largest and most heavily populated area, and the southwestern mountain area known as the Cacapon region, which includes the Town of Paw Paw as well as a large amount of publicly owned lands. These planning regions are further referenced throughout the Comprehensive Plan.

Morgan County is the western most of three counties that make up the Eastern Panhandle of West Virginia. These counties, unlike much of the rest of the State have experienced significant increases in growth over the past 50 years, due in large part to the automobile-driven development pressures from the growing metropolitan areas of Baltimore and Washington to the east. It has also experienced recent pressures from the spreading Winchester area in Virginia, to the south.

Historic growth shows that the County experienced a 25% increase in residential growth between 1970 and 1980. Prior to this time growth was either negligible or in some areas declining. This increase in growth, however, did not result in a significant increase in population since the average household size continued to decline from 3.1 persons per household in 1970 to 2.8 in 1980. Further, an increasing percentage of this residential growth was due to new construction of scattered minor rural subdivisions and single lot recreational homes. By 1980 the decrease in average household size and increase in rural lot development produced roughly an average population of 46 persons in 16 households per square mile.

Between 1980 and 1990 the growth trend slightly declined, producing roughly 57 additional households or 143 persons each year as compared with nearly 74 new households and 215 persons per year in the previous decade. This decline included as well further decline in household size to just over 2.5 persons on average. Growth patterns during this period were focused on new development being located in the Sleepy Creek and upper Central Valley regions.

In spite of the further decline of household size to 2.43 persons per household, the growth trend of the previous decade nearly doubled between 1990 and 2000, adding more than 117 new households and 280 persons per year, which accounted for an increase in population from just over 12,000 in 1990 to nearly 15,000 in 2000. One important trend bolstering new households

during this period, which is further outlined in the Population and Housing Chapter, is the reduction of vacant rental units from nearly 13% to 7.6% in this period. As a result of the significant increase in growth from 1980 to 2000 the average population and households increased to roughly 65 persons in 27 households per square mile, which accounted for nearly a 71% population and 60% housing increase over the 1980 figure.

Table 1-2 Population Trends

Trend	1960-1970	1970-1980	1980-1990	1990-2000
Household Size	3.1	2.8	2.5	2.43
Units per Year	7	74	57	117
Annual Population Increase	20	215	143	280
Housing per Square Mile	14	20	23	30
Persons per Square Mile	37	46	52	65

Source: US Census Reports

The most significant increase in growth has occurred over the past 5 year period between 2001 and 2005. In 2002 Morgan County experienced its first year of issuing more than 100 permits for new homes. In 2005 this number approached 300. It appears from submission of major residential subdivision development plans and continued increases in the annual number of minor exemption approvals, that permit activity will not decrease significantly in the near future.

At the current pace it is projected that the 2010 population could reach 20,318 under the medium growth scenario, which would mean an increase of more than 1,110 new housing units equating in an average yearly population increase of 566. While still remaining quite rural in its overall appearance, this growth will result in increased population and housing densities, especially in the more densely developed urban areas within the County.

Table 1-3 Historic Population

Location	1970	1980	1990	2000	2005
Sleepy Creek	640	967	N/A	N/A	N/A
Central Valley	6,063	7,673	N/A	N/A	N/A
Cacapon	1,844	2,071	N/A	N/A	N/A
Town of Bath	944	789	735	663	764
Town of Paw Paw	706	644	538	524	N/A
Morgan County	8,547	10,771	12,128	14,943	17,232

Source: Morgan County Comprehensive Plan 1985, US Census Reports

Building Intensity

From the growth trends described above, the County has experienced three distinct types of residential development. These include lots with well and septic, private community systems for water and sewer, and public-utility-driven growth. Each type of development has a different impact on the ability to adequately provide various public services, which must be taken into account in providing direction for future growth. This is important in development of a land use map because the provision of water and sewer services in particular plays a large role in determining the density and pace at which development may occur.

From existing activity it is estimated that there is a total of 1,117 lots currently in the development pipeline for major subdivisions. In order to be included in this pipeline, it means that the proposed development has a reasonable probability of fruition in the Plan period due to the fact that plans have been granted some stage of review.

Major Subdivision Activity

As outlined in Table 1-4, there are several changes taking place in the development pipeline, which must be considered to understand better how increased pressures may affect growth. In using the sketch plan to final plat as a timeline, one noticeable trend is the increase in total number of lots being submitted for development approval as part of a single subdivision. These larger developments also include an increased average density per acre, which means that under State regulations many of these larger, denser developments must be supported by a public or community water and/or sewer system. It should also be noted that many of the smaller developments that have reached final plat approval, and therefore presumably older in the pipeline, have been submitted in sections, which typically denotes that the development is part of a larger whole being constructed by a smaller developer over a longer period of time.

Table 1-4 Major Subdivision Activity

Subdivision	Approval	Location	Units	Acres	Avg. Lot Size	Year Start
Various Plans	Sketch Plan	Central Valley	894	411	.46 acre	N/A
Huntington Farms	Preliminary	Timber Ridge	56	90	1.6 acres	2006
Parkside Section II	Preliminary	Rock Gap	11	28	2.5 acres	2006
Pious Spr. Sect. I&II	Preliminary	Allen	9	23	2.6 acres	2006
Point View Estates	Preliminary	Rock Gap	15	24	1.6 acres	2006
Cacapon S. Sect. V	Final Plat	Timber Ridge	31	50	1.6 acres	2006
Fairview Oaks Sect. I	Final Plat	Bath	15	22	1.5 acres	2006
Horseshoe Run	Final Plat	Allen	43	125	2.9 acres	2005
Orleans Overlook	Final Plat	Cacapon	5	15	3 acres	2005
Parkside Section I	Final Plat	Rock Gap	14	16	1.1 acres	2005
Pious Spring Sect. I	Final Plat	Allen	5	17	3.4 acres	2004
Silo Acres	Final Plat	Allen	12	26	2.2 acres	2004
Stonewood	Final Plat	Allen	7	18	2.6 acres	2004
Totals			**1,117**	**865**	**0.77 acres**	

Source: Morgan County Government

Minor Subdivision Activity

Although major subdivision activity is increasing, it appears that much of the current and past development continues to occur on individual building lots within subdivisions of less than five total lots, which are commonly referred to as exemptions that often include several lots and a remainder. In order to better understand trends as it relates to this type of growth and the effect it will have on future development patterns in the County, it is important to utilize recent data due to the fact that unlike large subdivisions which may be affected by government policy, environmental constraints, or significant changes in land value, minor lot exemptions are not typically limited by such constraints, but collectively impact services, infrastructure, and available resources in a similar manner.

Table 1-5 Minor Lot Exemptions (Individual buildings lots of less than five total lots)

District	2000	2001	2002	2003	2004	2005	Total	Annual Average
Sleepy Creek	1	0	16	5	0	18	40	7
Allen	24	18	10	33	6	41	132	22
Bath	5	2	12	13	16	13	61	10
Rock Gap	16	20	23	33	21	32	145	24
Timber Ridge	34	45	15	16	34	13	157	26
Central Valley Total	79	85	60	95	77	99	495	82
Cacapon	10	13	5	16	34	29	107	18
Total	**90**	**98**	**81**	**116**	**111**	**146**	**642**	**107**

Source: Morgan County Government

Development Activity

It is apparent from the tables above that the concentration of newly approved growth is and will continue to occur in the southern area of the Central Valley Planning Region, especially in the Timber Ridge and Rock Gap districts. This region includes 1,112 of the total proposed 1,117 major subdivision lots, and has experienced an average of 82 minor lot exemptions per year since 2000. This region also includes an estimated 1,750 undeveloped residential parcels which may yield a significant amount of additional future growth. This does not include the nearly 200 farms, most of which are located in the south central area of this region and can be expected over time to continue to experience both marginal and major development patterns. For this reason it may be important for the County to identify these areas and establish programs to maintain the agricultural character of important areas within this part of the Central Valley region.

The second most impacted region for immediate future growth is in the Cacapon Planning Region. Located west of Timber Ridge. There is only one listed major subdivision containing 5 lots in the development pipeline, and approximately 18 minor lots per year on average over the past 6 years. However, the number of minor lot exemptions approved has continued to grow

from 10 in 2000 to 29 in 2005. Further, this region includes many of the necessary resources that may adequately absorb future growth, with an estimated 1,615 undeveloped residential parcels. Given this amount of vacant available acreage, this region could also experience significant additional residential dwellings. However, unlike the Central Valley Planning Region, this area has a much smaller number of parcels classified as farms and due to its more rural character limited community and public water and sewer systems may expect to see a greater number of minor lot exemptions on larger lots over a longer period of time.

Although it appears that the much smaller Sleepy Creek Planning Region is least impacted at this time with no major subdivision proposals in the development pipeline and a sporadic annual average of 7 minor lot exemptions, pressures from the spreading growth in Berkeley and Jefferson counties immediately to the east, and the lack of adequate infrastructure and resources elsewhere in the County may change this direction at any point. However, this region being much more limited in physical size has less than 600 undeveloped residential parcels remaining for additional growth. Under optimistic standards this may yield a limited amount of additional growth. Further, it has less than 20 farms, and appears from recent permit activity to be building out at a faster pace than the Cacapon Planning Region, which would determine that both land and resources may be "used up" sooner than either of the two larger planning regions to the west.

Population Projections

Population projections for the County are developed in order to ensure that public utilities and services are adequate to provide for the natural increase in development. Projections are affected by such factors as the economy, household size, public policy, and adequacy of services. They are developed based on historic growth trends, current development activity, and land available for future development. However, given the method in which each factor may be affected, it is important to develop at least three growth scenarios for the County to consider when planning for the financing and provision of services.

Low Growth Scenario

The low growth scenario takes into account the pace at which development has occurred over the past 20 years. Although much of this chapter has focused on presentation of information in census periods, the impact of growth since the 2000 census period has increased significantly, and must be accounted for. Therefore, for purposes of this scenario the historical growth period will be measured from 1985 to 2005. During the past 20 year period as outlined, the average annual increase was 306 persons or 120 additional units with an average household size of 2.55 persons per household. Using these historical figures to project growth for the next 20 years, this static scenario would result in a projected population of 23,352 in a total of 9,487 dwellings for the year 2025. This assumes there will be similar periodic constraints on new development that have occurred in the past, and a significant decline in recent growth trends.

Medium Growth Scenario

The medium growth scenario analyzes all land currently available for development and the projected ability for existing public services to adequately provide for that growth. It is much more difficult to project than the low and high scenarios, as it must take into account potential changes in infrastructure, economy, services, and especially the regulatory process. This scenario recognizes that the current development pipeline will exceed the low growth scenario, while at the same time acknowledges services and resources may need to be expanded or improved in a more timely manner in order to sustain the pace estimated under the high growth scenario.

Taking into account that although a significant amount of development has been placed in the development pipeline, the actual build out of such development between 2000 and 2005 has averaged approximately 222 new homes being constructed and occupied per year. In comparing this data with the estimated availability of services from other chapters, it is evident that the pace of both current and projected growth will be affected by improvements to these necessary services being an integral part of the overall development process and the finite capacity of natural resources. This includes such examples as:

Public Service Needs

- Schools- the overall school system having less than 600 available seats will need to be evaluated for efficient student distribution and timing of expansion to handle increased growth
- Roads- upgrades will be required to address major issues such as capacity limitations on US Rt. 522 and alignment deficiencies on WV Rt. 9 as well as minor local road needs
- Public Safety- entities experiencing increased call load on primarily volunteer services will need additional funding for personnel and capital equipment outlay

Environmental and Natural Resource Limitations

- Water- development will be affected by future regulatory measures, the cost of extension of service, and the accuracy at which quantity may be accounted for and distributed
- Sewer- development will be affected by additional regulatory restrictions, the cost of extension of service, and the term of existing consent orders placed on various systems
- Sensitive Areas- consideration of development in areas where there are sensitive soils, sleep slopes, waterways, floodplains and other significant features

Other Factors Affecting Development

- Market- market demand for housing has experienced a significant jump in housing prices, while there has been a noticeable decrease in average number of new units available
- Government Regulation- potential creation of comprehensive local zoning ordinances and expanded State and Federal environmental regulations

It is assumed that in order to maintain the recent pace of growth, such necessary services and regulations would be addressed as part of the development process. In addressing these current and projected limitations, it is also assumed that the 2005 peak of more than 300 permits will steadily decline and eventually level out as public will places increased pressure on the regulatory process to require growth and services be consistent in their collective approach.

Given this experience as reflected in the growth process of more developed counties to the east, it is a fair estimate to conclude that Morgan County may expect to experience a more balanced pace of an additional 566 people in 222 units per year through 2025. However, although Table 1-6 may reflect these increases in 5-year periods, it should be understood that the ebb and flow of such increases may depend largely on the ability for services and resources to adequately provide for the additional growth as well as market and regulatory effects. If this pace is achieved during the Plan period and average household size climbs slightly up to 2.55 from its current 2.4, it would result in a 2025 population of 29,577 in a total 11,599 dwelling units.

High Growth Scenario

Like the low growth scenario, the high growth scenario will also utilize an average household size of 2.55 persons per household, but will continue the recent escalation in development activity rather than an average of the previous 20 years. The high growth scenario takes into account all land currently available for development, as well as optimal conditions that reflect continued growth pressures that have been experienced in the past several years. Therefore, for purposes of this scenario it is assumed that growth will continue to build out without limitations to infrastructure, services, economy, or changes in the regulatory process. Under this scenario the County would continue to approve 223 new residential units per year for major subdivisions, and that the number of approved exemptions will continue to increase by 4 additional permits per year. This would result in a projected population of 37,890 in a total of 14,859 dwellings for the year 2025. This assumes that there will be a steady housing vacancy rate, an additional 3,140 minor lot exemptions and 4,460 major subdivision units, adding approximately 380 units per year and more than doubling the population and housing within the County.

Table 1-6 Population Growth Scenarios

Scenario	2005	2010	2015	2020	2025
Low Growth	17,232	18,762	20,292	21,822	23,352
Medium Growth	17,232	20,318	23,404	26,490	29,577
High Growth	17,232	22,397	27,562	32,727	37,890

Factors Affecting Growth

Public Services include all necessary and desirable services provided by the government that allow for a community to function appropriately. These services range from necessary services such as public safety to desirable amenities such as public libraries. It is important to link the goals of the public services section of this Plan with the potential changes in land use and ultimately the direction of growth in order to ensure that services are timely, adequate, development funded, and above all financially efficient to maintain.

Infrastructure includes both public and privately developed services that are necessary in order for development to occur. These services primarily include roads, water, and sewer. It is important to understand how the extension of infrastructure, or lack thereof, over time has

allowed for growth to occur. This will allow for the public to make the most appropriate decision on whether growth will be better served by well and septic, private systems or public water and sewer, and determine how to best manage the design and maintenance of road systems to ensure efficient transportation networks and traffic flow.

Because environmental regulations are driven by ever changing State and Federal policy, this constraint is often the most overlooked and unpredictable factor affecting growth. In order to sustain some consistent direction for the County as it relates to growth and development, it is important for the County to develop policies that place it at the forefront of environmental policy rather than at the mercy of development that may leave behind costly measures for the County to later correct. This includes such efforts as assessment of the existing water table, watershed capacity and other information involving the establishment and extension of water and sewerage resources.

Possibly the most important factor affecting land use and growth is the socio-economic make up of the County. This can be observed at every point across the County from substandard housing to large vacation homes as well as declining industry and the rise of small seasonal retail tourism. In order to direct such change in a comprehensive manner, it is important to develop a plan for the most beneficial use of finite public resources. To accomplish this effort, the County must develop and lead this direction through the necessary implementation of all available planning tools that serve to guide all growth in an appropriate and timely manner.

Land Use Planning Tools

Although there are currently no zoning regulations governing land use within Morgan County, there are numerous available planning tools that should be considered by the County during the plan period to guide future land use. Given the sensitive issues surrounding what land use policies can and cannot control, it is important that the public is invited to participate in this decision making process. The following land use tools may be important to consider in the effective growth management of the Comprehensive Plan.

- Countywide Zoning Ordinance as provided by State Code and based on the strategies outlined in the Comprehensive Plan, most notably the ability for resources to support various types of growth in designated areas.

- Subdivision and Land Development Regulations recently updated by Morgan County to ensure that techniques used for development of land will be consistent with measures to benefit the entire County

- Traditional Neighborhood Design development with concepts that recreate and promote the continuation of small town character in design elements of new subdivisions and redevelopment proposals.

- Planned Residential Development permits innovative, well planned development that creates open space, blends housing types, and includes a mixture of uses that promotes neighborhood activity.

- Overlay Districts may be considered as part of the development of a comprehensive zoning ordinance to allow for increased flexibility within classifications while preserving the underlying controls that ensure neighboring uses are compatible.

- Agricultural Land Preservation includes methods to establish permanent easements that protect prime agricultural land from development, while providing financial value to the farmer to continuing viable operations.

- Transfer of Development Rights preserves land for agricultural and other sensitive areas directing growth to preferred development areas where services and resources are available.

- Neighborhood Revitalization incentives work to identify blight areas and properties that detract from the overall health of a community so that targeted strategies can be established to address each area's need.

Goals & Objectives

Goals

The goal of land use planning in Morgan County is to provide a reasonable, flexible guide for an orderly and economically sound pattern of development consistent with the goals in this Comprehensive Plan, which include:

- Preserving the rural nature of the county while providing for compatible residential, commercial and industrial development;
- Protecting, encouraging and maintaining viable agricultural land use;
- Preserving the views, water resources, and other natural features that define the county; and
- Protecting and enhancing the cultural, historic and aesthetic aspects of life in Morgan County.

Objectives

These goals may be achieved by implementing objectives such as the following:

Procedural Objectives:

- Establish some measure of countywide comprehensive land use controls;
- As one aspect of establishing land use controls, evaluate the need for zoning regulations and associated enforcement mechanisms;

- Determine the issues and how the process for obtaining Planning Commission review and approval for development plans might be streamlined;
- Promote coordination of the work of government entities to identify and designate areas where public services, infrastructure expansion, and public utilities will be needed in the future; and
- Create clear, consistent definitions for land use designations and development standards.

Land Use Design:

- Consider incorporating into development regulations elements that would protect view sheds and other natural features;
- Expand programs that protect the viability of active agricultural land uses;
- Ensure that adjoining areas are compatible when mapping transitions from urban to rural areas; and
- Create policies that provide adequate buffers between conflicting land uses, and limit incompatible land uses around farmland, historic sites, and industrial extraction areas.

APPENDIX 4

GLOSSARY

APPENDIX 4

This appendix contains a list of definitions for commonly-used terms in this mitigation plan. It also contains a list of the acronyms that are used throughout.

DEFINITION OF TERMS

10-Year Flood: A flood event with a 10% chance of occurring in any single year.

25-Year Flood: A flood event with a 4% chance of occurring in any single year.

50-Year Flood: A flood event with a 2% chance of occurring in any single year.

100-Year Flood: A flood event with a 1% chance of being equaled or exceeded in any single year.

Asset Inventory: A listing of critical facilities, historical facilities, facilities housing vulnerable populations (e.g., schools, nursing homes, hospitals), large economic assets in the community, and other, community-designated special considerations on which a risk assessment is completed.

Benefit Cost Review: A process by which a community considers both the potential benefits of mitigation projects in comparison with their costs. It is a way to determine if the costs are achievable and feasible based on the benefits that can be realistically anticipated.

Emergency Services Project: Action that protects people and property during and immediately after a disaster or hazard event.

Hazard Risk Assessment: The process of measuring the potential loss of life, personal injury, economic injury, and property damage resulting from hazards by assessing the vulnerability of people, buildings, and infrastructure to hazards.

Loss Estimate: A mathematical calculation of the potential damage – structural, contents, and functional – a facility and/or community could occur as a result of a

specific hazard.

Mitigation: Activities providing a critical foundation in the effort to reduce the loss of life and property from natural and/or man-made disasters by avoiding or lessening the impact of a disaster and providing value to the public by creating safer communities. Mitigation seeks to fix the cycle of disaster damage, reconstruction, and repeated damage. These activities or actions, in most cases, will have a long-term sustained effect.

Natural Resource Protection: Action that, in addition to minimizing hazard losses, also preserves or restores the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.

Prevention: Government administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses.

Property Protection: Actions that involve the modification of existing buildings or structures to protect them from a hazard, or removal from the hazard area.

Public Education and Awareness Project: Action to inform and educate citizens, elected officials, and property owners about the hazards and potential ways to mitigate them.

Robert T. Stafford Disaster Relief and Emergency Assistance Act: Section 322 was added as part of the Disaster Mitigation Act (DMA) of 2000 to take a new and revitalized approach to mitigation planning. This new section emphasizes the need for local entities to closely coordinate mitigation planning and implementation efforts. In succinct terms, this is the mandate requiring local communities to compile and adopt a mitigation plan as an eligibility requirement for mitigation funding.

STAPLEE Method: A technique for identifying, evaluating, and prioritizing mitigation actions based on existing local conditions. It advocates an analysis based on the following conditions: social, technical, administrative, political, legal, economic, and environmental.

Structural Project: Action that involves the construction of structures to reduce the impact of a hazard.

DEFINITION OF ACRONYMS

AFGP	Assistance to Firefighters Grant Program
ALA	American Library Association
ARC	American Red Cross
ARRA	American Recovery & Reinvestment Act
B	Berkeley County
BEDI	Brownfield's Economic Development Initiative
CD	Community Development
CEDS	Comprehensive Economic Development Strategy
CERT	Community Emergency Response Team
CFR	Code of Federal Regulations
CFS	Commodity Flow Study
CIP	Competitive Improvement Program
CRS	Community Rating System
CWSRF	Clean Water State Revolving Fund
DHHS	Department of Health and Human Services
DHS/FEMA	US Department of Homeland Security / Federal Emergency Management Agency
DOJ	Department of Justice
DOT	Department of Transportation
E	Economic
ED	Education
EDA	Economic Development Authority
EDI	Economic Development Initiative
EEG	Energy Efficiency Grant
EMPG	Emergency Management Performance Grant

EN	Environmental
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
GIS	Geographic Information System
HMC	Hazard Mitigation (Planning) Committee
HMEP	Hazardous Materials Emergency Planning (Grant)
HMGP	Hazard Mitigation Grant Program
HMP	Hazard Mitigation Plan
HUD	Housing and Urban Development
IAR	Investment Advisory Representative
IJDC	Infrastructure and Jobs Development Council
J	Jefferson County
LEPC	Local Emergency Planning Committee
M	Morgan County
MAA	Mutual Aid Agreement
MDE	Maryland Department of the Environment
NCDC	National Climatic Data Center
NCR	National Capital Region
NFIP	National Flood Insurance Program
NIMS	National Incident Management System
NRCS	Natural Resources Conservation Service
NWS	National Weather Service
OES	Office of Emergency Services
OG	Operating Guidelines
PDC	Planning and Development Council
PDM	Pre-Disaster Mitigation (Grant)
PDSI	Palmer Drought Severity Index
PGA	Peak Ground Acceleration
PIO	Public Information Officer
POC	Point of Contact
PSD	Public Service District

RIC	Regional Interoperable Committee
RL	Repetitive Loss
RRT	Regional Response Team
SAR	Search and Rescue
SCBG	Small Cities Block Grant
SERC	State Emergency Response Commission
SFHA	Special Flood Hazard Area
SHSP	State Homeland Security (Grant) Program
SIRN	Statewide Interoperable Radio Network
SR	State Route
TEA	Transportation Enhancement Act
TR	Transportation
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USDHS	United States Department of Homeland Security
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
USHHS	United States Department of Health and Human Services
WCS	Worst Case Scenario
WFAS	Wildland Fire Assessment System
WVDEP	West Virginia Department of Environmental Protection
WVDHHR	West Virginia Department of Health and Human Resources
WVDHSEM	West Virginia Division of Homeland Security and Emergency Management
WVDO	West Virginia Development Office
WVDOF	West Virginia Division of Forestry
WVDOH	West Virginia Division of Highways
WVU	West Virginia University

APPENDIX 5

ADOPTION MATERIALS

Regional hazard plan is available

September 27, 2011

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MARTINSBURG - The Eastern Panhandle Hazard Mitigation Plan is available for public comment.

In the works for the past two or three years, the plan covers Berkeley and Morgan counties as well as the municipalities in those counties. It incorporates preparations for all kinds of natural and manmade hazards, from floods to chemical spills, earthquakes to terrorist attacks.

The plan was prepared by the Region 9 Planning and Development Council with the assistance of Berkeley and Morgan counties' emergency services offices and the West Virginia Department of Homeland Security.

Copies are available at the public libraries in Berkeley and Morgan counties and on Region 9's website at www.region9wv.com under projects and programs.

Comments can be sent to Region 9 by email at info@region9wv.com or mailed to 400 W. Stephen St., Suite 301, Martinsburg, WV 25401.

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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,

12/02/2003 TUE 08:54 [TX/RX NO 8654] 002

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 20th 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

12/02/2003 08:51 3042644467 BERKELEY CO OES PAGE 02

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 18th 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.*

Mayor - Town of Hedgesville	Witness Town Recorder
Name: Mary Beth Good	Name: Ronnie L Good
Print: Mary Beth Good	Print: RONNIE L. Good