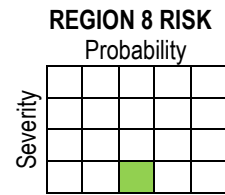


### 2.3.7 Land Subsidence

Land subsidence is a gradual settling or sudden sinking of the Earth's surface due to subsurface movement of earth materials.



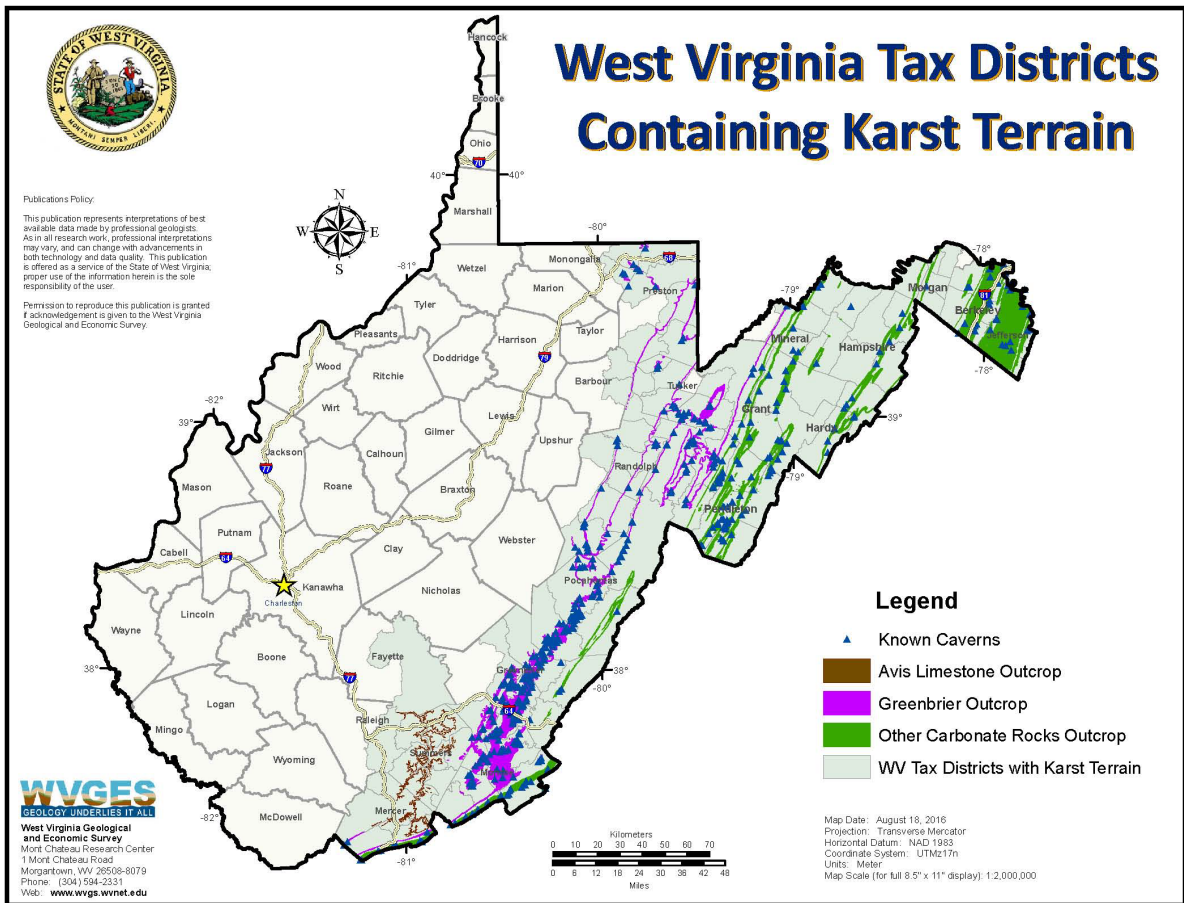
#### HAZARD OVERVIEW

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.

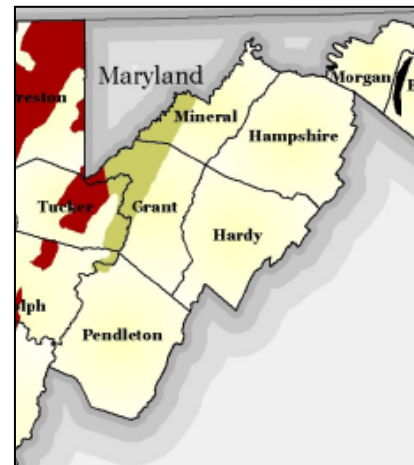
"Karst terrain" means a terrain, generally underlain by limestone or dolomite, in which the topography is formed chiefly by the dissolving of rock and which may be characterized by sinkholes, sinking streams, closed depressions, subterranean drainage, and caves. The map below shows the outcrop of carbonate units and identifies the outcrops of geological units exhibiting the characteristics of karst, including caves and sinkholes (WVGES, 2016.)

#### LOCATION AND EXTENT

Most of Region 8's counties lie on a geological formation containing evaporate rocks such as salt and gypsum. (The map below demonstrates the presence of "evaporite rocks" in West Virginia and roughly throughout the Region 8 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](http://nationalatlas.gov), sink holes and other subsidence are not predicted to be extensive in the areas of West Virginia containing these formations.



Other areas throughout West Virginia see subsidence as it relates to mining operations. In Region 8, only Mineral, Grant, and Pendleton Counties contain areas typically considered parts of the state's coal fields. These areas are located in the extreme western parts of the region and consist primarily of low-volatile bituminous coal. Grant County does contain a very small area with medium and high-volatile bituminous. The image to the left shows these areas. The red portion at the western tip of Grant County represents med/high-volatile, while the light green strip along the western edge of the region represents the low-volatile areas.



### POSSIBLE CAUSES

Land movements can be secondary effects of heavy rainfall and earthquakes (WHO). Some of the causes attributed to land movements can include:

- intense deforestation and soil erosion,
- construction of human settlement in landslide prone areas,
- roads or communications lines in mountain areas,
- building with weak foundations,
- buried pipelines,
- mining, and
- lack of understanding of landslide hazards, and lack of warning systems.

## HISTORICAL OCCURRENCES

Fortunately, most counties in the region have not 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.

## IMPACT AND VULNERABILITY

Although there have not been any instances of large, catastrophic land movements in Region 8, the potential for damage is still present. Generally, land subsidence causes death, injuries, trauma and suffocation from entrapment. Short and long-term mental health effects have been observed. Depending on the location, these events could cause loss or damage to homes, infrastructure and critical facilities and block whole communities off. There is potential for loss of property value, livestock and crops (WHO).

## LOSS AND DAMAGES

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. However, there have been few, if any, occurrences of large-scale land subsidence incidents in Region 8. Because the damage in the Region 8 counties has been mainly small incidents, the West Virginia Division of Highways (WVDOH), the agency that repairs land subsidence issues on roads, could provide data for historical events.

WVDOH Districts 5 and 8 were given the opportunity to provide input for this hazard; only District 8 (Pendleton County) was able to provide loss and occurrence information. According to the response, Pendleton County averages between two and three minor slips per year and the average repair cost of each slip is between \$25,000 and \$50,000. The District Engineer indicated that the main areas that experience these slips are the

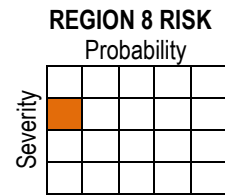
mountains, particularly along US 33 (Shenandoah Mountain, North Mountain, and Allegheny Mountain).

RISK ASSESSMENT

TABLE 2.3.7.A LAND SUBSIDENCE RISK CALCULATION				
<i>Probability</i>		<i>Severity</i>		<i>Risk</i>
OCCASIONAL		NEGLIGIBLE		MEDIUM LOW
There is no reliable data that indicates the amount of land subsidence occurrences in the region, but from data available, the possibility of occurrence is present.	+	Damages caused by this hazard are not very costly and so far have not involved loss of life or injury.	=	The risk assessment matrix categorizes the land subsidence hazard risk as medium low.

### 2.3.8 Severe Summer Weather

Severe summer weather includes hail, extreme heat, tornadoes, wind, and lightning.



#### HAZARD OVERVIEW

##### Hail

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. Hailstorms are more common in elevated areas, such as the mountains, than tropical areas since locations such as mountains are closer to the bottom of thunderstorms. In mountainous areas, the falling hail has less time to melt before touching the ground. The counties in Region 8 are susceptible to hailstorms due to their proximity in the mountainous portions of eastern West Virginia.

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.

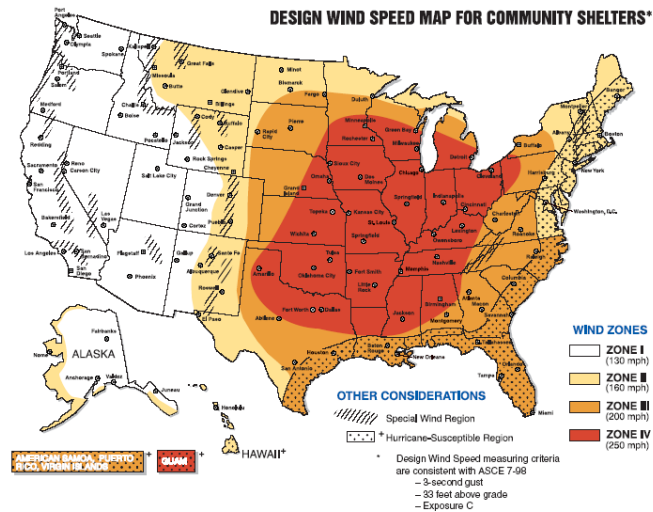
Historical occurrences include the following. Hampshire County, for example, has not experienced a hailstorm that caused any reported property damage two (2) decades. Total, countywide property damage was never in excess of \$5,000 (according to the NCDC reports). Crop damage, though, rose to nearly \$50,000 as a result of a June 1998 hailstorm in the Green Spring area. These reported storms contained hail ranging from 0.75" to 2.75" in diameter.

##### 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, counties in Region 8 have experienced 21 high wind events. (This number may appear low since a single event was likely to affect all or most counties; as such, simply totaling the number of events per county would not provide an accurate picture of wind storm frequency.)

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 finishings (such as siding, etc.).



### Thunderstorm

The wind gusts and lightning associated with thunderstorms can pose a threat to life and property. Thunderstorms also have the potential to produce hail and tornadoes. Thunderstorms are typically associated with cold fronts and can move in “lines,” meaning that a location can possibly be struck by several storms in the course of minutes or hours.

The heavy rainfall associated with one or multiple storms has been known to create flash floods in the presence of oversaturated soils. A major secondary threat associated with thunderstorms is lightning. 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. Storms are common throughout the spring and summer months (although a thunderstorm can occur in any season) that cause downed trees and power lines.

### Lightning

Lightning is a giant spark of electricity between the atmosphere and the ground. In the initial stages of development, air acts as an insulator between the positive and negative charges in the cloud and between the cloud and the ground; however, when the differences in the charges becomes too great, this insulating capacity of the air breaks down and there is a rapid discharge of electricity known as lightning (NWS). Individual lightning strikes occur with no warning and kill between 75 and 100 Americans every year (Haddow, Bullock, & Coppola, 2014, p.51.) Lightning can reach a significant distance from a storm, up to 25 miles according to the National Severe Storms Library (NSSL). While lightning is a common occurrence and can be seen in most thunderstorms, only about 20% of the lightning observed in a storm will strike the ground.

### 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 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.

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 Enhanced Fujita scale provides an idea of the strength and extent of damages of tornadoes that can occur in the region.

## LOCATION AND EXTENT

Generally, severe summer weather will affect all counties across the region very similarly. However, based on reported historical occurrences alone, Hampshire County has seen more severe summer weather events than the rest of the counties in Region 8.

Summer weather can encompass several jurisdictions, counties, and states at the same time for varying durations.

## HISTORICAL OCCURRENCES

Data gathered from NCEI and SHELDUS inform the following table; NCEI data was used as the most recent information and was complemented by SHELDUS data for information that was not available from NCEI.

<i>Event Type</i>	<i>Total Events</i>	<i>Grant</i>	<i>Hampshire</i>	<i>Hardy</i>	<i>Mineral</i>	<i>Pendleton</i>	<i>Year Data Available From</i>	<i>Year Data Available To</i>	<i>Average Events Per Year</i>
Excessive Heat, Heat	50	3	19	18	5	1	1993	2017	2
Hail	160	24	50	29	28	29	1964	2017	3
Heavy Rain	44	9	9	14	4	8	1999	2017	2
Lightning	42	9	9	7	10	7	1964	2017	1
Tornado	7	2	2	0	2	1	1997	2017	0
Wind, Strong Wind, Thunderstorm Wind	691	138	181	148	134	90	1960	2017	12
<b>Totals</b>	<b>994</b>	<b>185</b>	<b>270</b>	<b>216</b>	<b>183</b>	<b>136</b>	<b>1960</b>	<b>2017</b>	<b>17</b>

Even within the past five years since the last update of this plan there have been instances of severe summer weather that have affected the region. The following are some examples from the NCEI Storm Event Database.

- **Petersburg, Grant County – 06/24/2016:** A stationary front remained draped across the region, placing most of the area in a moist and unstable air mass. A shortwave moving through combined with this air mass to trigger showers and thunderstorms.
- **Capon Bridge, Hampshire County – 06/29/2012:** A strong upper-level disturbance passed through the region in a northwest flow aloft. Extremely hot and humid conditions caused high amounts of instability. The upper-level disturbance triggered a line of thunderstorms that moved through the area. Due to the high instability, thunderstorms caused widespread wind damage.
- **Franklin, Pendleton County – 05/13/2014:** A cold front moved into the Mid-Atlantic from Delaware and showers and thunderstorms formed on the warm side where temperatures were near 90 and humid conditions led to heavy rain in activity.
- **Elk Garden, Mineral County – 09/02/2017:** Hot and humid conditions persisted across the Mid Atlantic ahead of an advancing cold front. Showers and thunderstorms formed in the vicinity of a surface trough. Some thunderstorms became severe leading to damaging winds.
- **Flats, Hardy County – 10/15/2014:** A cut off low over the Midwest pushed a cold front through the Mid Atlantic during the overnight hours through the morning. A line



of showers with embedded heavier showers and thunderstorms brought strong winds from aloft down to the surface.

## IMPACT AND VULNERABILITY

There are many impacts of severe summer weather. Here are a few listed under each category.

- **Lightning:** Can cause injury and even death. In some cases, lightning is known to cause fires in structures and open land or forests.
- **Hail:** Can cause injury to humans and animals if directly exposed, damage to vegetation and infrastructure.
- **Tornadoes:** Cause damage to trees, property; they can also cause severe injury and death.
- **Wind:** Causes respiratory illnesses, damage to the vegetation (fallen trees), and can cause damage to infrastructure due to flying debris.
- **Thunderstorms:** Include all of the above mentioned impacts.

## LOSS AND DAMAGES

Data available from the NCEI and SHELDUS databases indicate that tornadoes are the least occurring, most costly type of severe summer weather event and the one that has caused most injuries throughout the years. In contrast, the most prevalent type of event, wind, strong wind, and thunderstorm wind, is about 12.5 times less costly per event than a tornado.

<i>Event Type</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Property Damage</i>	<i>Crop Damage</i>	<i>Total Damages</i>	<i>Total Events</i>	<i>Average Cost Per Event</i>
Excessive Heat, Heat	0	0	\$0	\$0	\$0	50	\$0
Hail	0	0	\$167,214	\$213,322	\$380,536	160	\$2,378
Heavy Rain	0	0	\$0	\$0	\$0	44	\$0
Lightning	1	0	\$75	\$240,735	\$240,810	42	\$5,734
Tornado	0	5	\$298,000	\$275,000	\$573,000	7	\$81,857
Wind, Strong Wind, Thunderstorm Wind	0	6	\$1,796,662	\$2,726,028	\$4,522,690	691	\$6,545
<b>Totals</b>	<b>1</b>	<b>11</b>	<b>\$2,261,951</b>	<b>\$3,455,085</b>	<b>\$5,717,036</b>	<b>994</b>	<b>\$5,752</b>

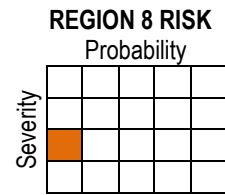
RISK CALCULATION

TABLE 2.3.8.C SEVERE SUMMER WEATHER RISK CALCULATION					
Probability		+	Severity	=	Risk
FREQUENT					CRITICAL
Events	994		Structural damage is mainly the highest loss in severe summer weather events. Due to the fact that the region is well accustomed to and prepared for these types of events, the destruction has not been catastrophic.		The risk assessment matrix categorizes a frequent and critical event as a medium high risk to the area.
Years	57				
= 18.4					
The Region 8 counties experience around 18 severe summer events per year.					



### 2.3.9 Severe Winter Weather

Severe winter weather events include snow, ice, freezing temperatures, and storms.



#### HAZARD OVERVIEW

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 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 or more inches of snow in a 12-hour period.
- **Ice Storm:** An ice storm occurs when moisture falls and freezes immediately upon impact.

#### POSSIBLE CAUSES

The types of severe weather described in this profile can be significantly altered by human activities. Some of these activities can be described as the following.

- **Urban Heat Island Effect:** a local climatic condition in which a metropolitan area may become as much as 22° F warmer than the surrounding countryside.
- **Burning of Fossil Fuels:** gasses emitted from burning of fossil fuels can linger in the atmosphere contributing to climate changes. (Keller, Devecchio, 2015, p 317).
- **Climate Change:** weather and climate change are closely related to the increase of occurrences in severe weather. For more complete information, refer to section [2.2.3 Hazards and Climate Change](#).

#### LOCATION AND EXTENT

Generally, severe winter weather will affect all counties across the region very similarly. However, based on reported historical occurrences alone, Grant County has seen more severe winter weather events than the rest of the counties in Region 8.

Winter weather can encompass several jurisdictions, counties, and states at the same time for varying durations.

HISTORICAL OCCURRENCES

TABLE 2.3.9.A HISTORICAL OCCURRENCES OF SEVERE WINTER WEATHER									
Event	Total Events	Grant	Hampshire	Hardy	Mineral	Pendleton	Year Data Available From	Year Data Available To	Average Events Per Year
Blizzard	23	7	1	1	7	7	1996	2017	1
Cold/Extreme Cold	115	27	11	10	29	38	1996	2017	5
Heavy Snow	31	13	7	6	5	0	1996	2017	1
Ice Storm	21	1	7	7	4	2	1996	2017	1
Winter Storm	359	102	61	53	69	74	1996	2017	17
Winter Weather*	889	252	127	126	217	167	1960	2017	16
<b>Totals</b>	<b>1,438</b>	<b>402</b>	<b>214</b>	<b>203</b>	<b>331</b>	<b>288</b>	<b>1960</b>	<b>2017</b>	<b>25</b>

\*Winter Weather events are the only events for which SHELVDUS data is available.

Even within the past five years since the last update of this plan there have been instances of severe winter weather that have affected the region. The following are some examples from the NCEI Storm Event Database.

- Grant County – 10/29/2012:** Hurricane Sandy moved up the Atlantic coast and then turned Northwest and made landfall northeast of MD. Heavy rain and high winds over spread coastal regions and most of Maryland. Heavy rain caused flood and river flooding. As Sandy moved north of the Mid Atlantic, winds switched to southerly and coastal flooding occurred. Blizzard conditions occurred on the backside of Sandy in elevations over 2500 feet in Western Maryland, Virginia, and West Virginia. Blizzard conditions were estimated by heavy snow and strong winds from a Coop Observer. He measured about 2 feet of snow. Observations at Wintergreen Mtn at 3650 feet reported winds greater than 35 mph.
- Hampshire County – 03/05/2013:** Strong low pressure impacted the Mid Atlantic bringing rain and snow to the region. A rain-snow line was present across the I-95 corridor where snowfall accumulations dropped off significantly from west to east. Snowfall amounts of 17 inches were reported at Lehw.
- Pendleton – 03/02/2014:** A cold front crossed the region as low pressure passed across the south of the Mid Atlantic and heavy snow moved across the region. Temperatures dropped from north to south and precipitation changed from rain to sleet/freezing rain to snow. Snow accumulations of five or more inches were measured at surrounding locations.

- **Mineral County: 02/14/2016:** Prolonged event impacted the Mid-Atlantic. Southwest flow aloft overriding northeast flow at the surface from departing high pressure led to snow spreading over the region initially. Low pressure formed and organized over the Gulf of Mexico, eventually pushing off to the northeast and impacting the region on the 15th. As the cold air wedge was eroded away from this low, warming at all levels led to the snow transitioning to sleet and ice for most of the area. Trained spotters reported between 0.2 and 0.4 inches of ice around the county.
- **Hardy County – 03/13/2017:** The northern and southern branches of the jet phased together, which resulted in coastal low pressure on the 13th. The coastal low tracked up the Mid-Atlantic Coast during the morning hours of the 14th before moving out to sea later in the day. High pressure over New England caused enough cold air for precipitation to fall mainly in the form of snow. Significant snowfall accumulations were reported due to the copious amounts of moisture associated with this storm. Snowfall totaled up to 8.0 inches at Old Fields and also near Wardensville.

#### IMPACT AND VULNERABILITY

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 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.

## LOSS AND DAMAGES

SHELDUS and NCEI data indicate that there have been over 1,400 winter weather events in reporting years. Although accurate loss and damage data is not available for each type of event, an estimation can be calculated; data indicates that each winter weather event costs an average of close to \$2,500.

<i>Event</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Total Cost</i>	<i>Total Events</i>	<i>Average Cost Per Event</i>
Blizzard	0	0	\$0	23	\$0
Cold/Extreme Cold	0	0	\$0	115	\$0
Heavy Snow	0	0	\$0	31	\$0
Ice Storm	0	0	\$25,000	21	\$1,190
Winter Storm	0	0	\$1,593,000	359	\$4,437
Winter Weather*	2	2	\$2,259,373	889	\$2,541
<b>Totals</b>	<b>2</b>	<b>2</b>	<b>\$3,877,373</b>	<b>1,438</b>	<b>\$2,696</b>

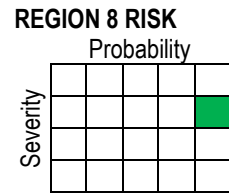
\*Winter Weather events are the only events for which SHELDUS data is available.

## RISK ASSESSMENT

<i>Probability</i>		+	<i>Severity</i>	=	<i>Risk</i>
FREQUENT			MARGINAL		MEDIUM HIGH
Events	1,438				
Years	57				
Severe winter weather events are very frequent in Region 8 counties.			The damages and loss caused by severe winter weather are marginal. In 57 years there have been only two recorded injuries and two deaths. Each event on average does not cost more than \$3,000. Region 8 counties are well accustomed to and plan for these types of events.		The risk assessment matrix categorizes this hazard as medium high.

### 2.3.10 Terrorism

Terrorism is the unlawful use of violence and intimidation in the pursuit of political aims.



#### HAZARD OVERVIEW

“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.***

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. Three of the five counties contain significant targets due to the potential affect 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 8, 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.

## POSSIBLE CAUSES

There is no single cause of acts of violence; it is typically a non-rational, complicated, intertwined, series of reasons that have the outcome of violence. In his article *Causes of Terrorism*, Nick Grothaus lays out the most common causes cited by leaders in the field of counterterrorism. These categories may apply to other types of violence not related to terrorism.

- **Ethno-Nationalism:** The desire of a population to break away from a government or ruling power and create a state of their own.
- **Alienation/Discrimination:** Individuals or groups face discrimination leading to further feelings of isolation. These people may become jaded towards society and feel excluded.
- **Religion:** Religion as a part of terrorism has been mainly attributed to Islamic fundamentalism although other religions have also had involvement in terrorist activities. For example, Christian Fundamentalists target abortion clinics, the Aryan Nation and the Church of Christ, Christians target the Jews and minorities (Post, 2007, pp. 211-212).
- **Socio-Economic Status:** Individuals and groups may be driven by a sense of relative deprivation and lack of upward mobility within society.
- **Political Grievances:** A lack of political inclusiveness or grievances against a certain political order may cause individuals to join or create terrorist groups.

## LOCATION AND EXTENT

Due to the high unpredictability of terrorism acts, any location could be a target of an attack. The extent of damages or impact from an attack is also unpredictable.

## HISTORICAL OCCURRENCES

There have been no known threats to or attacks on infrastructure, government or religious heads, private citizens or any other target in Region 8 counties.

The Global Terrorism Database from the Study of Terrorism and Responses to Terrorism (START) from the University of Maryland maintains data on attempted and actual



attacks relating to terrorism. The following table describes terrorist activities in West Virginia and the states surrounding Region 8, Virginia and Maryland. The table identifies the date and location of the attack, the target, property damage (property damage is zero if there was no property damage or if the damage is unknown), the perpetrator and a brief description of the incident.

<b>TABLE 2.3.10.A TERRORIST ACTIVITIES IN WV AND SURROUNDING REGION 8 STATES</b>						
<i>Date</i>	<i>City</i>	<i>Type of Attack</i>	<i>Target</i>	<i>Property Damage</i>	<i>Perpetrator</i>	<i>Description</i>
5/5/2017	Weirton, WV	Bombing Explosion	Government	\$0	Individual	Three explosive devices were discovered and safely detonated around the Weirton Municipal Building in Weirton, WV. One of the devices was planted underneath a police vehicle.
8/20/2016	Roanoke, VA	Armed Assault	Private Citizens	\$0	Individual	An assailant stabbed and injured two civilians at an apartment complex in Roanoke, VA. The assailant was also injured in the attack.
11/19/2015	Falls Church, VA	Facility or Infrastructure Attack	Religious Figures or Institutions	\$200	Individual	An assailant threw incendiary devices at an Islamic Center in Falls Church, VA. There were no reported casualties in the attack.
5/20/2012	Axton, VA	Facility or Infrastructure Attack	Religious Figures or Institutions	\$0	Individual	Assailants set fire to a religious institution in Axton, VA. There were no reported casualties in the attack. An individual claimed responsibility for the incident and stated that he targeted the church because the congregation was predominantly African American.
1/6/2011	Hanover, MD	Armed Assault	Government	\$0	Unknown	In Hanover, MD a package was sent to the Transportation Secretary. The package was one of two received on the same day, the other was sent to the Governor. The package was opened by a government employee, subsequently ignited and burned the employee's fingers. No other casualties took place. The same note was found in both of the packages. Investigators indicated these notes are in opposition of highway signs urging motorists to report suspicious activity.
1/6/2011	Annapolis, MD	Armed Assault	Government	\$0	Unknown	In Annapolis MD, a package was sent to the Governor. The package was one of two received on the same day, the other was sent to the Transportation Secretary. The package was opened by a government employee, and subsequently ignited and burned the employee's fingers. No other casualties took place. Investigators indicated a note on the package is in opposition of highway signs urging motorists to report suspicious activity.
11/1/2010	Woodbridge, VA	Facility or Infrastructure Attack	Military	\$0	Individual	Shots were fired overnight at a Coast Guard recruiting station in Woodbridge, VA. No one was injured and the strip mall, where the station was located, suffered only minor damage. A Marine Corps reservist was arrested on June 17, 2011, for an unrelated incident but was charged on June 21, 2011, for the Woodbridge shooting and several other similar attacks in the area, including two shootings on the

**TABLE 2.3.10.A TERRORIST ACTIVITIES IN WV AND SURROUNDING REGION 8 STATES**

<i>Date</i>	<i>City</i>	<i>Type of Attack</i>	<i>Target</i>	<i>Property Damage</i>	<i>Perpetrator</i>	<i>Description</i>
						National Museum of the Marine Corps, one at the Pentagon, and one at a Marine Corps recruiting station. Sources report that the perpetrator was fascinated by Al-Qa ida, but did not claim to be a member of the organization.
10/28/2010	Triangle, VA	Facility or Infrastructure Attack	NGO	\$0	Individual	Shots were fired for the second time in two weeks at the National Museum of the Marine Corps in the town of Triangle, VA. No one was in the building at the time of the attack and there were no reports of major damage. A Marine Corps reservist was responsible for this and other incidents in the area.
10/25/2010	Chantilly, VA	Facility or Infrastructure Attack	Military	\$0	Individual	Shots were fired overnight at a Marine Corps recruiting substation in Chantilly, VA. No one was injured and no major damage was reported. A Marine Corps reservist was responsible for this and other attacks in the area.
10/19/2010	Arlington, VA	Facility or Infrastructure Attack	Government	\$0	Individual	Shots were fired at the Pentagon located in Arlington, VA. Security reported hearing between five and seven shots fired at the building at 4:55 am. No one was injured in the attack but two windows were damaged. A Marine Corps reservist was responsible for this and other attacks in the area.
10/16/2010	Triangle, VA	Facility or Infrastructure Attack	NGO	\$20,000	Individual	Shots were fired overnight at the National Museum of the Marine Corps in the town of Triangle, VA. No one was in the building at the time of the attack but the several windows were damaged. A Marine Corps reservist, was responsible for this and other attacks in the area.
9/1/2010	Silver Spring, MD	Hostage Taking	Journalists & Media	\$0	Individual	A man took three hostages at the Discovery Communications headquarters building in Silver Spring, MD. He was motivated by his disapproval of the Discovery network's television programming. The man was shot to death by police snipers. All three hostages were freed unharmed.
3/4/2010	Arlington, VA	Armed Assault	Government	\$0	Individual	At roughly 6:40 p.m., a man walked up to the entrance of the Pentagon in Arlington, VA, drew out a gun and fired, wounding two police officers. The man was shot and critically wounded. He later died of his wounds in the hospital. The two police officers had non-life-threatening injuries and survived.
5/9/2007	Virginia Beach, VA	Facility or Infrastructure Attack	Abortion Related	\$0	Unknown	Unknown perpetrators ignited a fire inside the building housing the Planned Parenthood of Southeastern Virginia in Virginia Beach, VA. There were no casualties, but three Planned Parenthood offices were damaged.

**TABLE 2.3.10.A TERRORIST ACTIVITIES IN WV AND SURROUNDING REGION 8 STATES**

<i>Date</i>	<i>City</i>	<i>Type of Attack</i>	<i>Target</i>	<i>Property Damage</i>	<i>Perpetrator</i>	<i>Description</i>
11/20/2005	Hagerstown, MD	Bombing Explosion	Private Citizens	\$300,000	Earth Liberation Front	Perpetrators set four separate fires in the development known as Hagers Crossing in Hagerstown, MD. One townhouse was destroyed and three others were damaged. No casualties occurred. Earth Liberation Front (ELF) claimed responsibility for these attacks.
3/14/2005	Arlington, VA	Unarmed Assault	Government	\$0	Unknown	Trace amounts of anthrax were discovered at a mail facility at the Pentagon in Arlington, VA. No casualties or property damage resulted from this incident, although 100 individuals, mainly government contractors, were given antibiotics as a precautionary measure after biological hazard sensors were set off.
12/9/2004	Indian Head, MD	Facility or Infrastructure Attack	Private Citizens	\$13,000,000	Unknown	Luxury homes, which were under construction on a 10-acre area in Maryland, were burned to the ground by suspected unnamed environmentalists. 29 other houses were also damaged by the fire. No group claimed responsibility for the attack. This development was regularly criticized by environmentalists for its proximity to the nature preserve.
2/7/2004	Charlottesville, VA	Facility or Infrastructure Attack	Business	\$30,000	Earth Liberation Front	The Earth Liberation Front (ELF) claimed responsibility for setting arson to a bulldozer and damaging other equipment at the Hollymead Town Center construction site off of US 29 in Charlottesville, VA. The site had been cleared in order to build apartments. There were no casualties in the incident.
9/21/2002	Richmond, VA	Facility or Infrastructure Attack	Business	\$0	Earth Liberation Front	Three teens conspired to destroy a crane at a construction site in Richmond, VA. Two of the teens attempted to use a Kerosene soaked American flag to ignite the fuel tanks of a construction crane. They were unsuccessful in their attempt. The three claimed to be part of the Earth Liberation Front (ELF).
10/12/1996	Clarksburg, WV	Facility or Infrastructure Attack	Government	\$0	West Virginia Militia	Seven men with connections to an anti-government West Virginia militia, including its leader and a local firefighter, were arrested on charges of conspiring to blow up the FBI's new national fingerprint records facility.
10/5/1970	Bluefield, WV	Bombing Explosion	Educational Institution	\$15,000	Unknown	Unknown perpetrators bombed the student union at Bluefield State College in Bluefield, WV. There were no casualties but the building sustained damages.

## IMPACT AND VULNERABILITY

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 8 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.

### LOSS AND DAMAGES

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.

### RISK ASSESSMENT

TABLE 2.3.10.B TERRORISM RISK CALCULATION				
<i>Probability</i>		<i>Severity</i>		<i>Risk</i>
IMPROBABLE		CRITICAL		LOW
Because this type of hazard is based on human conditions, it is extremely difficult to predict the probability of an attack. However, because there are potential targets, the possibility will always exist.	+	An attack in this region would most likely be localized or targeted towards a specific location rather than widespread.	=	The risk assessment matrix categorizes this hazard as a low risk.

### 2.3.11 Wildfire

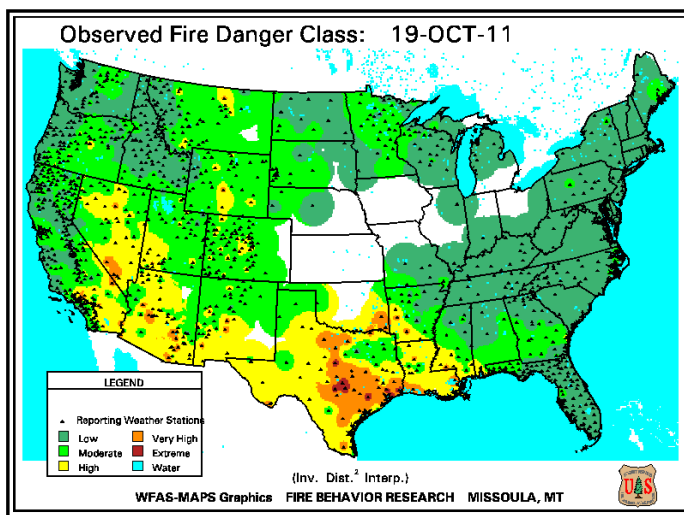
A wildfire is a large, destructive fire that spreads quickly over woodland or brush.

**REGION 8 RISK**

		Probability			
Severity	Very High				
	High				
	Moderate				
	Low				

#### HAZARD OVERVIEW

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 8's counties are at a low risk of wildfires.

Just because a single wildfire has 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.

#### POSSIBLE CAUSES

Nationally, the National Park Service lists several possible causes of wildfires including human-caused and nature-caused. Human-caused fires “result from campfires left unattended, the burning of debris, negligently discarded cigarettes and intentional acts of arson”, which account for up to 90% of fires. Lightning or lava causes the remaining 10% of fires (NPS).

This is also true in West Virginia where “in the spring of 2015, 43% of all forest fires were the result of escaped debris fires. Equipment use was the second highest cause of forest fires in W.Va. causing 29% of all wildfires. Fires set purposely accounted for 13% of forest fires in spring of 2015” (WV Division of Forestry, n.d.).

## LOCATION AND EXTENT

Areas that are most vulnerable to wildfires include agricultural and forest lands in every county throughout Region 8.

## HISTORICAL OCCURRENCES

The West Virginia Division of Forestry provided information on wildfires and brushfires in the Region 8 counties between 2008 and 2017. Over the years, there have been a total of 438 fires that resulted in the burning of over 3,600 acres of land (forest and non-forest acres). Hampshire County is the county that has experienced the most amount of single fires, but Pendleton County is the county that has experienced the most acres burned.

<i>County</i>	<i>Number Fires</i>	<i>Forest Acres</i>	<i>Non Forest Acres</i>	<i>Total Acres</i>
Grant	83	67.5	65.9	133.4
Hampshire	173	328.2	76.7	404.9
Hardy	58	968.2	31.4	999.6
Mineral	54	96.3	94.4	190.7
Pendleton	70	1,828.6	109.4	1,938.0
<b>Total</b>	<b>438</b>	<b>3,288.8</b>	<b>377.8</b>	<b>3,666.6</b>

Source: WV Division of Forestry

## IMPACT AND VULNERABILITY

Aside from the obvious effects on humans such as burns and injuries, the smoke from fires is of great concern. “The smoke produced by wildfires can produce effects ranging from airway and eye irritation to death, especially among individuals with conditions that make them more susceptible to inhalational exposures” (Clements, 2009, p.283). Wildfires cause more than just the direct damage to structures, vegetation or air quality; when a fire removes much or all of the vegetation in a watershed, subsequent rains will have much greater erosive potential, which in turn produces large quantities of sediment and plant debris that affect the water quality of streams and lakes (Keller, Devecchio, 2015, p.459).

However, wildfires can also have benefits to the soil; they “tend to leave an accumulation of carbon on the surface in the form of ash and increase the nutrient content

of a soil. Under the right conditions, when erosion does not remove the ash from the environment, a nutrient reservoir may form that is beneficial to local plants” (Keller & Devecchio, 2015, p 159).

## LOSS AND DAMAGES

Monetary damage was not provided in the WV Division of Forestry data, but the amount of federal firefighting costs is available from the National Fire Information Council (NIFC). Although Region 8 and West Virginia have not seen wildfires similar to other parts of the country, mainly due to different types of climate, there still are instances of wildfires or brushfires. The NFIC estimates that the cost of suppressing fires by the Forest Service and Department of Interior agencies have averaged around \$285 per acre burned between 2010 and 2016.

In Region 8 there have been around 3,600 acres burnt in the last 11 years; if federal cost data is applied, the total average cost in Region 8 would be around \$1,044,981, or on average, about \$2,163 per fire.

## RISK ASSESSMENT

TABLE 2.3.11.B WILDFIRE RISK CALCULATION					
Probability			Severity		Risk
FREQUENT			NEGLIGIBLE		MEDIUM
Events	483	= 53.6	+	=	The risk assessment matrix categorizes wildfires as a medium risk to the region.
Years	9				
Wildfires, although not widespread, are a common occurrence in the Region 8 counties.					
			The damages sustained by wildfire mostly affect vegetation, and on occasion, structures. Wildfires could potentially cause some injuries.		

## 2.4 ASSET INVENTORY

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

This risk assessment identifies potentially-vulnerable community assets such as critical facilities, critical infrastructure, historical properties, commercial/industrial facilities, etc. *Assets* contribute directly to the quality of life in the community 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 hazard profiles contained in [Section 2.3](#) above contain generalized loss estimates that, in some cases identify the types of facilities that could be impacted by the hazards considered in this plan. Additionally, the steering committee used its meetings during the update process to revise the original asset list that was included in this plan. In the following lists, assets are grouped into the following categories.

- **Critical Facilities:** Governmental facilities, water/wastewater facilities, emergency services facilities, medical facilities (hospitals/clinics), and 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.



**TABLE 2.4.A ASSET INVENTORY**

County	Name or Description of Asset	Address	City/Town	Zip	Critical	Vulnerable	Economic	Special	Historic
Grant	Bayard Fire Department	129 Cherry Street	Bayard	26707	X				
Grant	Bayard Police Department	Maple Street	Bayard	26707	X				
Grant	Bayard Post Office	State Highway 90	Bayard	26707				X	
Grant	Bayard Town Hall	Maple Street	Bayard	26707				X	
Grant	Bayard Volunteer Fire Dept.	Cherry Lane	Bayard	26707	X				
Grant	Flood Control Levee	Along Buffalo Creek	Bayard	26707				X	
Grant	Wastewater Treatment Plant	Middlesex Street	Bayard	26707	X				
Grant	Maysville Elementary School	21 Elementary School Drive	Maysville	26833		X			
Grant	Maysville Volunteer Fire Dept.	75 John Deer Lane	Maysville	26833	X				
Grant	Mt. Storm Volunteer Fire Dept.	Firehouse Road	Mt. Storm	26739	X				
Grant	Baker Home/Conway Thorne	Virginia Avenue	Petersburg	26847					X
Grant	Baptist Church Manse/King Cl.	114 Virginia Avenue	Petersburg	26847					X
Grant	Barr's BP Station	108 S. Main Street	Petersburg	26847				X	
Grant	Basagic Funeral Home	Keyser Avenue	Petersburg	26847	X				
Grant	Brethren Church	Highland Avenue	Petersburg	26847					X
Grant	Calvin Thompson Home	108 Virginia Avenue	Petersburg	26847					X
Grant	Church of God	Myrtle Avenue	Petersburg	26847					X
Grant	Church of the Lord Jesus Christ	107 W. Central Avenue	Petersburg	26847					X
Grant	City Office/Police	Mt View Street	Petersburg	26847	X				
Grant	Davis House Bookstore	105 N. Main Street	Petersburg	26847					X
Grant	Dorcas Elementary School	S Mill Creek	Petersburg	26847		X			
Grant	Dr. Leslie's Home	202 Virginia Avenue	Petersburg	26847					X
Grant	EACHES Head Start	2 Hyre Avenue	Petersburg	26847	X				
Grant	Fire Department	South Main Street	Petersburg	26847	X				
Grant	First Baptist Church	112 Virginia Avenue	Petersburg	26847					X
Grant	Frontier Communications	Grove Street	Petersburg	26847	X				
Grant	Grace Lutheran Church	5 Pine Street	Petersburg	26847					X
Grant	Grant County Bank	3 N. Main Street	Petersburg	26847			X		
Grant	Grant County Farm Service	Potomac Avenue	Petersburg	26847	X				
Grant	Grant County Health Dept.	Rte. 55 W.	Petersburg	26847	X				
Grant	Grant County Maintenance	Grove Street	Petersburg	26847	X				
Grant	Grant County Multipurpose Bldg.	Valley View Street	Petersburg	26847	X				
Grant	Grant County Nursing Home	127 Early Avenue	Petersburg	26847		X			
Grant	Grant County Press	South Main Street	Petersburg	26847	X				
Grant	Grant County Senior Center	111 Virginia Avenue	Petersburg	26847		X			
Grant	Grant Memorial Hospital	Rte. 55 W.	Petersburg	26847	X				
Grant	Grove St. Methodist Church	Grove Street	Petersburg	26847					X
Grant	Hartman's Gas & Go	Keyser Avenue	Petersburg	26847				X	
Grant	Hermitage Motor Inn	203 Virginia Avenue	Petersburg	26847				X	
Grant	Homestead Motor Inn	1314 N Fork Highway	Petersburg	26847				X	
Grant	Human Resources	15 Grant Street	Petersburg	26847				X	
Grant	John Glover House	106 Virginia Avenue	Petersburg	26847					X
Grant	John VanMeter Law Office	28 Virginia Avenue	Petersburg	26847					X



**TABLE 2.4.A ASSET INVENTORY**

County	Name or Description of Asset	Address	City/Town	Zip	Critical	Vulnerable	Economic	Special	Historic
Grant	Judy's Drug Store	24 N. Main Street	Petersburg	26847				X	
Grant	Levy Gate	220 N. Bridge Virginia Avenue	Petersburg	26847	X				
Grant	Levy Pumping Station	Lunice Creek Levy	Petersburg	26847	X				
Grant	Little Place Day Care	5 Grant Street	Petersburg	26847		X			
Grant	Mae King Home	218 Main Street	Petersburg	26847					X
Grant	Main St. Methodist Church	102 N. Main Street	Petersburg	26847					X
Grant	Maple Hill Cemetary	N. Main Street	Petersburg	26847					X
Grant	McDaniel Home/Mernie Judy	210 Virginia Avenue	Petersburg	26847					X
Grant	Mill Race Bridge	S. Main Street	Petersburg	26847	X				
Grant	Moomau Library	18 Mt. View Street	Petersburg	26847					X
Grant	Morman Church	Valley View Street	Petersburg	26847					X
Grant	Mountain View Apts.	Valley Street	Petersburg	26847				X	
Grant	Munting House	107 Virginia Avenue	Petersburg	26847					X
Grant	Myrtle Park Home	21 N. Main Street	Petersburg	26847					X
Grant	New Grant County Courthouse	5 Highland Avenue	Petersburg	26847	X				
Grant	Norma Groves Home	101 Virginia Avenue	Petersburg	26847					X
Grant	Old Courthouse	115 Virginia Avenue	Petersburg	26847					X
Grant	Old Grant County Bank	1 N. Main Street	Petersburg	26847					X
Grant	Old Halterman Bldg.	S. Main Street	Petersburg	26847					X
Grant	Park Motel	34 N. Main Street	Petersburg	26847				X	
Grant	Pendleton Community Bank	N. Grove Street	Petersburg	26847			X		
Grant	Petersburg Blocks	132 Keyser Avenue	Petersburg	26847				X	
Grant	Petersburg City Hall and Police Department	21 Mountain View Street	Petersburg	26847	X			X	
Grant	Petersburg Elementary School	333 Rig Street	Petersburg	26847		X			
Grant	Petersburg High School	207 Viking Drive	Petersburg	26847		X			
Grant	Petersburg Oil Co.	12 S. Grove Street	Petersburg	26847				X	
Grant	Petersburg Oil Co. Bulk Plant	Potomac Avenue	Petersburg	26847				X	
Grant	Petersburg Police Dept.	Mountain View Street	Petersburg	26847	X				
Grant	Petersburg Shop N Save	107 S. Grove Street	Petersburg	26847				X	
Grant	Petersburg Volunteer Fire Dept.	Main Street	Petersburg	26847	X				
Grant	Potomac Highland Guild	Park Street	Petersburg	26847				X	
Grant	Potomac Highland Mental Health Group Home	6 Park Street	Petersburg	26847		X			
Grant	Presbyterian Church	20 N. Main Street	Petersburg	26847					X
Grant	Reid House/Joy Retreat	105 Virginia Avenue	Petersburg	26847					X
Grant	Rite Aid Pharmacy	S. Main Street	Petersburg	26847				X	
Grant	River View Apts.	Valley Street	Petersburg	26847				X	
Grant	Schaffer Funeral Home	11 N. Main Street	Petersburg	26847	X				
Grant	Sheetz Convenience Store	Keyser Avenue	Petersburg	26847				X	
Grant	Shell / 7-11	419 Virginia Avenue	Petersburg	26847				X	
Grant	Social Security Office	N. Main Street	Petersburg	26847				X	



**TABLE 2.4.A ASSET INVENTORY**

County	Name or Description of Asset	Address	City/Town	Zip	Critical	Vulnerable	Economic	Special	Historic
Grant	Soil Conservation Service	308 N. Main Street	Petersburg	26847				X	
Grant	South Branch Railroad	S. Main Street	Petersburg	26847	X				
Grant	Southern States	115 Potomac Street	Petersburg	26847				X	
Grant	St. Mary's Catholic Church	5 Pierpont Street	Petersburg	26847					X
Grant	Subway	Keyser Avenue	Petersburg	26847				X	
Grant	Summit Finance	N. Main Street	Petersburg	26847			X		
Grant	Summit Finance	S. Grove Street	Petersburg	26847				X	
Grant	Teddy Bear Day Care	Keyser Avenue	Petersburg	26847		X			
Grant	US Post Office	1 Postal Square	Petersburg	26847				X	
Grant	Valley Transport	71/2 Grant Street	Petersburg	26847				X	
Grant	Waste Water Treatment Plant	401 Pierpont Street	Petersburg	26847	X				
Grant	Waste Water Treatment Plant	Rig Street	Petersburg	26847	X				
Grant	Waste Water Treatment Plant	Virginia Avenue	Petersburg	26847	X				
Grant	Water Storage Facility	Laurel Road	Petersburg	26847	X				
Grant	Water Treatment Plant	Petersburg City Park	Petersburg	26847	X				
Grant	WQWV Radio Station	2 Alt Avenue	Petersburg	26847	X				
Hampshire	Augusta Auto Parts	15915 Northwestern Turnpike	Augusta	26704				X	
Hampshire	Augusta Church of Christ	15338 Northwestern Turnpike	Augusta	26704				X	
Hampshire	Augusta Elementary School	61 Pancione Loop	Augusta	26704	X				
Hampshire	Augusta EMS	16745 Northwestern Turnpike	Augusta	26704	X				
Hampshire	Augusta VFD	15690 Northwestern Turnpike	Augusta	26704	X				
Hampshire	Bank of Romney - Augusta	16285 Northwestern Turnpike	Augusta	26704				X	
Hampshire	Chick Buckbee Juvenile Detention Center	144 Jerry Land	Augusta	26704				X	
Hampshire	Dollar General Augusta	16912 Northwestern Turnpike	Augusta	26704				x	
Hampshire	Frye's Flat Liberty	18615 Northwestern Turnpike	Augusta	26704				X	
Hampshire	Hampshire County Health Dept.	16189 Northwestern Turnpike	Augusta	26704	X				
Hampshire	Hometown Solutions	15951 Northwestern Turnpike	Augusta	26704				X	
Hampshire	Potomac Highlands Regional Jail	355 Dolan Drive	Augusta	26704	X				
Hampshire	Valley Gas & piping	12669 Northwestern Turnpike	Augusta	26704			X		
Hampshire	Omps Grocery	17050 Bloomery Turnpike	Bloomery	26817				X	
Hampshire	Orica	1089 Ivy Run Hollow	Bloomery	26711			X		
Hampshire	Bank of Romney - Capon Bridge	2960 Northwestern Turnpike	Capon Bridge	26711				X	
Hampshire	Capon Bridge Community Center	2766 Northwestern Turnpike	Capon Bridge	26711				X	
Hampshire	Capon Bridge EMS	2775 Northwestern Turnpike	Capon Bridge	26711	X				

**TABLE 2.4.A ASSET INVENTORY**

County	Name or Description of Asset	Address	City/Town	Zip	Critical	Vulnerable	Economic	Special	Historic
Hampshire	Capon Bridge ES	99 Capon School Street	Capon Bridge	26711	X				
Hampshire	Capon Bridge MS	75 Capon School Street	Capon Bridge	26711	X				
Hampshire	Capon Bridge Office of HCSO	196 Capon School Street	Capon Bridge	26711	X				
Hampshire	Capon Bridge PD/Town Office	1 Whitacre Lane	Capon Bridge	26711	X				
Hampshire	Capon Bridge PO	3164 Northwestern Turnpike	Capon Bridge	26711				X	
Hampshire	Capon Bridge VFD	2766 Northwestern Turnpike	Capon Bridge	26711	X				
Hampshire	Capon Springs VFD	3144 Capon Springs Road	Capon Bridge	26711	X				
Hampshire	Capon Valley Market	2673 Northwestern Turnpike	Capon Bridge	26711				X	
Hampshire	Central Hampshire PSD WWTP	18540 Northwestern Turnpike	Capon Bridge	26711	X				
Hampshire	Country Pride Grocery	24890 Northwestern Turnpike	Capon Bridge	26711				X	
Hampshire	Crane's Welding	87 Northwestern Turnpike	Capon Bridge	26711			X		
Hampshire	Dollar General Capon Bridge	3700 Northwestern Turnpike	Capon Bridge	26711				X	
Hampshire	Family Dollar Capon Bridge	Northwestern Turnpike	Capon Bridge	26711				x	
Hampshire	First National Bank - Capon Bridge	2957 Northwestern Turnpike	Capon Bridge	26711				X	
Hampshire	Griffin Funeral Home	2807 Northwestern Turnpike	Capon Bridge	26711				X	
Hampshire	Reed's Pharmacy	2905 Northwestern Turnpike	Capon Bridge	26711				X	
Hampshire	SJ Morse Company	2736 Northwestern Turnpike	Capon Bridge	26711			X		
Hampshire	Green Spring Rail Yard	797 Railroad Street	Green Spring	26722				X	
Hampshire	Capt. David Pugh House	CR 14 at CR 23/4	Hooks Mills	26711					X
Hampshire	Levels Volunteer Fire Co.	28 Frenches Station Road	Levels	25431	X				
Hampshire	North River Valley VFD	15137 Ford Hill Road	Rio	26801	X				
Hampshire	Advanced Auto Parts	111 W. Main Street	Romney	26757				X	
Hampshire	Bank of Romney - Romney	93 East Main Street	Romney	26757				X	
Hampshire	Bank of Romney - Romney	95 E Main Street	Romney	26757				X	
Hampshire	CVS Pharmacy	30 Heritage Circle	Romney	26757				X	
Hampshire	Dave's Exxon	495 North High Street	Romney	26757				X	
Hampshire	Dollar General Romney	73 Hannas Road	Romney	26757				x	
Hampshire	Dyno Nobel	240 Dyno Nobel Drive	Romney	26757			X		
Hampshire	Eastern Building Supply	498 East Main Street	Romney	26757				X	
Hampshire	Family Dollar Romney	25101 Northwestern Turnpike	Romney	26757				x	
Hampshire	First National Bank - Romney	105 N High Street	Romney	26757				X	
Hampshire	Food Lion Grocery	22240 Northwestern Turnpike	Romney	26757				X	
Hampshire	Hampshire County Co-Op	56 South Marsham Street	Romney	26757				X	
Hampshire	Hampshire County Courthouse	19 East Main Street	Romney	26757	X				
Hampshire	Hampshire County EOC/911 Center	1160 Jersey Mountain Road	Romney	26757	X				
Hampshire	Hampshire County Judiciary Court	56 South High Street	Romney	26757	X				
Hampshire	Hampshire Healthcare Center	260 Sunrise Boulevard	Romney	26757		X			
Hampshire	Hampshire HS	157 Trojan Way	Romney	26757	X				



**TABLE 2.4.A ASSET INVENTORY**

County	Name or Description of Asset	Address	City/Town	Zip	Critical	Vulnerable	Economic	Special	Historic
Hampshire	Hampshire Memorial Hosp.	363 Sunrise Boulevard	Romney	26757	X				
Hampshire	Hampshire Wellness	68 Heritage Circle	Romney	26757	X				
Hampshire	HCSO Romney Office	66 N High Street	Romney	26757	X				
Hampshire	HMI Incorporated	24448 Northwestern Turnpike	Romney	26757			X		
Hampshire	Hogbin Oil	22841 Northwestern Turnpike	Romney	26757				X	
Hampshire	Kuykendall Polyagonal Barn	South Branch River Road	Romney	26757					X
Hampshire	Lambert's Pharmacy	22630 Northwestern Turnpike	Romney	26757				X	
Hampshire	Literary Hall	1 West Main Street	Romney	26757					X
Hampshire	Mountaintop Truck Stop	22700 Northwestern Turnpike	Romney	26757				X	
Hampshire	Mountainview Manor	Campbell Road	Romney	26757				X	
Hampshire	Old District Parsonage	351 High Street	Romney						X
Hampshire	Petersburg Commercial oil	Northwestern Turnpike	Romney	26757				X	
Hampshire	Potomac Highlands Guild Clinic	245 N Charlevoix Place	Romney	26757				X	
Hampshire	Rite Aid	150 W. Main Street	Romney	26757				X	
Hampshire	Romney EMS	549 Center Avenue	Romney	26757	X				
Hampshire	Romney ES	45 School Street	Romney	26757	X				
Hampshire	Romney FD	175 S High Street	Romney	26757	X				
Hampshire	Romney Medical Associates	22347 Northwestern Turnpike	Romney	26757	X				
Hampshire	Romney MS	1975 Calvert Drive	Romney	26757	X				
Hampshire	Romney Municipal Building	340 East Main Street	Romney	26757	X				
Hampshire	Romney Public Housing Authority	100 Valley View Drive	Romney	26757				X	
Hampshire	Romney WTP	206 Feather Lane	Romney	26757	X				
Hampshire	Romney WTP & WWTP	Red Bud Lane	Romney	26757	X				
Hampshire	Seven Eleven	209 West Main Street	Romney	26757				X	
Hampshire	Sheetz	136 East Main Street	Romney	26757				X	
Hampshire	Silver Tree Apartments	450 Depot Street	Romney	26757				X	
Hampshire	Sloan Parker House	32049 Northwestern Turnpike	Romney	26757					X
Hampshire	South Branch Inn	92 Heritage Circle	Romney	26757				X	
Hampshire	Southern States	25108 Northwestern Turnpike	Romney	26757				X	
Hampshire	Sycamore Dale	Off CR 8	Romney						X
Hampshire	Tractor Supply	181 Solid Oak Drive	Romney	26757				X	
Hampshire	Trinity Family Healthcare	55 North Bolton Street	Romney	26757	X				
Hampshire	Unity Apartments	250 Fairfax Street	Romney	26757				X	
Hampshire	US Army Reserve Center	11 Veteran Boulevard	Romney	26757				X	
Hampshire	Washington Gas	114 Hampshire Gas Drive	Romney	26757			X		
Hampshire	Wilson-Woodrow-Mytinger House	51 W Gravel Lane	Romney						X
Hampshire	WV School for the Deaf & Blind	301 E Main Street	Romney	26757	X				



TABLE 2.4.A ASSET INVENTORY

County	Name or Description of Asset	Address	City/Town	Zip	Critical	Vulnerable	Economic	Special	Historic
Hampshire	WVSP Barracks-Romney	525 Depot Street	Romney	26757	X				
Hampshire	Dollar General Slanesville	Bloomery Turnpike	Slanesville	25444				x	
Hampshire	Slanesville EMS	6951 Bloomery Turnpike	Slanesville	25444	X				
Hampshire	Slanesville ES	6550 Bloomery Turnpike	Slanesville	25444	X				
Hampshire	Slanesville General Store	40 Slanesville Turnpike	Slanesville	25444				X	
Hampshire	Slanesville VFD	6951 Bloomery Turnpike	Slanesville	25444	X				
Hampshire	Amerigas	76 Propane Drive	Springfield	26763			X		
Hampshire	Bank of Romney - Springfield	8504 Cumberland Road	Springfield	26763				X	
Hampshire	Country Store	8007 Cumberland Road	Springfield	26763				X	
Hampshire	Dollar General Springfield	8189 Cumberland Road	Springfield	26763				x	
Hampshire	John J. Cornwell ES	12092 Jersey Mountain Road	Springfield	26763	X				
Hampshire	Spring Valley Health care	8685 Cumberland Road	Springfield	26763	X				
Hampshire	Springfield EMS	12 Mary Sue Lane	Springfield	26763	X				
Hampshire	Springfield VFD	239 Springfield Turnpike	Springfield	26763	X				
Hampshire	Springfield-Greenspring ES	43 Education Loop	Springfield	26763	X				
Hampshire	T&S Market	216 Springfield Turnpike	Springfield	26763				X	
Hampshire	Washington Bottom Farm	651 Washington Bottom Road	Springfield	26763					X
Hampshire	Scanlon Farm	Three Churches Run Road	Three Churches						X
Hardy	E. Hardy Early Mid. & High	238 & 259 Cougar Drive	Baker	26801		X			
Hardy	Hardy Telecom	2255 Kimset Run Road	Lost City	26810				X	
Hardy	Brethren Church (Shelter)	115 Clay Street	Moorefield	26836	X				
Hardy	Capon Valley Bank	717 N. Main Street	Moorefield	26836				X	
Hardy	Elderly Lee St. Apts.	301 Lee Street	Moorefield	26836		X			
Hardy	Emergency Oper.	157 Freedom Way	Moorefield	26836	X				
Hardy	Episcopal Church	307 Winchester Avenue	Moorefield	26836					X
Hardy	Fertig Cabinet Co.	141 Beans Lane	Moorefield	26836			X		
Hardy	Fin Hawse	8 Lee Street	Moorefield	26836	X				
Hardy	Food Lion	599 S. Main Street	Moorefield	26836				X	
Hardy	Fraleys EMS	106 Washington Street	Moorefield	26836	X				
Hardy	Frontier	108 S. Elm Street	Moorefield	26836	X				
Hardy	Gas Station Sheetz	268 Genny Loop Road	Moorefield	26836				X	
Hardy	Grant County Bank	500 S. Main Street	Moorefield	26836				X	
Hardy	Hahn Medical (Hardy Co. Med)	422 S. Main St. Mfld.	Moorefield	26836	X				
Hardy	Hardman's Hardware	131 N. Main Street	Moorefield	26836				X	
Hardy	Hardy Co. Comm-Aging Senior Center	Spring Avenue	Moorefield	26836		X			
Hardy	Hardy Co. Court	204 Washington St #111	Moorefield	26836				X	
Hardy	Hardy Co. Health Dept.	411 Spring Ave.	Moorefield	26836				X	
Hardy	Hardy Co. Library	Main Street Moorefield	Moorefield	26836				X	
Hardy	Hardy Co. PSD Booster Pump	2094 Us Hwy 220	Moorefield	26836	X				
Hardy	Hardy Co. RDA	219 N Main Street	Moorefield	26836				X	



**TABLE 2.4.A ASSET INVENTORY**

County	Name or Description of Asset	Address	City/Town	Zip	Critical	Vulnerable	Economic	Special	Historic
Hardy	Hardy Co. RDA	204 Washington St	Moorefield	26836				X	
Hardy	Hardy Co. RDA Armory	223 N. Main St #102	Moorefield	26836				X	
Hardy	Hardy Co. RDA Child Care Center	1989 Rte. 55E	Moorefield	26836		X			
Hardy	Hardy County Rod & Gun	1 Old Capon Road	Moorefield	26836				X	
Hardy	Hardy Telecom	121 S. Main Street	Moorefield	26836	X				
Hardy	Ivan Cowger - Mullins Hotel	104 S. Main Street	Moorefield	26836					X
Hardy	Love Memorial Clinic	112 Kuykendall Lane	Moorefield	26836	X				
Hardy	Love Memorial Clinic	112 Kuykendall Lane	Moorefield	26836	X				
Hardy	Maslin House	131 S. Main Street	Moorefield	26836					X
Hardy	McCoy Museum	121 N. Main Street	Moorefield	26836					X
Hardy	Moorefield Elementary School	402 N. Main Street	Moorefield	26836		X			
Hardy	Moorefield High School	401 N. Main Street	Moorefield	26836		X			
Hardy	Moorefield Sewage	206 Winchester Ave	Moorefield	26836	X				
Hardy	Moorefield Elementary School	402 N. Main Street	Moorefield	26836	X				
Hardy	Moorefield Examiner Building	132 S Main Street	Moorefield	26836					X
Hardy	Moorefield Flood Levee	N/A	Moorefield	26836	X				
Hardy	Moorefield High School	401 N. Main Street	Moorefield	26836	X				
Hardy	Moorefield Middle School	303 Caledonia Heights Road	Moorefield	26836		X			
Hardy	Moorefield Middle School	303 Caledonia Heights Road	Moorefield	26836		X			
Hardy	Moorefield Town Library	102 N. Main Street	Moorefield	26836					X
Hardy	Moorefield Town Office	206 Winchester Avenue	Moorefield	26836	X				
Hardy	Moorefield Waste Water System	125 Sewer Plant Road	Moorefield	26836	X				
Hardy	Moorefield Water Plant System	175 Water Plant Drive	Moorefield	26836	X				
Hardy	MVFC	114 Kuykendall Lane	Moorefield	26836	X				
Hardy	Old Bank (Sager)	107 S. Main Street	Moorefield	26836					X
Hardy	Old Fields Bridge	US HWY 220	Moorefield	26836	X				
Hardy	Pendleton Bank	402 S. Main Street	Moorefield	26836				X	
Hardy	Post Office	410 Spring Street	Moorefield	26836				X	
Hardy	Potomac Valley Medicine	8 Lee St.	Moorefield	26836	X				
Hardy	Poultry Plant Pilgrim's Pride	129 Potomac Avenue	Moorefield	26836		X			
Hardy	Presbyterian Church	109 S. Main Street	Moorefield	26836					X
Hardy	Senior Center (Feeding Center)	409 Spring Street	Moorefield	26836				X	
Hardy	Shop & Save	749 N. Main Street	Moorefield	26836				X	
Hardy	South Branch Stock Yard	341 Clay Street	Moorefield	26836			X		
Hardy	South Branch Valley Railroad	120 Water Plant Drive	Moorefield	26836			X		
Hardy	Summit Financial Bank HQ	310 N. Main Street	Moorefield	26836			X		
Hardy	Tom Nawse Home	307 Winchester Avenue	Moorefield	26836					X
Hardy	Tommy & Debbie Crites	202 S. Main Street	Moorefield	26836					X
Hardy	Town Shed & Equipment	339 Clay Street	Moorefield	26836	X				
Hardy	WV RR Authority	N Main Street	Moorefield	26836				X	
Hardy	WV State Police	5153 US Hwy 220	Moorefield	26836	X				
Hardy	7-11 Store	15 W Main Street	Wardensville	26851				X	

TABLE 2.4.A ASSET INVENTORY

County	Name or Description of Asset	Address	City/Town	Zip	Critical	Vulnerable	Economic	Special	Historic
Hardy	Anderson House	125 Trout Run Road	Wardensville	26851					X
Hardy	Baker House	215 W Main Street	Wardensville	26851					X
Hardy	Bannock House	55 W Main Street	Wardensville	26851					X
Hardy	Burch House	185 E Main Street	Wardensville	26851					X
Hardy	Capon Valley Bank	2 W Main Street	Wardensville	26851			X		
Hardy	Capon Valley Vol. Fire Dept., War Memorial Building & VFW	190 E Main Street	Wardensville	26851					X
Hardy	Cline House	164 W Main Street	Wardensville	26851					X
Hardy	Cline-Heishman House	50 Honeysuckle	Wardensville	26851					X
Hardy	Commercial Bldg. (vacant)	Oak Street	Wardensville	26851				X	
Hardy	David A Henburg	275 E Main Street	Wardensville	26851				X	
Hardy	Doyle House	70 High Street	Wardensville	26851					X
Hardy	Evans House	E Main Street	Wardensville	26851					X
Hardy	Fansler House	150 W. Main Street	Wardensville	26851					X
Hardy	Firefly Inn	30 W Main Street	Wardensville	26851				X	
Hardy	Frye House	105 Trout Run Road	Wardensville	26851					X
Hardy	Garrett Insurance Agency	175 W Main Street	Wardensville	26851				X	
Hardy	Geoffrey Byrd House	105 W Main Street	Wardensville	26851					X
Hardy	Highland Storage	360 E. Main Street	Wardensville	26851				X	
Hardy	Highland Trace Realty	200 E Main Street	Wardensville	26851				X	
Hardy	Hisghman House	E Main Street	Wardensville	26851					X
Hardy	Hott-Orndorf House	Wardensville	Wardensville	26851					X
Hardy	Jim Oates	115 W Main Street	Wardensville	26851					X
Hardy	Kac-A-Pon Restaurant	395 E Main Street	Wardensville	26851				X	
Hardy	Kerr House	210 W Main Street	Wardensville	26851					X
Hardy	Large storage building	W Main Street	Wardensville	26851					X
Hardy	Liggett House	115 Trout Run Road	Wardensville	26851					X
Hardy	Lost River Trading Post	E Main Street	Wardensville	26851			X		
Hardy	Loy Griffin Funeral Home	110 W. Main Street	Wardensville	26851					X
Hardy	Lutheran Parsonage House	W Main Street	Wardensville	26851					X
Hardy	McKeever House	Maple Street	Wardensville	26851					X
Hardy	McKeever/Kotz House	Carpenters Avenue	Wardensville	26851					X
Hardy	Mielzarek House	50 W Main Street	Wardensville	26851					X
Hardy	Miller House	205 W Main Street	Wardensville	26851					X
Hardy	More Store	65 W Main Street	Wardensville	26851					X
Hardy	Old Jail/ Blacksmith's	W. Main Street	Wardensville	26851					X
Hardy	Old Town Hall Building	55 Oak Street	Wardensville	26851					X
Hardy	Orndorf-Sayers House	70 W. Main Street	Wardensville	26851					X
Hardy	Pine Street Lift Station	45 Pine Street	Wardensville	26851					
Hardy	Polly Peer House	40 W Main Street	Wardensville	26851					X
Hardy	Rarco - Stephen Shook	105 E Main Street	Wardensville	26851					X
Hardy	Robison House	Laurel Street	Wardensville	26851					X
Hardy	Sencindiver House	80 High Street	Wardensville	26851					X





**TABLE 2.4.A ASSET INVENTORY**

County	Name or Description of Asset	Address	City/Town	Zip	Critical	Vulnerable	Economic	Special	Historic
Hardy	Sine House	Carpenters Ave	Wardensville	26851					X
Hardy	Smith Bldg.	135 W Main Street	Wardensville	26851					X
Hardy	Snider House	80-84 Carpenters Ave	Wardensville	26851					X
Hardy	Snider/Pugh House	Carpenters Avenue	Wardensville	26851					X
Hardy	Snider-Orndorf House 1	105 High Street	Wardensville	26851					X
Hardy	Snider-Osberg House	Maple Street	Wardensville	26851					X
Hardy	St. Peters Lutheran Church	60 W Main Street	Wardensville	26851					X
Hardy	Timothy Kriegel	200 W Main Street	Wardensville	26851				X	
Hardy	Triplett House	60 High Street	Wardensville	26851					X
Hardy	Warden Acres Lift Station	430 Warden Circle Road	Wardensville	26851					
Hardy	Warden Hotel Bldg	205 W Main Street	Wardensville	26851					X
Hardy	Wardensville Cemetery	E Main Street	Wardensville	26851					X
Hardy	Wardensville Community Center	345 E Main Street	Wardensville	26851					
Hardy	Wardensville Garage	423 SR 256 North	Wardensville	26851					
Hardy	Wardensville Sewer Plant	589 SR 259 North	Wardensville	26851					
Hardy	Wardensville Spring House	121 Waites Run Road	Wardensville	26851					
Hardy	Wardensville Town Hall	25 Warrior Way	Wardensville	26851					
Hardy	Wardensville Visitor Center	301 E Main Street	Wardensville	26851					
Hardy	Water Tank - Warden Acres	33 Hardy Drive	Wardensville	26851					
Hardy	Water Tank - Anderson Ridge	736 Waites Run Road	Wardensville	26851					
Hardy	White Star Restaurant & Apt	80 W Main Street	Wardensville	26851					X
Hardy	Wilson Hotel Bldg.	W Main Street	Wardensville	26851					X
Hardy	Wilson-Peer House	Maple Street	Wardensville	26851					X
Mineral	BOE Burlington Grad School	10446 Patterson Creek Road	Burlington	26710		X			
Mineral	Burlington Fire Department(44)	1640 Northwestern Turnpike	Burlington	26710	X				
Mineral	Burlington Library	14 Hope Lane	Burlington	26710				X	
Mineral	Burlington Primary School	10474 Patterson Creek Road	Burlington	26710		X			
Mineral	Burlington United Methodist Home for Children & Youth Inc. Children's Home Chapel	120 Hope Lane	Burlington	26710		X		X	
Mineral	Fire Co. Burlington Station	1640 Northwestern Turnpike	Burlington	26710	X				
Mineral	WV Dept. of Highways A Corp Burlington District	Eastern Section of storage area is in the flood plain, office's and other structures are out of the flood plain	Burlington	26710				X	
Mineral	Board of Education Fountain School	Rte. 46	Cabin Run	26726		X			
Mineral	Fountain Public Service Dist. Pump House	ES Rte. 46 Fountain Prop	Cabin Run	26726				X	
Mineral	Mineral County Court Larenim Park Bldgs.	Rte. 11	Cabin Run	26726				X	
Mineral	Allegheny Power	Miller Road Co. Rte. 28/1	Carpendale	26753				X	



**TABLE 2.4.A ASSET INVENTORY**

County	Name or Description of Asset	Address	City/Town	Zip	Critical	Vulnerable	Economic	Special	Historic
Mineral	Carpendale Town Hall Building	136 N. Cedar Street	Carpendale	26753			X		
Mineral	Holy Cross United Methodist Church	49 S Cedar Lane	Carpendale	26753				X	
Mineral	Kingsford Charcoal Warehouse	304 Kingsford Drive	Carpendale	26753				X	
Mineral	Sewer Pumping Station	(5) Various Locations	Carpendale	26753	X				
Mineral	Town Garage	Cedar Avenue	Carpendale	26753				X	
Mineral	Elk District Ambulance (4)	20 Maple Street	Elk Garden	26717	X				
Mineral	Elk Garden Fire Department (140)	36 Maple Street	Elk Garden	26717	X				
Mineral	Elk Garden Primary School	86 Elk Garden Highway	Elk Garden	26717		X			
Mineral	Elk Garden Town Hall/Rural Health Clinic	Main Street	Elk Garden	26717				X	
Mineral	Elk Garden Volunteer Fire Station	30 Green Street	Elk Garden	26717	X				
Mineral	U.S. Post Office	Oak and Center Streets	Elk Garden	26717				X	
Mineral	Volunteer Ambulance Station	20 Green Street	Elk Garden	26717	X				
Mineral	Waste Water Treatment Plant	Elk Avenue	Elk Garden	26717	X				
Mineral	BOE Fort Ashby IS	290 Frankfort Intermediate School Road	Fort Ashby	26719		X			
Mineral	BOE Fort Ashby New ES Bldg.	44 Fort Ashby Primary School Road	Fort Ashby	26719		X			
Mineral	Dawnview Nursing Home	15 Diane Drive	Fort Ashby	26719		X			
Mineral	Fort Ashby Community Center Inc.	107 Dans Run Road	Fort Ashby	26719				X	
Mineral	Fort Ashby Fire Co. - Fairgrounds	59 Exhibitor Way	Fort Ashby	26719	X				
Mineral	Fort Ashby Fire Department(37)	29 Dans Run Road	Fort Ashby	26719	X				
Mineral	Fort Ashby Library	57 Presidents Street	Fort Ashby	26719				X	
Mineral	Fort Ashby Primary School	44 Fort Ashby Primary School Street	Fort Ashby	26719		X			
Mineral	Frankfort Intermediate School	284 Intermediate Drive	Fort Ashby	26719		X			
Mineral	Keyser-Mineral Co Library Association/ Fort Ashby Library	55 President's Lane	Fort Ashby	26719				X	
Mineral	BOE Keyser HS	1 One Tornado Way	Keyser	26726		X			
Mineral	BOE Keyser Primary MS	1543 Harley O Staggers Drive	Keyser	26726		X			
Mineral	BOE Mineral Co. Minco Park Bldgs.	21 Camp Minco Lane	Keyser	26726		X			
Mineral	BOE New Creek School	1 Baker Place	Keyser	26726		X			
Mineral	BOE Office & Bus Garage	2071 Harley O Staggers Drive	Keyser	26726		X			
Mineral	BOE VoTech School and Greenhouses	1731 Harley O Staggers Drive	Keyser	26726		X			
Mineral	Burlington Methodist Children Group Home	537 New Creek Highway	Keyser			X			
Mineral	Burlington United Methodist Family Services- Keyser	415 Harley O Staggers Drive	Keyser	26726				X	



**TABLE 2.4.A ASSET INVENTORY**

County	Name or Description of Asset	Address	City/Town	Zip	Critical	Vulnerable	Economic	Special	Historic
Mineral	Burlington United Methodist Family Services- Keyser Main Office	539 New Creek Highway	Keyser	26726				X	
Mineral	Burlington United Methodist Family Services- Keyser Transitional Living	145 W Southern Drive	Keyser	26726				X	
Mineral	City of Keyser	580 S Water Street	Keyser	26726	X				
Mineral	City of Keyser Sewage Disp	881 Waxler Road	Keyser	26726	X				
Mineral	Family Crisis Center	28 N F Street	Keyser	26726				X	
Mineral	Fire Co. Keyser Volunteer Station I	180 West Piedmont Street	Keyser	26726	X				
Mineral	Fountain Fire Department(39)	10707 Knobley Road	Keyser	26726	X				
Mineral	Fountain Primary School	289 Fountain School Road	Keyser	26726		X			
Mineral	Keyser Building Commission City Hall & Apt	111 S. Davis Street	Keyser	26726				X	
Mineral	Keyser City of Filtration Plant	580 S Water Street	Keyser	26726	X				
Mineral	Keyser City of Keyserhouse Apts.	12 N. Main Street	Keyser	26726				X	
Mineral	Keyser EMS (57)	234 S Water Street	Keyser	26726	X				
Mineral	Keyser Fire Co Fire Station #2	1550 Cornell Street	Keyser	26726	X				
Mineral	Keyser Fire Department (33)	Station 1: 180 W Piedmont Street Station 2: 1550 Cornell Street	Keyser	26726	X				
Mineral	Keyser High School	328 One Tornado Way	Keyser	26726		X			
Mineral	Keyser Housing Authority Apts.	440 Virginia Street	Keyser	26726				X	
Mineral	Keyser Housing Authority-Residences	470 Virginia Street	Keyser	26726		X			
Mineral	Keyser Library	101 N Main Street	Keyser	26726				X	
Mineral	Keyser Middle School	879 Harley O Staggers Drive	Keyser	26726		X			
Mineral	Keyser Police Station	105 N. Davis Street	Keyser	26726	X				
Mineral	Keyser Primary School	1123 Harley O Staggers Drive	Keyser	26726		X			
Mineral	Library Mineral County Library Bldg.	105 N. Main Street	Keyser	26726				X	
Mineral	Mineral County Alternative School(Inside of Keyser Middle School)	879 Harley O Staggers Drive	Keyser	26726		X			
Mineral	Mineral County Commission Health Dept. Bldg.	917 Harley O Staggers Drive	Keyser	26726				X	
Mineral	Mineral County Commission Detention Center	100 East Street	Keyser	26726				X	
Mineral	Mineral County Committee on Aging/Senior Citizens Center	30 S. Church Street	Keyser	26726		X			
Mineral	Mineral County Courthouse	150 Armstrong Street	Keyser	26726	X				
Mineral	Mineral County Detention Center	100 East Street	Keyser	26726	X				
Mineral	Mineral County EOC/911 Center	392 Pine Swamp Road	Keyser	26726	X				



**TABLE 2.4.A ASSET INVENTORY**

County	Name or Description of Asset	Address	City/Town	Zip	Critical	Vulnerable	Economic	Special	Historic
Mineral	Mineral County Health Department	541 Harley O Staggers Drive	Keyser	26726	X				
Mineral	Mineral County Technical Center	981 Harley O Staggers Drive	Keyser	26726		X			
Mineral	Piney Valley Nursing Home	135 W Southern Drive	Keyser	26726		X			
Mineral	Potomac State College Campus	101 Fort Avenue	Keyser	26726		X			
Mineral	Potomac Valley Hospital	122 Pin Oak Lane	Keyser	26726	X				
Mineral	Potomac Village Assoc. - Housing	500 Carskadon Lane	Keyser	26726				X	
Mineral	Short Gap Fire Department(34)	128 Knobley Road	Keyser	26726	X				
Mineral	State BD of Control Potomac State College Art Center	C Street and B Street	Keyser	26726		X			
Mineral	State of West Virginia National Guard Armory	Off Arnold Sr.	Keyser	26726			X		
Mineral	USA ABL Bldgs.	Rocket Center Highway	Keyser	26726				X	
Mineral	New Creek Fire Department(38)	3628 New Creek Highway	New Creek	26743	X				
Mineral	New Creek Primary School	85 New Creek School Road	New Creek	26743		X			
Mineral	WV Dept. Highways New Creek Garage	10760 Northwestern Turnpike	New Creek	26743				X	
Mineral	Fire Co. Patterson Creek - Community Bldg.	WS Rte. 28-3 Patterson Creek Road	Patterson Creek	26753				X	
Mineral	Fire Co. Patterson Creek - Fire Station	4022 Patterson Creek Village Turnpike	Patterson Creek	26753	X				
Mineral	D & H Warehouse	154 Fairview Street	Piedmont	26750				X	
Mineral	Fire Dept. #24	52 Second Street	Piedmont	26750	X				
Mineral	Masteller Coal Co. Operation Bldgs.	827 Beryl Road	Piedmont	26750			X		
Mineral	Mead Westvaco Westbaco Beryl Wood Yard	Rte. 1	Piedmont	26750				X	
Mineral	Midrise Building	51 Jones Street	Piedmont	26750				X	
Mineral	Piedmont Fire Department (24)	54 2nd Street	Piedmont	26750	X				
Mineral	Piedmont Housing Authority-Residences	25 Jones Street	Piedmont	26750		X			
Mineral	Piedmont Library	9 Childs Avenue	Piedmont	26750				X	
Mineral	Piedmont Waste Water	Water Street	Piedmont	26750	X				
Mineral	Potable Waste	20 Water Street	Piedmont	26750	X				
Mineral	Verizon Telephone Office	6 Green Street	Piedmont	26750			X		
Mineral	Westvaco Medical Center	22 Orchard Street	Piedmont	26750	X				
Mineral	Frankfort High School	393 Falcon Way	Ridgeley	26753		X			
Mineral	Frankfort Middle School	356 Golden Drive	Ridgeley	26753		X			
Mineral	Frankfort PSD	3232 Patterson Creek Village Turnpike	Ridgeley	26753	X				
Mineral	Pattersons Creek Fire Department (35)	4022 Patterson Creek	Ridgeley	26753	X				
Mineral	Ridgeley Fire Department (25)	568 Veterans Memorial Highway	Ridgeley	26753	X				

**TABLE 2.4.A ASSET INVENTORY**

County	Name or Description of Asset	Address	City/Town	Zip	Critical	Vulnerable	Economic	Special	Historic
Mineral	Orbital ATK	156 Plant Access Road	Rocket Center	26726			X		
Mineral	BOE Frankfort HS	393 Falcon Way	Short Gap	26753		X			
Mineral	Greater Cumberland Regional Airport	165 Terminal Loop	Wiley Ford	26767	X				
Mineral	Wiley Ford Fire Department (27)	149 Stately Street	Wiley Ford	26767	X				
Mineral	Wiley Ford Primary School	71 Wiley Ford School Road	Wiley Ford	26767		X			
Pendleton	Brandwine Elementary	11480 Blue Gray Trail	Brandywine	26802		X			
Pendleton	Brandywine Water Plant	Rt. 21 of Pendleton	Brandywine	26802	X				
Pendleton	South Fork Fire/Rescue	593 Sugar Grove Road	Brandywine	26802	X				
Pendleton	Circleville Fire Dept.	500 Switchboard Lane	Circleville	26804	X				
Pendleton	Circleville Water Plant	Timber Ridge of Pendleton	Circleville	26804	X				
Pendleton	Bill Box Pharmacy	203 N Main Street	Franklin	26807				X	
Pendleton	Family Dollar Store	US 220 and 33	Franklin	26807				X	
Pendleton	Franklin Oil Co.	3263 Petersburg Turnpike	Franklin	26807			X		
Pendleton	Franklin Town Hall	305 N High Street	Franklin	26807	X				
Pendleton	Franklin VFD	200 Confederate Road	Franklin	26807	X				
Pendleton	Pendleton Community Care	314 Pine Street	Franklin	26807	X				
Pendleton	Pendleton County 911	3825 Blu Gray Trail	Franklin	26807	X				
Pendleton	Pendleton County Courthouse	100 N Main Street	Franklin	26807	X				
Pendleton	Pendleton County EOC	200 Confederate Road	Franklin	26807	X				
Pendleton	Pendleton County HS/MS	409 Maple Avenue	Franklin	26807		X			
Pendleton	Rite Aid Pharmacy	71 Mountaineer Dr.	Franklin	26807				X	
Pendleton	Valley National Gas	1256 Mountaineer Dr.	Franklin	26807	X				
Pendleton	North Fork Elementary School	Price Way	North Fork	24868		X			
Pendleton	North Fork Rescue	Rt. 33 of Pendleton	North Fork	24868	X				
Pendleton	North Fork Water Line	Rt. 220 of Pendleton	North Fork	24868	X				
Pendleton	North Fork Primary Care	16921 Mountaineer Drive	Riverton	26814		X			
Pendleton	Spruce Knob Telephone	17009 Mountaineer Dr.	Riverton	26814				X	
Pendleton	Seneca Rocks Fire Dept.	Allegheny Dr.	Seneca Rocks	26884	X				
Pendleton	Upper Tract Fire & Rescue	660 Little Stoney	Sugar Grove	26815	X				
Pendleton	Upper Tract Industrial Pk.	10719 Petersburg Pike	Upper Tract	26866				X	

## 2.5 DEVELOPMENT TRENDS

§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.

Understanding the risk the region faces from future hazard occurrences is a multifaceted exercise. The profiles in [Section 2.3](#) provide a background of this risk and provide loss estimates based on historical data, but are generally based in the past. Identifying and analyzing development trends allows for the consideration of future vulnerability. This information comes from a variety of sources, including economic trends, municipal comprehensive plans, and interviews with local officials. The following pages contain select examples of how some jurisdictions are dealing with future development.

All five counties in the region are largely rural. All counties are located in what is generally considered a mountainous region. As such, the potential for development is somewhat limited. The topography often drives development to flatter areas which are often in or near floodplains. 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. The CEDS identifies a variety of projects in each county and the region as a whole that are planned for development. The following is a list of the projects listed in the 2017 CEDS document for Region 8 counties.

<b>TABLE 2.5.A TARGETED DEVELOPMENT AREAS</b>	
<i>Development Projects</i>	<i>Applicant</i>
Grant County	
Mill Race Restoration	City of Petersburg
Petersburg Sewer Plant Expansion	City of Petersburg
Petersburg Streets	City of Petersburg
Union Educational Complex Athletic Track & Field	Grant County BOE
GCDA M. Top Industrial Park 3-phase Power Project	Grant County Development Authority
GCDA Multi-Tenant Building HVAC Replacement	Grant County Development Authority
Mt. Top Industrial Park Natural Gas Project	Grant County Development Authority
Mt. Top Industrial Park Sewer Project	Grant County Development Authority
Mt. Top Industrial Park Water System	Grant County Development Authority



<b>TABLE 2.5.A TARGETED DEVELOPMENT AREAS</b>	
<i>Development Projects</i>	<i>Applicant</i>
Grant County Health Facility	Grant County Health Department
Jordan Run Water Line Upgrade	Grant County PSD
Bayard Storm Sewers – Flood Management	Town of Bayard
Bayard Streets and Sidewalks	Town of Bayard
<b>Hampshire County</b>	
Central Hampshire Sewer Upgrade	Central Hampshire PSD
CHPSD Sewer Extension/North River	Central Hampshire PSD
CHPSD water extension/Second Water Source	Central Hampshire PSD
Frenchburg Wastewater Treatment Plant	Central Hampshire PSD
Springfield Sewer System	Central Hampshire PSD
West Hampshire Water/Purgitsville	Central Hampshire PSD
Romney Accessibility Project	City of Romney
Romney Blight Reduction	City of Romney
Romney Sewer Plant Improvement	City of Romney
Romney Sidewalk Improvements	City of Romney
Romney Streets	City of Romney
Green Spring Bridge Replacement	Hampshire County Commission
Hampshire Co Natural Gas Feasibility Study	Hampshire County Development Authority
Romney Rail Spur – Station	Hampshire County Development Authority
WV Broadband Co-op Tower/Fiber Project	Hampshire County Development Authority
Capon Bridge Community Park	Town of Capon Bridge
Capon Bridge – School Street Improvements	Town of Capon Bridge
<b>Hardy County</b>	
E.A. Hawse Housing	E.A. Hawse
Dover Hollow Water Extension Project	Hardy County Commission
Stoney Run Watershed	Hardy County Commission
E. Byrd Learning Project	Hardy County Partnership
American Woodmark Building Purchase	Hardy County RDA
Hardy County Child Care Center Expansion	Hardy County RDA
Hardy County Complex/ New Business Park	Hardy County RDA
Winchester and Main Project	Hardy County RDA
Moorefield Municipal Water Plant	Town of Moorefield
Wardensville Regional Government	Town of Wardensville
<b>Mineral County</b>	
Burlington VFD Festival Facility	Burlington VFD
Keyser Sewer Project	City of Keyser
Keyser Water Phase III	City of Keyser
Keyser Water System Improvements	City of Keyser
Piedmont Recreation Improvements	City of Piedmont
Piedmont RR Station Restoration	City of Piedmont
Piedmont Sewer Improvements	City of Piedmont
Piedmont Sidewalk Improvements	City of Piedmont
Piedmont Water Phase II	City of Piedmont
Foundation Water Extensions	Fountain PSD
Foundation Fire Station/Community Center	Fountain VFD
Frankfort District Sewer System Phase 2	Frankfort PSD
Frankfort District Sewer System Phase 3	Frankfort PSD
Frankfort Water Line Ext. & System Improvement	Frankfort PSD
Carpendale Bridge Development Project	Mineral Co Dev. Authority
Burlington Sewage Plant/System	Mineral County Commission

<b>TABLE 2.5.A TARGETED DEVELOPMENT AREAS</b>	
<i>Development Projects</i>	<i>Applicant</i>
Mineral County Accessibility Project	Mineral County Commission
Mineral County Courthouse Annex	Mineral County Commission
Mineral County GIS	Mineral County Commission
Mineral Vision	Mineral County Development Auth.
Barnum Trail Extension	Mineral County Rec. Comm.
Mt. Top Sewage Extension	Mt. Top PSD
Mt. Top Line Extension & Upgrades	Mt. Top PSD
New Creek Sewer System III	New Creek PSD
New Creek PSD Pine Swamp Ext.	New Creek PSD
New Creek Water Tank Replacement	New Creek Water Association
Potomac Highlands Airport Industrial Park	Potomac Highlands Airport
Carpendale Secondary Water Source	Town of Carpendale
Carpendale Utility Extensions	Town of Carpendale
Carpendale Water Storage Tank	Town of Carpendale
Elk Garden Community Improvement	Town of Elk Garden
Ridgeley Rails to Trails	Town of Ridgeley
Ridgeley Sidewalks Phase IV	Town of Ridgeley
Ridgeley Town Hall – Fire Dept. Complex	Town of Ridgeley
<b>Pendleton County</b>	
Pendleton County Courthouse Annex	Pendleton County Commission
Seneca Fire Station Expansion	Pendleton County Commission
Franklin Rescue Bay Expansion	Pendleton County Rescue
Pendleton Water System Extensions – Route 33	Pendleton PSD
Ridge Road Water Extension	Pendleton PSD
Sandy Ridge Water Project	Pendleton PSD
Franklin Sewer Plant Upgrades	Town of Franklin
Upper Tract Fire Station	Upper Tract VFD
<b>Regional</b>	
Potomac Highlands Early Childhood Center	EACHS
EWVCTC Science Lab	EWVCTC
Highland House Halfway House	Highland House
Regional Broadband Extension Project	Region 8 PDC/Multi-County
Potomac State College Athletic Center	WVU-Potomac State
Potomac State College Stem Building	WVU-Potomac State

The Community Economic Development Strategy (CEDS) of 2017 identifies several items that could potentially affect the region. The Potomac Highlands expect to see growth in employment by 1.2 percent each year for the next five years with jobs in the construction sector which is expected to produce the fastest rate of job growth, but all major sectors are expected to produce jobs. Unemployment is expected to decline and per capita personal income is expected to increase at an annual average rate of 2.1 percent for the next five years. Population growth is expected to come from in-migration to the area.

- **Mineral Resources:** There are quarries in operations in all counties or Region 8 but little expansion of the mineral resource industry is expected. There are gas reserves available but the quantity of gas extracted has only a minor impact on development.





- **Wind:** The western Potomac Highlands is an ideal location for harvesting wind for power production. There have been some wind farms developed in recent years and there are a few others proposed around the region in the coming years. Generally, the wind turbines have been met with public support, except in Pendleton County which reduces the chances of development in this county.
- **Industrial Parks, Sites, and Buildings:** There are ten industrial parks in Region 8; only about 37% of the available acres for these sites are occupied, the rest are available for development. Many potential sites for development are met with restrictions that prohibit development such as the limited sewer service and location within the floodplains. There are few buildings that are available for use, many of them because they are too old, too small, or poorly located; this has resulted in the loss of industrial prospects. However, there are opportunities for downtown revitalization by telecommunications and computer-based firms in unused commercial building and second floors of occupied buildings.
- **Transportation:** Transportation can be difficult in the Region 8 Counties due to the geography of the land. However, there are planned improvements to rail lines and the operating capacity. When Corridor H is completed, the region will greatly improve the access to metropolitan areas.
- **Water:** There are areas of Region 8 where there is a lack of water service; there are many sewer and water projects that the Region 8 Planning and Development Council is developing to increase the access to clean water and to increase firefighting capabilities.

During the last committee meeting, the committee discussed development challenges and opportunities in their jurisdictions. The following are some observations from the members.

- **Town of Franklin:** in recent years there has been a flight of young populations; mostly they commute to Harrisonburg, VA, about an hour away, because there is more economic opportunity. The town and county (Pendleton) have looked to boost tourism, nature and climbing, since half of the county is forestland.
- **Hampshire County:** After 120 years in the county, Koppers Railroad Structures, a company that services railroads, moved out of the county. Attracting new business has been difficult because there is no broadband in the area. The county has been

searching for more industries to come to the area because of the advantage they have of being on the CSX rail line.

- **Hardy County:** The County has a new regional sewer system and a new water treatment plant. One of the largest industries in the county is Pilgrim's Pride, a chicken processing plant, where nearly 2,000 workers have found employment, some from out of state. Because of the plant, the county has seen an influx of foreign populations. There are many properties available in Baker for development, but no vacant buildings at the time. Hardy County is reviewing and updating zoning ordinances within the first half of 2018.
- **Grant County:** Development has been steady and new construction has slowed down since 2008. There are plans to develop land in the Mount Storm area where there are many lots available and potential for businesses.
- **Mineral County:** The slight drop in population can be attributed to the loss of economic opportunities in the county. The county is working on initiatives for industrial development and is targeting specific industries. The county has also acquired property and is searching for viable uses for it.