APPENDIX E

DETAILED HAZARD HISTORIES

TABLE OF CONTENTS

Flooding & Hurricanes E-3

High Winds E-21

Wildfires E-27

Drought E-29

Sinkholes E-32

Severe Winter Weather E-34

NOTE

The CSPDC stores larger volumes of hazard histories at our physical office. For more information, please contact us:

112 MacTanly Place
Staunton, VA 24401
Phone: (540) 885-5174
Email: cspdc@cspdc.org

FLOODING & HURRICANES

Date	Description & Damages (*Dollars Not Adjusted)
July 13, 1842	• It occurred in Rockbridge County and affected Covington, Buchanan, and Lynchburg. • Floods in Rockbridge affected Irish Creek, Mill Creek, Jackson Run, North River (now known as the Maury River), and James River. • Furnaces, forges, mills, and bridges washed away. • Caused by a week of heavy rain. • Destroyed crops: corn, wheat, oats, and hay. • Fences along rivers were washed away. • Flooding along James River did not reach Scottsville. • Canal was seriously damaged in Lynchburg.
January 1854	Heavy rains caused the James River to flood Balcony Falls and Glasgow in Rockbridge County. On January 21, 1854, the canal boat Clinton and its passengers became stranded in the raging waters. Frank Padget, a skilled boatman and an enslaved person, led four other men to rescue them. As Padget was trying to save the last passenger, he drowned in the rushing current. Capt. Edward Echol's, who witnessed the rescue, was so moved he commissioned the construction of a granite monument which now stands in Glasgow's Centennial Park.
August 4, 1860	Flashflood in the City of Staunton caused by a severe thunderstorm. Sidewalks were pulled up along Augusta Street. Many stores in downtown Staunton received thousands of dollars of damages. A chimney at St. Francis church was blown down. A stable was lifted off its foundation and destroyed.
September 28 - 30, 1870	The flood of September 28-30, 1870 was one of the earliest floods in the history of the Shenandoah Valley where written accounts are widely available. The flood event occurred throughout the central Valley from the north in Rockingham County and to the south in Rockbridge. The rain was first welcomed after a period of drought and a summer where rivers had been running below normal. As the rain continued, rivers rose to swirling torrents. The Shenandoah River with its expanded and rapid course carried away houses, trees, and bridges in Rockingham County and northward. The Village of Port Republic was reportedly under 15 feet of water at one time during the event. An example of destruction caused by this flood could be seen in Harper's Ferry,

	West Virginia, the confluence of the Shenandoah and Potomac Rivers where 47 people died. In Augusta and Rockbridge Coun□es, extensive damage occurred. Some reports measured nine inches of rain with this storm. In Staunton, flooding along Lewis Creek caused damage to its downtown and washed away a railroad bridge and wood and brick houses. The C & O railroad was damaged, including another bridge that washed away in Waynesboro. In Rockbridge County, Lexington was particularly hard hit in The Point area where several houses were swept away. Also in Rockbridge County, farms, crops, and fences, were destroyed by the flood event. Throughout the Shenandoah Valley, communication lines and transportation routes were blocked. With images of the Civil War still fresh in the minds of people, rebuilding from the flood of September 1870, became another challenge in the recovery they were already experiencing.
August 28, 1893	Flood caused by heavy rainfall affected Rockbridge County. Rain started at around 9 A.M. In the morning and continued until midnight. The north river (now known as the Maury River) before the rainfall had been so low there wasn't enough electricity to run the electric plant. As a result of the storm, water was 3 feet over the roadway at the point.
September 29, 1896	On the twenty-sixth anniversary to the day of the flood of 1870, the Shenandoah Valley was hit by another significant flood event. This flood most likely occurred as a result of a tropical storm that was tracking through Virginia during this time. The rain, which fell steadily all day on September 30, 1896, increased in volume through the evening and culminated in torrential flooding that night. The City of Staunton was the hardest hit locality in the region. Lewis Creek and its tributaries overflowed their banks, devastating Staunton's downtown. Houses, sheds, and stables were swept away. Thirty - forty horses drowned. This flood caused significant damage to the downtown business district. The archway under Augusta Street and the arch bridge over Middlebrook Road survived but nearby buildings in the vicinity of both were severely undermined and many homes were washed off their foundations. The dam at the Fair Grounds broke. Six lives were lost in Staunton. While the Flood of 1896 was the most dramatic flood in Staunton's history, flooding also occurred in other parts of the region, though not at such a level. In Rockingham County, three lives were lost, crops destroyed, and railroad and telegraph lines were damaged. In Rockingham, flooding hit Bridgewater, Elkton, and Keezletown. It was estimated that damages to public roads and bridges reached $600,000 (2019 dollars) in Rockingham County. In Harrisonburg, houses along Black's Run were flooded. Damage estimates for Harrisonburg were a few thousand dollars (2019 dollars). At the weather station at Dale

	Enterprise, six and a half inches of rain reportedly fell over an 18-hour period in Rockingham County. The Flood of 1896, believed to be part of a tropical system, was short lived but during its brief period was able to drop much rain in the northern part of the Central Shenandoah Region during its visit. The heavy, localized flooding was swift and its damage was difficult to grasp. The Flood of 1896 is the flood of record for the City of Staunton.
August 15, 1906	August 1906 was a wet month in the Central Shenandoah Valley. For a period of three to four weeks, rain fell daily in the northwestern part of the Region. The steady rainfall combined with a storm system that stalled against the mountains, caused heavy flooding in Highland County on August 15, 1906. The storm started with a sustained cloudburst that caused small, mountain streams to rage and overflow their banks. Throughout the Valley, residents coped with the dampness brought on by the repetitive rainfall that month. Farmers, building contractors, and other businesses faced losses because of the long period of rainy weather. In Highland County, and in particular the Town of Monterey, they also faced flood damages including a foot and a half of water in the Monterey Hotel Stables. The Flood of 1906 is an excellent example of a flash flood, where intense rainfall from a stalled storm system causes tremendous damage over a geographically concentrated area. A flash flood event, like other types of flooding, may cause just as much damage and can be just as deadly.
November-December 1934	Flooding in Rockbridge County, including Long Hollow Road where damage was estimated at over $28,000 (2019 dollars). A week later, water still surrounded many homes and flooded basements.
March 16 - 17, 1936 “The Great Spring Flood” “The Great St. Patrick’s Day Flood”	The winter of 1935-1936 was a brutal one in Virginia. Across the state that winter, low temperatures and heavy snowfalls were common. March began with milder temperatures, but in mid-March, storms tracked across the eastern parts of the United States, dumping heavy snowfalls and torrential rains in its path. Up to 200 deaths nationwide were attributed to this storm. Damage estimates for the United States reached millions of dollars. In Virginia, the James, Potomac, Rappahannock, Shenandoah, and York River watersheds were flooded. Much of the central Shenandoah valley suffered the effects of this storm. In Rockingham County, 3.10 – 6.25 inches of rain fell over a two-day period. In the Shenandoah watershed, streams and creeks reached record depths in Bridgewater, Brock’s Gap, Rawley Springs, Lynwood, Keezletown, and port republic. The Town of Elkton was cut off as roads were blocked and bridges washed out. The city of Harrisonburg lost power as black’s run flooded areas surrounding main street.

	In Augusta County, Waynesboro's DuPont plant was forced to close due to flooding by the south river. Torrential rains along with the melting of 18 inches of snow quickly filled back creek and the south river beyond their banks. In Waynesboro, many homes were flooded and cars washed away. Staunton reported heavy rainfall, at one point recording 2.5 inches of rain in a twelve-hour period. Craigsville reported flooding six feet in depth at an underpass on the Craigsville Fordwick highway. Flooding along the James River watershed, hit Rockbridge County, Lexington, Buena Vista, and Glasgow. Lexington escaped heavy damage, but several residents were forced to evacuate their homes and oil company storage plants were flooded. Buena vista suffered significant damage. In Buena Vista several industries were damaged by the flood including the Columbia paper company, the majestic silk mills, the Buena vista throwing company, and the W.V. Darling manufacturing company. In Glasgow, its major manufacturer, the blue ridge company, rug makers, remained dry while locher and company, brick manufacturers, did get some water but had little damage. The residential area of Glasgow was not as lucky; many people had to be rescued by boat from their homes. It was reported that water reached between eight and ten feet on the main road through town. In March of 1936, flooding, thunderstorms, landslides, and deep snows caused devastation up and down the east coast of the United States. A harsh winter that was followed by an equally challenging spring wreaked havoc over many states. The Central Shenandoah region was not exempt from the storms of 1936 that caused what would come to be known as “the great spring flood”.
April 1937	Flooding in six states caused numerous rivers to overflow their banks. There were reports of high water on all roads leading into Staunton. Drainage systems were taxed with the large amounts of rainfall.
October 1942	• Prolonged rainfall over several days caused flooding. • The rain gauge just below A□on mountain recorded 11.27” of rainfall. • City of Waynesboro was hardest hit in the Central Shenandoah Valley. The amount of water was 3.5 inches higher at the Chestnut Avenue gauge that it had ever been recorded, and up to two feet higher in the Rife-Loth Plant and 17 inches higher at the Main Street service than ever before. • Damages across Augusta County, including the Cities of Staunton and Waynesboro, were es□mated at over $30,000,000 (2019 dollars).
June 18, 1949	In the Summer of 1949, when the rest of the Central Shenandoah Valley was experiencing the post-World War II economic boom, the Town of Bridgewater

	was forced to focus its energy and resources on re-building itself after flash flooding ravaged the Town. Parts of Rockingham and Augusta Counties were also struck hard by this storm. On June 17th, rain fell steadily throughout the day and into the night. Rising waters turned into floodwaters in the early hours of June 18th. Rising floodwaters filled Mossy Creek, Dry River, and Briery Branch. These rivers passed along their floodwaters to the already swollen North River. The Town of Bridgewater faced the worst flood event in its history. Floodwaters reached the second story in many houses. "A News-Record Reporter covering the story, reported that the roar of the raging river could be heard in the extreme northern end of Bridgewater. 'It sounds like the roar of Niagara Falls,' he said." – Harrisonburg Daily News Record, June 18, 1949. In Bridgewater, three lives were lost, one home was completely washed away, approximately 100 homes and many businesses damaged, and between 25-30 cars were smashed or washed away. Damage estimates were reported to range from $1,076,000 to $11 million (2019 dollars). One of the saddest events of the Flood of 1949, was the three deaths that occurred in Bridgewater, including Mrs. C.R. Bowman, Margaret Bricker, and her nine-year-old daughter, Frances. The Bricker's were killed when their house was washed off its foundation in a fifteen-foot wave of water. Mrs. Bricker's twelve-year-old daughter, Betty, who had also been in the house, was rescued from a submerged tree. Ironically, the day the house washed away was also Frances' ninth birthday. It took a week for Frances Bricker's body to be recovered. The lengthy search to recover her body and the senseless death of "little" Frances Bricker, as she was known, personified the loss that the whole Town felt in the aftermath of this horrific flood. To the west, along the North River, parts of Rockingham and Augusta Counties were also hard hit by severe flooding. Up to 15 bridges were removed by flooding. Small roads covering the area were washed out leaving residents stranded. Aerial views of fields revealed that tons of topsoil had been washed away, leaving only red clay to be exposed. Damage to the George Washington National Forest was estimated at $1.6 million (2019 dollars). In Augusta County, Stokesville experienced a great deal of flood damage. Fortunately, there was no loss of life in Stokesville but more than 12 homes were completely demolished as a result of the flood and many others were heavily damaged. Because of the loss of topsoil, many small farmers were unable to replant crops. Poultry in the thousands and heads of livestock in the hundreds were destroyed in the Stokesville area. In the immediate aftermath of the flood, Stokesville was unable to rebound as quickly as Bridgewater because they

	faced a tremendous shortage of resources and an inability to get tools and materials needed to clean and make repairs. The flash flood of June 1949 left the Town of Bridgewater, the community of Stokesville, and parts of Rockingham and Augusta Counties forever changed.
September 10, 1950	• Flash flood after 24 hour period of rainfall. • 3.8" of rain at dale enterprise and 3.86" of rain at Timberville in Rockingham County. • 5.81" of rainfall near Balcony Falls in Rockbridge County. • 3.9" of rainfall in Augusta springs in Augusta county. • Black's Run overflowed in Harrisonburg on Main Street. • In Rockbridge County two people drowned; the Town of Glasgow was completely cut off; Buena Vista flooded; Buffalo Creek and Whistle Creek left their banks. Many homes and hundreds of cars were washed away. 35 bridges and 50 bridge approaches were washed away. • Rockbridge County damages were es□mated at $21 million (2019 dollars) with $369,000 of that in damage to secondary roads and over $421,000 of that in damage to primary roads.
October 15, 1954 "Hurricane Hazel"	• Hazel struck land as a Category 4 hurricane on October 15, 1954. • The storm caused a national total of 95 deaths and $2.6 billion in damages (2019 dollars) and was considered the worst storm of the 1954 hurricane season. • Observers in Washington, D.C. reported 78mph wind gusts. • Twelve people were killed in Virginia, including four crewmembers of the tugboat Indian, which sank in the James River as a result of the turbulent wind and water. • Turkey growers in the Shenandoah Valley lost between 150,000 and 250,000 turkeys when poultry sheds were wrecked. • The Staunton/Augusta area received five to six inches of rain, and roofs, roadways, and bridges throughout the area sustained significant damage.
August 1955 "Hurricanes Connie and Diane"	Hurricanes Connie and Diane teamed up to spin a relentless one-two punch on the eastern portion of the United States, causing widespread flooding in numerous states. Hurricane Connie struck South Carolina as a Category 1 hurricane on August 12, 1955, inflicting flooding and high winds that killed 41 people and resulted in $144 million in damages (2019 dollars). Connie caused extensive damage to Virginia tobacco and corn crops, and flooded low-lying areas throughout the state, but caused li□le to no damage locally. Hurricane Diane, also a Category 1 storm, made landfall in North Carolina on August 17, 1955. With the ground already saturated from Connie's rain, Diane caused intense flooding, resulting in 184 to 200 deaths and $31.2 billion (2019

	dollars) in damages, making it the sixth most costly U.S. hurricane of the 20th century. Virginia received about three inches of rain from Diane. The storm also caused widespread flooding throughout Augusta County, an automobile accident, a backup of Harrisonburg's flood and sewer systems into homes and businesses, and a 4 by 200 foot chunk of concrete to be swept away from the Harrisonburg hydroelectric dam.
August 19, 1969 "Hurricane Camille"	In the western part of Virginia this name is synonymous with unequalled destruction. The remnants of Hurricane Camille caused flooding during the evening hours of August 19, 1969 and the morning hours of August 20, 1969 that broke all flooding records in modern history along the James and Maury Rivers. On August 17, 1969, Hurricane Camille made landfall on the gulf coast of Mississippi as a Category Five Hurricane – the deadliest type of hurricane. Gusts of up to two hundred miles an hour were reported. The storm surge was the highest ever recorded in the United States. One hundred and forty-three people died as a result of this hurricane on the gulf coast of the United States. Hurricane Camille had weakened to a tropical depression by the time it had reached the Mississippi/Tennessee border. Rain was forecast for the western part of Virginia but it was the combination of three factors that caused the rain to turn into torrential downpours of unparalleled amounts. Nelson County was the hardest hit in all of Virginia receiving from between 27 to 31 inches of rain, most of which fell in a five-hour period during the middle of the night while people were sleeping. Homes in Massie's Mill and Lovingston were washed off their foundations and completely destroyed. Whole families died either in their homes or as they tried to escape the floodwaters. As the land became saturated, tons of topsoil streamed down the mountainsides, toppling trees and creating mammoth landslides. An example of this devastation could be seen after the flood where for a five-mile stretch of Davis Creek, logs were piled 30 feet high. One hundred and seventeen people died in Virginia and a majority of those people were in Nelson County. In the Central Shenandoah Region, three localities– Augusta, Bath and Rockbridge Counties were included in the federal major disaster declaration (DR-274). Rockbridge County was severely impacted by Hurricane Camille. For the City of Buena Vista and the Town of Glasgow, Camille would become their flood of record. Up to eight inches of rain fell in the southeastern part of Rockbridge County. Twenty-three people died in Rockbridge County including three members of the Rion family of Glasgow, and eight members of the Clark family in Cornwall. In Buena Vista, 69-year-old Hansford Odell Allen died in Camille also.

	Both Buena Vista and Glasgow's business districts were flooded with six feet and fourteen feet of water respectively. At least 75 homes were damaged in Buena Vista, and in Glasgow a quarter of the residences were damaged by the floodwaters. In Goshen, the Stillwater plant was inundated with water. Not only were lives lost, homes destroyed, and businesses devastated, but agriculture in Rockbridge County was also affected. One hundred and fifty head of cattle were lost, crops were ravished, and fertile topsoil washed away. Damages in Rockbridge County exceeded $208 million (2019 dollars). Hurricane Camille affected both Mississippi and Virginia. Two hundred and sixty lives were lost as the result of the hurricane and the flash flooding it created. Camille caused over 3 billion dollars (2019 dollars) in damages throughout Virginia. The year following Hurricane Camille was full of loss and a struggle to recover for thousands of residents in western Virginia. This struggle is best illustrated through the words on a plaque given by the Lion's Club to the citizens of the City of Buena Vista, "To the citizens of Buena Vista and their good friends from far and near, in grateful recognition of their collective efforts and achievements in the rebuilding of Buena Vista following the flood which came in the wake of Hurricane Camille on August 20, 1969. This plaque expresses appreciation for the labors, moneys, services, supplies, equipment, leadership, and the spirit of cooperation which were extended by individuals, organizations, agencies, and companies; both local and throughout the nation; to relieve the flood devastation and to restore order to our city. In unity lies our strength." Camille, its colossal rainfall, and the total destruction it left in its wake have yet to be surpassed and will be imprinted in the memories of many for a lifetime. The stories of Camille will be passed on for generations.
June 19, 1972 "Hurricane Agnes"	On June 19, 1972 Hurricane Agnes, a weak disorganized hurricane, made landfall in Florida. Barely able to reach hurricane status, it quickly disintegrated to a tropical storm, and quickly a depression. Although it was a weak hurricane, it was a large storm with a diameter of 1,000 miles. It made its way up the Appalachians and exited back out to sea off the coast of North Carolina. Sponging up moisture from the Atlantic Ocean, it regained strength. On June 21, 1972, Agnes now back to tropical storm status reached the Virginia coast and made its way up the Eastern seaboard. Several states received record flooding. From Virginia to New York, several places received rainfall totaling 15 inches or more. An example of the devastation was witnessed in Wilkes-Barre, Pennsylvania where they had built a dike, 37 feet high, to protect them from floods similar to the Flood of 1936, their flood of record, where the Susquehanna River crested at 33 feet above its normal levels. As a result of Agnes, the river crested at 40 feet, pouring water over the dike and flooding the Town. In Kingston, Pennsylvania, only 20 of its 6,600 homes were above water."

	Damage from Hurricane Agnes in the United States was over $19 billion (2019 dollars), the second costliest hurricane in U.S. history and caused 120 deaths. In Virginia, 13 lives were lost and damages equaled over $1 billion (2019 dollars). Rivers surpassed their banks throughout the State including the Appomattox, Dan, James, Potomac, and Roanoke Rivers. Like other parts of the State, the Central Shenandoah Region received flooding but not to the levels that had occurred three years earlier with Hurricane Camille. Eight localities (Bath, Buena Vista, Harrisonburg, Lexington, Rockbridge, Rockingham, Staunton and Waynesboro) were included in the federal major disaster declaration (DR-339) following the storm. Waynesboro was one of the hardest areas hit in the Region. Waynesboro's downtown and Club Court areas were evacuated. At the time, damages to homes and businesses were estimated to be in the hundreds of thousands of dollars. In Rockbridge County, both Buena Vista and Glasgow received flooding. Glasgow, at the confluence of the James and Maury Rivers, received the greatest amount of flooding in Rockbridge County. In Glasgow, damages reached approximately $925,500 (2019 dollars) and 50 families were evacuated in the small town. In Buena Vista, many homeowners and businesses were evacuated. Hurricane Agnes was one of the costliest and damaging tropical storms to hit the Eastern United States. In the Central Shenandoah Region, because of the recent memories of Camille, many residents took steps early to evacuate and remove property from homes and businesses. While Agnes did bring along floodwaters, Valley residents were prepared.
October 7, 1972	Severe storms resulted in flooding. Buena Vista was included in a federal major disaster declaration (DR-358).
October 10, 1972	Severe storms resulted in flooding. Augusta, Buena Vista, Rockbridge and Rockingham were included in a federal major disaster declaration (DR-359).
November 4 - 7, 1985 "Hurricane Juan" "Elec□on Day Flood"	The Flood of November 1985 will be remembered in Virginia for its flash flooding. Flooding was caused when a slow-moving low pressure system, possibly containing remnants of Hurricane Juan, moved northeasterly through West Virginia and Virginia dumping torrential rains over a four-day period. Known as the "Election Day Flood", because it occurred during election day, the storm caused 22 deaths. Damages across the state reached nearly $1.8 billion (2019 dollars). This flood was the worst flood for the City of Roanoke, where the Roanoke River rose seven feet in one hour and eighteen feet in six hours. Areas all across the Central Shenandoah Region were affected by the flooding. Nine localities– Augusta, Bath, Buena Vista, Harrisonburg, Highland, Lexington, Rockbridge and Rockingham- were included in the federal major disaster

	declaration (DR-755). In Rockingham County, the western part of the County was hardest hit. A railroad bridge built in 1896 was washed out in Elkton. The Town of Bridgewater experienced limited damage because of a levy built after the disastrous flood of 1949. Bridgewater did receive damage to roads, their hydroelectric plant, and the athletic field at Bridgewater College. In Highland County, at least 50 homes and 300 farms received damages from the flooding. In Highland County, road damage was estimated at a little over $4.7 million (2019 dollars). In Bath County, bridges were washed out, and property damage was estimated in the thousands of dollars. Communities in Augusta County were inundated by floodwater. The swollen Middle River damaged homes, property, and roads in areas like Frank's Mill, Fort Defiance, and Verona. Buffalo Creek washed away bridges and roads in the Buffalo Gap area. Damages to roads in Augusta County were estimated at $18 million (2019 dollars) and homes, businesses, and public facilities at $16.5 million (2019 dollars). The rains had minimal affects on the City of Staunton except for the water treatment plant that was damaged and the evacuation of residents of the Beverly Hotel where the flooded basement caused concerns. The City of Waynesboro, on the other hand, experienced significant damages. Waynesboro's South River created record flood levels and caused damages to 140 homes, 32 mobile homes, and 41 businesses. The City's sewage treatment plant was also severely damaged. Damage estimated for the City of Waynesboro directly after the flood exceeded $7 million (2019 dollars). In Rockbridge County, Goshen, Glasgow, and Buena Vista were the areas most affected by the flooding. Goshen experienced the heaviest damage due to the swiftness of the floodwaters. Damages in Buena Vista and Glasgow equaled or surpassed what they had experienced during Hurricane Camille in 1969. In Buena Vista, three to six feet of water flooded homes and businesses. In Glasgow, almost half of the homes and two-thirds of the businesses were hit by floodwaters. In Lexington, the waste water treatment plant was covered by the waters of the Maury River. Damages in Rockbridge County were estimated at $236 million (2019 dollars), well exceeding the cost of Hurricane Camille. In the 1985 Flood, 584 homes and 32 businesses were damaged in Rockbridge County. The November 1985 Flood reached its watery fingers throughout the Central Shenandoah Region, grasping homes, public facilities, and businesses. The three-day period of sustained rains caused flash flooding all over the Region. It is no doubt that the Election Day Flood created one of the lowest poll turnouts in history.

May 19, 1992	Severe storms resulted in flooding. Six localities- Augusta, Bath, Buena Vista, Lexington, Rockbridge and Rockingham- were included in a federal major disaster declaration.
April 1993	• Flooding in Bath and Highland Counties caused by heavy, localized rainfall. Between 1 and 6 inches of rain fell. • A corridor running north-south from Pendleton County, WVA into Bath County, between the east side of Lantz Mountain and the west sides of Jack and Warm Springs Mountains, sustained the most damage. • Streams were inundated along U.S. 220 and Rt. 642 and culverts, small bridges, and fences washed out. • Livestock had to escape floodwaters on many farms. • Some areas experienced more damage then they did in 1985. • Gardens including all their topsoil were washed away.
March 10, 1994	Severe ice storms resulted in flooding. Bath, Buena Vista and Rockbridge were included in a federal major disaster declaration.
June 22 - 28, 1995	A week-long period of ground saturating rains fell over the western part of Virginia, causing flash floods and landslides. Madison and Greene Counties were the most devastated in the State, when an intense rainfall stalled over the mountains. On June 27, 1995, in a fift- mile area of Madison County, 30 inches of rain fell in a 16-hour period, with as much as 25 inches falling in a five-hour period in some areas. This caused debris flows and mudslides that uprooted trees, removed topsoil, and caused extensive altercations in the landscape. Rainfall had not been seen there in such a concentrated level over such a short duration since pre-historic times. In the Central Shenandoah Region, six localities– Augusta, Bath, Buena Vista, Lexington, Rockbridge and Staunton were included in a federal major disaster declaration (DR-1059). The week of rains caused flash flooding in Augusta and Rockbridge Counties. In Augusta County, the Town of Craigsville was flooded when 12 inches of rain fell over an 11-hour period. Trees were uprooted in yards, basements caved it, and 40 people were forced to evacuate their homes. Damage estimates exceeded $843,000 (2019 dollars) for the Town. In the Town of Glasgow, flooding from interior mountain streams became more of a problem than river flooding with this event. At least 42 homes in Glasgow experienced flooding on the first floor of their homes and 64 homes had flooded basements or crawl spaces. In the City of Staunton, Gypsy Hill Park was flooded when Lewis Creek overflowed its banks. The Park's duck pond also overflowed causing sinkholes and creating other problems.
January 13, 1996	Severe winter weather resulted in a blizzard, followed by two additional snowstorms bringing over a foot of snow. Snowpack was on the ground for an

	extended period of time. It was thawed by higher temperatures and heavy rain, resulting in severe flooding. Ten localities- Augusta, Bath, Buena Vista, Harrisonburg, Highland, Lexington, Rockbridge, Rockingham, Staunton and Waynesboro- were included in a federal major disaster declaration (DR-1086).
January 27, 1996	Flooding was caused by melting snow. Eight localities- Augusta, Bath, Buena Vista, Harrisonburg, Highland, Rockbridge, Rockingham and Waynesboro were included in a federal major disaster declaration (DR- 1098).
September 6, 1996 "Hurricane Fran"	Hurricane Fran made landfall in North Carolina as a Category Three hurricane on September 6, 1996. In the Central Shenandoah Region, ten localities– Augusta, Bath, Buena Vista, Harrisonburg, Highland, Lexington, Rockbridge, Rockingham, Staunton and Waynesboro were included in the federal major disaster declaration (DR-1135). The Counties of Augusta and Rockingham were most affected by Fran. Fran dropped eight inches of rain in parts of the Valley and up to thirteen inches of rain in the Big Meadows area of the Shenandoah National Park. Hurricane Fran broke almost all flood records along the Shenandoah River and its tributaries, including those set in 1972 with Hurricane Agnes and in 1985. Damages in the Shenandoah Valley were estimated at over $97 million (2019 dollars). The Naked Creek area in Rockingham County, north of Elkton, sustained severe damage by the flood. The flood carved new channels and filled yards and homes with debris. Areas in the Town of Bridgewater were flooded when the North River overflowed its banks. Broadway, Mount Crawford, and Dayton were among the other communities in Rockingham County that experienced flooding. The City of Harrisonburg received flooding along Blacks Run but damage was minimal in comparison to other areas in Rockingham. More than 125 roads were closed in Rockingham as a result of the floods. In the County, 16 homes and 18 mobile homes were completely destroyed by Fran, and 334 additional structures received damage. In Augusta County, National Guard troops evacuated people in the Mount Solon and Churchville areas. Buffalo Gap, Augusta Springs, and Sherando were also vulnerable to the high waters caused by the heavy tropical rains. Twenty-nine roads were closed in Augusta County. Two deaths resulted in Augusta County when people tried to cross the flood-swollen Middle River in two separate incidents. In the City of Staunton, much of downtown was closed due to flooding in the Wharf parking lot area and damage was done to roads at the Frontier Culture Museum. The City of Waynesboro also experienced flooding in their downtown business area when the South River reached flood stage. Waynesboro streets became clogged with debris and tree limbs as the storm progressed.

	In Virginia, damage from Hurricane Fran was estimated at $466 million (2019 dollars) and caused eight deaths. Two hundred and thirty-three homes were destroyed and over seven thousand homes were damaged in Virginia.
July 8-August 21, 2001	Severe Storms caused flooding. Bath County was included in a federal major disaster declaration (DR-1386).
February 15 – February 28, 2003	A severe winter storms brought snowfall, heavy rain, flooding and mudslides. Highland County was included in a federal major disaster declaration (DR-1458).
August 8, 2003	Flooding occurred in the City of Staunton after a thunderstorm cell stalled out over Staunton's downtown area, dropping between 4-6 inches of rain in an hour. This heavy rainfall caused structures downtown to fill with 2 - 7 feet of water. Floodwaters receded within several hours leaving $1.8 million (2019 dollars) in damages to 55 businesses and up to 70 homes. Gypsy Hill Park and the City's Johnson Street parking garage also sustained damage. In Augusta County, countywide impacts occurred from the storm.
September 18, 2003 "Hurricane Isabel"	Hurricane Isabel made landfall on September 18, 2003, along the Outer Banks of North Carolina. Isabel made landfall as a Category 2 Hurricane. It moved northwestward through Virginia and Maryland, finally dissipating near Erie, Pennsylvania. In Virginia, as Isabel passed through, some areas had sustained winds of 100 mph. Also, for twenty-nine hours tropical storm winds lasted throughout Virginia. Communities located along either the Chesapeake Bay or the Atlantic Coast felt the effects of a storm surge of 5-8 feet. In the Central Shenandoah Region, seven localities– Augusta, Buena Vista, Harrisonburg, Highland, Rockbridge, Rockingham, Staunton and Waynesboro- were included in a federal major disaster declaration (DR-1491). Augusta County received the most rainfall and Rockbridge County received the most damage due to severe flooding along the South River. In Augusta County, the heaviest rain occurred in the Sherando area, which is located at the foothills of the Blue Ridge Mountains. The Upper Sherando monitoring station recorded a rainfall total of 20.6 inches. In Augusta County, damage estimates equaled $2.2 million (2019 dollars). For the City of Waynesboro, damages equaled $1.39 million (2019 dollars). The South River at Waynesboro crested at 13.46 feet, above flood stage of 9.5 feet. In Staunton, damages were minimal but one death occurred as a result of carbon monoxide poisoning from the improper use of a generator. In Rockingham County, damage was mainly confined to roads, downed trees, and agricultural lands. Two deaths were caused a few days after the storm, when a man and his daughter tried to cross a swollen stream in a horse and buggy. In

	Harrisonburg, downed trees were the major problem as a result of rain soaked soil. A JMU student drowned when his canoe overturned in Black's Run the morning after the storm. The northeastern part of Rockbridge County sustained the most damage when the South River flooded along Rt. 608. The South River is fed by the St. Mary's, Big Mary's, and Li□le Mary's Creeks which flow down the west side of the Blue Ridge Mountains. During Isabel, the South River began rising by 9 p.m. and the River jumped its bank by 11 p.m. Significant damage to property and infrastructure occurred from the northern Rockbridge County border down stream to the South River's confluence with the Maury River. Rt. 608, which parallels the South River was washed out or undermined in several places. Three permanent bridges over the South River were destroyed. An abandoned C&O railroad bridge, that was part of the Chessie trail system, was washed off its supports as well. In Rockbridge County, property damages were estimated at $9.3 million (2019 dollars), damage to South River Road was estimated at $5.5 million (2019 dollars), and agricultural losses were estimated at $6.9 million (2019 dollars) (which included the loss of 25-30 head of livestock). Amazingly, there were no serious injuries or fatalities in Rockbridge County as a result of this flood event. In the U.S., forty deaths were attributed to Hurricane Isabel and damages were estimated at over $4.17 billion (2019 dollars). It was one of the top thirty most expensive storms in U.S. history.
August 9- August 15, 2004 Hurricane Charley	Impacts from Hurricane Charley were felt countywide in Augusta County.
August 24— September 10, 2004 Hurricane Frances	Hurricane Frances resulted in flooding in Augusta County.
September 2— September 25, 2004 Hurricane ivan	Hurricane Ivan brought flooding to Augusta County and resulted in road closures in the Staunton area.
September 13- September 26, 2004 Hurricane Jeanne	Hurricane Jeanne resulted in flooding countywide in Augusta.
July 3-July 12, 2005 Hurricane Cindy	Hurricane Cindy brought countywide flooding to Augusta County and resulted in road closures in Western Augusta.
November 29, 2005	Flooding occurred in the Sherando area.

June 23 - July 6, 2006 "Mid-Atlantic United States Flood"	The Mid-Atlantic United States Flood of 2006 affected much of the Mid-Atlantic region of the eastern U.S. It is widely considered the worst flooding in the region since Hurricane David in 1979. At least 16 deaths in the U.S. were caused by this flood event. The flooding occurred because of a stalling of the jet stream just west of the Appalachian Mountains, a "Bermuda high" over the Atlan□c Ocean, and the influence of a tropical low off the coast of North Carolina. The National Weather Service stated that rain events of this size take place in the region only once every 200 years. In Virginia, flooding occurred in the northern regions and mudslides were also witnessed in the mountainous regions. In the Central Shenandoah Valley, flooding occurred countywide in Augusta County. In the Brand Flats area along U.S. 250 when Christians Creek spilled over its banks. Residents of 50 trailers in Knox Mobile City were cut off by the flooding. The American Red Cross assisted 1,600 citizens during the week, providing food, clothing, and shelter.
August 28-September 12, 2008Hurricane Hanna	Hurricane Hanna resulted in flooding impacts countywide in Augusta County.
January 25, 2010	Storms brought flash flooding to Augusta County, resulting in impacts county wide with evacuations and water rescues. Flooding impacted the Pastures District, bringing streams out of their banks and washing out roads. The South River at Waynesboro crested at 10.01 feet, above flood stage of 9.5 feet, resulting in minor flooding.
April 11—April 12, 2011	Heavy rains caused mud and rock slides in Bath County, downing trees and blocking roads. The Cowpasture River crossed Rt 42, and flooding, rock slides and mudslides occurred in areas near Burnsville, Williamsville, Bacova and Bolar. No homes were damaged, but several road washouts occurred. Flooding occurred in northern Augusta County.
April 16 , 2011	An EF1 tornado reached wind speeds in excess of 95 mph traveling 4.1 miles in Augusta County. The tornado damaged 37 structures and downed numerous trees and powerlines. Preliminary damage estimates from Augusta County listed storm damage to 12 residences, 3 businesses, 15 outbuildings, 2 mobile structures and 5 barns. Preliminary damage cost is estimated at over 2.5 million (2019 dollars). An EF0 tornado touched down near Vesuvius in Rockbridge County causing minor damage to a barn and a house, and slightly moving another barn off its foundation. The twister left a path about 100 yards wide and 1.3 miles in length. Wind speeds were estimated at 80 mph. Rockbridge also experienced 3.5 inches of rain and reports of quarter size hail. Numerous trees were reported downed in Lexington and countywide in Rockbridge. In Glasgow, the Maury River reached near flood stage at 18 feet. As many as 33 roads were closed due to high waters and fallen trees, the worse being Rt. 631, Furrs Mill

	Road. A swift water rescue was required to retrieve two women and two small children stranded in a van. 350 Dominion Power customers lost power. In Bath County, downtown Hot Springs flooded. Flooding, mud and rock slides also occurred in other areas of Bath County damaging roads, driveways, homes and the Warm Springs Pools at the Homestead. Highland County experienced power outages, downed trees and flooded roadways. Highland County Supervisors declared the County a disaster area.
April 27-April 28, 2011	Four tornados touched down in Augusta County and Rockingham County. The strongest was an EF-2 that started in Fulks Run and traveled 33.3 miles into Shenandoah County, damaging homes and farm buildings; downing trees and causing 2 injuries. An EF-1 Tornado occurred in Churchville in Augusta County, and traveled for 4 miles damaging homes, downing trees and destroying outbuildings. Two EF-1 tornados occurred in Rockingham. A tornado in Keezletown was on the ground for 2.7 miles causing tree damage and damage to two homes, farms buildings and outbuildings. A tornado in Linville traveled for 0.9 miles causing tree damage. Other reported storm damage from the region included reports of downed trees in Bath County, Rockbridge County, Augusta County and Rockingham County. A tree fell on a trailer in the Colen Hollow area of Rockbridge and damage was reported to houses in Rockingham. The storm brought heavy rains and flooding in Bath County, causing downed trees and powerlines, washing debris into the roads, and damaging roads in Burnsville and Williamsville. Rt. 614 Muddy Run Road in front of the Burnsville Volunteer Fire Department and Rescue Squad was washed out. Flooding damaged a home in Williamsville.
October 22-November 2, 2012 Hurricane Sandy	Hurricane Sandy brought rain to the Central Shenandoah Valley region, resulting in flooding. Governor McDonnell declared a State of Emergency for Virginia. A transmission line serving the Monterey substation failed due to high winds, resulting in a widespread, extended power outage to 90% of Highland County. County officials declared a state of emergency. Following the storm, Highland County was deemed eligible for FEMA public assistance funding in DR-4092 due to damage to public infrastructure. The countywide per capita impact for Highland County was $7.26 (2012 dollars)
May 9, 2013	A slow moving low pressure system caused rain to fall over saturated ground from previous rainfall. The storm resulted in flash flooding, closing roads, delaying schools systems and causing accidents. More than 40 sections of roadways were flooded in Augusta County.
June 17, 2013	Rain and thunderstorms brought flooding to the Dooms area in eastern Augusta County. Route 340 was closed in several locations, and several cars were swept away. No injuries were reported.

April 15-16, 2018	A severe storm moved through the region with moderate to heavy rain, strong winds and hail, causing flooding. The South River crested at 11.38 feet, above flood stage of 9.5 feet. A tornado warning was issued for southeastern Augusta County. While the Central Shenandoah Valley was spared and a tornado touchdown did not occur in the region, the same storm system produced an EF3 tornado which touched down in neighboring Amherst County earlier in the evening. Rockingham County, Augusta County and Harrisonburg were included in a agricultural disaster declaration (S4493).
May 14, 2018	A series of thunderstorms with high winds, heavy rain and hail caused flash flooding in the central Shenandoah Valley, resulting in downed trees and power outages. Several homes or businesses in the region were damaged. In Verona, a family was displaced when flooding caused their basement wall to collapse leading to the condemnation of their home. Homeowners insurance denied the claim since the property was not covered by flood insurance. Strong winds struck a local bank branch during business hours, damaging the building, while employees and customers took shelter in the bank vault. A tree fell damaging a home in Waynesboro. Hail was reported in Verona, and half dollar size hail was reported in Rockbridge County. Trees were reported downed in other areas of Augusta County, Rockingham County and the City of Staunton. 21,000 Dominion Power customers were without power in the region.
May 21, 2018	Five inches of rain were esmated to have fallen in less than 2 hours causing flooding in Bath County. Flooding closed roads on Jackson River Turnpike, Douthat Park State Park and Route 687. Damages were reported to three homes, an auto shop, roads, private driveways and a vehicle. One structure (a garage) had significant damage. Flash flooding in Rockingham County occurred, washing out or temporarily closing roads in Fulks Run, Harrisonburg and other areas of the County. Flooding in Fulks Run damaged houses, farm buildings and roads. Augusta County also experienced countywide flooding impacts.
May 28-June 3, 2018	A line of thunderstorms brought heavy rains and flash flooding to western and central Virginia. In Rockingham County, including the areas of Harrisonburg, Dayton, and Bridgewater, 2 inches of rain fell in a short amount of time. During the heaviest deluge, rain fell at a rate of 6 inches per hour. The storm stranded vehicles and resulted in several swift water rescues of stranded drivers. Flooding closed several roadways in Augusta County and Rockingham County, including Route 11 in Harrisonburg and Route 42 in Dayton. Route 33 near Swift Run Gap was closed due to a series of mudslides. Businesses in downtown Harrisonburg, as well as City parks flooded. In Dayton, the Cargill Poultry Plant suspended operations when it flooded. A daycare center in Broadway flooded, impacting 95 families, when the center temporarily closed to clean up. Augusta,

	Highland and Rockingham were included in an agricultural disaster declaration (4378).
June 21-22, 2018	A stalled out front caused flooding and damage in Rockingham County and the City of Staunton. In Staunton, a flash flood damaged two homes, four businesses, two vehicles and park amenities at Gypsy Hill Park. The Bergton area of Rockingham County was hit the hardest leading to flooding in lowlying areas. Flooding and downed trees caused road closures in Augusta County and Rockingham County.
June 27-28, 2018	Flooding occurred in the Augusta County area.
August 30, 2018	Severe thunderstorms caused flooding and damages including downed trees, power outages and closed roads in Augusta and Rockingham Counties. The storms included wind gusts of at least 60 mph. Over three inches of rain fell in the area, with the Mount Solon area in northwestern Augusta County being the hardest hit and receiving over four inches. Damaging winds and pea-sized hail were reported.
September 9-September 28, 2018 Hurricane Florence	Hurricane Florence, a category 4 hurricane which downgraded to a tropical depression, widespread flooding in Staunton, Waynesboro and Augusta County closing roads and causing property damage. In Grottoes, the Middle River exceeded the 12 foot flood stage, cresting at 17 feet. The Jennings Branch area and Churchville area experienced flooding, including at Churchville Community Park. Basements and a vehicle flooded in Waynesboro. Staunton declared a local emergency. Augusta and Waynesboro provided sandbags to residents and businesses, and opened emergency shelters. In the Bridgewater area of Rockingham County, Wildwood Park flooded. Rockbridge County was included in an agricultural disaster declaration (4401).
June 29-June 30, 2019	Severe storms resulted in flooding, landslides and mudslides. Augusta, Highland, Rockingham, Harrisonburg, Staunton and Waynesboro were Included in an agricultural disaster declaration (4455).

HIGH WINDS

Date	Location	Description & Damages (*Dollars Not Adjusted)
6/14/1834	Rockbridge County	A tornado had a damage path 18 miles long and 16 miles wide. Trees were flattened and windows broken. Hail was "hen egg" size, measuring 8 - 9 inches in diameter. Wind/hail was most destructive to residents within their memory.
6/4/1911	Staunton, Augusta County	The tornado damage path was 30 miles long and 7 miles wide – shaped like an hourglass. Hail ranged in size from marbles to goose eggs. Damages included broken windows, roofs blown off, barns destroyed, water damage to houses, and impacts on crops and livestock. People were injured but there were no fatalities. Many people were caught outdoors on Sunday afternoon outings. The Staunton property loss was estimated between $600,000 to $1.3 million (2019 dollars). The county crop loss was $27 million (2019 dollars). Turkeys/ chickens killed at farms. Boy Scouts helped clean up damaged houses. Four carloads of glass were sold to replace broken windows in Staunton. Possibly started in Mt. Solon area, blew southeast to Staunton where it zigzagged north and east. It also hit Greenville, Fishersville, and Verona. From Augusta County, it crossed into Nelson and Amherst Counties.
9/22/1921	Augusta County (1 mi. west of Mint Springs - moved to Barterbrook)	An F2 tornado had a damage path 5 miles long and 100 yards wide. The damage amounts are not known. No reports of fatalities. A mother and child were severely injured when their home was destroyed and scattered a ½ mile.
5/2/1929 "Virginia's Deadliest Tornado Outbreak"	Bath County	A storm swept across 12 states from Florida to Missouri to Virginia. More than 200 were injured and 40 killed in the United States. There were five tornadoes in Virginia that resulted in 22 people killed and over 150 injured. There were approximately $7.5 million (2019 dollars) in damages. In the state, 4 schools were destroyed including one school at Rye Cove in Scott

		County where 12 children and 1 teacher were killed and 42 injured. A tornado occurred in the Cowpasture Valley in Bath County at an elevation of 1,500 feet. Ten people were injured but no one was killed. Roofs were blown off, barns destroyed and two schools were damaged. Students had already been released. Several homes and a church at Nimrod Hall were destroyed. Weather turned cold and snow fell after the storm.
4/5/1952	Augusta County, Rockingham County	Two tornados occurred in the region. A tornado in Augusta County tracked 1 mile and had a damage path 150 yards wide. No fatalities and 2 people injured. In Rockingham County, a tornado had a damage path 4.9 miles long and 100 yards wide. No damage amounts are known.
4/28/1959	Highland County	An F1 tornado hit Highland County. The path is not known. Damage to property estimated at over $22,000 (2019 dollars)
7/1/1959	Augusta County	An F1 tornado hit Augusta County. It tracked 11.3 miles with a damage path of 100 yards. No fatalities or injuries were reported. Damage to property was over $220,000 (2019 dollars).
8/6/1960	Rockingham County	An F2 tornado occurred in Rockingham County where the damage path is unknown. There were no reported injuries. Damage amounts to property were over $217,000 (2019 dollars)
11/29/1963	Augusta County	An F2 tornado hit Augusta County where the damage path was one mile long. The width is not known. There were no fatalities or injuries. A house under construction was leveled and the roof came off another house. Damage estimated at over $420,000 (2019 dollars).
4/4/1974 “Super Outbreak”	Augusta County, Staunton, Bath County, Highland County	In Augusta County, an F2 tornado struck near Westview, and moved northeast to Weyers Cave. The damage path was 18 miles long and 200 yards wide. The tornado damaged over 90 barns, destroyed 2 homes, and damaged 4 homes, outbuildings and a school. The Verona area was hit hard and Fort Defiance High School lost part of the roof. Damages in Augusta County were $13 million (2019 dollars). There was roof damage to Staunton City Hall. In Bath County, Bacova Junction and Millboro were affected. In Millboro, roofs were blown off, windows broken, and barns damaged. There was a possible touchdown in the Big Valley area of Highland County. These tornadoes were the last of the Super Outbreak which totaled 148 tornadoes over 2 days affecting 13 states. Most of the

		tornadoes were recorded in a 24 hour period. The average path length of the tornadoes was 18.7 miles. Six of the tornadoes during the Super Outbreak were F5s. 330 people died in the United States with two deaths in Virginia. Nineteen counties in Virginia were hit with thunderstorms or tornadoes.
6/5/1975	Augusta County, Rockbridge County	An F0 Tornado struck near Lyndhurst. The weak tornado tracked 0.2 miles with a damage path of 30 yards wide. It destroyed a small building and 25-30 trees. Damage estimated at over $9,000 (2019 dollars). No deaths or injuries were reported. A tornado struck near Collierstown damaging trees and fences. Damage was estimated at over $4,000 (2019 dollars).
8/15/1975	Rockingham County	An F1 tornado struck the Melrose area which is 6 miles northwest of Harrisonburg. The damage path was 1 mile long and 27 yards wide. No injuries were reported. The tornado overturned a trailer, ripped off a roof, and carried away outbuildings. Damages were over $119,000 (2019 dollars)
10/2/1979	Town of Dayton	An F1 tornado had a damage path 1.1 miles long and 37 yards wide. No injuries were reported. It snapped off tree tops and utility poles, and broke windows. The storm flipped an unoccupied trailer. Damages were over $88,000 (2019 dollars).
5/4/1990	Augusta County	An F2 tornado had a damage track 7 miles long and 27 yards wide. It hit Augusta Springs and Swoope. The tornado tracked a mile through the community of Augusta Springs. It lifted 2,500 feet over mountains and set back down again on other side. 2 people were killed in a mobile home in Swoope. Three people were injured in Swoope and 7 were injured in Augusta Springs. Damages were $4.9 million (2019 dollars). The tornado formed in a thunderstorm along a warm front well out ahead of the expected threat area.
6/10/1995	Waynesboro, Augusta County	A strong F2 touched down on the west side of Waynesboro. It tracked 3.5 miles through the County and southwest portion of the City, and had an average damage path of 300 yards wide. No deaths or injuries were reported. It hit an industrial area, peeling off roofs and damaging 15-20 homes. The tornado flipped a 22.5 ton crane and mowed down over 100 pine trees in a park. Quarter sized hail accompanied the storm. Damages were $3.3 million (2019 dollars).
6/24/1996	Town of Broadway	An F1 tornado had a damage path that was 0.5 miles long and 100 yards wide. No injuries. were reported. The tornado tore

		roofs off 2 homes and 2 poultry houses, and damaged trees. Several chimneys were blown off homes. Damage estimates were over $65,000 (2019 dollars).
7/11/1999	Harrisonburg, Rockingham County	An F0 tornado had a damage path that was 0.1 mile long and 15 yards wide. No injuries were reported. The storm damaged a store's tin roof and singles on a home. Damages were estimated at more than $3,000 (2019 dollars).
7/31/1999	Augusta County	An F1 tornado struck 5 miles east of Staunton. The damage path was 0.1 mile long and 100 yards wide. It destroyed a barn, damaged a greenhouse, and took down trees. No injuries were reported. The storm produced 3/4 inch diameter hail. A 100 pound beam from a barn roof was buried in the ground and the roof rolled into a ball by the force of the wind. Damage estimates were over $23,000 (2019 dollars).
5/9/2003	Augusta County	An F0 tornado touched down in Verona, then moved southeast to Hermitage. The tornado downed a 195-foot radio tower. The path of the tornado was 5 miles long and 100 yards wide. The storm also downed trees in New Hope and produced hail near Mt. Solon.
6/23/2006-7/6/2006	Augusta County	Severe storms and tornadoes resulted in flooding in Augusta County.
2/10/2008	Augusta County	High wind resulted in significant damage to trees, utility lines and utility poles in Augusta County.
8/2/2008	Town of Elkton, Rockingham County	An EF0 tornado touched down on the banks of the South Fork of the Shenandoah River along Park Avenue. The tornado's path was 1/4 mile long and 70 yards wide. This series of strong thunderstorms also produced large hail. Witnesses spotted swirling wind and a funnel cloud. Hail and damaging winds also occurred in other parts of Rockingham County downing trees.
4/16/2011	Augusta County, Bath County, Highland County, Lexington, Rockbridge County, Town of Glasgow	An EF1 tornado reached wind speeds in excess of 95 mph traveling 4.1 miles in Augusta County. The tornado damaged 37 structures and downed numerous trees and powerlines. Preliminary damage estimates from Augusta County listed storm damage to 12 residences, 3 businesses, 15 outbuildings, 2 mobile structures and 5 barns. Preliminary damage cost is estimated at over 2.5 million dollars (2019 dollars). An EF0 tornado touched down near Vesuvius in Rockbridge County causing minor damage to a barn and a house, and slightly moving another barn off its foundation. The twister left a path

		about 100 yards wide and 1.3 miles in length. Wind speeds were estimated at 80 mph. Rockbridge also experienced 3.5 inches of rain and reports of quarter size hail. Numerous trees were reported downed in Lexington and countywide in Rockbridge. In Glasgow, the Maury River reached near flood stage at 18 feet. As many as 33 roads were closed due to high waters and fallen trees, the worst being Rt. 631, Furrs Mill Road. A swift water rescue was required to retrieve two women and two small children stranded in a van. 350 Dominion Power customers lost power. In Bath County, downtown Hot Springs flooded. Flooding, mud and rock slides also occurred in other areas of Bath County damaging roads, driveways, homes and the Warm Springs Pools at the Homestead. Highland County experienced power outages, downed trees and flooded roadways. Highland County Supervisors declared the County a disaster area.
4/28/2011	Augusta County, Bath County, Rockbridge County, Rockingham County	Four tornadoes touched down in Augusta County and Rockingham County. The strongest was an EF-2 that started in Fulks Run and traveled 33.2 miles into Shenandoah County, damaging homes and farm buildings; downing trees and causing 2 injuries. An EF-1 tornado occurred in Churchville in Augusta County, and traveled for 4 miles damaging homes, downing trees and destroying outbuildings. Two EF-1 tornados occurred in Rockingham. A tornado in Keezletown was on the ground for 2.7 miles causing tree damage and damage to two homes, farm buildings and an outbuilding. A tornado in Linville traveled for 0.9 miles causing tree damage. Other reported storm damage from the Region included reports of downed trees in Bath County, Rockbridge County, Augusta County and Rockingham County. A tree fell on a trailer in the Colen Hollow area of Rockbridge and damage was reported to houses in Rockingham. The storm brought heavy rains and flooding in Bath County. It caused downed trees and powerlines, washed debris in the road and damaged roads in Burnsville and Williamsville. Rt. 614 Muddy Run Road in front of the Burnsville Volunteer Fire Department and Rescue Squad was washed out. Flooding damaged a home in Williamsville.
6/29/2012	Entire Region	Severe storms and straight-line winds from a derecho impacted the entire Central Shenandoah Region bringing high winds, excessive rain, hail and lightning. In the days afterwards, it was followed by excessive heat. The derecho traveled over 600 miles in about 10 hours. Peak wind gusts were 80-100 mph. In the

		Valley, a quarter million people lost power. The storm damaged homes, businesses, trees and powerlines. Nine localities were included in a federal major disaster declaration (DR-4072) including Augusta County, Bath County, Buena Vista, Harrisonburg, Highland County, Lexington, Rockbridge County, and Staunton. Three localities- Augusta County, Rockbridge County and Rockingham County- were included in an federal agricultural disaster declaration (S3418).
5/14/2018	Augusta County, Rockbridge County, Rockingham County, Staunton and Waynesboro.	A series of severe thunderstorms with high winds, heavy rain and hail caused flash flooding in the central Shenandoah Valley, resulting in downed trees and power outages. Several homes or businesses in the Region were damaged. In Verona, a family was displaced when flooding caused their basement wall to collapse leading to the condemnation of their home. Homeowners insurance denied the claim since the property was not covered by flood insurance. Strong winds struck a local bank branch during business hours, damaging the building, while employees and customers took shelter in the bank vault. A tree fell damaging a home in Waynesboro. Hail was reported in Verona, and half dollar size hail was reported in Rockbridge County. Trees were reported downed in other areas of Augusta County, Rockingham County and the City of Staunton. 21,000 Dominion Power customers were without power in the region.
10/31/2019	Rockingham County	An EF-0 tornado touched down at 6:04 p.m. on Halloween night in Rockingham County near Timberville. It had a maximum wind speed of 75 mph and a damage path of 0.5 miles long and 25 years wide. There were no injuries and no fatalities. The tornado was produced by a segment of thunderstorms and damaged corn crops and a grove of trees. It destroyed a barn and a small shed. A piece of lumber from the barn impaled the windshield of a nearby vehicle. The path of the tornado ended shortly before it would have crossed several propane tanks at Southern States. Further west on VA-211, straight line winds caused scattered tree limb damage. Prior to the tornado hitting, the entire Region had been placed into a risk level 3 for severe weather with the timeframe of largest concern being during peak trick-or-treating hours. Many festivities in the region were rescheduled as a result.

WILDFIRES

Date	Location	Description & Damages (*Dollars Not Adjusted)
2/10/2008	Augusta County	On February 10, 2008, 354 wildfires occurred in the State of Virginia, the most of any day on record. Five of these fires occurred in Augusta County. These fires claimed close to 55 acres of Augusta woodlands.
3/2008	Augusta County	In March of 2008, the St. Mary's Wildfire made regional headlines for the vast plumes of smoke that could be seen up to 50 miles away. Caused by campers, the fire burned a total of 4,505 acres of land. High winds and dry conditions fueled the fire. Rough terrain strained firefighter's efforts in containing the fire. By the time it was controlled, it had caused $70,000 (2008 dollars) worth of property damage.
4/2012	Rockbridge County	In April of 2012, separate wildfires in Shenandoah, Alleghany, Page, Craig, and Rockbridge Counties burned for several days as nearly 700 firefighters from 29 states were called in to help control the fires. In all, the fires burned 39,000 acres over a period of ten days, making the combined 'Easter Complex Fire' one of the worst in State history.
3/2016	Augusta County	In March of 2016, a forest fire on Cellar Mountain located within Saint Mary's Wilderness in Augusta County, VA (East of Raphine and west of the Blue Ridge Parkway) burned over 700 acres. A team of 75 firefighters and support personnel were called on to fight this fire.
4/2016	Rockingham County	In April of 2016, the Rocky Mount forest fire burned over 10,000 acres (2nd largest) in Shenandoah National Park (SNP). The name of the fire was due to the location within the park that it started—Rocky Mount, which is just south of Elkton, VA. More than 350 firefighting and support personnel were assigned to the fire from 33 states. Since the creation of SNP in 1935 there had not been a fire so the area was overwhelmed with dead and down wood, deep duff, and overgrowth.
4/2017	Rockbridge County	In April of 2017, a brush fire in Goshen Pass burned 3,100 acres. The steep terrain created difficult conditions for fighting the fire. Arson was the suspected cause of the fire.

5/2018	Augusta County	In May 2018, the Tye River Fire in the George Washington and Jefferson National Forests, was caused by a spark from a vehicle fire near Vesuvius in Rockbridge County. The fire spread into Augusta County. Over 1,700 acres burned as a result of this fire.
2018	Rockingham County	Wildfire started from a miscellaneous source and burned 1,040 acres of private forest in the Gate Mountain area.
2021	Rockbridge County	A wildfire in Rockbridge County that burned 1,730 acres in the Goshen Wildlife Management Area.
2023	Rockbridge County	A human-caused wildfire burned approximately 11,000 acres in the George Washington National Forest.
2024	Rockingham County	Several fires sparked during a period of strong westerly winds and extremely low relative humidity values, eventually burning 2,368 acres in the George Washington National Forest. The fires were part of a greater complex of fires, named the North Zone Complex.
2024	Augusta County	In December of 2024, approximately 1,300 acres burned in the St. Mary's Wilderness near Greenville, VA.

DROUGHTS

Date	Description & Damages (*Dollars Not Adjusted)
1930-1932	Considered the worst drought in Virginia history. Piedmont area recorded only 21 inches of rainfall in 1930. The three largest rivers (Potomac, Rappahannock and Rapidan) were reduced to mere puddles.
1938-1942	Less severe than the previous 1930 drought. Saw below average levels of rainfall and low stream flow levels in local rivers.
1962-1971	Also, less severe than the previous 30'-32' drought, however, the cumulative stream flow deficit was the greatest of all the major droughts because of its lengthy duration.
1976 - 1977	Ten months of below average precipitation. The drought began in November of 1976 when rainfall totaled only 50% to 75% of normal. During the rest of the winter, the storms tracked across the Gulf. During the spring and summer, the storms tracked across the Great Lakes. These weather patterns created significant drought throughout most of Virginia.
5/1980-8/1980	Warm and dry conditions prevailed through the beginning of the summer. June precipitation data show that much of Virginia received record low rainfall. No crop damage reported.
1985 - 1986	Very little rainfall began in December, and the trend continued throughout the summer. Total precipitation for January and February was 2 inches. Palmer Index values dropped below -2 by June. High temperatures along with scarce precipitation created a drought that lasted well into the fall.
6/1988 - 7/1988	A heat wave over the southeast produced warm and dry conditions over much of Virginia. Although the news reported stories of a drought in Virginia, the Drought Monitoring Team never stated in a report that these conditions were indicative of a drought. Palmer Drought Index values were above -2.
5/1993 - 8/1993	Very warm temperatures and little rain were noted beginning June 5, 1993. Precipitation shortages were greater than five inches for southwestern and southeastern Virginia from May through July. Surface soil moisture levels were low enough to result in significant agricultural damage. However, groundwater remained at normal levels.
6/1999- 9/1999	Northern Virginia and Shenandoah Valley experienced one of the worst droughts of the 20th Century. Moisture shortages first became apparent in the summer of

	1998. Record low stream flows on the Rappahannock. Crops, cattle and fisheries were all suffering. Farm ponds completely dried up, and fish died in the tepid backwaters of the Chesapeake Bay. The drought was beginning to move into the Piedmont. The Shenandoah River was drier than it had been since the early 1930s drought. Considered "one of the most profound droughts in Virginia during the 20th century".
2000-2004	Beginning in late 2000, some areas of the Region began to show moderate drought conditions. From November 2000 to October 2002, the Region experienced moderate, severe and extreme drought conditions. All locations within the Region were impacted at various times throughout this period. The Governor of Virginia banned lawn watering, car washing and the filling of swimming pools. Wells dried up in rural areas as the water table dropped drastically. In November 2002, the U.S. Secretary of Agriculture approved 45 counties for primary disaster designation.
2005	In the Fall of 2005, the counties of Augusta, Rockbridge and Rockingham, and the cities of Waynesboro, Staunton and Harrisonburg experienced moderate drought conditions.
2006	At various times throughout the spring and summer of 2006, the counties of Augusta, Rockbridge and Rockingham, and the cities of Lexington, Buena Vista, Waynesboro, Staunton and Harrisonburg experienced moderate drought conditions.
2007-2009	From the Summer of 2007 to Spring 2009, moderate drought conditions were experienced by all localities within the Region at various times during that period. Highland County and Rockingham County also experienced moderate drought conditions in the Fall of 2009. The counties of Augusta and Rockingham experienced moderate drought conditions in October 2007.
2010-2011	From Summer 2010 to Spring 2011, all localities within the Region experienced moderate drought conditions at various times during that period. Rockingham County experienced severe drought conditions in August and September 2010. Rockingham County leaders applied for agriculture disaster designation.
2012-2013	Rockingham County experienced moderate drought conditions in July 2012. From November 2012 to January 2013, all localities within the Region experienced moderate drought conditions at various times during that period. Rockbridge County and Rockingham County received agriculture disaster designations as contiguous counties in two designations by the U.S. Secretary of Agriculture (S3422 and S3443).
2014	The U.S. Secretary of Agriculture declared two agriculture disaster designations for the Region (S3782 and S3793). The first included Bath County as a primary county, and the counties of Augusta, Highland and Rockbridge as contiguous

	counties. The second declared Highland County as a primary county, and the counties of Augusta and Bath as contiguous counties.
2016	In the Spring of 2016, the counties of Augusta, Highland and Rockingham experienced moderate drought conditions.
2017-2018	Moderate drought conditions in the Region began in February 2017 and ended in May 2017. All localities within the Region experienced moderate drought conditions at various times during that period. Moderate drought conditions were experienced in Augusta, Rockbridge, Rockingham, Lexington, Buena Vista, Staunton and Waynesboro from December 2017 to February 2018. Due to the drought, the Augusta County Service Authority provided two locations for people to purchase water. One water source was non-potable for livestock or gardening use. The second water source provided drinking water for purchase. The U.S. Secretary of Agriculture declared an agriculture disaster designation for Rockingham County as a contiguous county (S4297).
2019	Following a long-term wetness that was experienced in the Spring and Summer of 2019, the region experienced a "flash drought" in the Fall of 2019. The "flash drought" was caused by a significant lack of rain and unusual high temperatures. A statewide drought advisory was issued by the Virginia Department of Environmental Quality. During the "flash drought," the counties of Augusta, Bath, Rockbridge, and Rockingham, and the cities of Lexington, Buena Vista, and Waynesboro experienced moderate drought conditions. Bath, Rockbridge and Buena Vista also experienced severe drought conditions in October 2019. The "flash drought" caused stress on pastures, hayfields, soybeans and late-planted grains.

SINKHOLES

Date	Description & Damages (*Dollars Not Adjusted)
8/11/1910 "The Big Cave-In"	**Staunton:** Three sinkholes opened up on Lewis and Baldwin Street and Central Avenue that were 60 feet deep. The sinkholes impacted homes, a fire station and a school. One worker was killed when he fell into one of the chasms caused by the sinkhole as it was being repaired.
1960s – 1980s	**Timberville:** Incidences of sinkholes opening up in the Town: • 4/16/1961 - 8/4/1961 • 2/1962 - 4/1962 • 3/2/1963 – 3/22/1963 • 11/21/1972 • 4/2/1982 • 4/12/1983
April 2000	Thirty-two sinkholes were reported after 7" of rain fell in April after a long dry spell.
3/1/2001	**Augusta County:** Interstate 81 was closed for a nine-mile stretch due to the sudden appearance of three sinkholes. The largest sinkhole measured 20 feet long, 11 feet wide and 22 feet deep, costing over $145,000 (2019 dollars) to repair.
10/28/2001	**Staunton:** A 45-foot-deep sinkhole opened up at the corner of Lewis Street and Baldwin Street in Downtown Staunton, damaging three vehicles.
10/7/2005	**Timberville**: A sinkhole opened up in the Town.
9/30/2015	**Augusta County**: A sinkhole opened up on a Dominion Virginia Power electric transmission line easement near Breezy Knoll Lane and Warren Oaks Lane. The sinkhole exposed telephone, cable and high voltage electric lines on the underground easement.
1/26/2016	**Staunton:** Following a snowstorm with 18 inches of snow in Staunton, fluctuating temperatures caused 9 water main breaks. Three occurred on Skymont Road, leaving several homes without water. During the same period, a sinkhole opened up on Skymont Road swallowing a car and condemning a house.

6/5/2016	**Augusta County:** A sinkhole opened up on Broad Run Road (Route 774) in Mount Sidney.
6/23/2017	**Augusta County:** A sinkhole opened up on Interstate 81 near Greenville closing the right lane of southbound I-81. The closure caused traffic backups of 10 miles on the interstate, and traffic congestion on Route 11.
9/27/2018	**Augusta County:** A sinkhole opened up on Hundley Mill Road in Staunton measuring about three feet wide, six feet long and fifteen feet deep. A 700-pound cow fell into the sinkhole. After attempts to rescue the cow alive by County authorities, a veterinarian and a backhoe operator were unsuccessful, the animal had to be euthanized.

SEVERE WINTER WEATHER

Date	Description & Damages (*Dollars Not Adjusted)
1/28/1772	A severe snowstorm struck the Mid-Atlantic, dropping anywhere from 30-36 inches across the region. The storm became known as the "Washington and Jefferson" snowstorm because they were mentioned in both their diaries.
1/15/1831	Snows of over 13 inches fell on the Shenandoah Valley.
1/19/1857	Extreme cold hampered cleanup from a 12+ inch snowfall. The storm also brought high winds with the snowfall, and a prolonged period of near-zero temperatures froze all rivers in the state. Snowfall was steady for over 24 hours. Train service in the Valley was suspended for ten days. Two buildings belonging to the Central Virginia Railroad caught fire but it was so could the fire hydrants froze and there was no way to put out the fires.
1/18/1881	Sleet and freezing rain fell all day and everything was coated with ice. Several citizens had injuries from falling. There were several collisions between sleds and horse-drawn coaches. To walk on the icy roads, people wrapped pieces of blanket around their feet.
2/1899	The Great Arctic Outbreak and Great Eastern Blizzard brought the harshest winter conditions ever experienced to the region. Mail service was postponed, countless pipes burst and railroads were shut down, causing fear that coal supplies would run out. **Harrisonburg:** 14" of snow, temperature of -23°F recorded **Highland County:** temperature of -29°F recorded in Monterey **Lexington:** temperature of -9°F recorded, North River froze completely over **Rockingham County:** 30" of snow in parts of the county, temperature of -36°F recorded in Timberville, temperature of -32°F recorded in Edom, temperature of -40°F recorded in Brock's Gap **Staunton:** 18" of snow, temperature of -18°F recorded
1/14/1912	An Arctic cold wave struck the region with subzero temperatures. Across the area, water pipes froze, kitchen ranges exploded, trains were delayed, and thousands of birds and small animals died. **Harrisonburg:** temperature of -15°F recorded

	Rockingham County: temperature of -18°F recorded at Bridgewater, temperature of -18°F recorded at Dayton, temperature of -20°F recorded at McGaheysville **Staunton:** temperature of -25°F recorded. One man froze to death.
11/25/1938	An average of 6" of snow fell across the Shenandoah Valley. **Rockingham County:** Between 50 and 75 cars were stranded on Rt. 33. Many people were traveling during this Thanksgiving holiday weekend.
3/5/1962-3/9/1962	A severe Nor'easter struck the entire east coast, dumping especially heavy snow on western Virginia. **Harrisonburg:** 20" of snow. **Lexington:** 20" of snow fell. **Rockingham County:** 27" of snow fell, stranding travelers overnight on U.S. Rt. 11 near Lacey Springs. **Staunton:** 26" of snow fell.
3/26/1978	An Easter weekend ice storm brought branches and whole trees crashing down onto power lines, with over 1" of ice accumulating in some places. Over 30,000 in the Shenandoah Valley were without power, and over 2,000 were without telephone service. Radio stations were knocked off the air and many basements were flooded.
2/11/1983	The Blizzard of '83 struck Virginia, dropping heavy snow with drifts up to 6 feet high. **Augusta County:** 18-20" of snow fell. **Harrisonburg:** 20" of snow fell. James Madison University and Eastern Mennonite University were closed, several tractor trailers jack-knifed on I-81. **Lexington:** 18" of snow fell. **Rockbridge County:** 15-24" of snow fell.
3/13/1993	The Storm of the Century struck the east coast, causing 4 feet of snow in some areas and drifts of up to 15 feet. One hundred and fifty (150) Americans lost their lives to the storm. In the Region, the storm dropped between 12" and 22" of snow, with near hurricane-force winds creating drifts of 8' to 10' deep. Extremely low wind chills caused problems for farmers trying to feed livestock and drifts prevented farmers trying to move the animals to sheltered places. **Harrisonburg:** Roofs of 2 businesses collapsed under the weight of the 10' snow drifts.

	Rockbridge County: 12”-22” of snow fell and 5,000 people lost power. **Rockingham County:** 13”-22” of snow fell; winds of up to 70 m.p.h. caused drifts of 6’-7’. **Staunton:** 18” of snow fell and 200 people were without power. The National Guard was deployed in Staunton.
2/8/1994– 2/12/1994	A severe ice storm struck Virginia, bringing 1”-3” of solid ice, causing flooding and $105.8 million (2019 dollars) in damage. In the Region, Bath County Rockbridge County and the City of Buena Vista were included in a federal disaster declaration (DR-1014). Conditions were treacherous across the Central Shenandoah Valley Region, where 24 out of the past 54 days had winter precipitation.
3/1/1994-3/5/1994	A severe winter storm and ice storm hit Virginia. Augusta County and Highland County were included in a federal disaster declaration (DR-1021).
January 1996	The Blizzard of 1996 struck the east coast, killing 40. The blizzard paralyzed the I-95 corridor and reached westward into the Appalachians where snow depths of over 48 inches were recorded. To compound things, the blizzard was followed the next week by two additional heavy snowstorms bringing over a foot of snow. Snowpack was on the ground for an extended period of time. It was thawed by higher temperatures and heavy rain, resulting in severe flooding. The Governor declared a State of Emergency in Virginia, with the hardest hit area being the Shenandoah Valley, with over 40” of snow reported in areas of Shenandoah National Park. The Region reported an average of 28”-30” of snowfall. Local governments also declared states of emergency and all non-essential travel was banned. Several local governments and schools were closed for more than a week. Dozens of hikers were stranded in the Shenandoah Valley. Eight hundred (800) persons throughout the State required shelter. In Virginia, snow removal costs were estimated at $81.9 million (2019 dollars) and another $11.4 million (2019 dollars) was spent in repairs to damaged infrastructure. VDOT needed crawler tractors to plow the snow in higher elevations because the snow was too deep for regular plows. Two federal major disaster declarations (DR-1086 and DR-1098) were declared. DR-1086 included Augusta County, Bath County, the City of Buena Vista, the City of Harrisonburg, Highland County, the City of Lexington, Rockbridge County, Rockingham County, the City of Staunton and the City of Waynesboro. DR-1098 included all of the same localities, except for Lexington and Waynesboro. **Highland:** 24”-30” of snowfall was reported.

	Staunton: The National Guard's humvees were used by rescue personnel to assist with emergency calls.
1/25/2000-1/30/2000	Winter storms brought a blizzard to the East Coast that impacted the Region. Augusta County, Bath County, Highland County, Rockbridge County and Rockingham County were included in a federal major disaster declaration. (DR-1318)
2/14/2003– 2/18/2003	A complex storm system known as the "Presidents' Day Storm" dropped snow and sleet across the State of Virginia. In some places, schools were closed for a week. Across the northern Central Shenandoah Valley, 12 to 20 inches of snow and sleet fell. Across the southern Central Shenandoah Valley, 7 to 12 inches of snow and sleet fell. **Augusta County:** $2.1 million (2019 dollars) worth of damages reported. Barns and turkey sheds collapsed killing livestock. A 39 year old man died after sledding into the path of a car in Craigsville. **Bath County:** Received 5 to 8 inches of snow and sleet. **Highland County:** A turkey house collapsed near McDowell and killed 500 turkeys. Highland County was included in a federal major disaster declaration (DR-1458) for the severe winter storm, snowfall, heavy rain, flooding and mudslides that occurred during a period from February 15 through February 28. **Rockingham County:** Twelve (12) chicken/turkey houses collapsed killing 37,000 chickens/turkeys. A dairy barn collapsed in Grottoes, killing one cow and injuring 17.
2/12/2007	Complex storm of snow and sleet. In Northwestern and Central Virginia, snowfall ranged from 1 - 7 inches with sleet between 1/10 and 3/4 of an inch. There were dozens of automobile accidents, including pileups of dozens of cars on Afton Mountain. The storm caused 22 deaths in the U.S. In the Region, as many as 20,000 people lost power at the height of the storm. Ice was followed by gusty winds and bitter cold. Virginia Governor declared a State of Emergency for the State. **Augusta County:** Augusta County was the hardest area hit in the Central Shenandoah Region and the County declared a local state of emergency. **Bath and Highland County:** The storm brought sleet and ice causing downed trees, downed power lines and power outages.
1/17/2008	Severe winter weather resulted in snowfall in the region. Augusta County received between 2.5 inches and 8 inches of snow, as well as ice on trees.

	Highland County received 4.8 inches of snow. Rockingham County received between 3.5 inches and 6 inches of snow.
12/18/2009– 12/20/2009	A strong area of low pressure tracked up the Mid-Atlantic Coast and tapped into moisture from the Gulf of Mexico and the Atlantic Ocean causing copious amounts of precipitation to develop. The severe winter storm that hit the Shenandoah Valley in December 2009 was one of the biggest snow falls in the past 13 years. Snow fall was recorded ranging from 18 inches to 28 inches of snow during the 2 day storm throughout the Valley. The Virginia State Police estimated the storm caused a 42% increase in calls for service. State Troopers responded to more than 4,000 traffic crashes and disabled vehicles. Officials reported only 2 traffic fatalities. Interstates 81 and 77 were hit the heaviest with traffic accidents. A federal major disaster declaration (DR-1874) included Augusta County, Bath County, Highland County, Rockbridge County, the City of Staunton and the City of Waynesboro. **Harrisonburg**: 13 inches of snow recorded. **Rockingham County**: Received up to 2 feet of snow. **Staunton:** Used 96' storm experience in preparation for 09' storm. They had 20 people in the armory on stand-by to get people out of trouble. Biggest community problem was the amount of disabled vehicles on the road.
2/5/2010 - 2/11/2010	Governor McDonnell declared Virginia in a state of emergency as the second severe storm of the season hit in February, dropping nearly 2 feet of snow throughout the state on February 5 - 6, 2010. This was followed by another system that dropped more snowfall on February 9 - 10, 2010. Gov. McDonnell assisted the state by deploying National Guard soldiers and emergency response teams. VDOT used up all $79 million budgeted for statewide snow removal and nearly exhausted their $25 million reserve. The National Weather Service described the storm as very heavy, wet snow with strong winds. Dominion Virginia power reported half of the 200,000 power outages came from the Charlottesville and Shenandoah Valley region, while Appalachian Power reported an additional 40,000 outages in the Valley. Virginia State Police responded to more than 2,000 traffic crashes and disabled vehicles along with 2 traffic fatalities. A federal disaster declaration (DR-1905) included Augusta County, Highland County and the City of Waynesboro. **Staunton** – accumulated 15 inches of snowfall. **Augusta County** - received 16 inches of snowfall. **Waynesboro** – accumulated 13.5 inches of snowfall.

	Rockingham County - received between 13 and 17 inches of snowfall. During the second snowfall, parts of Rockingham received an additional 6 inches. **Bath County** - totals were between 15 - 18 inches for both storms.
3/7/2013	Severe winter weather brought wet, heavy snow approaching 20 inches in the Region. The area received some of the highest snowfall levels in the state, including the highest level of 20.3 inches in Fishersville. A state of emergency was declared by Governor Bob McDonnell. Power outages were reported for more than 200,000 customers in the state, and the Town of Craigsville water and sewer plant was left without power. Slick roads resulted in abandoned vehicles, and police responding to hundreds of crashes, including two tractor trailer accidents. In the Highlands, 16 inches of snow was reported in Bath County and 14 inches of snow was reported in Highland County.
2/13/2014	A nor'easter brought more than 24 hours of steady snowfall to the Region closing schools, governments and businesses. Governor McAuliffe declared a state of emergency. More than 1,000 pieces of equipment were deployed in the VDOT Staunton District. No deaths or major injuries were reported in the Shenandoah Valley. The storm cancelled flights. Statewide, the Virginia State Police responded to more than 4,052 calls for service, with 1,095 crashes and 905 disabled vehicles. Bath County received 15 inches of snow.
3/17/2014	Winter weather brought snowfall to the region. 6 inches were reported in Augusta County and up to 13.5 inches were reported in Rockingham County.
3/7/2015	A strong storm steered by upper level winds from the northwest and Ohio Valley, resulted in a winter storm warning for the area. 11.5 inches of snow were reported in Waynesboro, and there were more than 200,000 power outages statewide. One of the heaviest areas for calls to service to the Virginia State Police was in Augusta County.
1/22/2016-1/23/2016	A nor'easter storm known as Winter Storm Jonas brought a blizzard to the Northeast and Mid-Atlantic, affecting nearly one-third of the U.S. population. The storm brought heavy snowfall to our region. Governor McAuliffe declared a state of emergency and deployed the Virginia National Guard. Heavy snowfall caused the roof of a bowling alley in Waynesboro to collapse, leading to its condemnation and later demolition. Areas of Bath and Highland County received 17-20 inches of snow. Highland County was included in a federal disaster declaration (DR-4262). The countywide per capita impact for Highland was $23.69.
12/17/2016	A light coating of ice fell in the region, impacting roadways in Augusta County.
11/15/2018	A winter ice storm brought widespread power outages to the entire Region. More than 40,000 customers were without power in Rockingham, Augusta,

	Staunton and Waynesboro. In Rockbridge County, around 1,800 Dominion customers were without power. In the BARC service area in Rockbridge and Bath counties, around 4,758 customers were without power due to downed trees and ice on the power lines. Businesses, including grocery food retailers, were also impacted causing financial losses of perishable food products. A CenturyLink fiber optic line was damaged by heavy ice in Rockbridge County, causing outages for customers. The storm caused road closures and impacted traffic signals in Rockbridge County, and an accident between a semi-tractor trailer and a pickup truck was reported in Buena Vista.