

Appendix G:

NCEI Storm Event Data

This section of the Plan includes the historic storm event data as reported to the National Centers for Environmental Information.

- ◆ G.1 – Cold/Wind Chill
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TABLE G.1: COLD/WIND CHILL EVENTS (2000-2019)

Date	Description
Henderson County	
3/8/1996	Record cold was at least partially responsible for the deaths of two mountain residents. A homeless man died in Hendersonville and an elderly man in Transylvania county wandered from his home and died from hypothermia.
3/15/1997	A woman in Hendersonville succumbed partly from the cold weather when she was locked outside a home overnight.
4/1/1997	Several cold snaps following the relatively warm late winter caused temperatures to dip well into the 20s at times yielding substantial damage to the apple crop and perhaps other crops.
1/7/2017	Gusty northwest winds ushering in an arctic air mass to the southern Appalachians combined with a snow packed ground to produce frigid temperatures and low wind chill values across the North Carolina mountains on the night of the 7th through the morning of the 8th. By daybreak on the 8th, air temperatures were in the single digits and lower teens across the mountain's valleys, while the high peaks and ridge tops saw temperatures below 0. Valley wind chill values ranged from around 0 to -10 across the southern and central mountains, and from -5 to -15 from the French Broad Valley north. The high peaks and ridge tops likely saw wind chill values of -30 or lower at times. Although temperatures warmed slightly and winds abated during the day, conditions remained unseasonably cold across the mountains for a couple of days. Even some valley locations did not warm above freezing until the afternoon of the 10th.
3/16/2017	The 2017 growing season began early across western North Carolina, due to an unusually warm February and early March that saw average temperatures of almost 10 degrees above normal. An episode of cold arctic high pressure in the middle of March led to a hard freeze on the morning of the 16th, when low temperatures in the lower to mid-20s were reported. This caused significant damage to berry, wheat, apple, and peach crops. While subsequent days of freezing temperatures caused further damage, the vast majority of the damage occurred on the 16th.
1/1/2018	A large area of arctic high pressure slowly settled in over western North Carolina in the wake of a cold front that pushed through the area on 12/30, resulting in an extended period of unusually cold weather across the region. By the morning of the 1st, wind chill values of 0 to -15 were common in the mountain valleys and northern foothills, while high elevation wind chills as low as -40 were reported. These trends repeated during most nights and early morning hours through the 7th, when low temperatures were typically in the lower teens and single digits. Meanwhile, daytime temperatures remained at or below freezing in most areas through the week, with the few areas that did reach the melting level only staying there for a couple of hours during the afternoon.
1/17/2018	A cold arctic air mass built into western North Carolina on the heels of gusty northwest winds developing west of a storm system moving up the Southeast coast. The gusty winds and cold air passing over a fresh snowpack resulted in low wind chills across much of the high terrain and portions of the foothills. Wind chill values from 0 to -10 were common in elevations above 1500 feet or so. Meanwhile, wind chill values of -20 to -30 were measured above about 4000 feet.
1/20/2019	Gusty northwest winds developing in the wake of an arctic cold front ushered in a very cold air mass into the North Carolina mountains throughout the 20th and remained in place into the 21st. Wind chill values as of -5 to -10 occurred across the valleys the morning of the 21st, while values as low as -20 were reported across the high elevations throughout the night of the 20th and through much of the 21st. Meanwhile, air temperatures remained below freezing for more than 48 hours (from late morning of the 20th until the afternoon of the 22nd) in all areas except for the lowest valleys of far southwest North Carolina.
Polk County	
1/7/2015	A strong arctic cold front moved through the western Carolinas during the morning and afternoon of the 7th, bringing gusty winds and very cold air to the Piedmont and foothills. By late evening, sustained winds of 5 to 15 mph combined with air temperatures in the teens to yield wind chill values near 0. Although winds gradually diminished overnight, air temperatures fell to around 10 degrees in many areas by daybreak, and wind chills of 0 to 5 above lingered until temperatures began warming during late morning. However, temperatures remained at or below freezing in many areas throughout the 8th. Record daily lows were set in the Charlotte area on the morning of the 8th.
2/18/2015	A strong arctic cold front blasted through the southern Appalachians and adjacent foothills during the afternoon and evening of the 18th, bringing strong winds and bitterly cold air to the region. By mid-evening, sustained winds of 10

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	to 25 mph combined with air temperatures in the single digits and teens to yield wind chill values in the 0 to -10 range in the valleys. By daybreak on the 19th, air temperatures in the valleys were near 0 while the high elevations were well below 0. Wind chill values during this time ranged from -5 to -20 across the valleys, while stronger winds and colder temperatures likely yielded values as low as -50 across the high elevations of the Smokies and Balsams. The low wind chills continued throughout the 19th, as air temperatures failed to warm above the mid-20s in even the lowest valleys, and the high elevations remained within a few degrees either side of 0. Wind chills remained no higher than the single digits across most of the area until late morning on the 20th.
2/19/2015	A strong arctic cold front blasted through the western Carolinas during the afternoon and evening of the 18th, bringing strong winds and very cold air to the region. Overnight, sustained winds of 5 to 15 mph combined with air temperatures in the teens to yield wind chill values around 0 by daybreak on the 19th. Although winds diminished, air temperatures failed to warm above the 20s throughout the 19th, while record lows between 0 and 10 above were recorded the morning of the 20th.
3/16/2017	The 2017 growing season began early across western North Carolina, due to an unusually warm February and early March that saw average temperatures of almost 10 degrees above normal. An episode of cold arctic high pressure in the middle of March led to a hard freeze on the morning of the 16th, when low temperatures in the lower to mid-20s were reported. This caused significant damage to berry, wheat, apple, and peach crops. While subsequent days of freezing temperatures caused further damage, the vast majority of the damage occurred on the 16th.
1/17/2018	A cold arctic air mass built into western North Carolina on the heels of gusty northwest winds developing west of a storm system moving up the Southeast coast. The gusty winds and cold air passing over a fresh snowpack resulted in low wind chills across much of the high terrain and portions of the foothills. Wind chill values from 0 to -10 were common in elevations above 1500 feet or so. Meanwhile, wind chill values of -20 to -30 were measured above about 4000 feet.
Rutherford County	
1/7/2015	A strong arctic cold front moved through the western Carolinas during the morning and afternoon of the 7th, bringing gusty winds and very cold air to the Piedmont and foothills. By late evening, sustained winds of 5 to 15 mph combined with air temperatures in the teens to yield wind chill values near 0. Although winds gradually diminished overnight, air temperatures fell to around 10 degrees in many areas by daybreak, and wind chills of 0 to 5 above lingered until temperatures began warming during late morning. However, temperatures remained at or below freezing in many areas throughout the 8th. Record daily lows were set in the Charlotte area on the morning of the 8th.
2/18/2015	A strong arctic cold front blasted through the southern Appalachians and adjacent foothills during the afternoon and evening of the 18th, bringing strong winds and bitterly cold air to the region. By mid-evening, sustained winds of 10 to 25 mph combined with air temperatures in the single digits and teens to yield wind chill values in the 0 to -10 range in the valleys. By daybreak on the 19th, air temperatures in the valleys were near 0 while the high elevations were well below 0. Wind chill values during this time ranged from -5 to -20 across the valleys, while stronger winds and colder temperatures likely yielded values as low as -50 across the high elevations of the Smokies and Balsams. The low wind chills continued throughout the 19th, as air temperatures failed to warm above the mid-20s in even the lowest valleys, and the high elevations remained within a few degrees either side of 0. Wind chills remained no higher than the single digits across most of the area until late morning on the 20th.
2/19/2015	A strong arctic cold front blasted through the western Carolinas during the afternoon and evening of the 18th, bringing strong winds and very cold air to the region. Overnight, sustained winds of 5 to 15 mph combined with air temperatures in the teens to yield wind chill values around 0 by daybreak on the 19th. Although winds diminished, air temperatures failed to warm above the 20s throughout the 19th, while record lows between 0 and 10 above were recorded the morning of the 20th.
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1/17/2018	A cold arctic air mass built into western North Carolina on the heels of gusty northwest winds developing west of a storm system moving up the Southeast coast. The gusty winds and cold air passing over a fresh snowpack resulted in low wind chills across much of the high terrain and portions of the foothills. Wind chill values from 0 to -10 were

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	common in elevations above 1500 feet or so. Meanwhile, wind chill values of -20 to -30 were measured above about 4000 feet.
Transylvania County	
3/8/1996	Record cold was at least partially responsible for the deaths of two mountain residents. A homeless man died in Hendersonville and an elderly man in Transylvania county wandered from his home and died from hypothermia.
4/1/1997	Several cold snaps following the relatively warm late winter caused temperatures to dip well into the 20s at times yielding substantial damage to the apple crop and perhaps other crops.
1/7/2015	An arctic cold front moved through the southern Appalachians and adjacent foothills during the morning and afternoon of the 7th, bringing strong winds and very cold air to the region. By late evening, sustained winds of 10 to 20 mph combined with air temperatures in the teens to yield wind chill values in the 0 to -5 range in the valleys. By daybreak on the 8th, air temperatures in the valleys were near 0 while the high elevations were well below 0. Wind chill values during this time ranged from 0 to -15 across the valleys, while stronger winds and colder temperatures likely yielded values as low as -50 across the high elevations of the Smokies and Balsams. The very low wind chills abated throughout the 8th, as temperatures warmed and winds diminished. However, air temperatures remained below freezing throughout the 8th.
2/18/2015	A strong arctic cold front blasted through the southern Appalachians and adjacent foothills during the afternoon and evening of the 18th, bringing strong winds and bitterly cold air to the region. By mid-evening, sustained winds of 10 to 25 mph combined with air temperatures in the single digits and teens to yield wind chill values in the 0 to -10 range in the valleys. By daybreak on the 19th, air temperatures in the valleys were near 0 while the high elevations were well below 0. Wind chill values during this time ranged from -5 to -20 across the valleys, while stronger winds and colder temperatures likely yielded values as low as -50 across the high elevations of the Smokies and Balsams. The low wind chills continued throughout the 19th, as air temperatures failed to warm above the mid-20s in even the lowest valleys, and the high elevations remained within a few degrees either side of 0. Wind chills remained no higher than the single digits across most of the area until late morning on the 20th.
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1/1/2018	A large area of arctic high pressure slowly settled in over western North Carolina in the wake of a cold front that pushed through the area on 12/30, resulting in an extended period of unusually cold weather across the region. By the morning of the 1st, wind chill values of 0 to -15 were common in the mountain valleys and northern foothills, while high elevation wind chills as low as -40 were reported. These trends repeated during most nights and early morning hours through the 7th, when low temperatures were typically in the lower teens and single digits. Meanwhile, daytime temperatures remained at or below freezing in most areas through the week, with the few areas that did reach the melting level only staying there for a couple of hours during the afternoon.
1/17/2018	A cold arctic air mass built into western North Carolina on the heels of gusty northwest winds developing west of a storm system moving up the Southeast coast. The gusty winds and cold air passing over a fresh snowpack resulted in low wind chills across much of the high terrain and portions of the foothills. Wind chill values from 0 to -10 were common in elevations above 1500 feet or so. Meanwhile, wind chill values of -20 to -30 were measured above about 4000 feet.
1/20/2019	Gusty northwest winds developing in the wake of an arctic cold front ushered in a very cold air mass into the North Carolina mountains throughout the 20th and remained in place into the 21st. Wind chill values as of -5 to -10 occurred across the valleys the morning of the 21st, while values as low as -20 were reported across the high elevations throughout the night of the 20th and through much of the 21st. Meanwhile, air temperatures remained below freezing for more than 48 hours (from late morning of the 20th until the afternoon of the 22nd) in all areas except for the lowest valleys of far southwest North Carolina.

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1/29/2019	An arctic cold front swept through the North Carolina mountains during the afternoon of the 29th, followed by a reinforcing front on the 30th. This led to an extended period of very cold weather and low wind chill across the high elevations. Temperatures remained in the single digits and teens throughout this time, with gusty northwest winds resulting in wind chill values of -5 to -15 across much of the area. Meanwhile, wind chills as low as -30 were reported on the high peaks and ridge tops above 5500 ft. Temperatures and wind speeds finally began to moderate by late morning on the 31st.
3/5/2019	Unseasonably cold air combined with gusty northwest winds in the wake of a cold front to produce very low wind chills in the high elevations of the North Carolina mountains during the night of the 5th into the morning of the 6th. Air temperatures in the teens and winds gusting to 20 to 30 mph generally produced wind chill values of -5 to -10 in areas above 3500 feet. However, locations above 5000 feet, where air temperatures dropped to as low as 0 and where winds gusted to 40 mph or higher, saw wind chills as low as -30.

TABLE G.2: DROUGHT EVENTS (2000-2019)

Date	Description
7/1/1998	Dry weather continued through much of the month of July, affecting crops during the critical part of the growing season. Corn and other vegetables sustained the most damage, but a dollar amount was not available at the time of this writing.
10/1/1998	The drought which began during the summer continued through October. The only significant rainfall during the month occurred on the 7-8th. Cities and counties began to restrict water usage and streamflows for several mountain locations were reduced to the lowest seen in 50 years.
11/1/1998	Dry weather persisted into the late fall with rainfall deficits between 5 and 10 inches. This affected late season crops and caused water shortages. Water usage restrictions were initiated in many communities.
8/1/1999	The drought worsened during the month of August as high evaporation rates and little rainfall occurred. The most severe conditions by the end of the month had developed in the foothills and piedmont. Water restrictions began in several communities, and for some, the first time in memory. Hay and late crops dried up in many counties. Ponds and wells began to dry up as well, affecting homeowners, farmers, and businesses such as nurseries. In addition, boaters were running aground on recreational lakes due to low water levels.
9/1/1999	Rainfall continued to be scarce across much of western North Carolina through the month of September, prolonging the drought conditions which existed all summer. However, some areas in the piedmont picked up some rain from the remnants of Hurricane Dennis early in the month and from Hurricane Floyd itself two weeks later. Although this rain brought some relief, more wells ran dry and many more areas began mandatory water restrictions.
10/1/1999	The return of some rainfall as well as lower evaporation rates due to the change of seasons, resulted in the drought easing somewhat. Drought classifications were lowered in some cases, and some places lifted water restrictions. However, the drought had not ended by the end of the month.
8/1/2000	The 2 year drought was reaching a critical stage by late summer. Many 80 to 100 foot wells were going dry. Area lakes were at record low levels causing property damage to docks, boats, etc.
9/1/2000	Overall, drought conditions continued across western North Carolina despite some locations receiving near their month's average rainfall. Low stream flow and municipal water supply remained the largest issues with many towns and cities enacting water restrictions. Citizens were quoted as saying this is the driest they have ever seen it. Despite the drought conditions, impact on crops seemed to be minimal.
10/1/2000	Effects of the drought intensified as many areas received absolutely no rain during the month, setting records for the longest stretch without measurable rainfall in several locations. Wells and mountain streams continued to dry up and lake levels continued to drop. Many communities were forced to start more stringent water conservation measures.
11/1/2000	The long-term drought continued to affect the region. Rainfall during the month was near or slightly above normal, but this had little effect on the ground water levels. Numerous wells dried up during the fall, and well borers and drillers could not keep up with the demand. Large lakes reported record low levels and some communities continued or initiated water control measures.
2/1/2001	The long term drought's impact became more severe, even during the winter, as water levels in lakes dropped and stream flow on rivers reached the lowest in memory. More and more communities began water restrictions and started preparing for a busy fire weather season.
3/1/2001	Despite beneficial rain during March, the drought continued to grip most of the area. Severe water restrictions were implemented in parts of the North Carolina piedmont, where reservoir had dropped to all-time low levels. In Concord, food establishments were asked to use paper and plastic products to conserve water.
4/1/2001	Some relief to the long-term drought occurred at mid-month, but for the most part, the rainfall deficit for the three-year period actually grew larger by the end of April. Mandatory water restrictions continued at a few mountain locations, with voluntary water restrictions urged at many others. Numerous wells went dry during April.
5/1/2001	Unprecedented drought conditions continued. Some rivers and lakes reached record-low levels. Well-drilling companies in the North Carolina piedmont were recording twice as much business as usual.
8/1/2001	The effects of the long-term drought became more severe, especially in the North Carolina piedmont. Critical water conditions were beginning to concern officials and residents of Charlotte.
11/1/2001	

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12/1/2001	Very little active weather during December signaled that the drought was still present - and becoming critically important to more and more people. The Charlotte area recorded an all-time record dry calendar year with just 26.23 inches of rainfall during 2001. Records have been kept in the area since 1878. Many communities initiated either mandatory or voluntary water restrictions. At Kings Mountain, NC - a new pump was required at Lake Moss because the water level dropped below 2 of the 3 existing pumps. Record low ground water supplies, lake levels, and stream flows were reported across all of Western North Carolina.
8/1/2002	The water supply situation reached crisis levels in some communities, as the effects of the long term drought continued to plague western North Carolina. Particularly hard hit were several Piedmont communities along the Interstate 77 corridor. The city of Shelby was forced to buy water from surrounding communities and even from private companies and citizens. In Statesville, emergency construction of wells and a dam was necessary to prevent the city from running out of water, as the South Yadkin River reached historically low levels. Water levels on area lakes were as much as 10 feet below full pond. Most of the larger towns and cities along the I-77 corridor had imposed mandatory water restrictions by the end of the month, including the Charlotte metro area.
5/1/2007	The effects of an extended period of dry weather were exacerbated by an abnormally dry May, with many locations reporting one of the driest Mays in recorded history. By the end of May, many climatological stations were reporting yearly rainfall deficits as high as 10 inches. The result was severe to extreme drought conditions across much of western North Carolina by the end of the month. Water restrictions were implemented in some counties across extreme western North Carolina. The very dry conditions added to agriculture hardships caused by a hard freeze and widespread damaging winds in April.
6/1/2007	Despite an increase in thunderstorm activity, drought conditions persisted across much of western North Carolina. The persistent drought continued to cause hardships to agricultural interests that were still recuperating from the April freeze. Dollar values for the drought damage should be included in either the August or September Storm Data for this region.
7/1/2007	Drought conditions persisted across much of western North Carolina during July. By the end of July, voluntary water restrictions were instituted in almost all North Carolina counties along and west of I-77. Some mandatory restrictions were introduced in Union County, NC. Agricultural interests continued to be especially hard hit. The absence of rain negatively affected the hay crop, creating concern for the loss of livestock. Dollar values for the drought damage should be included in either the August or September Storm Data for this region.
8/1/2007	Severe to extreme drought conditions persisted across much of western North Carolina during August. By the end of the month, voluntary water restrictions continued in almost all North Carolina counties along and west of I-77. Stream flows and groundwater levels approached record low levels. Water levels on some reservoirs decreased by as much as 1 foot every 10 days. Agricultural interests continued to be especially hard hit, and the North Carolina governor requested federal disaster aid by the end of the month. Dollar values for the drought should be included in either the September or October Storm Data for this region.
9/1/2007	Extreme drought conditions persisted across western North Carolina through September, as the region experienced another month of well-below normal precipitation. By the end of the month, most locations were running a yearly rainfall deficit of 11-17 inches. Stream flows and groundwater levels were near record low levels, with many streams running at 5 percent or less of normal flow. Water levels on area reservoirs were some of the lowest in recorded history. Agricultural interests continued to be especially hard hit. Farmers continued to struggle to feed livestock due to a lack of hay and poor pasture conditions, forcing many cattle to be sold or slaughtered. Agricultural and other losses attributed to the drought are estimated to be in the hundreds of millions of dollars. County-based losses for the growing season will be included in next month's Storm Data.
10/1/2007	Unusually dry weather continued across western North Carolina through October. Although a soaking rain near the end of the month resulted in near-normal monthly precipitation for the mountains, the piedmont saw another month of well-below normal rainfall. Most areas were on pace to break yearly rainfall deficit records. By the end of the month, exceptional drought conditions were reported across the majority of the area. Water flow on area streams continued at 3 to 6 percent of normal, while lake levels remained at near-record lows. Although most cities and towns were requesting voluntary water restrictions be observed, mandatory restrictions were ordered in quite a few communities. In some areas, the water situation was becoming dire, with Monroe, NC officials reporting that water supplies would be exhausted by early 2008 if significant rain did not occur. Also, private wells were beginning to dry up in many areas. Agriculture continued to be severely impacted by the drought. As of this writing, county by county dollar estimates of drought damage have not been made available.

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11/1/2007	November provided no relief from the effects of the long term drought. In fact, another month of well-below normal rainfall made an already dire situation even worse. Many locations remained on pace to set annual records for rainfall deficit. By the end of the month, the vast majority of the region was experiencing exceptional drought conditions. Streamflow on area rivers remained extremely low, generally less than 10 percent of normal. Meanwhile, lakes continued to gradually fall toward record low levels.
12/1/2007	The latter half of December saw a transition to a wetter pattern across the southeast. Most observing stations in western North Carolina reported above normal monthly rainfall for the first time since January 2007. However, this was not enough to put much of a dent in the long-term drought as extreme to exceptional drought conditions persisted into the New Year. Although the increase in rainfall did allow for some recharge of area streams, many were still running at less than 25 percent of normal flow at the end of the month.
1/1/2008	January saw a return to dry weather across western North Carolina. Most observing stations across the region reported a rainfall deficit of 1 to 2 inches during the month, resulting in another month of exceptional drought conditions across most of the area. Water levels on area lakes remained within a foot or two of record low stages. However, rivers and streams remained somewhat recharged from the December rains, with streamflow on most waterways running 25 to 75 percent of normal.
6/1/2008	Although near normal rainfall was observed across much of the area during the late winter and early spring, another period of abnormally dry weather in May and June exacerbated severe to extreme drought conditions over the western Carolinas and northeast Georgia. Much of the area saw less than 2 inches of rain during this period of time. By the end of the month, much of the mountains and foothills of western North Carolina were running 10 inches below normal annual rainfall. Total rainfall deficits since the beginning of 2007 were around 20 inches or more in the hardest hit areas. By the end of the month, flow on almost all major streams was running less than 10 percent of normal. Many area crops suffered.
7/1/2008	Unusually dry weather continued through the month of July, with severe to extreme drought conditions persisting across the area. Afternoon and evening thunderstorms provided some degree of relief across portions of the North Carolina piedmont, but locations across Upstate South Carolina and extreme western North Carolina reported annual rainfall deficits of nearly 11 inches by the end of the month. Mandatory water restrictions were instituted across much of the North Carolina foothills. Water well levels began to descend below record low levels, most of which were recorded during the 1999-2002 drought. The vast majority of major streams across the area continued to run 1-10 percent of normal flow. Agriculture continued to be hard hit, with some areas reporting a 100 percent loss of the corn crop.
8/1/2008	Dry weather persisted across much of the area for most of August, although portions of the North Carolina Piedmont began to see relief from the dry conditions early in the month, due to an increase in daily thunderstorm activity. Elsewhere, exceptional drought conditions persisted and even expanded slightly westward to cover more of far western North Carolina and northeast Georgia. During the early part of the month, flows on most of the major streams across the area were running at record low levels, with the French Broad River setting a minimum flow record that had stood for almost 100 years. Only a handful of streams were running at more than 1 to 7 percent of normal. Groundwater levels were 2-5 feet below normal. Significant agricultural impacts persisted, with losses to summer crops, including hay, estimated at 30%. The dry weather also affected the livestock industry, due to shortages of pasture crops necessary for feeding. By the end of the month, Tropical Storm Fay had dropped up to 11 inches of rainfall across the area, providing some relief from the drought conditions, especially across the North Carolina Piedmont.
9/1/2008	The heavy rain brought by Tropical Storm Fay in late August provided some relief to the drought conditions across the area. This was particularly true across the North Carolina piedmont, where improving conditions were aided by normal September rainfall. However, another dry month resulted in a persistence of extreme to exceptional drought conditions across the North Carolina mountains and foothills. Voluntary water restrictions remained widespread during the month. A few communities held onto mandatory restrictions early in the month, but many of these were lifted by the end of the month. Well water remained near record low levels in many areas, while lake levels persisted well below normal stages. Rainfall from Fay resulted in some improvement in streamflows, although most rivers and major streams remained at less than 25 percent of normal, with many still running at less than 10 percent of normal. By the end of the month, government officials had requested a federal disaster declaration for most of the counties in the area, due to crop damages.

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10/1/2008	Another abnormally dry month resulted in a persistence of severe to exceptional drought conditions over much of the mountains and foothills of North Carolina. Some slight improvement was observed in well water levels, but they remained near record lows. Most rivers and major streams continued to flow at less than 10 percent of normal. Voluntary water restrictions continued in most areas, with a few areas continuing to institute mandatory restrictions. Meanwhile, severe crop losses resulted in a federal disaster declaration for much of the larger agricultural communities across the area.
11/1/2008	Another month of below normal rainfall resulted in a persistence of severe to exceptional drought conditions over much of western North Carolina through November. In fact, drought conditions actually worsened in some areas, with portions of the central North Carolina mountains deteriorating to exceptional drought conditions late in the month. Slight improvements in well water levels continued across the area. Most rivers and major streams continued to flow at less than 10 percent of normal. Voluntary water restrictions continued in most areas, with a few areas continuing to institute mandatory restrictions.
11/1/2016	Abnormally dry weather that began early in 2016 and continued through the spring, summer, and early fall resulted in establishment of extreme to exceptional drought conditions across the across the southern and central mountains and southern foothills of North Carolina by November. Total rainfall deficits for the period from July until the end of November were as much as 18 inches below normal, while annual rainfall deficits were two feet or more below normal. The drought conditions worsened farther to the southwest across the state. Drought conditions were exacerbated by an unusually warm late summer and early fall, when it is not unusual to see temperatures 10 to 15 degrees above normal. Stream flows and reservoir levels were well below normal across the area, while the very dry vegetation resulted in volatile wildfire conditions. A strong cold front brought much needed rainfall to the area during the last couple of days of the month, spelling the start of a wetter period that brought an end to the more extreme drought conditions.

TABLE G.3: FLOOD EVENTS (2000-2019)

Location	Date	Description
Henderson County		
Unincorporated Area	1/19/1996	An extremely strong cold front, preceded by heavy rain all day, moved through the mountains, foothills and piedmont during the night. Heavy rain and flooding accompanied the storm system. Several inches of rain fell across the mountains during the day. At Rosman, the French Broad River flooded causing some evacuations in the downtown area.
Unincorporated Area	1/26/1996	Prolonged rain became heavier following the ice. the rain increased into the night when some thunderstorms moved in from the west. Rainfall became excessive, more than 3 and 4 inches in some cases, causing flooding to begin by mid evening. At Asheville the flooding caused a wall to collapse onto several parked cars causing extensive damage. Numerous roads were closed around the mountains and foothills. Several major rivers flooded including the French Broad and the Oconoluftee. Evacuations were required in several counties because of flooding. In this event the flooding was not severe in the northern mountains.
Unincorporated Area	2/22/2003	An extended period of rain that resulted in 2 to 3 inches of rainfall caused portions of the French Broad River to flood from Hendersonville to East Flat Rock. Several roads were flooded near the river.
Unincorporated Area	4/10/2003	Rising water levels along the French Broad River resulted in flooding of a boat dock and a parking lot near Fletcher.
Unincorporated Area	2/6/2004	Flooding along the French Broad continued downstream to affect lowland areas in Henderson County to just south of Asheville.
Unincorporated Area	6/14/2004	An evening of heavy rainfall caused flooding to develop along the Broad River. At least one road was closed due to high water.
Unincorporated Area	9/7/2004	The remnants of Hurricane Frances brought very heavy rainfall to western North Carolina on the 7th and 8th, resulting in widespread severe flooding across the mountains and foothills. Flooding first developed in Transylvania County, as the Little River overflowed its banks during the afternoon. Shortly thereafter, flooding developed along Shaws Creek in Henderson County, and in the Cruso community of Haywood County. As moderate to heavy rainfall continued into the evening hours, flooding gradually worsened and expanded across the area. By the early morning hours of the 8th, flooding was widespread and severe across much of the area, with most creeks and streams in flood. Major flooding developed along the French Broad River, which reached a near-record stage of 25 feet at Blantyre, and 21 feet in Canton. In Haywood County, flooding along the Pigeon River was described as the worst in over 60 years. Hundreds of homes and businesses were damaged or destroyed across the area, necessitating a number of evacuations and rescues. Clyde and Canton endured the brunt of this damage. Numerous roads and bridges were washed out as well.
Unincorporated Area	9/17/2004	Flooding began shortly after midnight across portions of the southern mountains and foothills. Henderson County experienced the most severe flooding, as numerous homes were damaged by flood waters, with damaged homes from the combination of the Ivan and Frances floods numbering in the hundreds. Residents described the small stream flooding experienced in Henderson County as the worst seen in many years. Numerous roads were blocked by high water, including highways 64, 280, and 25. The situation was much less serious in Polk County, although flooding did develop along the Pacolet River and several of its tributaries, as well as some creeks in the Columbus area.
Unincorporated Area	7/7/2005	Several road closures due to high water, mainly in the Hendersonville area, including Blackwell Dr, Fruitland Rd, South Main, Airport Rd, and at least 4 others. A portion of highway 25 was closed north of Hendersonville. Jeffress Rd was also flooded in the Mills River area.
HENDERSONVILLE	7/3/2001	A couple of roads flooded in low places, with a few cars stranded in 4 to 5 feet of water.
BAT CAVE	6/26/2006	Flooding continued along the Rocky Broad River through mid-afternoon.

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Location	Date	Description
MILLS RIVER	9/20/2009	Although flash flooding ended across the area around sunrise, persistent moderate to heavy rainfall caused high water conditions to persist in central Henderson County through the morning hours. Flooding also expanded to areas near Mills River, as Butler Bridge Rd was closed about 8 miles northwest of Hendersonville. In addition to the flooding, saturated soil resulted in quite a few fallen trees and isolated small landslides.
MILLS RIVER	9/21/2009	An extended period of moderate to heavy rain resulted in flooding along the Mills River. Portions of South Mills River Rd and River Loop Rd were covered in water. Also, flooding began on the French Broad River near Etowah around this time, covering portions of highway 64, Pleasant Grove Rd, and Willow Rd with water. A total of 35 roads in Henderson and Transylvania Counties were blocked by flood waters. River flooding continued until the evening hours on the 24th.
MILLS RIVER	11/11/2009	Although heavy rain began to taper off during the morning, flooding persisted along a few smaller streams into the late morning in response to 4 to 6 inches of storm total rainfall. In addition, minor flooding developed briefly in spots along the French Broad River.
MILLS RIVER	1/24/2010	Significant urban flooding developed on the Cabarrus side of Kannapolis, with numerous roads closed due to high water. Affected roads included Verona, Fairview, Eddleman, South Little Texas, Pine, and Trinity Church Rd. Evacuations became necessary on Pine St and Verona St.
ETOWAH	2/6/2010	The French Broad River exceeded flood stage at Blantyre early on the 6th, and remained in flood until the afternoon of the 7th.
FLETCHER	11/30/2010	Although heavy rainfall began to diminish during the evening, persistent moderate rain combined with runoff to allow flooding to continue across Henderson County into the overnight hours. Mud Creek and Bat Fork Creek remained in flood throughout the overnight hours as water worked its way down the French Broad River from Transylvania County. Flood waters on the river progressed as far north as Fletcher, which exceeded flood stage during the afternoon of the 1st. Stream flooding continued into the morning hours of December 1st, and the French Broad River remained in flood until the morning hours of the 3rd.
FLETCHER	12/1/2010	Although heavy rainfall began to diminish during the evening, persistent moderate rain combined with runoff to allow flooding to continue across Henderson County into the early morning hours of the 1st. Mud Creek and Bat Fork Creek remained in flood throughout the overnight hours as water worked its way down the French Broad River from Transylvania County. Flood waters on the river progressed as far north as Fletcher, which exceeded flood stage during the afternoon of the 1st. The French Broad River remained in flood until the morning hours of the 3rd.
DRUID HILLS	3/6/2011	Although heavy rain tapered off during mid-morning, stream gauges indicated high water conditions persisted through the afternoon in the Hendersonville area.
ETOWAH	3/6/2011	Runoff from heavy rainfall over Transylvania County resulted in flooding along the French Broad River in the Etowah area with minor flooding of several roads near the river. The river flooding persisted into the 7th and 8th, with the French Broad cresting at 17.9 feet at Blantyre early on the 7th.
DRUID HILLS	3/9/2011	Although heavy rain was tapering off during the afternoon, stream gauges indicated high water conditions persisted through the evening in the Hendersonville area.
ETOWAH	3/9/2011	Runoff from heavy rainfall over Transylvania County resulted in flooding along the French Broad River in the Etowah area. Just like three days before, several roads near the river were flooded. The flooding persisted into the 10th and 11th, with the French Broad at Blantyre cresting at 17.2 feet late on the 10th.
ETOWAH	1/17/2013	The middle reaches of the French Broad River in Henderson County remained in flood for around 2 days as runoff from heavy rain worked it's way through the river system. This resulted in flooded roads and bottom land close to the river.
ETOWAH	1/31/2013	The middle reaches of the French Broad River in Henderson County remained in flood for almost 2 days as runoff from heavy rain worked it's way through the river system. This resulted in flooded roads and bottom land close to the river.

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Location	Date	Description
SMYTH	5/5/2013	A long duration of moderate to heavy rain caused several creeks in central Henderson County to go into flood by the mid-morning hours of the 5th. Mud Creek flooded Balfour Road near the Hendersonville water treatment plant. Fruitland Road was flooded by Clear Creek near the intersection of Lancaster Road. Flooding was reported in many parts of Hendersonville as Mud Creek went above flood stage around 10 am. Flooded roads in town included South King Street, East Caswell Street and White Street. Old Airport Road was flooded by Cane Creek in Fletcher, though the flooding took several hours longer to develop in the northern part of the county.
MILLS RIVER	5/5/2013	Flooding developed on several roads in the Mills River Community by the mid-afternoon hours of the 5th. Flooded roads included Butler Bridge Road, Warlick Road, and Jeffress Road. Mills River also flooded North Mills River Rd by the late evening hours. Butler Bridge was flooded by the French Broad River, but may have been affected by a stream initially. Some roads in the north and west part of the county were flooded well into the next day and beyond as the French Broad River rose to a level of 19.29 feet by the afternoon hours of the 6th and only slowly receded thereafter.
FLETCHER	7/3/2013	The county communication center reported that Jackson Creek had flooded and closed Jackson Road near the intersection of Howard Gap Road. Etowah School Road was flooded by Gash Creek near the intersection of Drexel School Road. Also, Warlick Road was flooded by Boylston Creek not far from the intersection of Turnpike Road.
LAUREL PARK	10/14/2014	Although heavy rain tapered off by late evening, flooding continued along the Mud Creek and Clear Creek basins into the early morning hours. In addition, minor flooding developed along the French Broad River near the Transylvania County during the afternoon of the 15th.
LAUREL PARK	11/23/2014	An automated rain gage on Mud Creek rose above flood stage after 3 to 4 inches of rain fell over several hours. Water covered portions of South King St and South Grove St, as well as South Center Plaza and the intersection of Highway 176 and 25.
VALLEY HILL	10/3/2015	Heavy rain ended, but flooding continued in the Mud Creek basin, with water moving downstream and flooding Balfour Rd through the afternoon and early evening. Some flooding also developed along Bat Fork at Airport Rd.
LAUREL PARK	11/18/2015	After as much as three inches of rain fell over central Henderson County in 24 hours, a stream gauge on Mud Creek near downtown Hendersonville exceeded its established flood stage. This indicated several roads flooded near the intersection of Spartanburg Highway and S Main St.
FLAT ROCK	10/23/2017	Multiple stream gauges indicated flooding developed over portions of central and northern Henderson County after 4-6 inches of rain fell across the county throughout the 23rd. Affected streams included, but were not limited to Mud Creek and Bat Fork Creek in the Hendersonville area and the Rocky Broad River and Cane Creek in the northern part of the county. Roads impacted included the intersection of South Church St and South King St, as well as Airport Rd and Dana Rd in the Hendersonville area; Mills Gap Rd in Fletcher, as well as other fields and low spots along these creeks.
LAUREL PARK	5/16/2018	Stream gauge and county comms reported flooding developed along Mud Creek after 3 to 6 inches of rain fell across Henderson County in about 18 hours. Impacted roads included an access road at the intersection of S Church St and S Main St and Kanuga Rd at Erkwood Dr.
BAT CAVE	5/29/2018	A stream gauge on the Rocky Broad River at Bat Cave indicated the river exceeded its established flood stage, flooding campgrounds and some secondary roads.
VALLEY HILL	12/28/2018	Stream gauges and county comms reported small stream flooding across central and northern Henderson Counties after 4.5 to 5.5 inches of rain fell across the county in about 24 hours. A gauge on Mud Creek near Hendersonville indicated flooding of parking lots and side streets on the south side of downtown Hendersonville, near the intersection of South Church St and South King St. In Fletcher, Cane Creek flooded parts of Howard Gap Rd and Hendersonville Rd.
Polk County		
MT VLY	9/20/2009	Although rain rates diminished during mid-morning, flooding persisted in the Green River Cove Rd area through the remainder of the morning, with evacuations becoming necessary. In

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Location	Date	Description
		addition to the flooding, saturated soil resulted in quite a few fallen trees and isolated small landslides.
PEA RIDGE	5/5/2013	Most of the flooding with this duration rain event occurred as a result of rises along the Green River in the northeast part of the county. Several roads that cross or run near the Green River were flooded, including Ken Miller Road, John Watson Road and Abrams Moore Road. Roads within the Green River Highlands subdivision were flooded as well. An NWS employee who lives in the south-central part of the county measured 5.11 inches of rain for the event.
MELROSE	12/29/2015	Although heavy rain tapered off across Polk County shortly after midnight, runoff from the earlier rainfall caused flooding to persist across the area through the pre-dawn hours.
SALUDA	5/19/2018	Although heavy rain ended across western Polk County late in the evening on the 18th, high water conditions persisted across the Saluda and Green River area through the overnight and much of the daylight hours on the 19th before the water finally receded.
SUNNY VIEW	12/28/2018	Emergency manager reported flooding along the Green River and some of its tributaries resulted in several road closures in locations around Lake Adger and point downstream. 3 to 4.5 inches of rain fell in the basin in about 24 hours.
Rutherford County		
RUTHERFORDTON	7/4/2001	
CHIMNEY ROCK	5/5/2013	Campgrounds were evacuated and high water was reported on several roads between Bat Cave and Lake Lure starting a little after 8 am on the 5th.
ROCK SPGS	5/5/2013	Flooding developed along the upper reaches of the Broad River starting during the evening hours of the 5th, lasting through the afternoon hours of the 6th. Flooded roads included Thompson Lake Road and Coxe Road at Cleghorn Mill Road, among others.
CHIMNEY ROCK	5/29/2018	A stream gauge on the Rocky Broad River at Bat Cave indicated moderate flooding developed along the river through the Hickory Nut Gorge. Several side roads and a few homes off of Highway 64 were flooded. In addition, there were multiple small slope failures in Chimney Rock State Park, one of which collapsed a retaining wall along the edge of the main parking lot. Total rainfall amounts of 7-10 inches occurred in the area from the 29th through the 30th.
CHIMNEY ROCK	10/11/2018	Although heavy rain ended across Rutherford County during the morning, flooding continued along the Rocky Broad River in the Chimney Rock area into the afternoon.
Transylvania County		
Unincorporated Area	1/19/1996	An extremely strong cold front, preceeded by heavy rain all day, moved through the mountains, foothills and piedmont during the night. Heavy rain and flooding accompanied the storm system. Several inches of rain fell across the mountains during the day. At Rosman, the French Broad River flooded causing some evacuations in the downtown area.
Unincorporated Area	1/26/1996	Prolonged rain became heavier following the ice. the rain increased into the night when some thunderstorms moved in from the west. Rainfall became excessive, more then 3 and 4 inches in some cases, causing flooding to begin by mid evening. At Asheville the flooding caused a wall to collapse onto several parked cars causing extensive damage. Numerous roads were closed around the mountains and foothills. Several major rivers flooded including the French Broad and the Oconoluftee. Evacuations were required in several counties because of flooding. In this event the flooding was not severe in the northern mountains.
Unincorporated Area	9/28/1996	
Unincorporated Area	11/19/2003	The French Broad River flooded several roads near Rosman. Other streams and creeks flooded in the same general area, and the French Broad eventually increased to a level that required evacuation of apartments and houses along the river.
Unincorporated Area	2/6/2004	After an extended period of heavy rainfall, the French Broad River gradually rose and overflowed its banks near Rosman, flooding some low lying spots around town. Flooding eventually developed downstream at Blantyre.

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Location	Date	Description
Unincorporated Area	9/7/2004	The remnants of Hurricane Frances brought very heavy rainfall to western North Carolina on the 7th and 8th, resulting in widespread severe flooding across the mountains and foothills. Flooding first developed in Transylvania County, as the Little River overflowed its banks during the afternoon. Shortly thereafter, flooding developed along Shaws Creek in Henderson County, and in the Cruso community of Haywood County. As moderate to heavy rainfall continued into the evening hours, flooding gradually worsened and expanded across the area. By the early morning hours of the 8th, flooding was widespread and severe across much of the area, with most creeks and streams in flood. Major flooding developed along the French Broad River, which reached a near-record stage of 25 feet at Blantyre, and 21 feet in Canton. In Haywood County, flooding along the Pigeon River was described as the worst in over 60 years. Hundreds of homes and businesses were damaged or destroyed across the area, necessitating a number of evacuations and rescues. Clyde and Canton endured the brunt of this damage. Numerous roads and bridges were washed out as well.
Unincorporated Area	9/16/2004	Flooding began across the county around midnight, as Rosman was evacuated when the French Broad River began to flood. Overnight, flooding spread across much of the remainder of the county, with evacuations required in the Duckworth and Pisgah Forest areas. Numerous roads were closed due to flood damage, including portions of highway 276, which were closed for several days.
Unincorporated Area	12/23/2004	The Davidson River left its banks for a couple of hours following heavy rainfall of 4 to 6 inches overnight.
Unincorporated Area	6/12/2005	Flooding developed first along the Davidson River in Pisgah National Forest, forcing a road closure. A section of highway 64 was closed near Sapphire. Other road closures included Richland Creek Rd in Lake Toxaway.
Unincorporated Area	11/29/2005	Davidson River came out of its banks and flooded roads in the Pisgah National Forest. There was also street flooding reported in the Rosman area, and a rock slide blocked highway 215 near the Blue Ridge Parkway.
ROSMAN	3/4/2008	Flooding continued near the headwaters of the French Broad River for a few hours after heavy rainfall ended.
JOHN ROCK	9/20/2009	Although flash flooding ended across the area around sunrise, persistent moderate to heavy rainfall caused high water conditions to persist in the French Broad valley through the morning hours. In addition to the flooding, several small mudslides occurred and quite a few trees fell in the saturated soil.
ECUSTA	9/21/2009	Flooding developed near the headwaters of the French Broad River which covered Main St in Rosman with about a foot of water. Water also entered an apartment building. Also, the Davidson River flooded near Brevard, flooding a portion of Davidson River Rd and Wilson Rd. Turkey Creek flooded Deavor Rd in Pisgah Forest. A total of 35 roads in Henderson and Transylvania Counties were blocked by flood water.
BLANTYRE	11/11/2009	Several roads were closed in the Brevard area, apparently due to flooding along creeks and streams that backed up due to a combination of heavy rain and flooding along the French Broad River. Closed roads included Green Rd to the southwest of Brevard, and Cascade Lake Rd and Wilson Rd on the southeast side of town.
ECUSTA	1/24/2010	Although heavy rain ended across the county by midnight, runoff from the day's heavy rainfall resulted in a continuation of high water, while new flooding developed along the French Broad River in the eastern portion of the county during this time. River flooding persisted until late on the 27th. Major flooding was observed briefly at the Blantyre river gauge.
ECUSTA	11/30/2010	Although the heavy rainfall began to abate during the mid-evening, run-off from the previous heavy rain, combined with persistent moderate rain, caused flooding to continue. Floodwaters also progressed downstream along the French Broad River, and its tributaries, including the Little River and the Davidson River through the overnight hours. It was estimated that as many as 50 roads were closed or water-covered at the height of the flooding. Stream flooding ended early on the morning of December 1st, though river flooding lasted until the morning of the

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Location	Date	Description
		3rd. Rainfall totals ranged up to 9 inches at Lake Toxaway, with many observers reporting 6 or more inches in and around Brevard.
ECUSTA	12/1/2010	Although the heavy rainfall began to abate during the mid-evening hours of November 30th, run-off from the previous heavy rain, combined with persistent moderate rain, caused flooding to continue. Floodwaters also progressed downstream along the French Broad River, and its tributaries, including the Little River and the Davidson River through the overnight hours. It was estimated that as many as 50 roads were closed or water-covered at the height of the flooding. Stream flooding ended early on the morning of December 1st, though river flooding lasted until the morning of the 3rd. Rainfall totals ranged up to 9 inches at Lake Toxaway, with many observers reporting 6 or more inches in and around Brevard.
SELICA	3/6/2011	Although heavy rain began to diminish, stream gauges indicated high water conditions persisted on the French Broad River and its tributaries in the eastern part of the county into the afternoon. River flooding persisted into the 7th and 8th, cresting at 17.9 feet at Blantyre early on the 7th.
PENROSE	3/9/2011	Although heavy rain began to diminish, stream gauges indicated high water conditions persisted on the French Broad River and its tributaries in the eastern part of the county into the evening and overnight. River flooding persisted into the 10th and 11th, with the French Broad at Blantyre cresting at 17.2 feet on the 10th.
CALHOUN	4/16/2011	Although heavy rain tapered off during the late morning, high water conditions continued along the Little River into the afternoon.
BLANTYRE	4/16/2011	Flooding developed along the French Broad River near Blantyre during the early afternoon, flooding several roads along the river until 3 pm. Flooding persisted along the river until the 18th.
BLANTYRE	11/28/2011	Streams began to recede during that late evening hours after heavy rain ended. However, flooding continued along the French Broad River and Little River through the day on the 29th.
PISGAH FOREST	1/17/2013	The middle reaches of the French Broad River in Transylvania County remained in flood for around 2 days as runoff from heavy rain worked it's way through the river system. This resulted in flooded roads and bottom land close to the river.
PISGAH FOREST	1/31/2013	The middle reaches of the French Broad River in Transylvania County remained in flood for almost 2 days as runoff from heavy rain worked it's way through the river system. This resulted in flooded roads and bottom land close to the river.
CHERRYFIELD	5/5/2013	Several inches of rain fell across Transylvania county, mainly on the 5th. Most of the resulting flooding occurred along the French Broad River or as a result of backwater effects of streams flowing into the river. Among the effects of the heavy rain, the Little River flooded parts of Cascade Lake Road north of Merrill Rd near Crab Creek. Hannah Ford Rd and Island Ford Rd were flooded by the French Broad River. Barclay Rd was flooded by the French Broad River 2 miles south of Brevard. Crab Creek Road was flooded by the French Broad River just southeast of Penrose. The French Broad at Blantyre rose above flood stage around 3 pm on the 5th, crested at 19.3 feet at 545 pm on the 6th, and fell below flood stage at 730 pm on the 8th.
GRANGE	11/23/2014	A stream gauge on the Little River indicated the river rose above flood stage, flooding a portion of Cascade Lake Rd.
GRANGE	10/3/2015	After as much as 5 inches of rain fell over several hours, a stream gauge on the Little River exceeded flood stage early afternoon on the 3rd and remained in flood through much of the overnight. A portion of Cascade Lake Rd was flooded in the Dupont Forest area.
CALHOUN	10/28/2015	After 3 to 5 inches of rain fell across eastern Transylvania County in about a 24 hour period, a stream gauge on the Little River exceeded established flood stage, indicating a portion of Cascade Lake Rd was covered with water.
ROSMAN	11/18/2015	After as much as 3 inches of rain fell in about 24 hours over eastern Transylvania County, while more than 4 inches fell across the western part of the county, stream gauges indicated minor flooding developed along the Little River, as well as near the headwaters of the French Broad

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Location	Date	Description
DAVIDSON RIVER	12/24/2015	River. A portion of Cascade Lake Road was flooded by the Little River near Penrose, while some roads were flooded by the French Broad in the Rosman area, including Main St. Although heavy rain began to taper off across Transylvania County during the afternoon, runoff from the rainfall resulted in persistent flooding along the Davidson River and Little River into the evening, with portions of Cascade Lake Rd, Davidson River Rd, Wilson Rd, and Deavor Rd under water.
ROSMAN	12/29/2015	Although heavy rain tapered off across Transylvania County during the pre-dawn hours, runoff resulted in flooding continuing along upper portions of the French Broad River, as well as some of its smaller tributaries through the late morning hours. River flooding also developed along the French Broad near the Henderson County line during this time, and persisted for several days.
POWELLTOWN	10/23/2017	Stream gauges indicated flooding developed along the upper French Broad basin after moderate to heavy rain falling throughout the 23rd resulted in 4 to 7 inches of total rainfall. A gauge on the French Broad River at Rosman exceeded the established flood stage, flooding several roads in and around Rosman. The Davidson River flooded in the Pisgah Forest area, impacting Davidson River Rd and Wilson Rd. The Little River also exceeded flood stage and affected Cascade Lake Rd in the eastern part of the county.
CALHOUN	1/11/2018	A stream gauge on the Little River in eastern Transylvania County exceeded its established flood stage and remained in minor flood conditions for almost 24 hours. The main impact was to lowlands along the stream and to Cascade Lake Rd, which was covered by flood water in spots. Total rainfall of 4 to 5 inches fell over the basin in around 24 hours. Minor river flooding also developed along the French Broad River near Blantyre and persisted for a couple of days.
CALHOUN	2/11/2018	A stream gauge on the Little River near Penrose exceeded its established flood stage after more than 2 inches of rain fell across the basin in less than 12 hours. Total rainfall of 3 to 5 inches fell across the area on the 11th and 12th and the river stayed above flood stage for almost 24 hours. Minor river flooding also occurred along the French Broad River near Blantyre from the 11th through the 14th.
GRANGE	5/16/2018	County comms reported and stream gauges indicated flooding developed along the Little River and near the headwaters of the French Broad River after moderate to heavy rain produced widespread 3 to 6-inch rainfall amounts in about 12 hours. The Little River flooded Cascade Lake Rd at Merrill Rd, while the French Broad washed out part of Wilson Rd and also flooded portions of Hannah Ford and Island Ford Rd.
CALHOUN	5/17/2018	Less than 18 hours after an earlier flood event ended along the Little River, a stream gauge exceeded its established flood stage once again after another round of heavy rain and remained in minor flood conditions for almost 24 hours. The main impact was to lowlands along the stream and to Cascade Lake Rd, which was covered by more than a foot of water in spots. Total rainfall in the basin was 2 to 3 inches from the 17th through early on the 18th. The long duration of the flooding was partly due to backwater affects from the French Broad River, which remained in moderate flood stage near Blantyre for much of this time frame.
CALHOUN	5/29/2018	A stream gauge on the Little River exceeded its established flood stage and remained in minor flood conditions for more than 48 hours. The main impact was to lowlands along the stream and to Cascade Lake Rd, which was covered by more than a foot of water in spots. Total rainfall from of around 5 inches fell uniformly over the basin from the 29th through the 30th. The long duration of the flooding was partly due to backwater affects from the French Broad River, where moderate flooding was occurring near Blantyre for much of this time frame.
ROSMAN	12/28/2018	Stream gauges near the headwaters of the French Broad River as well as multiple tributaries, including Davidson River and Little River, exceeded their established flood stages after 4 to 6 inches of rain fell throughout the basin from the afternoon of the 27th through the 28th. The French Broad River flooded portions of Hannah Ford Rd and Island Ford Rd, as well as Depot St and Highway 276 in Rosman. Davidson River flooded Davidson River Rd and Wilson Rd in Pisgah Forest. Little River also flooded Merrill Lane. While flood waters receded on most

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Location	Date	Description
		streams by late on the 28th, flooding persisted on the Little River for another day, while river flooding continued on the French Broad downstream of Brevard and Pisgah Forest until January 1st.
CALHOUN	2/21/2019	A stream gauge on the Little River exceeded its established flood stage around midnight on the 21st and remained in minor flood conditions until the afternoon of the 23rd. The main impact was to lowlands along the stream and to Cascade Lake Rd, which was covered by more than a foot of water in spots. Total rainfall of 3 to 4 inches fell throughout the basin in a 24 to 36 hour period. The long duration of the flooding was partly due to backwater affects from the French Broad River, where minor flooding was occurring near Blantyre for much of this time frame (and continued into the 26th).

TABLE G.5: HAIL EVENTS (2000-2019)

Location	Date	Size	Description
Henderson County			
Unincorporated Area	7/23/1963	2	
Unincorporated Area	5/14/1966	1.5	
Unincorporated Area	6/28/1974	0.75	
Unincorporated Area	5/17/1982	0.75	
Unincorporated Area	5/30/1982	1	
Unincorporated Area	7/13/1985	1.75	
Unincorporated Area	7/13/1985	1.75	
Unincorporated Area	9/8/1985	0.75	
Unincorporated Area	5/1/1987	0.75	
Unincorporated Area	6/3/1987	1.25	
Unincorporated Area	5/16/1988	0.75	
Unincorporated Area	6/18/1988	0.75	
Unincorporated Area	7/10/1988	0.75	
Unincorporated Area	7/15/1988	1.75	
Unincorporated Area	7/26/1989	0.75	
Unincorporated Area	11/15/1989	1.25	
Unincorporated Area	8/21/1990	0.75	
Hendersonville	3/31/1993	0.88	
S Portion	3/31/1993	0.75	
Hendersonville	5/13/1993	0.88	
HENDERSONVILLE	3/19/1996	0.75	A marginally severe thunderstorm caused large hail.
HENDERSONVILLE	8/24/1996	0.75	
FLETCHER	6/2/1997	1	Severe weather carried over from the morning in the foothills and into the piedmont, and developed in the mountains. Large hail caused much (although unknown dollar amounts) damage. The storms were quite slow moving, especially around Asheville and near Hendersonville, and caused hail for some time. In the city of Shelby, a man was struck and injured by lightning while mowing.
FLAT ROCK	7/4/1997	1.75	Large hail occurred on the Henderson/Polk county line.

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Location	Date	Size	Description
MILLS RIVER	7/9/1997	1.75	Isolated severe thunderstorms produced large hail ranging from golf ball to tennis ball size. A house was flooded in Mills River. A microburst in Rutherford College blew 12 to 14 roofs of flea market buildings.
HENDERSONVILLE	9/11/1997	0.75	Unusually cold temperatures aloft enabled a couple of thunderstorms that developed across the mountains in the early to middle afternoon to become severe. Large hail fell on Sugar Mountain in Avery county and accumulated to a depth of 2 inches. Large hail also fell in abundance in Henderson county, covering I-26 for some time near Flat Rock and Hendersonville. Extensive damage occurred to the apple crop which was near it peak. Other field crops were severely damaged or destroyed and a couple of car dealerships sustained damage as well.
BAT CAVE	4/3/1998	1	A strong spring storm system moved northeast through the Tennessee Valley on the 3rd. A couple thunderstorms along the occluded front that passed across the mountains became severe and produced hail up to quarter size. Other severe thunderstorms developed along a thermal-moisture boundary in the piedmont and produced hail up to 2 inches in diameter.
ASHEVILLE	5/7/1998	1	Supercell thunderstorms developed in a highly sheared atmosphere in eastern Tennessee then moved east across the mountains, foothills and western piedmont of North Carolina. These long-lived, cyclic supercells produced a considerable amount of large hail and some damaging winds in the mountains.
HENDERSONVILLE	6/24/1998	1.75	Multi-cell thunderstorms again developed in the early evening and moved south across the southern mountains and piedmont. A few became severe and produced large hail up to golf ball size, as well as damaging winds. Wind damage was confined to downed trees and power lines. The hardest hit area was northeast of Brevard where roads were blocked.
DANA, MILLS RIVER	5/13/1999	0.88	Scattered thunderstorms developed during the afternoon and evening of the 13th and a few pulsed to severe levels. In Henderson county, golf ball size hail covered Highway 280 and a large tree fell onto a house in Hendersonville, causing significant damage to the house and outdoor furniture. There was a public report of a sighting of a very weak tornado that appeared to make a brief touchdown, but caused no damage, north of Marion.
GERTON	8/20/1999	1.75	An isolated severe thunderstorm produced golf ball size hail in two counties.
GERTON, HENDERSONVILLE	5/13/2000	1	Thunderstorms developed in the mountains in the early afternoon with several becoming severe a few hours later. Other severe thunderstorms moved into or developed in the foothills and piedmont during the early evening. Hail up to the size of walnuts and some wind damage occurred in the mountains and foothills.
HENDERSONVILLE	5/24/2001	0.75	
BAT CAVE	6/4/2001	0.75	Public report of dime-sized hail.
HENDERSONVILLE	6/4/2001	0.88	Fire department reported nickel-sized hail in Hendersonville.
FLETCHER	5/2/2003	1	
HENDERSONVILLE	5/2/2003	1	
HENDERSONVILLE	5/3/2003	0.75	
FRUITLAND	5/3/2003	0.75	
FLETCHER	5/3/2003	1.5	Hail was reported across much of the western half of the county, and was responsible for major damage to the county's apple crop.
BAT CAVE	5/15/2003	1.5	Hail broke some light fixtures at the post office.
ASHEVILLE RGNL ARPT	7/16/2003	0.75	
ETOWAH	7/18/2003	0.75	Large hail caused damage to vehicles.

APPENDIX G: NCEI STORM EVENT DATA

Location	Date	Size	Description
MILLS RIVER	8/22/2003	0.75	
HENDERSONVILLE	6/6/2005	0.88	
HENDERSONVILLE	6/20/2005	0.75	
HENDERSONVILLE	4/3/2006	0.88	
HENDERSONVILLE	4/19/2006	0.75	Hail reported near the intersection of Sugarloaf Rd and Ridge Rd.
FLETCHER	4/19/2006	0.75	
HENDERSONVILLE	6/11/2006	0.75	Penny hail reported near the border with Polk.
HENDERSONVILLE	6/23/2006	0.88	
MOUNTAIN HOME	7/4/2006	0.88	
MILLS RIVER	7/4/2006	0.75	
HENDERSONVILLE	7/15/2006	0.88	Nickel size hail on the Polk County line.
MOUNTAIN HOME	7/21/2006	0.75	
HENDERSONVILLE	7/22/2006	0.75	Reported near Flat Rock.
ETOWAH	8/30/2006	1	Numerous trees blown down, including some 70 foot pine trees, centered around the area near the intersection of Cummings Cove Rd and Big Willow Rd. Nickel to quarter size hail was also reported.
HENDERSONVILLE	8/30/2006	1	
HENDERSONVILLE	10/11/2006	1	Reported on the Polk/Henderson County line.
HENDERSONVILLE	5/3/2007	0.75	Isolated severe thunderstorms affected the French Broad Valley during the afternoon hours.
FLETCHER	6/24/2007	0.88	Reported near the intersection of Youngs Gap Rd and Burney Mountain Rd on the Buncombe County line.
ETOWAH	7/27/2007	0.75	Reported Watagnee Trail.
FLETCHER	8/24/2007	0.75	Several severe storms affected western North Carolina during the afternoon hours.
HENDERSONVILLE	8/26/2007	1	Quarter size hail near exit 49 on I-26.
MILLS RIVER	6/22/2008	0.75	Reported near the Mount Pisgah campground.
EAST FLAT ROCK	6/27/2008	0.75	Scattered severe storms affected western North Carolina during the afternoon and evening hours.
MOUNTAIN HOME	7/6/2008	0.75	Several severe storms affected western North Carolina during the afternoon hours.
EAST FLAT ROCK, HENDERSONVILLE, DANA	7/7/2008	0.88	Hail was reported at Blue Ridge Community College.
MILLS RIVER	7/8/2008	1	Several severe storms affected western North Carolina during the afternoon and evening hours.
GOODLUCK	9/30/2008	0.88	Hail was reported near the intersection of Youngs Gap Rd and Lindsey Loop. Large hail also caused significant damage to the apple crop in the area around Saint Pauls Rd and Old Clear Creek Rd.
FLETCHER	4/24/2009	0.75	Large hail was reported in the upper French Broad Valley.
DANA	6/8/2009	0.88	Airmass thunderstorms produced a few areas of large hail and damaging winds over the North Carolina Mountains during the late afternoon and evening hours. There was also an isolated instance of flash flooding.
MILLS RIVER	6/10/2009	1.75	Golf ball size hail was reported in areas from Mills River to Mountain Home.
ETOWAH	7/25/2009	0.75	A few thunderstorms developed over the upper French Broad Valley during the evening hours. One storm produced large hail.

APPENDIX G: NCEI STORM EVENT DATA

Location	Date	Size	Description
HOOPERS CREEK	9/9/2009	1	A persistent upper low triggered thunderstorms over the North Carolina mountains and foothills during the early morning hours of the 9th. A few of the storms produced large hail. Thunderstorms redeveloped in this same area early in the afternoon and more severe weather was reported.
BLUE RIDGE	9/9/2009	1.75	The large hail caused significant damage to apple crops in this part of Henderson County.
EDNEYVILLE	9/9/2009	1	Hail up to size of quarters fell near Edneyville.
LEAD	5/6/2010	1	A few thunderstorms developed over western North Carolina mountains during the early evening hours as a weak cold front moved into the region. Some of the thunderstorms produced large hail.
VALLEY HILL	5/6/2010	1	Marble to quarter size hail was reported on Crab Creek Rd, about 4.5 miles southwest of Hendersonville.
VALLEY HILL	5/6/2010	0.75	A few thunderstorms developed over western North Carolina mountains during the early evening hours as a weak cold front moved into the region. Some of the thunderstorms produced large hail.
VALLEY HILL	5/6/2010	0.88	This was the third report of hail at this spotter's house for the day.
MILLS RIVER	5/28/2010	1	Quarter size hail was reported in Mills River and up to 2 miles west of town.
MILLS RIVER	4/9/2011	0.88	Thunderstorms initiated over the mountains of North Carolina during the afternoon hours. As the afternoon progressed, several supercell thunderstorms developed which tracked southeast across the foothills and piedmont along a slow-moving surface cold front. With unusually steep lapse rates over the region, several of the storms produced large hail. Fortunately, the supercells were a little elevated in nature, and only one, brief, weak tornado developed. Still, hail ranging up to the size of a softballs did quite a bit of damage over the region.
MILLS RIVER	5/12/2011	0.75	Scattered airmass thunderstorms developed over the North Carolina mountains during the afternoon hours. A few of the storms produced large hail.
ETOWAH	6/2/2011	1	Scattered thunderstorms developed across the North Carolina Mountains starting in the early afternoon hours. The storms moved across the southern foothills and piedmont, tracking a little to the north of a weak cold front. Several of the storms produced large hail.
BOWMAN BLUFF	6/2/2011	0.88	Scattered thunderstorms developed across the North Carolina Mountains starting in the early afternoon hours. The storms moved across the southern foothills and piedmont, tracking a little to the north of a weak cold front. Several of the storms produced large hail.
HENDERSONVILLE	6/2/2011	0.75	Small hail was reported over much of the west side of Hendersonville.
SMYTH	6/2/2011	1.75	Several reports were received of hail up to golf ball size falling from Mountain Home to the northeast side of Hendersonville.
VALLEY HILL	6/9/2011	1	Nickel to quarter size hail fell near the Valley Hill FD.
CAROLINA HILLS	6/10/2011	0.75	Dime size hail was reported on Pattys Chapel Rd.
BOWMAN BLUFF	6/12/2011	0.88	Nickel size hail fell in the Jeter Mountain area.
DRUID HILLS	9/2/2011	0.75	While the wind shear was fairly weak over western North Carolina, a very unstable atmosphere and hot temperatures resulted in scattered thunderstorm activity over the region. A few of the storms produced areas of damaging straight-line winds and even some large hail as they drifted slowly to the south.
HOLLY SPGS	4/3/2012	1	Nickel to quarter size hail fell near the intersection of highway 280 and Hunters Ridge Rd.
MILLS RIVER	4/5/2012	0.75	Thunderstorms developed over the mountains during the afternoon hours. A couple of the storms produced hail up to the size of quarters.
FLAT ROCK	4/26/2012	1	Quarter size hail was reported on Little River Rd.

APPENDIX G: NCEI STORM EVENT DATA

Location	Date	Size	Description
HENDERSONVILLE	4/26/2012	0.88	Thunderstorms developed during the afternoon along an outflow boundary from an MCS that crossed the region earlier in the day. The afternoon and evening storms produced large hail and some straight-line wind damage.
MILLS RIVER	4/26/2012	1.75	Multiple public reports of quarter size to golf ball size hail were received from the Mills River and Fletcher areas.
EDNEYVILLE	4/26/2012	0.75	Thunderstorms developed during the afternoon along an outflow boundary from an MCS that crossed the region earlier in the day. The afternoon and evening storms produced large hail and some straight-line wind damage.
MILLS RIVER	5/1/2012	0.75	Thunderstorms developed over the North Carolina mountains during the afternoon hours. Several of the storms produced hail.
FLETCHER	5/1/2012	2.5	Tennis ball size hail caused severe damage to at least one vehicle near the intersection of highway 25 and I-26.
FLETCHER	5/1/2012	1.75	Golf ball size hail damaged vehicles near Fletcher. Quarter size hail also fell along a path from Fletcher to 3 miles east of town.
EDNEYVILLE	5/1/2012	0.88	Thunderstorms developed over the North Carolina mountains during the afternoon hours. Several of the storms produced hail.
ETOWAH	7/1/2012	1	After a day where temperatures rose to record levels, including 104 degrees at the Charlotte Douglas International Airport, numerous severe storms developed over western North Carolina during the afternoon and evening hours. The wind shear was fairly weak, but there was considerable instability. This allowed some of the storms to organize into small bowing clusters, though the dominant mode was pulse severe.
DANA	8/22/2012	0.75	Scattered thunderstorms developed along the Blue Ridge Mountains and drifted slowly to the southwest. The storms produced heavy rain and some lightning damage.
TUXEDO	4/29/2014	1	Spotter reported quarter size hail near Tuxedo.
EAST FLAT ROCK	4/29/2014	0.88	Public reported hail up to nickel size that lasted a few minutes.
ETOWAH	5/27/2014	0.88	Public reported nickel size hail.
ETOWAH	6/13/2014	1	Spotter reported quarter size hail.
HORSE SHOE	6/19/2014	0.75	Public reported 3/4-inch hail.
FIVE PTS	6/19/2014	0.88	Spotter reported dime to nickel size hail.
FLAT ROCK	6/19/2014	1	Public reported a lot of hail up to quarter size on the north side of town.
HORSE SHOE	6/20/2014	0.75	Public reported 3/4-inch size hail fell between Etowah and Horse Shoe.
BARKER HGTS	8/21/2014	0.75	Public reported brief 3/4-inch hail.
GERTON	5/11/2015	1	Spotter reported quarter size hail.
MILLS RIVER	6/2/2015	0.75	Public reported dime to penny size hail in the Mills River area.
BRICKTON	6/21/2015	1	Public reported quarter size hail on I-26 at the Henderson/Buncombe County line.
SMYTH	7/6/2016	1	Spotter reported marble to quarter size hail.
HILLGIRT	7/30/2016	0.75	Public reported (via Social Media) 3/4-inch hail.
HILLGIRT	5/19/2017	1	Spotter reported quarter size hail on Heritage Circle.
LEAD	5/19/2017	1	Public reported quarter size hail off Pinnacle Mountain Rd.
LEAD	5/19/2017	0.88	Public reported nickel size hail along Pinnacle Falls Ln.
UPWARD	5/19/2017	1	Public reported quarter size hail.
TUXEDO	6/13/2017	0.88	FD reported nickel size hail.
HENDERSONVILLE	7/8/2017	1.75	Public reported up to golf ball size hail.
BOWMAN BLUFF	7/18/2017	1	Public reported quarter size hail off Cummings Rd.

APPENDIX G: NCEI STORM EVENT DATA

Location	Date	Size	Description
RUGBY	6/3/2018	1	Public reported quarter size hail at Highway 191 and North Rugby Rd.
MILLS RIVER	6/20/2018	0.75	Public reported (via Social Media) 3/4-inch hail in the Mills River area.
OTTANOLA	7/21/2018	2	Spotter reported two-inch diameter hail on Sugarloaf Mountain Rd.
BOWMAN BLUFF	8/21/2019	0.88	Public reported up to nickel size hail at a golf course off Cummings Rd.
Polk County			
Unincorporated Area	6/5/1970	1.5	
Unincorporated Area	6/4/1985	2.75	
Unincorporated Area	6/5/1985	0.88	
Unincorporated Area	6/5/1985	1.75	
Unincorporated Area	6/7/1985	1	
Unincorporated Area	7/10/1985	1	
Unincorporated Area	7/10/1985	1	
Unincorporated Area	7/16/1985	0.75	
Unincorporated Area	5/1/1987	0.75	
Unincorporated Area	5/17/1988	1.75	
Unincorporated Area	6/18/1988	0.75	
Unincorporated Area	6/5/1989	0.75	
Unincorporated Area	5/1/1990	1	
Saluda	3/31/1993	0.75	
SALUDA	6/24/1996	1	
COLUMBUS	6/2/1997	0.75	Severe thunderstorms moved in from Upstate South Carolina during the early morning hours becoming more widespread across portions of western North Carolina. Large and damaging hail occurred in many locations, and a number of places were affected by two or three different storms. The hail caused extensive damage and the dollar total will no doubt end up in the millions for both property and crop damage. The counties which were hit hardest were McDowell and Rutherford. At one car dealership in Marion the damage reached \$500 thousand quickly. At least one insurance company set up a disaster center to process claims involving many cars and roofs which were hail damaged. Only one downburst was known to have occurred and resulted in trees downed across Highway 221 north of Rutherfordton. At Tryon, an historic house and contents including some antiques, burned to the ground. Lightning at Newton struck several residences, causing fire damage.
TRYON	6/14/1997	0.88	Severe thunderstorms blew down trees and power lines in Henderson county and caused large hail near the South Carolina border in Polk county. The most damage occurred around Shelby where trees were blown down in 15 locations near town. At least one tree fell on a vehicle and another fell on a house.

APPENDIX G: NCEI STORM EVENT DATA

Location	Date	Size	Description
SALUDA, COLUMBUS	7/4/1997	1.75	Severe thunderstorms moved into the mountains from Tennessee in the early evening on the Fourth, before moving into or redeveloping in the foothills and western piedmont later in the evening. Damaging winds raked much of western North Carolina, downing trees and power lines, and a few reports of hail as large as golf balls were reported. Several counties reported trees and power lines down countywide, often blocking roads and damaging homes and/or vehicles. Outflow from the storms propagated southeast into the Charlotte metro area before midnight, producing gusty winds between 35 and 45 mph for a short period of time. Dollar amounts for much of the damage were not available at the time of this writing.
COLUMBUS	5/3/1998	0.75	A severe thunderstorm downed a few trees on the southeast side of Charlotte during the afternoon. Other isolated severe thunderstorms downed a of couple trees in Avery county and produced dime size hail in Polk county in the early and late evening.
COLUMBUS	8/20/1999	1.75	An isolated severe thunderstorm produced golf ball size hail in two counties.
TRYON	5/13/2000	0.75	Thunderstorms developed in the mountains in the early afternoon with several becoming severe a few hours later. Other severe thunderstorms moved into or developed in the foothills and piedmont during the early evening. Hail up to the size of walnuts and some wind damage occurred in the mountains and foothills. Several trees were blown down near Fairview. In Cleveland county, 1.5 foot diameter trees were blown down in Belwood, and a number of structures were damaged in Polkville. Just west of Lincolnton several trees and power lines were downed, some on mobile homes. Lightning from the storm in Lincolnton knocked out power to the 911 center. Numerous trees and power lines were downed and a couple of storage buildings were blown over northeast of Gastonia. In Dallas, a trailer park sustained damage to a storage building, 3 young Bradford pear trees, underpinning, a power meter, and heavy doghouse. Mecklenburg county police reported 7 to 10 trees downed north of Charlotte. Considerable damage occurred in Cabarrus county with numerous trees blown down through the northern and central parts of Concord. Winds were estimated as high as 70 mph in western Cabarrus county due to a significant amount of downed trees, with many on houses and some blocking roads. Crews had to work most of the night to clear trees and restore power. A deputy said he observed a tornado touch down, lift, and touch down again before ending as a waterspout over Coddle Creek Reservoir. However, there was not enough evidence to confirm the event as a tornado.
MILL SPG	6/25/2001	1	Quarter-sized hail observed in Mill Spring.
SALUDA	7/5/2001	0.75	Trained spotter reported dime-sized hail.
COLUMBUS	3/16/2002	0.88	The hail caused several traffic accidents in the Columbus area.
COLUMBUS	5/2/2003	0.75	
COLUMBUS	5/15/2003	1	
TRYON	7/5/2005	0.75	
TRYON	4/3/2006	0.75	
MILL SPG	4/19/2006	0.75	
COLUMBUS	5/20/2006	0.88	
SALUDA	7/15/2006	0.88	
SALUDA	10/11/2006	1	Reported on the Polk/Henderson County line.
COLUMBUS	4/19/2007	0.88	Nickel size hail reported at the intersection of highway 9 and Landrum Rd.
COLUMBUS	4/19/2007	0.88	A few severe thunderstorms developed over the mountains and western foothills of North Carolina during the afternoon hours.

APPENDIX G: NCEI STORM EVENT DATA

Location	Date	Size	Description
SALUDA	4/26/2008	0.75	Scattered severe storms affected western North Carolina during the afternoon and evening hours.
SALUDA	6/27/2008	0.75	Scattered severe storms affected western North Carolina during the afternoon and evening hours.
COLUMBUS	6/27/2008	0.75	Scattered severe storms affected western North Carolina during the afternoon and evening hours.
BEULAH	7/6/2008	0.75	Hail was reported on Toney Rd.
SUNNY VIEW	9/30/2008	0.88	Hail was reported in the Sunny View community.
MILL SPG	9/30/2008	1	A strong cold front triggered several severe storms over western North Carolina during the afternoon and evening hours.
SUNNY VIEW	6/9/2009	0.88	Widely scattered multicell storms produced a few areas of wind damage and large hail over western North Carolina.
MC GINNIS XRDS	7/28/2009	0.75	An old mesoscale convective vortex spawned numerous showers and thunderstorms over western North Carolina. A few of the storms produced large hail and damaging winds. Severe urban flooding developed during the evening hours on the south side of Charlotte.
MC GINNIS XRDS	8/27/2009	0.75	A spotter reported penny size hail and measured a wind gust of 56 MPH.
COLUMBUS	9/9/2009	0.88	Penny to nickel size hail was reported near the intersection of highway 74 and I-26 on the west side of the town of Columbus.
MELVIN HILL	5/28/2010	0.75	A weak upper low triggered numerous thunderstorms over western North Carolina. Several of the storms produced damaging wind and large hail.
TRYON	10/26/2010	1	Scattered supercell thunderstorms developed over the western Carolinas and northeast Georgia as strong wind shear and moderate instability overspread the region ahead of a strong cold front. A number of tornadoes were spawned by the storms. Two strong tornadoes affected the western piedmont and foothills of North Carolina.
BEULAH	5/11/2011	1	Scattered thunderstorms developed over the North Carolina mountains during the afternoon hours. Some of the storms produced hail as they drifted to the south.
BEULAH	5/26/2011	0.75	Numerous showers and thunderstorms affected the western Carolinas and northeast Georgia during the afternoon and evening hours. Some of the thunderstorms were severe, producing large hail and damaging straight line wind.
SUNNY VIEW	6/2/2011	1	Quarter size hail fell at Lake Adger Rd and Coopers Gap Rd.
COLLINSVILLE	6/16/2011	0.75	An isolated thunderstorm developed over the southern North Carolina foothills. The storm produced a little small hail.
SUNNY VIEW	5/1/2012	0.75	Thunderstorms developed over the North Carolina mountains during the afternoon hours. Several of the storms produced hail.
SUNNY VIEW	5/1/2012	1.75	Hail up to golf ball size destroyed crops just south of the Rutherford County line.
SUNNY VIEW	5/1/2012	0.75	A second round of penny size hail fell along highway 9.
SUNNY VIEW	5/1/2012	0.75	Yet a third round of penny size hail was reported on highway 9.
SALUDA	7/18/2012	1	Quarter size hail was reported near mile marker 60 on I-26.
SUNNY VIEW	5/22/2013	1	Quarter size hail fell along highway 9 in the Sunny View community.
SUNNY VIEW	5/22/2013	0.75	The relative of an NWS employee reported penny size inch hail on highway 9 at the Rutherford County line.
MILL SPG	8/23/2013	0.75	Hail up to the size of pennies was reported in the Mill Spring community.
COLLINSVILLE	6/8/2014	1	Public reported quarter size hail on the state line southwest of Green Creek.
SANDY PLAINS	8/12/2014	0.75	Public reported 3/4 inch hail.

APPENDIX G: NCEI STORM EVENT DATA

Location	Date	Size	Description
COLLINSVILLE	8/5/2015	0.88	HAM radio operator reported nickel size hail on Highway 9 near the South Carolina border.
MELVIN HILL	5/1/2016	1	Public reported quarter size hail in the Green Creek community.
COLUMBUS	5/31/2016	1	Public reported quarter size hail via social media.
COLUMBUS	5/31/2016	0.75	Public reported 3/4 inch hail via social media.
SALUDA	3/1/2017	0.75	Spotter reported 3/4 inch hail.
SALUDA	6/15/2017	0.75	Spotter reported 3/4 inch hail in the Saluda area.
COLUMBUS	5/10/2018	0.75	Public reported penny sized hail along Highway 108 just east of Columbus.
MILL SPG	5/10/2018	1	EM reported quarter size hail in the Mill Spring area as multiple strong to severe storms trained over Polk County.
MILL SPG	5/10/2018	1.75	EM reported quarter size hail in the Mill Spring area as multiple strong to severe storms trained over Polk County. Public reported quarter to golf ball size hail on Highway 74.
SANDY PLAINS	5/10/2018	0.75	Public reported an extended period of up to 3/4 inch hail as multiple strong to severe storms trained over Polk County.
BEULAH	5/10/2018	0.75	Former NWS employee reported penny size hail.
RODDY STORE	5/10/2018	1	Public reported quarter size hail as multiple strong to severe storms trained over Polk County.
Rutherford County			
Unincorporated Area	6/25/1979	1.75	
Unincorporated Area	6/4/1985	0.75	
Unincorporated Area	6/5/1985	1.75	
Unincorporated Area	6/5/1985	1.75	
Unincorporated Area	7/10/1985	1	
Unincorporated Area	5/17/1988	0.75	
Unincorporated Area	7/26/1989	0.75	
Unincorporated Area	5/1/1990	1.75	
Unincorporated Area	5/1/1990	1	
Rutherfordton	3/31/1993	0.75	
Bostic	5/13/1993	0.88	
Rutherfordton	5/13/1993	0.88	
RUTHERFORDTON	5/29/1996	0.88	
RUTHERFORDTON	6/2/1997	2	Severe thunderstorms moved in from Upstate South Carolina during the early morning hours becoming more widespread across portions of western North Carolina. Large and damaging hail occurred in many locations, and a number of places were affected by two or three different storms. The hail caused extensive damage and the dollar total will no doubt end up in the millions for both property and crop damage. The counties which were hit hardest were McDowell and Rutherford. At one

APPENDIX G: NCEI STORM EVENT DATA

Location	Date	Size	Description
			car dealership in Marion the damage reached \$500 thousand quickly. At least one insurance company set up a disaster center to process claims involving many cars and roofs which were hail damaged. Only one downburst was known to have occurred and resulted in trees downed across Highway 221 north of Rutherfordton. At Tryon, an historic house and contents including some antiques, burned to the ground. Lightning at Newton struck several residences, causing fire damage.
FOREST CITY	6/2/1997	2	Severe thunderstorms moved in from Upstate South Carolina during the early morning hours becoming more widespread across portions of western North Carolina. Large and damaging hail occurred in many locations, and a number of places were affected by two or three different storms. The hail caused extensive damage and the dollar total will no doubt end up in the millions for both property and crop damage. The counties which were hit hardest were McDowell and Rutherford. At one car dealership in Marion the damage reached \$500 thousand quickly. At least one insurance company set up a disaster center to process claims involving many cars and roofs which were hail damaged. Only one downburst was known to have occurred and resulted in trees downed across Highway 221 north of Rutherfordton. At Tryon, an historic house and contents including some antiques, burned to the ground. Lightning at Newton struck several residences, causing fire damage.
FOREST CITY	6/2/1997	0.75	Severe thunderstorms moved in from Upstate South Carolina during the early morning hours becoming more widespread across portions of western North Carolina. Large and damaging hail occurred in many locations, and a number of places were affected by two or three different storms. The hail caused extensive damage and the dollar total will no doubt end up in the millions for both property and crop damage. The counties which were hit hardest were McDowell and Rutherford. At one car dealership in Marion the damage reached \$500 thousand quickly. At least one insurance company set up a disaster center to process claims involving many cars and roofs which were hail damaged. Only one downburst was known to have occurred and resulted in trees downed across Highway 221 north of Rutherfordton. At Tryon, an historic house and contents including some antiques, burned to the ground. Lightning at Newton struck several residences, causing fire damage.
SUNSHINE	6/2/1997	0.75	Severe weather carried over from the morning in the foothills and into the piedmont, and developed in the mountains. Large hail caused much (although unknown dollar amounts) damage. The storms were quite slow moving, especially around Asheville and near Hendersonville, and caused hail for some time. In the city of Shelby, a man was struck and injured by lightning while mowing.
THERMAL CITY, GILKEY, UNION MILLS	5/26/1998	0.88	Mutli-cell thunderstorms developed in a hot and humid airmass just ahead of a cold front sagging south across North Carolina during the evening of the 26th. Several storms became severe and produced widespread hail and wind damage. Hail and wind lasted 15-20 minutes at some locations. Numerous trees and power lines were downed, some on homes, and numerous power outages occurred. In the town of Gilkey, in Rutherford county, a storage building was blown into the woods. Four homes were damaged by fallen trees in Union Mills and windows were blown out.
CHIMNEY ROCK, LAKE LURE	5/13/2000	1	Thunderstorms developed in the mountains in the early afternoon with several becoming severe a few hours later. Other severe thunderstorms moved into or developed in the foothills and piedmont during the early evening. Hail up to the size of walnuts and some wind damage occurred in the mountains and foothills.
RUTHERFORDTON	6/25/2001	1	Numerous trees and power lines down, with several reports of quarter-sized hail, along a path from Rutherfordton to Forest City. A tree fell across a truck in Chase.
HENRIETTA	3/16/2002	0.75	
FOREST CITY	5/7/2002	0.75	

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Location	Date	Size	Description
FOREST CITY	7/3/2002	0.75	
RUTHERFORDTON	7/4/2002	0.75	
SUNSHINE	7/4/2002	0.75	
RUTHERFORDTON	4/29/2003	1.5	
SPINDALE	4/29/2003	1	
LAKE LURE	5/2/2003	0.75	
RUTHERFORDTON, ELLENBORO	5/3/2003	1.75	
LAKE LURE	5/15/2003	0.75	Numerous vehicles were damaged.
THERMAL CITY, BOSTIC, SUNSHINE	7/12/2003	1	
LAKE LURE	5/8/2004	0.75	
ELLENBORO	5/9/2004	0.75	
RUTHERFORDTON	6/12/2004	1	
FOREST CITY	6/19/2005	0.75	
RUTHERFORDTON	7/5/2005	0.75	
RUTHERFORDTON, HENRIETTA	4/3/2006	0.75	
FOREST CITY	5/13/2006	0.75	
RUTHERFORDTON	5/20/2006	0.75	
SUNSHINE	5/26/2006	0.75	
FOREST CITY	6/12/2006	1	
RUTHERFORDTON	7/21/2006	0.75	
FOREST CITY	4/19/2007	0.75	Reported of off highway 221 in the Harris area.
SUNSHINE	6/12/2007	0.75	Scattered severe storms developed over western North Carolina for a second day in a row. The storms mainly produced large hail.
SUNSHINE	6/14/2007	0.88	Scattered severe storms affected western North Carolina during the afternoon and early evening hours.
FOREST CITY	6/16/2007	0.75	Scattered severe storms developed over the Foothills and western Piedmont of North Carolina during the afternoon hours.
FOREST CITY	6/24/2007	0.75	Reported on Jack McKinney Rd in the Harris community.
ALEXANDER MILLS	6/27/2007	0.75	Several severe storms affected western North Carolina during the afternoon and evening hours.
SUNSHINE	8/23/2007	1.75	Severe severe storms affected western North Carolina during the evening hours.
RUTHERFORDTON	5/20/2008	0.88	Several clusters of severe thunderstorms developed over western North Carolina during the afternoon and evening hours ahead of a cold front.
LAKE LURE	6/26/2008	0.75	Hail was reported at the Lake Lure Marina.
CLIFFSIDE	7/21/2008	0.75	Several severe storms affected western North Carolina during the afternoon and evening hours.
FOREST CITY	7/22/2008	0.75	Several severe storms affected western North Carolina during the afternoon and evening hours.
UREE	9/30/2008	0.75	Hail reported on highway 64 west of Green Hill.
CAROLEEN	9/30/2008	0.75	Hail was reported along Middle Street in Caroleen.
HARRIS	9/30/2008	1	Reported on Howard Cole Rd.

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Location	Date	Size	Description
ALEXANDER MILLS	9/30/2008	0.75	Hail was reported on Big Allen Rd in the Danielstown area.
CLIFFSIDE JCT	9/30/2008	0.75	Hail was reported near the intersection of highway 120 and Family Dr.
CHIMNEY ROCK	6/9/2009	1.5	The largest hail fell on the northwest side of Lake Lure. In town, hail up to the size of pennies was reported.
RUTHERFORDTON	6/18/2009	1.75	A swath of hail, up to the size of golf balls, fell from Rutherfordton to Harris Hanrietta Rd about 11 miles southeast of town.
RUTHERFORDTON	7/23/2009	0.75	Scattered thunderstorms developed over the North Carolina Foothills. A few of the storms produced large hail and wind damage.
ALEXANDER MILLS	9/9/2009	1.75	Golf ball size hail was reported on Bethany Church Rd on the southwest side of Forest City.
RUTHERFORDTON	5/28/2010	1	Hail up to quarter size was reported near the intersection of Coxe Rd and Baber Rd.
RUTHERFORDTON	5/28/2010	1	A weak upper low triggered numerous thunderstorms over western North Carolina. Several of the storms produced damaging wind and large hail.
GILKEY	6/28/2010	1	Quarter size hail was reported on Piney Knob Rd.
ELLENBORO	7/26/2010	0.75	Numerous showers and thunderstorms developed over the western Carolinas ahead of a cold front. Most of the severe weather affected South Carolina and Georgia, but a fair number of pulse severe storms also affected the mountains and foothills of North Carolina.
ROCK SPGS	8/5/2010	1	Quarter size hail fell at the River Creek Campground.
GILKEY	4/9/2011	1.75	Thunderstorms initiated over the mountains of North Carolina during the afternoon hours. As the afternoon progressed, several supercell thunderstorms developed which tracked southeast across the foothills and piedmont along a slow moving surface cold front. With unusually steep lapse rates over the region, several of the storms produced large hail. Fortunately the supercells were a little elevated in nature, and only one, brief, weak tornado developed. Still, hail ranging up to the size of a softballs did quite a bit of damage over the region.
GILKEY	4/9/2011	1.75	Hail up to golf ball size hail damaged the gutters and smashed the windshield of a car at a spotter's house about 4 miles northwest of Rutherfordton. Golf ball size hail was reported into Rutherfordton as well.
ELLENBORO	4/9/2011	2	Two inch diameter hail fell along highway 74 about 2 miles southwest of Ellenboro.
FOREST CITY	4/9/2011	1.25	Quarter to half dollar size hail fell from Forest City to the Ellenboro area.
ELLENBORO	5/11/2011	0.88	Scattered thunderstorms developed over the North Carolina mountains during the afternoon hours. Some of the storms produced hail as they drifted to the south.
ELLENBORO	5/11/2011	0.75	Scattered thunderstorms developed over the North Carolina mountains during the afternoon hours. Some of the storms produced hail as they drifted to the south.
WHITEHOUSE	5/13/2011	1.5	Ping pong ball size hail was reported just south of the McDowell County line.
HOLLIS	5/13/2011	1	Quarter size hail fell along Jonestown Rd.
WHITEHOUSE	5/23/2011	0.75	Isolated thunderstorms developed along the lee trough over the North Carolina foothills during the afternoon hours. The storms mainly produced large hail, including a report of tennis ball size hailstones.
HOLLIS	5/23/2011	1	Isolated thunderstorms developed along the lee trough over the North Carolina foothills during the afternoon hours. The storms mainly produced large hail, including a report of tennis ball size hailstones.
HOLLIS	5/23/2011	1	Quarter size hail was reported near the Cleveland County line.
WHITEHOUSE	6/2/2011	1	Quarter size hail fell in the vicinity of the Shingle Hollow community.
FOREST CITY	6/2/2011	1	Scattered thunderstorms developed across the North Carolina Mountains starting in the early afternoon hours. The storms moved across the southern foothills and

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Location	Date	Size	Description
			piedmont, tracking a little to the north of a weak cold front. Several of the storms produced large hail.
ROCK SPGS	6/5/2011	1	Penny to quarter size hail was reported at River Creek campground.
WHITEHOUSE	6/12/2011	0.75	Dime size hail was reported near Shingle Hollow.
SPINDALE	6/26/2011	0.88	An isolated thunderstorm produced wind damage over the southern foothills of North Carolina.
WHITEHOUSE	6/27/2011	0.75	Scattered thunderstorms developed during the afternoon hours along the North Carolina Blue Ridge. One of the storms produced wind damage as it moved into the foothills.
CLIFFSIDE JCT	9/2/2011	1	While the wind shear was fairly weak over western North Carolina, a very unstable atmosphere and hot temperatures resulted in scattered thunderstorm activity over the region. A few of the storms produced areas of damaging straight-line winds and even some large hail as they drifted slowly to the south.
LAKE LURE	4/26/2012	1	Quarter size hail fell about 4 miles northwest of Shingle Hollow.
ROCK SPGS	5/1/2012	1	Quarter size hail fell at River Creek campground.
RUTHERFORDTON	5/1/2012	1	Thunderstorms developed over the North Carolina mountains during the afternoon hours. Several of the storms produced hail.
RUTHERFORDTON	6/24/2012	1	Scattered storms developed over western North Carolina during the late afternoon hours, and a couple of those briefly became severe.
GILKEY	9/28/2012	0.75	Scattered thunderstorms developed over western North Carolina along a weak cold front. Most of the storms remained below severe limits, though there was one report of large hail.
LAKE LURE	7/25/2013	1.75	Golf ball size hail fell in the Shingle Hollow community and quarter size hail in the Green Hill community.
GILKEY	8/1/2013	1	Quarter size hail was reported in the Green Hill community.
CHIMNEY ROCK	5/25/2014	0.88	Park Service Employee reported up to nickel size hail at Chimney Rock State Park.
LAKE LURE	5/25/2014	1	Public reported up to quarter size hail in the Lake Lure area.
WHITEHOUSE	6/16/2014	1	Spotter reported dime to quarter size hail.
CAROLEEN	6/19/2014	0.88	FD reported quarter size hail.
WHITEHOUSE	6/20/2014	1	Spotter reported dime to quarter size hail that lasted a few minutes.
UREE	7/27/2014	0.75	Public reported 3/4 inch hail near the intersection of Redbird Dr and Pheasant St.
WHITEHOUSE	6/19/2015	0.88	FD reported dime to nickel size hail.
UNION MILLS	9/10/2015	1	Public reported quarter size hail.
SUNSHINE	5/1/2016	1.75	Public reported up to golf ball size hail.
ELLENBORO	7/23/2017	1	Public reported quarter size hail in the Ellenboro area.
HARRIS SPICERS ARPT	6/1/2018	0.75	Public reported pea to penny size hail.
FOREST CITY	7/21/2018	1.75	County comms and the public (via Social Media) reported quarter to golf ball size hail in the Shiloh community and in the Harris area.
CLIFFSIDE	8/1/2019	0.75	Fire dept reported brief 3/4 inch hail.
THERMAL CITY	8/21/2019	1	Public reported hail as large as quarters.
Transylvania County			
Unincorporated Area	5/15/1970	1	
Unincorporated Area	4/3/1974	0.75	

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Location	Date	Size	Description
Unincorporated Area	6/7/1985	0.75	
Unincorporated Area	7/9/1985	1	
Unincorporated Area	7/9/1985	1	
Unincorporated Area	6/24/1986	2.75	
Unincorporated Area	5/1/1987	0.75	
Unincorporated Area	5/14/1988	0.75	
Unincorporated Area	6/24/1988	0.75	
Unincorporated Area	6/25/1988	0.75	
Unincorporated Area	5/2/1990	1	
Unincorporated Area	5/2/1990	1	
Unincorporated Area	7/2/1991	1	
Lake Toxaway	3/31/1993	1.75	
Pisgah Forest	3/31/1993	0.75	
Pisgah Forest	6/9/1995	0.75	
LAKE TOXAWAY	3/15/1996	0.75	
BREVARD	4/20/1996	0.75	
LAKE TOXAWAY	5/24/1996	0.75	
COUNTYWIDE	7/4/1997	1.25	Severe thunderstorms moved into the mountains from Tennessee in the early evening on the Fourth, before moving into or redeveloping in the foothills and western piedmont later in the evening. Damaging winds raked much of western North Carolina, downing trees and power lines, and a few reports of hail as large as golf balls were reported. Several counties reported trees and power lines down countywide, often blocking roads and damaging homes and/or vehicles.
LAKE TOXAWAY	1/8/1998	1	Thunderstorms developed in response to an upper level cold pool that moved across western North Carolina in the wake of the powerful storm earlier in the day. Several of the storms became severe, dropping large hail in a few mountain counties as well as portions of the western piedmont. The hail accumulated to a depth of 1 to 2 inches at Lake Toxaway, in Transylvania county.
BREVARD	5/27/1998	1	A frontal boundary in the area again provided the focus for thunderstorm development during the afternoon of the 27th. Many storms became severe across western North Carolina and produced hail ranging in size between dimes and quarters. Severe straight-line winds downed numerous trees and power lines, some on houses, in Sylva and Brevard.
ROSMAN	5/19/2001	0.75	General public reported dime-sized hail at Rosman, while police in Brevard estimated winds there at severe strength just moments later.
CONNESTEE	4/17/2002	0.75	Hail to the size of dimes associated with slow-moving thunderstorms accumulated to depths of 1.5 to 3 feet along some roads and at a golf course.
ROSMAN	7/1/2002	1.25	Several vehicles received damage.

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Location	Date	Size	Description
LAKE TOXAWAY	6/11/2003	0.75	
BREVARD	8/8/2003	0.75	
BALSAM GROVE	5/10/2005	0.75	
BREVARD	6/20/2005	0.75	Reported at Pisgah Forest.
BREVARD	6/20/2005	0.88	
BREVARD	6/20/2005	0.5	Mainly pea size hail fell for about 30 minutes and accumulated to a depth of 3 inches in the Penrose area. The hail was still on the ground the next day. County reported damage to apple crops. There was a rumor of golfball size hail in this area as well, but this could not be confirmed.
BREVARD	8/4/2005	0.75	
PENROSE	4/3/2006	0.75	
BREVARD	4/19/2006	0.75	
BREVARD	4/19/2006	0.88	
ROSMAN	5/20/2006	0.88	
ROSMAN	5/25/2006	0.75	Hail covered the ground.
BALSAM GROVE	5/28/2006	0.75	
CEDAR MTN	6/11/2006	0.75	Hail covered the ground.
BREVARD	7/1/2006	0.75	
LAKE TOXAWAY	7/2/2006	0.75	
BALSAM GROVE	7/4/2006	0.88	
ROSMAN	8/10/2006	0.75	
BREVARD	5/11/2007	0.75	Reported at the USFS Cradle of Forestry.
PENROSE	6/12/2007	0.75	Scattered severe storms developed over western North Carolina for a second day in a row. The storms mainly produced large hail.
BREVARD	6/12/2007	1	Scattered severe storms developed over western North Carolina for a second day in a row. The storms mainly produced large hail.
PISGAH FOREST	6/12/2007	0.75	Scattered severe storms developed over western North Carolina for a second day in a row. The storms mainly produced large hail.
ROSMAN	6/23/2007	1	Isolated severe storms developed during the evening hours over the Mountains and western Foothills of North Carolina.
BREVARD	5/9/2008	1.75	Severe storms developed over western North Carolina during the evening hours and produced large hail.
BREVARD	5/9/2008	0.75	Severe storms developed over western North Carolina during the evening hours and produced large hail.
BREVARD	6/10/2008	0.75	Scattered severe storms affected western North Carolina during the afternoon and evening hours.
BALSAM GROVE	7/21/2008	0.88	Nickel size hail was reported on highway 215.
GRANGE	6/9/2009	0.88	Widely scattered multicell storms produced a few areas of wind damage and large hail over western North Carolina.
GRANGE	6/16/2009	0.88	Hail was reported on Cascade Lakes Rd.
OAKLAND	7/27/2009	0.75	Hail was reported on highway 64.
CEDAR MTN	9/9/2009	1	A persistent upper low triggered thunderstorms over the North Carolina mountains and foothills during the early morning hours of the 9th. A few of the storms produced large hail. Thunderstorms redeveloped in this same area early in the afternoon and more severe weather was reported.

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Location	Date	Size	Description
PENROSE	5/6/2010	0.75	A few thunderstorms developed over western North Carolina mountains during the early evening hours as a weak cold front moved into the region. Some of the thunderstorms produced large hail.
GRANGE	5/6/2010	1.25	Hail was reported at the Cascade Lake Recreation area.
BOHAYNEE	5/15/2010	1	Hail up to the size of quarters fell from Cash Rd to Whitewater Church Rd about 3 miles south of Sapphire. The hail accumulated to a depth of 3 inches.
POWELLTOWN	6/15/2010	0.75	Thunderstorms erupted in the lee trough over the North Carolina foothills during the early afternoon hours. The storms produced areas of damaging straight-line winds and large hail over much of the foothills and western piedmont.
REID	6/15/2010	0.75	Thunderstorms erupted in the lee trough over the North Carolina foothills during the early afternoon hours. The storms produced areas of damaging straight-line winds and large hail over much of the foothills and western piedmont.
PENROSE	7/25/2010	0.75	Dime size hail was reported off of highway 276.
POWELLTOWN	4/28/2011	0.88	An historic tornado outbreak affected areas from the Deep South to the Mid-Atlantic states April 27-28. A strong tornado touched down in Rabun County late on the 27th, with additional tornadoes affecting the North Carolina foothills during the early morning hours of the 28th. At least three supercell thunderstorms crossed the western Carolinas and northeast Georgia during this time. A greater number of supercells and tornadoes affected areas to the west of the Appalachians. Scattered areas of straight line wind damage and large hail also accompanied the storms.
QUEBEC	5/11/2011	0.88	Nickel size hail was reported about 3 miles east of Lake Toxaway.
NORTH BREVARD	5/11/2011	0.88	Scattered thunderstorms developed over the North Carolina mountains during the afternoon hours. Some of the storms produced hail as they drifted to the south.
SEESHORE	5/11/2011	1	Scattered thunderstorms developed over the North Carolina mountains during the afternoon hours. Some of the storms produced hail as they drifted to the south.
ECUSTA	5/12/2011	1.75	Golf ball size hail was reported at the Davidson River campground.
POWELLTOWN	5/12/2011	1	Scattered airmass thunderstorms developed over the North Carolina mountains during the afternoon hours. A few of the storms produced large hail.
SEGA LAKE	6/2/2011	0.75	Scattered thunderstorms developed across the North Carolina Mountains starting in the early afternoon hours. The storms moved across the southern foothills and piedmont, tracking a little to the north of a weak cold front. Several of the storms produced large hail.
ECUSTA	6/2/2011	0.75	Penny size hail fell near the intersection of highway 64 and highway 280.
NORTH BREVARD	6/9/2011	1	Numerous thunderstorms again developed over western North Carolina as an unseasonably hot airmass persisted across the region. The storms produced both large hail and damaging winds.
BALSAM GROVE	6/21/2011	0.75	Numerous pulse-type thunderstorms developed over the North Carolina mountains during the early afternoon hours. The storms spread eastward as the afternoon progressed. Some of the storms produced large hail and damaging wind. A more organized area of thunderstorms moved across the Charlotte metro area during the late evening hours.
JOHN ROCK	6/21/2011	0.75	Numerous pulse-type thunderstorms developed over the North Carolina mountains during the early afternoon hours. The storms spread eastward as the afternoon progressed. Some of the storms produced large hail and damaging wind. A more organized area of thunderstorms moved across the Charlotte metro area during the late evening hours.
NORTH BREVARD	3/15/2012	1	Hail up to quarter size hail fell in Brevard. On the east side of town, the hail was several inches deep in places and covered roads.
POWELLTOWN	3/24/2012	1	Hail up to the size of quarters covered the ground.

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Location	Date	Size	Description
SAPPHIRE	4/26/2012	0.88	Thunderstorms developed during the afternoon along an outflow boundary from an MCS that crossed the region earlier in the day. The afternoon and evening storms produced large hail and some straight-line wind damage.
OAKLAND	5/1/2012	0.88	Nickel size hail at Gorges State Park.
JOHN ROCK	5/2/2012	0.88	Up to nickel size hail was reported at the Pisgah Inn on the Blue Ridge Parkway.
ROSMAN	7/9/2012	0.88	Scattered thunderstorms developed along a southward moving cold front during the afternoon hours. A few of the thunderstorms caused wind damage and dropped large hail.
OAKLAND	8/8/2012	0.75	Penny size hail was reported in Gorges State Park.
LAKE TOXAWAY	4/11/2013	1	Hail up to the size of quarters fell in the Lake Toxaway area.
BALSAM GROVE	5/20/2013	1	Up to quarter size hail was reported in the Balsam Grove area.
BALSAM GROVE	5/20/2013	0.75	Penny size hail was reported on Pari Drive.
LAKE TOXAWAY	5/20/2013	1	Quarter size hail was reported at Gorges State Park.
SEGA LAKE	6/19/2014	0.75	Spotter reported pea size to 3/4 inch hail.
PENROSE	8/20/2014	0.75	Spotter reported penny size hail between Little River and Penrose.
REID	9/20/2017	0.75	Spotter reported 3/4 inch hail in the Lake Toxaway area.
OAKLAND	9/20/2017	1	Public reported up to quarter size hail in the Burlingame community.
BREVARD	4/9/2019	1.25	Public reported (via Social Media) larger than quarter size hail in Brevard.

TABLE G.6: HEAVY RAIN EVENTS (2000-2019)

Location	Date	Description
Henderson County		
COUNTYWIDE	11/25/1999	A strong storm system moving through the southeastern U.S. caused locally heavy rain (up to 7 inches in a small part of the mountains) and gusty winds. The result was standing water on highways and roads, some minor flooding of small streams, and several downed trees. There were numerous traffic accidents during this part of the holiday weekend as a result of the rain. The Davidson and French Broad Rivers flooded slightly in Transylvania county, causing some brief road closures.
HENDERSONVILLE	6/15/2003	Heavy rain resulted in over 40 gallons of wastewater flowing into Sandy Creek.
COUNTYWIDE	9/22/2003	A large storm system produced very heavy rainfall across the southern mountains of North Carolina during the early evening, which resulted in some urban and small stream flooding across the area. More significant flooding developed in Transylvania County after 7 pm.
BAT CAVE	8/22/2012	Highway 64/74 was briefly closed with a small mud slide covering one lane to a depth of 6 to 10 inches.
Polk County		
COLUMBUS	6/28/2005	A mudslide was reported on Holbert Cove Rd and a culvert was washed out on Skyuka Mountain Rd.
SALUDA	6/26/2006	Very heavy rainfall of 6 to 8 inches caused mainly nuisance flooding across the southern part of the county. Some roads received minor flooding due to poor drainage, but no known stream flooding occurred. In addition, several small landslides developed across the county, with the most significant affecting a portion of highway 176 near Saluda.
COLUMBUS	1/25/2010	Poor drainage resulted in water entering a building in downtown Columbus after 3 to 4 inches of rain fell in about an 18-hour period.
VALHALLA	5/28/2018	EM reported two broadcast journalists were killed when a tree fell on their vehicle as they were driving on Highway 176. The tree fell due to saturated ground from the more than one foot of rain that fell over western Polk County during the latter half of May.
Rutherford County		
SUNSHINE	7/4/2002	A portion of Missionary Plantation Rd was washed out.
LAKE LURE	8/22/2003	Heavy rain caused a mudslide to develop.
LAKE LURE	6/14/2004	A prolonged period of heavy rain combined with gusty winds to cause several trees to fall.
LAKE LURE	8/26/2008	Heavy rain caused a mudslide to develop on a hillside that had been cleared for construction. Water and debris entered a business at the bottom of the hill, causing some damage.
RUTH	11/11/2009	Water entered the basement of a home on North Main St, apparently due to flooding caused by poor drainage after 3 to 5 inches of rain fell over an extended period.
Transylvania County		
COUNTYWIDE	11/25/1999	A strong storm system moving through the southeastern U.S. caused locally heavy rain (up to 7 inches in a small part of the mountains) and gusty winds. The result was standing water on highways and roads, some minor flooding of small streams, and several downed trees. There were numerous traffic accidents during this part of the holiday weekend as a result of the rain. The Davidson and French Broad Rivers flooded slightly in Transylvania county, causing some brief road closures.
COUNTYWIDE	9/22/2003	A large storm system produced very heavy rainfall across the southern mountains of North Carolina during the early evening, which resulted in some urban and small stream flooding across the area. More significant flooding developed in Transylvania County after 7 pm.
EAST FORK	11/28/2011	East Fork River Rd was partially flooded near the East Fork Baptist Church.

TABLE G.7: HEAVY SNOW EVENTS (2000-2019)

Date	Description
Henderson County	
12/18/1996	Heavy snow accumulated 3 to 5 inches with 6 inches at high elevations in the mountains.
1/10/1997	Heavy snow fell in the mountains resulting in accumulations of 3 to 6 inches. Over 200 car wrecks were reported in western North Carolina during the snow. Icy roads the next morning contributed to many accidents with one indirect fatality near Statesville, well away from the high accumulations of precipitation.
12/29/1997	Snow began during the day of the 29th and lasted well into the 30th as a strong storm system moved northeast through the Carolinas. Snowfall ranged from 2-6 inches in the lower elevations, to generally 4-12 inches in the higher elevations. Some of the highest peaks ended up with between 15 and 23 inches.
12/30/1997	Widespread, wind-blown heavy snow developed as a strong storm system intensified in the northeastern U.S. and directed cold, moist air in a strong northwest flow, into the mountains. By the evening of the 31st, 4-6 inches of new snow accumulated basically along and south of Interstate 40, with over 12 inches common north of there. Very windy conditions accompanied the heavy snow, creating near blizzard conditions at times, especially at elevations above 3000 feet. Snow depths in the highest elevations due to the snow of the past three days were near 3 feet.
1/27/1998	A deep cut-off low drifted across western North Carolina, drawing abundant moisture into air just cold enough to support snow. A heavy wet snow began in the pre-dawn hours on the 28th and moved north across the mountains. Snow accumulated quickly during the day, before tapering to a light snow in the evening. Light snow continued into the following morning, especially north of Asheville. Snowfall totals ranged from 4 to 8 inches at lower elevations to between 1 and 3 feet at high elevations. To make matters worse, strong winds combined with the snow to create near blizzard conditions at times in the higher elevations. Tens of thousands of people were without power for up to 3 days as numerous trees and power lines were downed. Thousands of motorists were stranded on roads and highways. Interstate 40 through the mountains was closed for several hours and the National Guard had to be called in to rescue people stranded on the highway.
1/31/1999	Portions of the central and southern mountains received a more prolonged period of moderate to heavy wet snow, mixed at times with sleet and freezing rain, which accumulated to between 4 and 6 inches by early evening. Light snow continued in some places until midnight.
1/22/2000	A cold dome of arctic high pressure centered over the Mid-Atlantic States provided very cold and dry air to western North Carolina. Meanwhile, weak low pressure moved east along a frontal boundary stalled across the Gulf Coast States to the Georgia coast. Abundant moisture flowed north into the sub-freezing air over western North Carolina, resulting in light snow as early as the afternoon on the 22nd. Snow became heavy by mid-afternoon across the mountains and by evening across the foothills and piedmont. A general 4 to 7-inch snowfall occurred in the mountains with as much as 10 inches reported in Jackson county. Generally, 4 to 6 inches of snow fell across the foothills and piedmont, with a local maximum of 7 inches in western Lincoln county. Rowan county failed to meet heavy snow criteria with accumulations of up to 3 inches. Freezing rain and sleet mixed with the snow for a short time before the precipitation ended, and for the most part, caused little additional problems. The one exception was across southern Union county where freezing rain lasted all night and through much of the morning on the 23rd. Ice accumulations reached damaging levels there around 3 am, causing a large number of trees and power lines to fall throughout the morning. This in turn, resulted in widespread power outages.
4/8/2000	A cold and moist northwest flow behind a cold front produced light snow across the mountains. Accumulations were generally a dusting to one inch, but the highest mountains north of Asheville received 2 to 3 inches.
11/19/2000	Light to moderate snow started in the mountains and spread southeast, lasting through the day. Generally, 1 to 3 inches of snow fell, but some higher elevations of the central and southern mountains reported more than 4 inches.
12/3/2000	A developing surface cyclone off the Carolina Coast spread abundant moisture into western North Carolina, which was still mired in a cold, winter-like temperature regime. The result was another

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Date	Description
	widespread snowfall. Accumulations ranged from a dusting in the northern foothills to more than 6 inches in western Macon County and 5 inches in Henderson County. Most accumulations were in the 1 to 3-inch range.
12/17/2000	A dynamic system affected western North Carolina during the 16th and 17th, bringing a variety of weather to the region, from freezing rain in mountain valleys to large hail and damaging winds across much of the region
12/19/2000	The latest in a sprightly succession of Arctic cold fronts crossed the region on the 18th and 19th. Abundant low-level moisture and an upper level disturbance riding over the new surge of cold air provided the ingredients for the latest round of snow. The heaviest snow accumulations, in general, were north and west of Asheville, especially near the Tennessee border. The northern half of Mitchell County recorded 5 to 6 inches of new snow...as did the higher-terrain Highlands/Cashiers area of southern Jackson and Transylvania counties in the southern mountains. Buncombe, Transylvania and Macon counties each reported numerous 4 inch accumulations, with most other mountain locations reporting between 1 and 3 inches. Foothill locations, especially those closest to the mountains, racked up some impressive totals as well, with Marion and Morganton each reporting 2 to 3 inches. Farther east, in the northwest piedmont, accumulations were limited to less than 2 inches. More than 200 traffic accidents were reported from the region due to the wintry weather.
1/1/2001	Light snow fell on and off through the afternoon, increased in intensity about 3 pm in the west, and during the early evening in the eastern mountain counties. Though accumulations were light, hundreds of auto accidents resulted. Most accidents in Henderson County were between 3 pm and 6 pm.
3/20/2001	Low pressure developed off the South Carolina coast and steadily strengthened as it moved northward across the coastal waters of North Carolina, the Virginia tidewater and eventually out to sea. Rapid strengthening occurred as a strong upper level disturbance rotated around an upper low that was crossing the southeast states. As the cyclone strengthened, abundant moisture was wrapped around the storm and thrown back against the higher terrain of the Carolinas, resulting in high winds and very heavy snow. The heaviest snow accumulations were in far western North Carolina.
1/3/2002	Snow continued during the early morning hours on the 3rd and finally added up to heavy snowfall accumulations across this portion of the North Carolina mountains. Snowfall amounts ranged from 3 to 6 inches across the area by noon.
2/3/2002	Light snow fell from late afternoon into late evening, resulting in 1 to 2.5 inches accumulations in some areas, and a few slick roads.
12/4/2002	Snow began falling around sunrise across the mountains of North Carolina, and had accumulated to 3 to 6 inches by evening.
1/16/2003	Light snow began across the mountains of North Carolina during the afternoon of the 16th, and gradually intensified with time. By early morning of the 17th, 4 to 8 inches of snow had accumulated. As much as a foot was reported on some of the highest peaks.
2/6/2003	Light snow began falling across the western mountains of North Carolina during the afternoon of the 6th, and gradually increased in intensity and coverage during the evening and overnight hours. General snowfall amounts of 4 to 5 inches were reported in the major valleys. However, accumulations of up to 8 inches occurred in the highest elevations along the Tennessee border.
4/10/2003	Light snow began across the North Carolina mountains during the early morning hours of the 10th, but due to a warm ground, accumulations were confined to the highest elevations through 8 AM. However, the snow intensified dramatically during the middle and late part of the morning, and by early afternoon, 2-4 inches had accumulated in valley locations near the Blue Ridge. In the higher elevations, 4 to 6 inch totals were common, while 8 to 12 inches accumulated on some of the highest peaks along the Tennessee border. The heavy, wet snow caused numerous trees and power lines to fall, and power outages were widespread.
1/25/2004	Light snow developed early in the morning across the mountains, foothills, and northern piedmont of North Carolina. The snow intensified throughout the morning and afternoon, and by early evening 3 to 5 inches had accumulated across much of the area. Accumulations as high as 8 inches occurred in mountainous areas along the Tennessee border.

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Date	Description
2/26/2004	Snow intensity increased during the late morning across the North Carolina mountains, and continued through the afternoon. Total accumulations of 3 to 5 inches occurred, but much of it melted rapidly.
2/28/2005	The wet snow became heavier across the mountains and northern foothills during the early morning hours on the 28th. Most locations below 3000 feet changed back to rain before the precipitation ended. A quick 3 to 7 inches of snow accumulated across much of this area. Isolated heavier totals up to 13 inches occurred along the Blue Ridge, north of I-40, while the lower elevations of the foothills generally received only 1 to 3 inches.
2/1/2007	Light to moderate snow developed across the North Carolina mountains during the pre-dawn hours. The snow became heavy at times toward sunrise. By mid-morning, as much as 3 inches of snow had accumulated across the area. Snow, heavy at times continued across the portions of the southern and central mountains through the morning hours, with most locations reporting heavy snowfall totals by mid-morning. Total accumulations ranged from 2 to 4 inches across the area.
1/16/2008	Light snow began during the early evening hours across the southern mountains and foothills of the western Carolinas. Snowfall intensity began to increase during the mid and late evening. Snow continued to fall during the early morning hours across the southern mountains and foothills, and total accumulations of 2-4 inches were reached across much of the area shortly after midnight.
1/29/2010	Low pressure tracked across southern Georgia during the night of the 29th, and then off the Southeast coast on the 30th. As the low passed so far south of the region, most of the precipitation fell as snow, though other precipitation types mixed in toward the end. Snow, heavy at times began across the southern and central mountains during the late afternoon, and began to quickly accumulate. By early evening, some areas had picked up 4 inches of snowfall. Heavy snow continued most of the night. The precipitation changed over to sleet and freezing rain before ending, but only trace amounts of ice occurred. Total accumulations ranged from 4-8 inches across the Tennessee border counties, to more than a foot in the upper French Broad Valley. The heavy wet snow caused numerous trees to fall, especially in the interior and southwest valleys, resulting in fairly widespread power outages.
2/12/2010	As low pressure tracked along the northern Gulf Coast, light snow developed during the late afternoon across the southern North Carolina mountains. The snow gradually increased in intensity through the remainder of the afternoon and into the early evening. Numerous traffic accidents occurred during the evening rush. Snow, heavy at times, continued through the evening, with heavy accumulations reached in most areas. The snow ended a little before midnight. Total accumulations averaged around 3 inches.
3/2/2010	Snow began to fall during the pre-dawn across the mountains of the western Carolinas. After sunrise, snow became moderate to heavy at times, resulting in accumulations of 1 to 4 inches across most of the area by late morning. Snow, heavy at times, continued into the afternoon across the mountains, with heavy accumulations realized in most areas by early afternoon. By early evening, total snowfall ranged from 4 to 8 inches across the area, with localized amounts as high as 10 inches, especially in the higher elevations.
12/25/2010	A developing coastal storm system brought light to moderate snow, with occasional heavy bursts to the mountains beginning around sunrise on Christmas, and continuing through the morning. Snow, heavy at times, continued through the afternoon across the central and southern mountains. By Christmas evening, most locations had 6 to 10 inches of fresh snowpack. Although snow ended in most areas during the evening of the 25th, a strong northwest flow resulted in development of numerous snow showers along the Tennessee border on the 26th through the 27th. Many of these snow showers managed to add to snowfall totals, mainly in the higher elevations of the Nantahala Mountains and the Balsams, where total accumulations of more than a foot became common. Very gusty winds and cold temperatures resulted in wind chill values less than 0 and considerable blowing and drifting of snow, mainly in the high elevations.
1/10/2011	Moderate to heavy snow associated with a Gulf Coast storm system spread from south to north across the mountains of western North Carolina during the nighttime hours. Heavy snow accumulations of up to 4 inches were reported over the southern mountains by as early as 4 am. Heavy snow accumulations were not reported over the northern mountains until mid-morning. The snow became lighter around sunrise, but continued to accumulate through the morning. By early afternoon, snowfall totals ranged from 7 to 10 inches over the southern and central mountains and 3 to 6 inches over the northern mountains. During early afternoon, precipitation changed to light freezing rain and continued into the evening hours. This

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Date	Description
	added as much as a tenth of an inch of ice to the heavy snowfall totals. Persistent cold temperatures ensured that many roads remained snow-packed or ice covered for several days. Some schools and businesses remained closed for as much as 5 days.
1/22/2016	An area of low pressure spread light snow into the mountains and foothills of North Carolina by around midnight on the 22nd. The snow continued through the early morning hours, gradually increasing in intensity. By mid-morning, amounts ranged from 2-4 inches across the foothills to 3-5 inches across the mountains, with locally higher amounts, especially in the high elevations near the Blue Ridge. Road conditions deteriorated quickly around sunrise, resulting in many traffic accidents. Moderate to heavy snow continued into the afternoon, gradually tapering off during the evening. The snow briefly changed to sleet before ending across the foothills. By the time the snow tapered off, accumulations ranged from 4-8 inches across the low elevations of the foothills, to 8-14 inches across the mountains. Locally higher amounts occurred, especially on the high peaks near the Blue Ridge, where several feet were reported.
1/6/2017	As an area of surface low pressure moved northeast along the Gulf and Southeast coasts, moisture overspread the southern Appalachians throughout the 6th. Although the precip may have started as rain in the lower valleys, it primarily fell as snow. It was initially light in most areas, but became heavy during mid-to-late evening, continuing into the overnight. By the time the heavier snowfall rates tapered off around sunrise, total accumulations ranged from 5 to 7 inches. Locally higher amounts of as much as 10 were observed across the higher elevations of the foothills counties.
12/8/2018	A mixture of rain and snow developed across the North Carolina mountains during the afternoon of the 8th, transitioning to all snow in most areas by early evening. The snow became heavy at times during the evening into the overnight. By the time the snow tapered off during the morning of the 9th, widespread storm total accumulations of 10-15 inches were reported. Locally higher amounts also occurred, with some locations near the South Carolina border seeing around 20 inches. Meanwhile, warm air filtering into the lower elevations of the Tuckasegee River Valley resulted in a transition to rain during the morning of the 9th, and total accumulations there were only in the 2 to 4 inch range.
Polk County	
1/16/2008	Light snow began during the early evening hours across the southern mountains and foothills of the western Carolinas. Snowfall intensity began to increase during the mid and late evening. Snow continued to fall during the early morning hours across the southern mountains and foothills, and total accumulations of 2-4 inches were reached across much of the area shortly after midnight.
3/1/2009	Rain changed to snow across the southwest foothills of North Carolina during the late afternoon. The snow became heavy at times, particularly along the I-85 corridor. By mid-evening, 1-4 inches of accumulation was reported across much of the area. Snow, heavy at times, and accompanied by occasional lightning, continued into the evening hours. By the time the snow tapered off, accumulations of 3-6 inches were common across the area. However, localized amounts of up to 8 inches were reported along the I-85 corridor. The heavy wet snow, combined with gusty winds, caused quite a few trees and power lines to fall, resulting in numerous power outages. Some customers were without power for several days. One tree fell on and damaged a home in Gaffney. In addition, there were numerous traffic accidents.
1/29/2010	Low pressure tracked across southern Georgia during the night of the 29th, and then off the southeast coast on the 30th. As the low passed well south of the region, most of the precipitation fell as snow, though other precipitation types mixed in toward the end. Snow became heavy during the evening, and quickly accumulated to yield heavy snowfall totals. Total accumulations ranged from 5-9 inches across much of the northern mountains, foothills and western piedmont of North Carolina, as well as in a small part of the South Carolina mountains. A 55-year-old man died of exposure after falling in the snow in Gastonia (indirect). The precipitation changed to freezing rain and sleet near the end of the event, resulting in light accumulations of ice.
2/12/2010	As low pressure tracked along the northern Gulf Coast, light snow developed during the late afternoon across the southern North Carolina mountains. The snow gradually increased in intensity through the remainder of the afternoon and into the early evening. Numerous traffic accidents occurred during the evening rush. Snow, heavy at times, continued through the evening, with heavy accumulations reached in most areas. The snow ended a little before midnight. Total accumulations averaged around 3 inches.

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Date	Description
12/25/2010	A developing coastal storm system brought light to moderate snow to the foothills and northwest piedmont of North Carolina starting late on Christmas morning. By mid-afternoon, most locations enjoyed a rare white Christmas, with 1 to 4 inches of snow reported. Snow, heavy at times, continued until around midnight. Snow was mixed with rain at times over the southern foothills and northwest piedmont. By the time snow tapered off to flurries and light snow showers early on the 26th, snowfall totals ranged from 5 to 9 inches across the northern foothills, with 4 to 7 inches over the southern foothills and northwest piedmont.
1/10/2011	Moderate to heavy snow associated with a Gulf Coast storm system spread northward across the foothills and western piedmont of North Carolina during the early morning hours. The heavy snow accumulated quickly, and by sunrise parts of the southwest foothills and piedmont had received 4 inches of snow. The snow was lighter across the northern most foothills and piedmont, where only an inch or two of snow had fallen by mid-morning. The snow became lighter during the day, but continued to accumulate. By early afternoon, snowfall totals ranged from around 7 inches over the southern foothill and southwest piedmont locations, to around 3 inches over the northern most parts of the foothills and piedmont. During the afternoon, precipitation changed to light to moderate freezing rain, which continued into the evening hours. This added as much as a tenth to a quarter inch of ice to the heavy snowfall totals, resulting in sporadic power outages, particularly in the Charlotte metro area. Persistent cold air resulted in only gradual improvement in road conditions, with some businesses and schools remaining closed for several days.
1/22/2016	An area of low pressure spread light snow into the mountains and foothills of North Carolina by around midnight on the 22nd. The snow continued through the early morning hours, gradually increasing in intensity. By mid-morning, amounts ranged from 2-4 inches across the foothills to 3-5 inches across the mountains, with locally higher amounts, especially in the high elevations near the Blue Ridge. Road conditions deteriorated quickly around sunrise, resulting in many traffic accidents. Moderate to heavy snow continued into the afternoon, gradually tapering off during the evening. The snow briefly changed to sleet before ending across the foothills. By the time the snow tapered off, accumulations ranged from 4-8 inches across the low elevations of the foothills, to 8-14 inches across the mountains. Locally higher amounts occurred, especially on the high peaks near the Blue Ridge, where several feet were reported.
1/6/2017	As an area of surface low pressure moved northeast along the Gulf and Southeast coasts, moisture overspread western North Carolina throughout the 6th. While precipitation initially fell as rain and sleet across the foothills and Piedmont, it changed to snow fairly quickly. The snow was light at first, and even ended briefly before beginning again late in the evening. Snow, heavy at times continued across the area through the overnight. By the time the heavier snowfall rates tapered off shortly after sunrise, total accumulations ranged from 3 to 5 inches in the valleys of the far southwest mountains, to 6 to 8 inches across the remainder of the area. Locally higher amounts of 9 inches or more were reported, mainly in the high elevations, and in the far northern foothills and Piedmont.
1/17/2018	As a strengthening upper level disturbance and associated cold front approached the region from the Tennessee Valley, light precipitation developed across portions of the Piedmont and foothills of North Carolina during the early morning hours. While the precipitation started as rain or a rain/snow mix in most areas, a transition to snow had occurred in most locations by sunrise. As the snow band moved east throughout the morning, snowfall rates increased, with heavy snowfall accumulations reported by early afternoon. By the time the snow tapered off to flurries, total accumulation ranged from 3 to 6 inches across much of the area.
12/8/2018	A mixture of rain and snow developed across the mountains and southern foothills of North Carolina during the afternoon and evening of the 8th, transitioning to all snow in most areas by early evening. The snow became heavy at times during the evening into the overnight. By the time the snow tapered off during the morning of the 9th, total accumulations ranged from 6 to 10 inches across much of the area. Locally higher occurred closer to the higher elevations.
Rutherford County	
2/1/2007	Light to moderate snow developed across the North Carolina mountains during the pre-dawn hours. The snow became heavy at times toward sunrise. By mid-morning, as much as 3 inches of snow had

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Date	Description
	accumulated across the area. Snow, heavy at times continued across the portions of the southern and central mountains through the morning hours, with most locations reporting heavy snowfall totals by mid-morning. Total accumulations ranged from 2 to 4 inches across the area.
1/16/2008	Light snow began during the early evening hours across the southern mountains and foothills of the western Carolinas. Snowfall intensity began to increase during the mid and late evening. Snow continued to fall during the early morning hours across the southern mountains and foothills, and total accumulations of 2-4 inches were reached across much of the area shortly after midnight.
1/29/2010	Low pressure tracked across southern Georgia during the night of the 29th, and then off the Southeast coast on the 30th. As the low passed so far south of the region, most of the precipitation fell as snow, though other precipitation types mixed in toward the end. Snow, heavy at times began across the southern and central mountains during the late afternoon, and began to quickly accumulate. By early evening, some areas had picked up 4 inches of snowfall. Heavy snow continued most of the night. The precipitation changed over to sleet and freezing rain before ending, but only trace amounts of ice occurred. Total accumulations ranged from 4-8 inches across the Tennessee border counties, to more than a foot in the upper French Broad Valley. The heavy wet snow caused numerous trees to fall, especially in the interior and southwest valleys, resulting in fairly widespread power outages.
2/12/2010	As low pressure tracked along the northern Gulf Coast, light snow developed during the late afternoon across the southern North Carolina mountains. The snow gradually increased in intensity through the remainder of the afternoon and into the early evening. Numerous traffic accidents occurred during the evening rush. Snow, heavy at times, continued through the evening, with heavy accumulations reached in most areas. The snow ended a little before midnight. Total accumulations averaged around 3 inches.
3/2/2010	Snow began to fall around sunrise across the North Carolina mountains along the Blue Ridge escarpment. Snow became moderate to heavy at times during the late morning and early afternoon, resulting in accumulations of 1 to 4 inches across most of the area. Snow, heavy at times, continued into the afternoon across the Blue Ridge, with heavy accumulations realized in most areas by mid-afternoon. By early evening, total snowfall ranged from 3 to 6 inches. Localized snowfall amounts as high as 10 inches occurred, especially in the higher elevations along the escarpment.
12/25/2010	A developing coastal storm system brought light to moderate snow, with occasional heavy bursts to the mountains beginning around sunrise on Christmas, and continuing through the morning. Snow, heavy at times, continued through the afternoon across the central and southern mountains. By Christmas evening, most locations had 6 to 10 inches of fresh snowpack. Although snow ended in most areas during the evening of the 25th, a strong northwest flow resulted in development of numerous snow showers along the Tennessee border on the 26th through the 27th. Many of these snow showers managed to add to snowfall totals, mainly in the higher elevations of the Nantahala Mountains and the Balsams, where total accumulations of more than a foot became common. Very gusty winds and cold temperatures resulted in wind chill values less than 0 and considerable blowing and drifting of snow, mainly in the high elevations.
1/10/2011	Moderate to heavy snow associated with a Gulf Coast storm system spread from south to north across the mountains of western North Carolina during the nighttime hours. Heavy snow accumulations of up to 4 inches were reported over the southern mountains by as early as 4 am. Heavy snow accumulations were not reported over the northern mountains until mid-morning. The snow became lighter around sunrise, but continued to accumulate through the morning. By early afternoon, snowfall totals ranged from 7 to 10 inches over the southern and central mountains and 3 to 6 inches over the northern mountains. During early afternoon, precipitation changed to light freezing rain and continued into the evening hours. This added as much as a tenth of an inch of ice to the heavy snowfall totals. Persistent cold temperatures ensured that many roads remained snow-packed or ice covered for several days. Some schools and businesses remained closed for as much as 5 days.
3/6/2014	An intensifying cyclone off the Southeast coast and cold air damming combined to produce heavy snow and occasional sleet along and near the eastern Blue Ridge escarpment. Rain mixed with sleet developed across the Blue Ridge mountains and North Carolina foothills during the evening, then changed to mainly sleet in most areas. Up to a quarter inch of sleet accumulated during the late evening and early morning hours. Precipitation then changed mostly to rain in most areas, before transitioning to snow during the

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Date	Description
	pre-dawn hours of the 7th. As heavy snow continued to fall across the foothills and Blue Ridge mountains in North Carolina throughout the morning, heavy accumulations of snow became common. The region of heavy snowfall accumulation was confined to a very narrow corridor along the Blue Ridge south of I-40, but became more widespread across the northern mountains and foothills. Total snowfall accumulation generally ranged from 4-6 inches in these areas, with locally higher amounts reported in some high elevation locations near the Blue Ridge. This was in addition to the quarter inch or so of sleet that fell earlier in the morning. Meanwhile, accumulations were quite a bit lower in the areas of the northern mountains adjacent to the Tennessee border. The snow changed back to rain in most areas before ending late in the morning.
1/22/2016	An area of low pressure spread light snow into the mountains and foothills of North Carolina by around midnight on the 22nd. The snow continued through the early morning hours, gradually increasing in intensity. By mid-morning, amounts ranged from 2-4 inches across the foothills to 3-5 inches across the mountains, with locally higher amounts, especially in the high elevations near the Blue Ridge. Road conditions deteriorated quickly around sunrise, resulting in many traffic accidents. Moderate to heavy snow continued into the afternoon, gradually tapering off during the evening. The snow briefly changed to sleet before ending across the foothills. By the time the snow tapered off, accumulations ranged from 4-8 inches across the low elevations of the foothills, to 8-14 inches across the mountains. Locally higher amounts occurred, especially on the high peaks near the Blue Ridge, where several feet were reported.
1/6/2017	As an area of surface low pressure moved northeast along the Gulf and Southeast coasts, moisture overspread the southern Appalachians throughout the 6th. Although the precip may have started as rain in the lower valleys, it primarily fell as snow. It was initially light in most areas, but became heavy during mid-to-late evening, continuing into the overnight. By the time the heavier snowfall rates tapered off around sunrise, total accumulations ranged from 5 to 7 inches. Locally higher amounts of as much as 10 were observed across the higher elevations of the foothills counties.
12/8/2018	A mixture of rain and snow developed across the North Carolina mountains during the afternoon of the 8th, transitioning to all snow in most areas by early evening. The snow became heavy at times during the evening into the overnight. By the time the snow tapered off during the morning of the 9th, widespread storm total accumulations of 10-15 inches were reported. Locally higher amounts also occurred, with some locations near the South Carolina border seeing around 20 inches. Meanwhile, warm air filtering into the lower elevations of the Tuckasegee River Valley resulted in a transition to rain during the morning of the 9th, and total accumulations there were only in the 2 to 4 inch range.
Transylvania County	
1/16/2008	Light snow began during the early evening hours across the southern mountains and foothills of the western Carolinas and northeast Georgia. Snowfall intensity began to increase during the mid and late evening. Snow continued to fall across the central and northern mountains, and much of the foothills of North Carolina, during the early morning hours. Total accumulations of 2-5 inches were reached across the area during the pre-dawn hours. Some amounts as high as 8 inches were reported in the higher elevations. Snow changed briefly to sleet and freezing rain before ending across the foothills.
3/1/2009	Rain changed to snow across the southwest foothills of North Carolina during the late afternoon. The snow became heavy at times, particularly along the I-85 corridor. By mid-evening, 1-4 inches of accumulation was reported across much of the area. Snow, heavy at times, and accompanied by occasional lightning, continued into the evening hours. By the time the snow tapered off, accumulations of 3-6 inches were common across the area. However, localized amounts of up to 8 inches were reported along the I-85 corridor. The heavy wet snow, combined with gusty winds, caused quite a few trees and power lines to fall, resulting in numerous power outages. Some customers were without power for several days. One tree fell on and damaged a home in Gaffney. In addition, there were numerous traffic accidents.
1/29/2010	Low pressure tracked across southern Georgia during the night of the 29th, and then off the southeast coast on the 30th. As the low passed well south of the region, most of the precipitation fell as snow, though other precipitation types mixed in toward the end. Snow became heavy during the evening, and quickly accumulated to yield heavy snowfall totals. Total accumulations ranged from 5-9 inches across much of the northern mountains, foothills and western piedmont of North Carolina, as well as in a small part of the

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Date	Description
	South Carolina mountains. A 55-year-old man died of exposure after falling in the snow in Gastonia (indirect). The precipitation changed to freezing rain and sleet near the end of the event, resulting in light accumulations of ice.
12/25/2010	A developing coastal storm system brought light to moderate snow to the foothills and northwest piedmont of North Carolina starting late on Christmas morning. By mid-afternoon, most locations enjoyed a rare white Christmas, with 1 to 4 inches of snow reported. Snow, heavy at times, continued until around midnight. Snow was mixed with rain at times over the southern foothills and northwest piedmont. By the time snow tapered off to flurries and light snow showers early on the 26th, snowfall totals ranged from 5 to 9 inches across the northern foothills, with 4 to 7 inches over the southern foothills and northwest piedmont.
1/10/2011	Moderate to heavy snow associated with a Gulf Coast storm system spread northward across the foothills and western piedmont of North Carolina during the early morning hours. The heavy snow accumulated quickly, and by sunrise parts of the southwest foothills and piedmont had received 4 inches of snow. The snow was lighter across the northern most foothills and piedmont, where only an inch or two of snow had fallen by mid-morning. The snow became lighter during the day, but continued to accumulate. By early afternoon, snowfall totals ranged from around 7 inches over the southern foothill and southwest piedmont locations, to around 3 inches over the northern most parts of the foothills and piedmont. During the afternoon, precipitation changed to light to moderate freezing rain, which continued into the evening hours. This added as much as a tenth to a quarter inch of ice to the heavy snowfall totals, resulting in sporadic power outages, particularly in the Charlotte metro area. Persistent cold air resulted in only gradual improvement in road conditions, with some businesses and schools remaining closed for several days.
1/22/2016	An area of low pressure spread light snow into the mountains and foothills of North Carolina by around midnight on the 22nd. The snow continued through the early morning hours, gradually increasing in intensity. By mid-morning, amounts ranged from 2-4 inches across the foothills to 3-5 inches across the mountains, with locally higher amounts, especially in the high elevations near the Blue Ridge. Road conditions deteriorated quickly around sunrise, resulting in many traffic accidents. Moderate to heavy snow continued into the afternoon, gradually tapering off during the evening. The snow briefly changed to sleet before ending across the foothills. By the time the snow tapered off, accumulations ranged from 4-8 inches across the low elevations of the foothills, to 8-14 inches across the mountains. Locally higher amounts occurred, especially on the high peaks near the Blue Ridge, where several feet were reported.
1/6/2017	As an area of surface low pressure moved northeast along the Gulf and Southeast coasts, moisture overspread western North Carolina throughout the 6th. While precipitation initially fell as rain and sleet across the foothills and Piedmont, it changed to snow fairly quickly. The snow was light at first, and even ended briefly before beginning again late in the evening. Snow, heavy at times continued across the area through the overnight. By the time the heavier snowfall rates tapered off shortly after sunrise, total accumulations ranged from 3 to 5 inches in the valleys of the far southwest mountains, to 6 to 8 inches across the remainder of the area. Locally higher amounts of 9 inches or more were reported, mainly in the high elevations, and in the far northern foothills and Piedmont.
1/17/2018	As a strengthening upper level disturbance and associated cold front approached the region from the Tennessee Valley, light precipitation developed across portions of the Piedmont and foothills of North Carolina during the early morning hours. While the precipitation started as rain or a rain/snow mix in most areas, a transition to snow had occurred in most locations by sunrise. As the snow band moved east throughout the morning, snowfall rates increased, with heavy snowfall accumulations reported by early afternoon. By the time the snow tapered off to flurries, total accumulation ranged from 3 to 6 inches across much of the area.
12/8/2018	A mixture of rain and snow developed across the mountains and southern foothills of North Carolina during the afternoon and evening of the 8th, transitioning to all snow in most areas by early evening. The snow became heavy at times during the evening into the overnight. By the time the snow tapered off during the morning of the 9th, total accumulations ranged from 6 to 10 inches across much of the area. Locally higher occurred closer to the higher elevations.

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Date	Description
1/16/2008	Light snow began during the early evening hours across the southern mountains and foothills of the western Carolinas and northeast Georgia. Snowfall intensity began to increase during the mid and late evening. Snow continued to fall across the central and northern mountains, and much of the foothills of North Carolina, during the early morning hours. Total accumulations of 2-5 inches were reached across the area during the pre-dawn hours. Some amounts as high as 8 inches were reported in the higher elevations. Snow changed briefly to sleet and freezing rain before ending across the foothills.
1/29/2010	Low pressure tracked across southern Georgia during the night of the 29th, and then off the Southeast coast on the 30th. As the low passed so far south of the region, most of the precipitation fell as snow, though other precipitation types mixed in toward the end. Snow, heavy at times began across the southern and central mountains during the late afternoon, and began to quickly accumulate. By early evening, some areas had picked up 4 inches of snowfall. Heavy snow continued most of the night. The precipitation changed over to sleet and freezing rain before ending, but only trace amounts of ice occurred. Total accumulations ranged from 4-8 inches across the Tennessee border counties, to more than a foot in the upper French Broad Valley. The heavy wet snow caused numerous trees to fall, especially in the interior and southwest valleys, resulting in fairly widespread power outages.
2/12/2010	As low pressure tracked along the northern Gulf Coast, light snow developed during the late afternoon across the southern North Carolina mountains. The snow gradually increased in intensity through the remainder of the afternoon and into the early evening. Numerous traffic accidents occurred during the evening rush. Snow, heavy at times, continued through the evening, with heavy accumulations reached in most areas. The snow ended a little before midnight. Total accumulations averaged around 3 inches.
3/2/2010	Snow began to fall around sunrise across the North Carolina mountains along the Blue Ridge escarpment. Snow became moderate to heavy at times during the late morning and early afternoon, resulting in accumulations of 1 to 4 inches across most of the area. Snow, heavy at times, continued into the afternoon across the Blue Ridge, with heavy accumulations realized in most areas by mid-afternoon. By early evening, total snowfall ranged from 3 to 6 inches. Localized snowfall amounts as high as 10 inches occurred, especially in the higher elevations along the escarpment.
12/25/2010	A developing coastal storm system brought light to moderate snow, with occasional heavy bursts to the mountains beginning around sunrise on Christmas, and continuing through the morning. Snow, heavy at times, continued through the afternoon across the central and southern mountains. By Christmas evening, most locations had 6 to 10 inches of fresh snowpack. Although snow ended in most areas during the evening of the 25th, a strong northwest flow resulted in development of numerous snow showers along the Tennessee border on the 26th through the 27th. Many of these snow showers managed to add to snowfall totals, mainly in the higher elevations of the Nantahala Mountains and the Balsams, where total accumulations of more than a foot became common. Very gusty winds and cold temperatures resulted in wind chill values less than 0 and considerable blowing and drifting of snow, mainly in the high elevations.
1/10/2011	Moderate to heavy snow associated with a Gulf Coast storm system spread from south to north across the mountains of western North Carolina during the nighttime hours. Heavy snow accumulations of up to 4 inches were reported over the southern mountains by as early as 4 am. Heavy snow accumulations were not reported over the northern mountains until mid-morning. The snow became lighter around sunrise, but continued to accumulate through the morning. By early afternoon, snowfall totals ranged from 7 to 10 inches over the southern and central mountains and 3 to 6 inches over the northern mountains. During early afternoon, precipitation changed to light freezing rain and continued into the evening hours. This added as much as a tenth of an inch of ice to the heavy snowfall totals. Persistent cold temperatures ensured that many roads remained snow-packed or ice covered for several days. Some schools and businesses remained closed for as much as 5 days.
3/6/2014	An intensifying cyclone off the Southeast coast and cold air damming combined to produce heavy snow and occasional sleet along and near the eastern Blue Ridge escarpment. Rain mixed with sleet developed across the Blue Ridge mountains and North Carolina foothills during the evening, then changed to mainly sleet in most areas. Up to a quarter inch of sleet accumulated during the late evening and early morning hours. Precipitation then changed mostly to rain in most areas, before transitioning to snow during the pre-dawn hours of the 7th. As heavy snow continued to fall across the foothills and Blue Ridge mountains

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Date	Description
	in North Carolina throughout the morning, heavy accumulations of snow became common. The region of heavy snowfall accumulation was confined to a very narrow corridor along the Blue Ridge south of I-40, but became more widespread across the northern mountains and foothills. Total snowfall accumulation generally ranged from 4-6 inches in these areas, with locally higher amounts reported in some high elevation locations near the Blue Ridge. This was in addition to the quarter inch or so of sleet that fell earlier in the morning. Meanwhile, accumulations were quite a bit lower in the areas of the northern mountains adjacent to the Tennessee border. The snow changed back to rain in most areas before ending late in the morning.
1/22/2016	An area of low pressure spread light snow into the mountains and foothills of North Carolina by around midnight on the 22nd. The snow continued through the early morning hours, gradually increasing in intensity. By mid-morning, amounts ranged from 2-4 inches across the foothills to 3-5 inches across the mountains, with locally higher amounts, especially in the high elevations near the Blue Ridge. Road conditions deteriorated quickly around sunrise, resulting in many traffic accidents. Moderate to heavy snow continued into the afternoon, gradually tapering off during the evening. The snow briefly changed to sleet before ending across the foothills. By the time the snow tapered off, accumulations ranged from 4-8 inches across the low elevations of the foothills, to 8-14 inches across the mountains. Locally higher amounts occurred, especially on the high peaks near the Blue Ridge, where several feet were reported.
1/6/2017	As an area of surface low pressure moved northeast along the Gulf and Southeast coasts, moisture overspread the southern Appalachians throughout the 6th. Although the precip may have started as rain in the lower valleys, it primarily fell as snow. It was initially light in most areas, but became heavy during mid-to-late evening, continuing into the overnight. By the time the heavier snowfall rates tapered off around sunrise, total accumulations ranged from 5 to 7 inches. Locally higher amounts of as much as 10 were observed across the higher elevations of the foothills counties.
12/8/2018	A mixture of rain and snow developed across the mountains and southern foothills of North Carolina during the afternoon and evening of the 8th, transitioning to all snow in most areas by early evening. The snow became heavy at times during the evening into the overnight. By the time the snow tapered off during the morning of the 9th, total accumulations ranged from 6 to 10 inches across much of the area. Locally higher occurred closer to the higher elevations.
12/18/1996	Heavy snow accumulated 3 to 5 inches with 6 inches at high elevations in the mountains.
1/10/1997	Heavy snow fell in the mountains resulting in accumulations of 3 to 6 inches. The highest totals were reported from Graham and Jackson counties. Over 200 car wrecks were reported in western North Carolina during the snow. Icy roads the next morning contributed to many accidents with one indirect fatality near Statesville, well away from the high accumulations of precipitation.
12/29/1997	Snow began during the day of the 29th and lasted well into the 30th as a strong storm system moved northeast through the Carolinas. Snowfall ranged from 2-6 inches in the lower elevations, to generally 4-12 inches in the higher elevations. Some of the highest peaks ended up with between 15 and 23 inches.
12/30/1997	Widespread, wind-blown heavy snow developed as a strong storm system intensified in the northeastern U.S. and directed cold, moist air in a strong northwest flow, into the mountains. By the evening of the 31st, 4-6 inches of new snow accumulated basically along and south of Interstate 40, with over 12 inches common north of there. Very windy conditions accompanied the heavy snow, creating near blizzard conditions at times, especially at elevations above 3000 feet. Snow depths in the highest elevations due to the snow of the past three days were near 3 feet.
1/18/1998	Snow fell across mainly the high elevations of the mountains and northern foothills. The snow began lightly, accumulating at least 1-3 inches across the entire area by the early morning of the 19th. However, several high elevation locations began to receive heavy snow by midnight. Before the snow ended at 6 am on the 19th, some of these locations had between 4 and 7 inches.
1/27/1998	A deep cut-off low drifted across western North Carolina, drawing abundant moisture into air just cold enough to support snow. A heavy wet snow began in the pre-dawn hours on the 28th and moved north across the mountains. Snow accumulated quickly during the day, before tapering to a light snow in the evening. Light snow continued into the following morning, especially north of Asheville. Snowfall totals ranged from 4 to 8 inches at lower elevations to between 1 and 3 feet at high elevations. To make matters

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	worse, strong winds combined with the snow to create near blizzard conditions at times in the higher elevations. Tens of thousands of people were without power for up to 3 days as numerous trees and power lines were downed. Thousands of motorists were stranded on roads and highways. Interstate 40 through the mountains was closed for several hours and the National Guard had to be called in to rescue people stranded on the highway.
3/26/1999	A deep cold core low pressure center in the mid and upper levels of the atmosphere moved slowly across the Southern Appalachians during the day, triggering heavy snow accompanied by thunder at times. Most areas received 2 to 4 inches of heavy wet snow. However, a small area consisting of Swain, northern Jackson, northern Haywood and Madison counties received between 4 and 10 inches of snow. The heavy snow ended for most of the counties around 1 pm. Although Buncombe and Yancey counties continued to experience the heavy snow until around 5 pm.
1/20/2000	A cold front crossed the mountains overnight, and low pressure formed along the front in the foothills by morning. Cold air was already in place across the region, so precipitation fell in the form of snow. By noon on the 20th, 3 to 6 inches of snow had fallen from Madison to Avery counties. Elsewhere across the central mountains, northern foothills and northwest piedmont, 1 to 3 inches of snow fell. There were isolated reports of 4 inches from the highest peaks in Swain and Haywood counties. The combination of snow and wind in the wake of the front caused some trees to fall, especially in Caldwell county. One tree fell across a mobile home and caused \$24K in damage. Several other trees fell across roads.
1/22/2000	A cold dome of arctic high pressure centered over the Mid-Atlantic States provided very cold and dry air to western North Carolina. Meanwhile, weak low pressure moved east along a frontal boundary stalled across the Gulf Coast States to the Georgia coast. Abundant moisture flowed north into the sub-freezing air over western North Carolina, resulting in light snow as early as the afternoon on the 22nd. Snow became heavy by mid-afternoon across the mountains and by evening across the foothills and piedmont. A general 4 to 7 inch snowfall occurred in the mountains with as much as 10 inches reported in Jackson county. Generally 4 to 6 inches of snow fell across the foothills and piedmont, with a local maximum of 7 inches in western Lincoln county. Rowan county failed to meet heavy snow criteria with accumulations of up to 3 inches. Freezing rain and sleet mixed with the snow for a short time before the precipitation ended, and for the most part, caused little additional problems. The one exception was across southern Union county where freezing rain lasted all night and through much of the morning on the 23rd. Ice accumulations reached damaging levels there around 3 am, causing a large number of trees and power lines to fall throughout the morning. This in turn, resulted in widespread power outages.
4/8/2000	A cold and moist northwest flow behind a cold front produced light snow across the mountains. Accumulations were generally a dusting to one inch, but the highest mountains north of Asheville received 2 to 3 inches.
11/19/2000	Light to moderate snow started in the mountains and spread southeast, lasting through the day. Generally 1 to 3 inches of snow fell, but some higher elevations of the central and southern mountains reported more than 4 inches.
12/17/2000	<p>A dynamic system affected western North Carolina during the 16th and 17th, bringing a variety of weather to the region, from freezing rain in mountain valleys to large hail and damaging winds across much of the region. A number of meteorological factors came together to produce such interesting atmospheric phenomena: a very strong cold front that would eventually usher in the coldest air in nearly two years into the state, strong mid-level and upper-level jets, a potent upper level disturbance, a temporary surge of warm, moist air into the region and the antecedent cold air trapped in lower valleys of the higher terrain in the mountains.</p> <p>Heavy rain, with embedded thunderstorms, crossed the region from late morning through the afternoon on the 16th. Cold air trapped in some valleys of the northern mountains never completely scoured out, resulting in a light glaze south and west of Newland. Just as surface temperatures rose above freezing in the northern mountains, thunderstorms pushed out ahead of the strong front, with numerous small hail</p>

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	<p>reports. Nickel-sized hail was reported 8 miles north of Sylva in Jackson County. As the front, and attendant pressure gradient, pushed its way into western North Carolina, winds increased into the 50 to 60 mph range, resulting in numerous downed trees and power lines. Nearly every county in the mountains reported some wind damage. The high winds eventually affected the foothills and piedmont. In Charlotte, numerous trees were downed and furniture was blown off porches. An unsteady building in Spencer collapsed.</p> <p>In the wake of the frontal passage, much colder air invaded the region, and as another shortwave affected the region on the 17th, a wide swath of 1 to 3 inch snow blanketed the higher terrain. Flurries were reported as far east as Hickory and Gastonia.</p>
12/19/2000	<p>The latest in a sprightly succession of Arctic cold fronts crossed the region on the 18th and 19th. Abundant low level moisture and an upper level disturbance riding over the new surge of cold air provided the ingredients for the latest round of snow. The heaviest snow accumulations, in general, were north and west of Asheville, especially near the Tennessee border. The northern half of Mitchell County recorded 5 to 6 inches of new snow...as did the higher-terrain Highlands/Cashiers area of southern Jackson and Transylvania counties in the southern mountains. Buncombe, Transylvania and Macon counties each reported numerous 4 inch accumulations, with most other mountain locations reporting between 1 and 3 inches. Foothill locations, especially those closest to the mountains, racked up some impressive totals as well, with Marion and Morganton each reporting 2 to 3 inches. Farther east, in the northwest piedmont, accumulations were limited to less than 2 inches. More than 200 traffic accidents were reported from the region due to the wintry weather.</p>
1/1/2001	<p>A powerful upper level disturbance interacted with left-over cold air and abundant low level moisture to wring out snow showers across the North Carolina mountains from midday New Years Day through the early morning hours on the 2nd. Highest accumulations were in Haywood County, with several reports of 3 inch accumulations.</p>
3/20/2001	<p>Low pressure developed off the South Carolina coast and steadily strengthened as it moved northward across the coastal waters of North Carolina, the Virginia tidewater and eventually out to sea. Rapid strengthening occurred as a strong upper level disturbance rotated around an upper low that was crossing the southeast states. As the cyclone strengthened, abundant moisture was wrapped around the storm and thrown back against the higher terrain of the Carolinas, resulting in high winds and very heavy snow. The heaviest snow accumulations were in far western North Carolina.</p>
1/3/2002	<p>Snow continued during the early morning hours on the 3rd and finally added up to heavy snowfall accumulations across this portion of the North Carolina mountains. Snowfall amounts ranged from 3 to 6 inches across the area by noon.</p>
2/3/2002	<p>Light snow fell from late afternoon into late evening, resulting in 1 to 2.5 inches accumulations in some areas, and a few slick roads.</p>
1/16/2003	<p>Light snow began across the mountains of North Carolina during the afternoon of the 16th, and gradually intensified with time. By early morning of the 17th, 4 to 8 inches of snow had accumulated. As much as a foot was reported on some of the highest peaks.</p>
2/6/2003	<p>Light snow began falling across the western mountains of North Carolina during the afternoon of the 6th, and gradually increased in intensity and coverage during the evening and overnight hours. General snowfall amounts of 4 to 5 inches were reported in the major valleys. However, accumulations of up to 8 inches occurred in the highest elevations along the Tennessee border.</p>
4/10/2003	<p>Light snow began across the North Carolina mountains during the early morning hours of the 10th, but due to a warm ground, accumulations were confined to the highest elevations through 8 AM. However, the snow intensified dramatically during the middle and late part of the morning, and by early afternoon, 2-4 inches had accumulated in valley locations near the Blue Ridge. In the higher elevations, 4 to 6-inch totals were common, while 8 to 12 inches accumulated on some of the highest peaks along the Tennessee</p>

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	border. The heavy, wet snow caused numerous trees and power lines to fall, and power outages were widespread.
1/25/2004	Light snow developed early in the morning across the mountains, foothills, and northern piedmont of North Carolina. The snow intensified throughout the morning and afternoon, and by early evening 3 to 5 inches had accumulated across much of the area. Accumulations as high as 8 inches occurred in mountainous areas along the Tennessee border.
2/26/2004	Snow intensity increased during the late morning across the North Carolina mountains, and continued through the afternoon. Total accumulations of 3 to 5 inches occurred, but much of it melted rapidly.
2/28/2005	The wet snow became heavier across the mountains and northern foothills during the early morning hours on the 28th. Most locations below 3000 feet changed back to rain before the precipitation ended. A quick 3 to 7 inches of snow accumulated across much of this area. Isolated heavier totals up to 13 inches occurred along the Blue Ridge, north of I-40, while the lower elevations of the foothills generally received only 1 to 3 inches.
2/1/2007	Light to moderate snow developed across the North Carolina mountains during the pre-dawn hours. The snow became heavy at times toward sunrise. By mid-morning, as much as 3 inches of snow had accumulated across the area. Snow, heavy at times continued across the portions of the southern and central mountains through the morning hours, with most locations reporting heavy snowfall totals by mid-morning. Total accumulations ranged from 2 to 4 inches across the area.
1/16/2008	Light snow began during the early evening hours across the southern mountains and foothills of the western Carolinas. Snowfall intensity began to increase during the mid and late evening. Snow continued to fall during the early morning hours across the southern mountains and foothills, and total accumulations of 2-4 inches were reached across much of the area shortly after midnight.
1/29/2010	Low pressure tracked across southern Georgia during the night of the 29th, and then off the Southeast coast on the 30th. As the low passed so far south of the region, most of the precipitation fell as snow, though other precipitation types mixed in toward the end. Snow, heavy at times began across the southern and central mountains during the late afternoon, and began to quickly accumulate. By early evening, some areas had picked up 4 inches of snowfall. Heavy snow continued most of the night. The precipitation changed over to sleet and freezing rain before ending, but only trace amounts of ice occurred. Total accumulations ranged from 4-8 inches across the Tennessee border counties, to more than a foot in the upper French Broad Valley. The heavy wet snow caused numerous trees to fall, especially in the interior and southwest valleys, resulting in fairly widespread power outages.
2/12/2010	As low pressure tracked along the northern Gulf Coast, light snow developed during the late afternoon across the southern North Carolina mountains. The snow gradually increased in intensity through the remainder of the afternoon and into the early evening. Numerous traffic accidents occurred during the evening rush. Snow, heavy at times, continued through the evening, with heavy accumulations reached in most areas. The snow ended a little before midnight. Total accumulations averaged around 3 inches.
3/2/2010	Snow began to fall during the pre-dawn across the mountains of the western Carolinas. After sunrise, snow became moderate to heavy at times, resulting in accumulations of 1 to 4 inches across most of the area by late morning. Snow, heavy at times, continued into the afternoon across the mountains, with heavy accumulations realized in most areas by early afternoon. By early evening, total snowfall ranged from 4 to 8 inches across the area, with localized amounts as high as 10 inches, especially in the higher elevations.
12/12/2010	Moderate to heavy snow developed ahead of a cold front over the central and southern mountains during the late evening and early morning hours. The snow continued through the morning hours with many areas seeing accumulations of 3 to 6 inches. Although snow generally ended in most areas by late morning of the 12th, snow showers developing within northwest flow behind the front resulted in additional accumulations across the higher elevations along the Tennessee border. By the time these snow showers tapered off on the morning of the 14th, some of these areas had more than a foot of snow. Very gusty winds and cold temperatures resulted in wind chill values below 0 in many areas during the overnight and early morning hours.
12/25/2010	A developing coastal storm system brought light to moderate snow, with occasional heavy bursts to the mountains beginning around sunrise on Christmas, and continuing through the morning. Snow, heavy at

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	<p>times, continued through the afternoon across the central and southern mountains. By Christmas evening, most locations had 6 to 10 inches of fresh snowpack. Although snow ended in most areas during the evening of the 25th, a strong northwest flow resulted in development of numerous snow showers along the Tennessee border on the 26th through the 27th. Many of these snow showers managed to add to snowfall totals, mainly in the higher elevations of the Nantahala Mountains and the Balsams, where total accumulations of more than a foot became common. Very gusty winds and cold temperatures resulted in wind chill values less than 0 and considerable blowing and drifting of snow, mainly in the high elevations.</p>
<p>1/10/2011</p>	<p>Moderate to heavy snow associated with a Gulf Coast storm system spread from south to north across the mountains of western North Carolina during the nighttime hours. Heavy snow accumulations of up to 4 inches were reported over the southern mountains by as early as 4 am. Heavy snow accumulations were not reported over the northern mountains until mid-morning. The snow became lighter around sunrise, but continued to accumulate through the morning. By early afternoon, snowfall totals ranged from 7 to 10 inches over the southern and central mountains and 3 to 6 inches over the northern mountains. During early afternoon, precipitation changed to light freezing rain and continued into the evening hours. This added as much as a tenth of an inch of ice to the heavy snowfall totals. Persistent cold temperatures ensured that many roads remained snow-packed or ice covered for several days. Some schools and businesses remained closed for as much as 5 days.</p>
<p>1/6/2017</p>	<p>As an area of surface low pressure moved northeast along the Gulf and Southeast coasts, moisture overspread the southern Appalachians throughout the 6th. Although the precipitation may have started as rain in the lower valleys, it primarily fell as snow. It was initially light in most areas, but became heavy during mid-to-late evening, continuing into the overnight. By the time the heavier snowfall rates tapered off around sunrise, total accumulations ranged from 5 to 7 inches. Locally higher amounts of as much as 10 were observed across the higher elevations of the foothills' counties.</p>
<p>12/8/2018</p>	<p>A mixture of rain and snow developed across the North Carolina mountains during the afternoon of the 8th, transitioning to all snow in most areas by early evening. The snow became heavy at times during the evening into the overnight. By the time the snow tapered off during the morning of the 9th, widespread storm total accumulations of 10-15 inches were reported. Locally higher amounts also occurred, with some locations near the South Carolina border seeing around 20 inches. Meanwhile, warm air filtering into the lower elevations of the Tuckasegee River Valley resulted in a transition to rain during the morning of the 9th, and total accumulations there were only in the 2 to 4-inch range.</p>

TABLE G.8: HIGH WIND EVENTS (2000-2019)

Date	Description
Henderson County	
1/18/1996	An extremely strong cold front, preceded by heavy rain all day, moved through the mountains, foothills, and piedmont during the night. High winds affected the mountains first and then the foothills and piedmont as the front swept through. Prefrontal southeast winds were extremely high in the mountains with Flat Top mountain reporting gusts to 72 knots during the early evening. This was the highest wind in 20 years of record. Numerous trees and power lines were blown down in western North Carolina with a large number of power outages as a result. The gradient wind caused considerable damage in the foothills and piedmont as the front moved through.
9/15/1999	A tight pressure gradient between powerful Hurricane Floyd across eastern North Carolina and strong high pressure over the Ohio Valley and Great Lakes pulled cooler and very dry air south across the mountains and foothills of North Carolina on strong north winds. Henderson and Transylvania counties were particularly hard hit as winds gusting over 50 mph at times downed numerous trees and power lines - some on homes and vehicles. A person was injured in a car while driving near Zirconia when a tree fell on the vehicle. A large tent providing shelter at a fair in Henderson county was damaged. Numerous brush fires that started were fanned by the high winds. The Asheville Regional airport reported winds sustained at 45 mph with gusts to 54 mph around 9 am EST on the 16th. The wind abated in the mountains around noon.
11/2/1999	A strong storm system moved northeast through the Tennessee River Valley early on the 2nd. Strong southwest winds ahead of the system reached damaging levels and blew down trees and power lines in several locations. Some traffic accidents occurred when drivers ran cars into downed trees in the road. Later in the day, after the cold front passed, a gusty northwest wind blew a few trees down along the Blue Ridge Parkway 3 miles southeast of Spruce Pine.
4/8/2000	High winds following a cold front blew down a number of trees and power lines. Scattered power outages occurred as well.
4/8/2000	High winds following a cold front blew down a number of trees and power lines. Scattered power outages occurred as well.
2/16/2001	A strong cold front crossed the region on the 16th, accompanied by gusty winds. Persistent high gradient winds following the frontal passage resulted in downed trees and power lines. Some of the resulting power outages were long-lived, and there was even some structural damage reported.
3/6/2001	
3/20/2001	
10/13/2001	A strong pressure gradient developed across the mountains as a cold front crossed the region, followed by strong cold advection into the mountains. A 50-knot low level jet contributed to the high winds, the effects of which were enhanced by valley channeling.
11/29/2001	
2/4/2002	High winds starting picking up during the late morning, and by noon reached damaging levels in some areas. Scattered to numerous trees and power lines were blown down, depending on the county. Some structural damage resulted - mostly from trees falling on vehicles and buildings. After a brief respite around sunset, the wind picked up again to damaging levels during mid and late evening.
3/10/2002	Strong winds following a cold front reached damaging levels in a few locations. Most damage was limited to downed trees and power lines, which blocked roads for a while in some areas.
9/27/2002	Winds associated with Isidore increased in the early morning hours across the North Carolina mountains, resulting in more widespread damage to trees and power lines. Widespread power outages were reported. Numerous roads were blocked by fallen trees, and a church tent was blown down and destroyed in Brevard.
12/13/2002	Damaging winds were caused by a gravity wave as it propagated out of upstate South Carolina, and across the southern mountains and foothills of North Carolina. Numerous trees and power lines were blown down, and roads and highways were blocked in Asheville and Hendersonville. Power outages lasted for much of the day across portions of Buncombe County.
1/23/2003	High winds resulted in numerous trees and power lines being blown down across the mountains and foothills. In Mars Hill, the roof of a store was badly damaged. In Columbus, store signs were blown out.

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Date	Description
10/14/2003	High winds developed just ahead of and behind a cold front across the mountains and foothills of North Carolina. Numerous trees and power lines were blown down.
11/13/2003	High winds developed behind a cold front across the mountains and foothills of North Carolina. Sustained winds of 40 mph developed during the pre-dawn hours, and persisted for much of the day, especially in the highest elevations. Numerous trees were blown down. Along the Blue Ridge Parkway in Buncombe County, the Craggy Gardens visitors' center was heavily damaged.
3/7/2004	Strong winds developed across the mountains just ahead of and along a strong cold front. Numerous trees and power lines were blown down. Weak thunderstorms may have contributed to the high winds across the northern mountains, but damage extended to areas far away from those affected by the storms.
7/5/2004	A small area of high winds developed across the mountains and the higher terrain of the foothills in the wake of a thunderstorm complex. Numerous trees and power lines were blown down.
9/7/2004	High winds associated with the remnants of Hurricane Frances produced fairly widespread damage to trees and power lines across portions of the North Carolina mountains, and the higher elevations of the foothills.
9/16/2004	High winds developed across the mountains, as the remnants of Hurricane Ivan moved just west of the area. Locations near the southern exposure of the Blue Ridge were the hardest hit, with major damage occurring in and around Highlands, Cashiers, Brevard, and southern Henderson County. Thousands of trees were blown down, including 90,000 apple trees in Henderson County. Numerous trees fell on structures and vehicles. A 55-year-old man was killed shortly after midnight near Hendersonville, when a tree fell through his house. Hundreds of structures in Henderson County were damaged by fallen trees and debris. A woman in Highlands was injured when a tree limb hit her in the head.
9/17/2004	As the remnants of Ivan retreated toward the mid-Atlantic region, high pressure building in behind the circulation caused a resurgence of strong winds across the mountains and foothills. This resulted in additional tree and power line damage.
12/1/2004	The counties reported damage from high winds, mainly trees and power lines, with some structural damage possible, mainly from falling trees.
1/22/2005	High winds developed across the mountains behind a strong cold front that swept through the region during the evening. Numerous trees were blown down. There were scattered power outages throughout the mountains.
4/2/2005	High winds developed across the mountains and foothills during the evening, and continued through the overnight hours before subsiding during the late morning of the 3rd. Numerous trees, power poles, and power lines were blown down, resulting in fairly widespread power outages. The northern foothill counties appeared to be the hardest hit. In McDowell County, several homes and vehicles were damaged by falling trees. In Caldwell County, the roof of the County office building was damaged in Lenoir, and at least two homes were damaged by falling trees in the northern part of the county.
1/14/2006	Strong winds developed behind a cold front across the mountains and foothills of North Carolina during the late morning, and continued through the remainder of the day. There was widespread damage to trees and power lines, with quite a few power outages. The hardest hit areas were along and near the Blue Ridge south of I-40. There were tens of thousands of power outages, 14,000 in Henderson County alone. The area around Lake Lure was especially hard hit, with numerous trees and lines down.
12/1/2006	Numerous trees were blown down, mainly near the Blue Ridge escarpment during the mid and late morning. Some of the trees fell on power lines, resulting in outages.
4/15/2007	Very strong winds developed in areas along and near the Blue Ridge during the early evening of the 15th, and continued through the early morning hours of the 16th. A 66-mph gust was recorded at Asheville Regional Airport during the evening. However, winds likely gusted to 70-80 mph at times in other areas. Widespread damage occurred to trees and power lines, with widespread power outages reported. Some trees fell on homes, vehicles, and roads. Three injuries occurred in the Hendersonville area due to the wind: a tree fell on a mobile home in Hendersonville, injuring two occupants. Also, a utility worker was injured when high winds knocked him from the power pole he was working on.
4/16/2007	After abating somewhat in the early morning hours, there was a resurgence in damaging winds across the Blue Ridge Mountains and surrounding areas during the daylight hours. Thousands of trees and numerous power lines fell across the area, with many trees falling on roads and damaging homes and vehicles. A 59-year-old man was killed when the vehicle he was driving on Turnpike Rd near Mills River was crushed by a fallen tree. In Saluda, a

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	75-year-old man was critically injured when a tree fell on his car. He died several days later. A utility worker was also seriously injured in in the Hickory Grove area of Polk County, when a falling tree pinned him to his vehicle. At the height of the event, about 30,000 customers were without power in Henderson County alone, with power outages numbering in the hundreds of thousands across the area as a whole. Some customers remained without power until the 19th.
2/10/2008	As the polar vortex dropped into New England, an unusually tight gradient developed over the western Carolinas and Northeast Georgia. This gradient, combined with afternoon heating, helped to mix down areas of strong winds. Areas along and east of the Blue Ridge were hardest hit, with numerous trees reported down, some across roads and on homes. The gusty winds combined with ongoing drought conditions to produce numerous brush fires across the area during the afternoon.
5/11/2008	Strong winds developed behind a cold front over the North Carolina mountains. Numerous trees and power lines were blown down across the region. Several structures were damaged by fallen trees. Twenty-two homes were damaged by fallen trees in the town of Lake Lure in Rutherford County alone.
12/31/2008	High winds developed near the Blue Ridge around sunrise, peaking in the mid to late morning, before tapering off during the afternoon. Numerous trees and power lines were blown down, with some scattered power outages.
12/9/2009	After a period of heavy rain that left the ground saturated, strong winds developed behind a cold front during the late morning hours over the North Carolina mountains. The combination of very windy conditions and wet ground resulted in numerous fallen trees, which brought down power lines and damaged homes and cars.
2/11/2012	Strong winds developed across the upper French Broad Valley and along parts of the eastern escarpment of the Blue Ridge as northwest flow developed across the region. The winds blew down numerous trees and power lines in McDowell County, with at least one tree falling on a vehicle. Multiple business signs were blown in Marion. Parts of western Rutherford County and Henderson County were also affected by damaging winds.
10/29/2012	As superstorm Sandy approached the northeast coast, strong northwest winds developed across the North Carolina mountains during the early morning of the 29th and continued throughout the day. The strongest winds developed across the upper French Broad Valley and the Green River Gorge area, where numerous trees fell during the day.
12/21/2012	Although gusty northwest winds were observed across much of the mountains beginning during the evening of the 20th, with a few trees blown down through the morning of the 21st, stronger winds developed during the afternoon of the 21st. A scattering of downed trees occurred through the afternoon, with a few power outages reported. However, the strongest winds occurred during the overnight hours. Numerous trees were blown down on the night of the 21st and early on the 22nd, with most of the damage occurring within a few miles of the Blue Ridge escarpment. Multiple trees fell on structures, especially in Buncombe and Henderson counties. Trees falling on power lines also resulted in quite a few power outages.
3/29/2014	Strong northwest winds developed across the mountains and portions of the foothills behind a cold front late on the 29th, with the strongest winds affecting locations along and near the eastern escarpment of the Blue Ridge. The winds gusted to over 60 mph at times (a peak gust of 62 mph was measured by the ASOS at the Asheville Regional Airport at around 730 AM). Gusts in excess of 80 mph likely occurred across the higher elevations. Numerous trees were blown down in these areas. Sporadic minor damage was reported to roofs across the area and a downed power lines resulted in scattered power outages, especially across the mid/upper French Broad Valley and surrounding locations. A few trees fell on homes as well. The strong winds continued through much of the 30th before tapering off by mid-evening.
2/24/2016	Very strong west/northwest winds developed across the mountains of southwest North Carolina, northeast Georgia, and Upstate South Carolina behind a cold front during the morning, and continued through the afternoon and into the evening before diminishing. Numerous trees were blown down across the area, some of which fell on and took down power lines, resulting in scattered power outages.
9/11/2017	As Tropical Storm Irma moved north/northwest across the Florida Panhandle and southwest Georgia, strong winds developed over the mountains of southwest North Carolina. Although gusts only occasionally exceeded 50 mph in most locations, the prolonged nature of the event, combined with saturated soils resulting from heavy rainfall resulted in many trees falling on roads, power lines, vehicles, and structures. Many were without power for a day or more. While the most significant damage was confined to these areas, there were also reports of

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	significant tree damage across much of the remainder of the North Carolina mountains above 4000 feet or so, where winds likely gusted in excess of 60 mph fairly frequently.
3/2/2018	As low pressure strengthened rapidly off the Mid-Atlantic and Northeast coast, strong northwest winds developed across the North Carolina mountains early on the 2nd, with the most intense winds observed from around sunrise into the early afternoon. Numerous trees were blown down across the area, with quite a few power outages reported. Some sporadic structural damage occurred, mainly due to falling trees and large limbs.
1/20/2019	Northwest winds in the wake of a strong cold front increased after sunrise and became damaging across the middle French Broad Valley and across the higher elevations of Rutherford and McDowell counties. Numerous trees and power lines were blown down in this area, with some minor structural damage also reported. The winds began to diminish during the afternoon.
Polk County	
12/1/2006	Numerous trees were blown down, mainly near the Blue Ridge escarpment during the mid and late morning. Some of the trees fell on power lines, resulting in outages.
4/15/2007	Very strong winds developed in areas along and near the Blue Ridge during the early evening of the 15th, and continued through the early morning hours of the 16th. A 66-mph gust was recorded at Asheville Regional Airport during the evening. However, winds likely gusted to 70-80 mph at times in other areas. Widespread damage occurred to trees and power lines, with widespread power outages reported. Some trees fell on homes, vehicles, and roads. Three injuries occurred in the Hendersonville area due to the wind: a tree fell on a mobile home in Hendersonville, injuring two occupants. Also, a utility worker was injured when high winds knocked him from the power pole he was working on.
4/16/2007	After an intense, but relatively brief high wind event affected the mountains and foothills on the evening of the 15th, another widespread damaging high wind event developed during the day of the 16th. However, this particular event included much of the piedmont. Thousands of trees fell across the area, resulting in widespread power outages. Numerous trees fell on roads, homes, and vehicles. The Blue Ridge mountains and the foothills received the brunt of the strongest winds.
2/10/2008	As the polar vortex dropped into New England, an unusually tight gradient developed over the western Carolinas and Northeast Georgia. This gradient, combined with afternoon heating, helped to mix down areas of strong winds. Areas along and east of the Blue Ridge were hardest hit, with numerous trees reported down, some across roads and on homes. The gusty winds combined with ongoing drought conditions to produce numerous brush fires across the area during the afternoon.
5/11/2008	Strong winds developed behind a cold front over the North Carolina mountains. Numerous trees and power lines were blown down across the region. Several structures were damaged by fallen trees. Twenty-two homes were damaged by fallen trees in the town of Lake Lure in Rutherford County alone.
5/12/2008	Strong winds developed during the early morning hours behind a cold front over the North Carolina mountains just to the east of the Blue Ridge. Several trees and power lines were blown down, some onto houses.
10/29/2012	As superstorm Sandy superstorm Sandy approached the northeast coast, strong northwest winds developed across the North Carolina mountains during the early morning of the 29th and continued throughout the day. The strongest winds developed across the upper French Broad Valley and the Green River Gorge area, where numerous trees fell during the day.
10/29/2012	As superstorm Sandy superstorm Sandy approached the northeast coast, strong northwest winds developed across the North Carolina mountains during the early morning of the 29th and continued throughout the day. The strongest winds developed across the upper French Broad Valley and the Green River Gorge area, where numerous trees fell during the day.
12/21/2012	Although gusty northwest winds were observed across the foothills beginning during the evening of the 20th, with a few trees blown down through the 21st, the strongest winds developed during the evening and overnight hours of the 21st. Numerous trees were blown down on the night of the 21st and early on the 22nd, with most of the damage occurring within a few miles of the Blue Ridge escarpment. Trees falling on power lines also resulted in quite a few power outages.
3/29/2014	Strong northwest winds developed across the mountains and portions of the foothills behind a cold front late on the 29th, with the strongest winds affecting locations along and near the eastern escarpment of the Blue Ridge. The winds gusted to over 60 mph at times (a peak gust of 62 mph was measured by the ASOS at the Asheville

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Date	Description
	Regional Airport at around 730 AM). Gusts in excess of 80 mph likely occurred across the higher elevations. Numerous trees were blown down in these areas. Sporadic minor damage was reported to roofs across the area and a downed power lines resulted in scattered power outages, especially across the mid/upper French Broad Valley and surrounding locations. A few trees fell on homes as well. The strong winds continued through much of the 30th before tapering off by mid-evening.
9/11/2017	As Tropical Storm Irma moved north/northwest across the Florida Panhandle and southwest Georgia, strong winds developed over the mountains of southwest North Carolina. Although gusts only occasionally exceeded 50 mph in most locations, the prolonged nature of the event, combined with saturated soils resulting from heavy rainfall resulted in many trees falling on roads, power lines, vehicles, and structures. Many were without power for a day or more. While the most significant damage was confined to these areas, there were also reports of significant tree damage across much of the remainder of the North Carolina mountains above 4000 feet or so, where winds likely gusted in excess of 60 mph frequently.
Rutherford County	
12/1/2006	Numerous trees were blown down, mainly near the Blue Ridge escarpment during the mid and late morning. Some of the trees fell on power lines, resulting in outages.
4/15/2007	Very strong winds developed in areas along and near the Blue Ridge during the early evening of the 15th, and continued through the early morning hours of the 16th. A 66-mph gust was recorded at Asheville Regional Airport during the evening. However, winds likely gusted to 70-80 mph at times in other areas. Widespread damage occurred to trees and power lines, with widespread power outages reported. Some trees fell on homes, vehicles, and roads. Three injuries occurred in the Hendersonville area due to the wind: a tree fell on a mobile home in Hendersonville, injuring two occupants. Also, a utility worker was injured when high winds knocked him from the power pole he was working on.
4/16/2007	After an intense, but relatively brief high wind event affected the mountains and foothills on the evening of the 15th, another widespread damaging high wind event developed during the day of the 16th. However, this particular event included much of the piedmont. Thousands of trees fell across the area, resulting in widespread power outages. Numerous trees fell on roads, homes, and vehicles. The Blue Ridge mountains and the foothills received the brunt of the strongest winds.
2/10/2008	As the polar vortex dropped into New England, an unusually tight gradient developed over the western Carolinas and Northeast Georgia. This gradient, combined with afternoon heating, helped to mix down areas of strong winds. Areas along and east of the Blue Ridge were hardest hit, with numerous trees reported down, some across roads and on homes. The gusty winds combined with ongoing drought conditions to produce numerous brush fires across the area during the afternoon.
5/11/2008	Strong winds developed behind a cold front over the North Carolina mountains. Numerous trees and power lines were blown down across the region. Several structures were damaged by fallen trees. Twenty-two homes were damaged by fallen trees in the town of Lake Lure in Rutherford County alone.
5/12/2008	Strong winds developed during the early morning hours behind a cold front over the North Carolina mountains just to the east of the Blue Ridge. Several trees and power lines were blown down, some onto houses.
1/7/2009	Strong winds developed around noon along the I-85 corridor and persisted through the afternoon. Numerous trees were blown onto roads and power lines, resulting in quite a few power outages across the area. Some trees fell on automobiles, and one tree fell on a trailer in the Gaffney area, causing significant damage. Wet ground resulting from heavy rain during the preceding days likely contributed to the tree damage.
12/9/2009	After a period of heavy rain that left the ground saturated, strong winds developed behind a cold front during the late morning hours over the North Carolina mountains. The combination of very windy conditions and wet ground resulted in numerous fallen trees, which brought down power lines and damaged homes and cars.
2/10/2010	Strong west and northwest winds developed during the afternoon over the foothills and northwest piedmont in the wake of a cold front. Numerous trees and power lines were downed throughout the afternoon and early evening. A tree fell through a mobile home in Lenoir. Another tree fell on a home 5 SW Marion. A tree fell and power lines fell on a moving vehicle in Salisbury, briefly trapping the occupants. One person was injured by flying debris at a construction site in Lenoir.
2/10/2010	Strong west and northwest winds developed during the afternoon over the foothills and northwest piedmont in the wake of a cold front. Numerous trees and power lines were downed throughout the afternoon and early

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Date	Description
	evening. A tree fell through a mobile home in Lenoir. Another tree fell on a home 5 SW Marion. A tree fell and power lines fell on a moving vehicle in Salisbury, briefly trapping the occupants. One person was injured by flying debris at a construction site in Lenoir.
2/11/2012	Strong winds developed across the upper French Broad Valley and along parts of the eastern escarpment of the Blue Ridge as northwest flow developed across the region. The winds blew down numerous trees and power lines in McDowell County, with at least one tree falling on a vehicle. Multiple business signs were blown in Marion. Parts of western Rutherford County and Henderson County were also affected by damaging winds.
12/21/2012	Although gusty northwest winds were observed across the foothills beginning during the evening of the 20th, with a few trees blown down through the 21st, the strongest winds developed during the evening and overnight hours of the 21st. Numerous trees were blown down on the night of the 21st and early on the 22nd, with most of the damage occurring within a few miles of the Blue Ridge escarpment. Trees falling on power lines also resulted in quite a few power outages.
3/29/2014	Strong northwest winds developed across the mountains and portions of the foothills behind a cold front late on the 29th, with the strongest winds affecting locations along and near the eastern escarpment of the Blue Ridge. The winds gusted to over 60 mph at times (a peak gust of 62 mph was measured by the ASOS at the Asheville Regional Airport at around 730 AM). Gusts in excess of 80 mph likely occurred across the higher elevations. Numerous trees were blown down in these areas. Sporadic minor damage was reported to roofs across the area and a downed power lines resulted in scattered power outages, especially across the mid/upper French Broad Valley and surrounding locations. A few trees fell on homes as well. The strong winds continued through much of the 30th before tapering off by mid-evening.
4/2/2016	Strong northwest winds developed across the mountains and northern foothills in the wake of an arctic cold front around midnight and continued through the overnight hours. Numerous trees were blown down across the area, along with some power lines. One tree fell on a camping trailer in Steele Creek Park in northwest Burke County, resulting in injury to an occupant. Another tree fell on a car in the Lake Lure area of Rutherford County.
9/11/2017	As Tropical Storm Irma moved north/northwest across the Florida Panhandle and southwest Georgia, strong winds developed over the mountains of southwest North Carolina. Although gusts only occasionally exceeded 50 mph in most locations, the prolonged nature of the event, combined with saturated soils resulting from heavy rainfall resulted in many trees falling on roads, power lines, vehicles, and structures. Many were without power for a day or more. While the most significant damage was confined to these areas, there were also reports of significant tree damage across much of the remainder of the North Carolina mountains above 4000 feet or so, where winds likely gusted in excess of 60 mph fairly frequently.
3/2/2018	As low pressure strengthened rapidly off the Mid-Atlantic and Northeast coast, strong northwest winds developed across the North Carolina mountains early on the 2nd, with the most intense winds observed from around sunrise into the early afternoon. Numerous trees were blown down across the area, with quite a few power outages reported. Some sporadic structural damage occurred, mainly due to falling trees and large limbs.
1/20/2019	Northwest winds in the wake of a strong cold front increased after sunrise and became damaging across the middle French Broad Valley and across the higher elevations of Rutherford and McDowell counties. Numerous trees and power lines were blown down in this area, with some minor structural damage also reported. The winds began to diminish during the afternoon.
Transylvania County	
1/7/1998	High winds caused trees to fall on 6 houses, shingles blown off roofs, and destruction of storage buildings.
9/15/1999	A tight pressure gradient between powerful Hurricane Floyd across eastern North Carolina and strong high pressure over the Ohio Valley and Great Lakes pulled cooler and very dry air south across the mountains and foothills of North Carolina on strong north winds. Henderson and Transylvania counties were particularly hard hit as winds gusting over 50 mph at times downed numerous trees and power lines - some on homes and vehicles.
11/2/1999	A strong storm system moved northeast through the Tennessee River Valley early on the 2nd. Strong southwest winds ahead of the system reached damaging levels and blew down trees and power lines in several locations. Some traffic accidents occurred when drivers ran cars into downed trees in the road. Later in the day, after the cold front passed, a gusty northwest wind blew a few trees down along the Blue Ridge Parkway 3 miles southeast of Spruce Pine.

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Date	Description
2/16/2001	A strong cold front crossed the region on the 16th, accompanied by gusty winds. Persistent high gradient winds following the frontal passage resulted in downed trees and power lines. Some of the resulting power outages were long-lived, and there was even some structural damage reported.
3/6/2001	
3/20/2001	
11/29/2001	High winds developed overnight as a strong low-level jet, boosted by weak convection, brought damaging wind gusts to the surface. Damaging winds started in a few counties late in the evening, peaking between midnight and 6 am in most locations. Damage was mostly limited to downed trees and power lines, with resulting power outages, but in Madison County, a barn was blown into the road near Laurel.
2/4/2002	High winds starting picking up during the late morning, and by noon reached damaging levels in some areas. Scattered to numerous trees and power lines were blown down, depending on the county. Some structural damage resulted - mostly from trees falling on vehicles and buildings. After a brief respite around sunset, the wind picked up again to damaging levels during mid and late evening.
9/27/2002	Winds associated with Isidore increased in the early morning hours across the North Carolina mountains, resulting in more widespread damage to trees and power lines. Widespread power outages were reported. Numerous roads were blocked by fallen trees, and a church tent was blown down and destroyed in Brevard.
1/23/2003	High winds resulted in numerous trees and power lines being blown down across the mountains and foothills. In Mars Hill, the roof of a store was badly damaged. In Columbus, store signs were blown out.
10/14/2003	High winds developed just ahead of and behind a cold front across the mountains and foothills of North Carolina. Numerous trees and power lines were blown down.
11/13/2003	High winds developed behind a cold front across the mountains and foothills of North Carolina. Sustained winds of 40 mph developed during the pre-dawn hours, and persisted for much of the day, especially in the highest elevations. Numerous trees were blown down. Along the Blue Ridge Parkway in Buncombe County, the Craggy Gardens visitors' center was heavily damaged.
3/7/2004	Strong winds developed across the mountains just ahead of and along a strong cold front. Numerous trees and power lines were blown down. Weak thunderstorms may have contributed to the high winds across the northern mountains, but damage extended to areas far away from those affected by the storms.
7/5/2004	A small area of high winds developed across the mountains and the higher terrain of the foothills in the wake of a thunderstorm complex. Numerous trees and power lines were blown down.
9/7/2004	High winds associated with the remnants of Hurricane Frances produced fairly widespread damage to trees and power lines across portions of the North Carolina mountains, and the higher elevations of the foothills.
9/16/2004	High winds developed across the mountains, as the remnants of Hurricane Ivan moved just west of the area. Locations near the southern exposure of the Blue Ridge were the hardest hit, with major damage occurring in and around Highlands, Cashiers, Brevard, and southern Henderson County. Thousands of trees were blown down, including 90,000 apple trees in Henderson County. Numerous trees fell on structures and vehicles. A 55-year-old man was killed shortly after midnight near Hendersonville, when a tree fell through his house. Hundreds of structures in Henderson County were damaged by fallen trees and debris. A woman in Highlands was injured when a tree limb hit her in the head.
9/17/2004	As the remnants of Ivan retreated toward the mid-Atlantic region, high pressure building in behind the circulation caused a resurgence of strong winds across the mountains and foothills. This resulted in additional tree and power line damage.
1/22/2005	
4/2/2005	High winds developed across the mountains and foothills during the evening, and continued through the overnight hours before subsiding during the late morning of the 3rd. Numerous trees, power poles, and power lines were blown down, resulting in fairly widespread power outages. The northern foothill counties appeared to be the hardest hit. In McDowell County, several homes and vehicles were damaged by falling trees. In Caldwell County, the roof of the County office building was damaged in Lenoir, and at least two homes were damaged by falling trees in the northern part of the county.
1/14/2006	Strong winds developed behind a cold front across the mountains and foothills of North Carolina during the late morning, and continued through the remainder of the day. There was widespread damage to trees and power

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Date	Description
	lines, with quite a few power outages. The hardest hit areas were along and near the Blue Ridge south of I-40. There were tens of thousands of power outages, 14,000 in Henderson County alone. The area around Lake Lure was especially hard hit, with numerous trees and lines down.
11/15/2006	Strong southerly winds developed ahead of a cold front, blowing down numerous trees and power lines across portions of the central and southern mountains during the evening and overnight hours on the 15th and 16th.
12/1/2006	Numerous trees were blown down, mainly near the Blue Ridge escarpment during the mid and late morning. Some of the trees fell on power lines, resulting in outages.
4/15/2007	Very strong winds developed in areas along and near the Blue Ridge during the early evening of the 15th, and continued through the early morning hours of the 16th. A 66-mph gust was recorded at Asheville Regional Airport during the evening. However, winds likely gusted to 70-80 mph at times in other areas. Widespread damage occurred to trees and power lines, with widespread power outages reported. Some trees fell on homes, vehicles, and roads. Three injuries occurred in the Hendersonville area due to the wind: a tree fell on a mobile home in Hendersonville, injuring two occupants. Also, a utility worker was injured when high winds knocked him from the power pole he was working on.
4/16/2007	After an intense, but relatively brief high wind event affected the mountains and foothills on the evening of the 15th, another widespread damaging high wind event developed during the day of the 16th. However, this particular event included much of the piedmont. Thousands of trees fell across the area, resulting in widespread power outages. Numerous trees fell on roads, homes, and vehicles. The Blue Ridge mountains and the foothills received the brunt of the strongest winds. In Highlands, NC, two homes were heavily damaged by fallen trees, while approximately 100 homes received minor to moderate damage. A tree fell on and severely damaged a home in Otto, NC. Two businesses received significant roof damage in Cashiers, NC. Three construction workers were injured in Mount Holly when an inflatable structure collapsed at a construction site. Five homes were damaged by fallen trees in Lincoln County, NC alone. Three homes were damaged in Iredell County and in In Catawba County, a 30-foot brick wall on top of a building in Newton was blown down, while sections of a metal roof were torn off a business in Viewmont.
2/10/2008	As the polar vortex dropped into New England, an unusually tight gradient developed over the western Carolinas and Northeast Georgia. This gradient, combined with afternoon heating, helped to mix down areas of strong winds. Areas along and east of the Blue Ridge were hardest hit, with numerous trees reported down, some across roads and on homes. The gusty winds combined with ongoing drought conditions to produce numerous brush fires across the area during the afternoon.
5/11/2008	Strong winds developed behind a cold front over the North Carolina mountains. Numerous trees and power lines were blown down across the region. Several structures were damaged by fallen trees.
12/9/2009	After a period of heavy rain that left the ground saturated, strong winds developed behind a cold front during the late morning hours over the North Carolina mountains. The combination of very windy conditions and wet ground resulted in numerous fallen trees, which brought down power lines and damaged homes and cars.
2/24/2016	Very strong west/northwest winds developed across the mountains of southwest North Carolina, northeast Georgia, and Upstate South Carolina behind a cold front during the morning, and continued through the afternoon and into the evening before diminishing. Numerous trees were blown down across the area, some of which fell on and took down power lines, resulting in scattered power outages.
9/11/2017	As Tropical Storm Irma moved north/northwest across the Florida Panhandle and southwest Georgia, strong winds developed over the mountains of southwest North Carolina. Although gusts only occasionally exceeded 50 mph in most locations, the prolonged nature of the event, combined with saturated soils resulting from heavy rainfall resulted in many trees falling on roads, power lines, vehicles, and structures. Many were without power for a day or more. While the most significant damage was confined to these areas, there were also reports of significant tree damage across much of the remainder of the North Carolina mountains above 4000 feet or so, where winds likely gusted in excess of 60 mph fairly frequently.
3/2/2018	As low pressure strengthened rapidly off the Mid-Atlantic and Northeast coast, strong northwest winds developed across the North Carolina mountains early on the 2nd, with the most intense winds observed from around sunrise into the early afternoon. Numerous trees were blown down across the area, with quite a few power outages reported. Some sporadic structural damage occurred, mainly due to falling trees and large limbs.

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Date	Description
2/24/2019	Strong west to northwest winds developed across the northern mountains of North Carolina in the wake of a cold front. Although winds became very gusty immediately after the cold front passed during the afternoon, the damaging winds primarily occurred during the evening and overnight hours, when many trees and power lines were blown down. Multiple outbuildings were also damaged or blown over and at least one tree fell on a structure in Old Fort.

TABLE G.9: ICE STORM EVENTS (2000-2019)

Date	Description
Henderson County	
1/26/1996	Rain moved in while cold air was still trapped. Significant freezing rain resulted with numerous traffic accidents reported across the entire area. Ice accumulations neared ice storm" conditions in the foothills and northern mountains. The freezing temperatures persisted into the evening as the rain became quite heavy. Many roads were closed for a period."
1/9/1997	
12/24/1998	Freezing rain accumulated to damaging levels around midnight and by morning there were numerous power outages reported due to downed trees and power lines. Road problems were mostly limited to bridges and overpasses.
1/2/1999	A strong winter storm moved from the southern Plains into the Tennessee Valley and collided with strong arctic high pressure nosing south into the western Carolinas. Sleet and freezing rain were the main precipitation types during the afternoon and evening on the 2nd. Sleet became very heavy along and north of Interstate 40 where 4 to 6 inches accumulated. Sleet accumulated to between 1 and 2 inches south of Interstate 40 before changing to freezing rain. Numerous traffic accidents occurred across western North Carolina and there was one fatality (indirect) on Interstate 26 in Polk county. A boat house in Alexander county collapsed under the weight of the sleet. A cooperative observer in Rutherford county estimated damage in his area to be \$55K, but official damage estimates for the entire region were not available at the time of this writing.
1/29/2000	Weakening low pressure in the Ohio River Valley, developing low pressure along the Gulf Coast and cold, arctic air in place across the Carolinas resulted in a wintry mess across western North Carolina. This was the last in a series of 5 winter storms that wreaked havoc on western North Carolina in an 11 day span. The ice storm in the mountains consisted mainly of a couple inches of sleet. However, the combined accumulation of the mixture of sleet and snow was generally 2 to 3 inches. Some freezing rain mixed in during the morning of the 30th. Across the foothills and piedmont, precipitation which briefly began as some light sleet and snow, turned quickly to freezing rain. The freezing rain was heavy enough across the southern piedmont, including the Charlotte area, to result in a 1/4 to 1/2 inch glaze. Scattered power outages resulted, with Gaston county reporting 2500 people without power. The entire Duke Power system reported 77,000 people without power.
12/14/2003	Freezing rain began during the early morning hours, and ice accretion of around 1/2 inch had occurred by noon. Numerous trees and power lines fell under the weight of the ice.
2/2/2004	Freezing rain fell during the evening and overnight hours. Ice accretion caused some trees and large limbs to fall. Some trees fell on power lines, causing scattered outages. Sleet was mixed with the freezing rain at times, especially in McDowell County.
2/6/2004	Freezing rain increased in intensity overnight across the foothills and southern mountains. By morning, ice accretion was responsible for numerous fallen trees, as well as widespread power outages.
2/3/2005	Scattered damage to trees and power lines began to occur across the mountains during the pre-dawn hours, and continued into mid-morning, as freezing rain fell.
12/9/2005	As freezing rain continued to fall through the early morning hours, ice accretion became significant enough to cause widespread damage to trees and power lines across Henderson County. The lingering ice caused numerous traffic accidents during rush hour on the morning of the 9th. At least one fatal accident (indirect) occurred near Etowah.
12/15/2005	
2/1/2008	Freezing rain continued through the early morning hours of the 1st in areas along the Blue Ridge. Ice accumulations of up to 1/2 inch occurred, resulting to significant damage to trees and power lines. Power outages were widespread from Brevard to Hendersonville. Sleet mixed in with the freezing rain, resulting in up to 2 inches of sleet accumulation in the Northern Mountains. Precipitation actually began during the evening of January 31st, but ice storm criteria were not met until the early morning hours of February 1st.
2/26/2013	Rain and freezing rain began across the southern mountains shortly after midnight and continued through the pre-dawn hours. Many locations saw mainly rain. However, cold air locked in near the escarpment

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Date	Description
	resulted in an all-freezing rain event there. By the time temperatures warmed above freezing during late morning, up to a half inch of ice had accumulated within a few miles of the continental divide. Meanwhile, locations farther away from the Blue Ridge saw only trace amounts of ice. There were scattered downed trees and power lines, resulting in quite a number of power outages, especially in McDowell and Henderson counties.
11/25/2013	Light rain changed to freezing rain around midnight across southeast Blue Ridge areas, with freezing rain continuing off and on through the overnight. Precipitation became heavy at times just prior to sunrise and lasted through mid-morning before changing over to rain. Heavy ice accumulations were reported in the Saluda grade area of Polk County, and across eastern and southern Henderson County. Total ice accumulation of just over 1/4 inch was reported in these areas, which downed several trees and power lines.
2/15/2016	Very light freezing rain, freezing drizzle, and freezing mist developed across the Blue Ridge of western North Carolina during late morning, in association with low pressure developing along a warm front across the Gulf Coast states/Tennessee Valley. Owing to about a week of unseasonably cold weather, the precipitation froze to surfaces very quickly, and roads became very slick, resulting in numerous traffic accidents. The freezing rain rates increased during the evening, and moderate to heavy freezing rain continued through the overnight hours. By the pre-dawn hours of the 16th, total ice accretion ranged from one-quarter to one-half inch across the area. This resulted in quite a few trees and power lines, with at least scattered power outages reported.
1/12/2019	Moist air flowing over a wedge of cold air banked against the eastern slopes of the Appalachians resulted in precipitation development across the Blue Ridge and surrounding areas beginning during the evening of the 12th. The atmosphere quickly cooled to or below freezing near the escarpment and out across the lower elevations of the foothills and far northwest Piedmont. This resulted in much of the precipitation falling as freezing rain in these areas. The freezing rain continued through the overnight across the Blue Ridge and surrounding areas before tapering off around daybreak on the 13th. Total ice accretion of one quarter to one half inch was reported, with the heaviest amounts being across the foothills and immediately along the Blue Ridge escarpment. Scattered downed trees and power outages were reported throughout the area.
Polk County	
2/1/2008	Freezing rain continued through the early morning hours of the 1st in areas along the Blue Ridge. Ice accumulations of up to 1/2 inch occurred, resulting to significant damage to trees and power lines. Power outages were widespread from Brevard to Hendersonville. Sleet mixed in with the freezing rain, resulting in up to 2 inches of sleet accumulation in the Northern Mountains. Precipitation actually began during the evening of January 31st, but ice storm criteria were not met until the early morning hours of February 1st.
2/26/2013	Rain and freezing rain began across the southern mountains shortly after midnight and continued through the pre-dawn hours. Many locations saw mainly rain. However, cold air locked in near the escarpment resulted in an all-freezing rain event there. By the time temperatures warmed above freezing during late morning, up to a half inch of ice had accumulated within a few miles of the continental divide. Meanwhile, locations farther away from the Blue Ridge saw only trace amounts of ice. There were scattered downed trees and power lines, resulting in quite a number of power outages, especially in McDowell and Henderson counties.
11/25/2013	Light rain changed to freezing rain around midnight across southeast Blue Ridge areas, with freezing rain continuing off and on through the overnight. Precipitation became heavy at times just prior to sunrise and lasted through mid-morning before changing over to rain. Heavy ice accumulations were reported in the Saluda grade area of Polk County, and across eastern and southern Henderson County. Total ice accumulation of just over 1/4 inch was reported in these areas, which downed several trees and power lines.
2/15/2016	Very light freezing rain, freezing drizzle, and freezing mist developed across the Blue Ridge of western North Carolina during late morning, in association with low pressure developing along a warm front across the Gulf Coast states/Tennessee Valley. Owing to about a week of unseasonably cold weather, the precipitation froze to surfaces very quickly, and roads became very slick, resulting in numerous traffic

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Date	Description
	accidents. The freezing rain rates increased during the evening, and moderate to heavy freezing rain continued through the overnight hours. By the pre-dawn hours of the 16th, total ice accretion ranged from one-quarter to one-half inch across the area. This resulted in quite a few trees and power lines, with at least scattered power outages reported.
Rutherford County	
2/1/2008	Freezing rain continued through the early morning hours of the 1st in areas along the Blue Ridge. Ice accumulations of up to 1/2 inch occurred, resulting to significant damage to trees and power lines. Power outages were widespread from Brevard to Hendersonville. Sleet mixed in with the freezing rain, resulting in up to 2 inches of sleet accumulation in the Northern Mountains. Precipitation actually began during the evening of January 31st, but ice storm criteria were not met until the early morning hours of February 1st.
2/26/2013	Rain and freezing rain began across the southern mountains shortly after midnight and continued through the pre-dawn hours. Many locations saw mainly rain. However, cold air locked in near the escarpment resulted in an all-freezing rain event there. By the time temperatures warmed above freezing during late morning, up to a half inch of ice had accumulated within a few miles of the continental divide. Meanwhile, locations farther away from the Blue Ridge saw only trace amounts of ice. There were scattered downed trees and power lines, resulting in quite a number of power outages, especially in McDowell and Henderson counties.
2/15/2016	Very light freezing rain, freezing drizzle, and freezing mist developed across the Blue Ridge of western North Carolina during late morning, in association with low pressure developing along a warm front across the Gulf Coast states/Tennessee Valley. Owing to about a week of unseasonably cold weather, the precipitation froze to surfaces very quickly, and roads became very slick, resulting in numerous traffic accidents. The freezing rain rates increased during the evening, and moderate to heavy freezing rain continued through the overnight hours. By the pre-dawn hours of the 16th, total ice accretion ranged from one-quarter to one-half inch across the area. This resulted in quite a few trees and power lines, with at least scattered power outages reported.
1/12/2019	Moist air flowing over a wedge of cold air banked against the eastern slopes of the Appalachians resulted in precipitation development across the Blue Ridge and surrounding areas beginning during the evening of the 12th. The atmosphere quickly cooled to or below freezing near the escarpment and out across the lower elevations of the foothills and far northwest Piedmont. This resulted in much of the precipitation falling as freezing rain in these areas. The freezing rain continued through the overnight across the Blue Ridge and surrounding areas before tapering off around daybreak on the 13th. Total ice accretion of one quarter to one half inch was reported, with the heaviest amounts being across the foothills and immediately along the Blue Ridge escarpment. Scattered downed trees and power outages were reported throughout the area.
Transylvania County	
1/9/1997	
1/29/2000	Weakening low pressure in the Ohio River Valley, developing low pressure along the Gulf Coast and cold, arctic air in place across the Carolinas resulted in a wintry mess across western North Carolina. This was the last in a series of 5 winter storms that wreaked havoc on western North Carolina in an 11 day span. The ice storm in the mountains consisted mainly of a couple inches of sleet. However, the combined accumulation of the mixture of sleet and snow was generally 2 to 3 inches. Some freezing rain mixed in during the morning of the 30th. Across the foothills and piedmont, precipitation which briefly began as some light sleet and snow, turned quickly to freezing rain. The freezing rain was heavy enough across the southern piedmont, including the Charlotte area, to result in a 1/4 to 1/2 inch glaze. Scattered power outages resulted, with Gaston county reporting 2500 people without power. The entire Duke Power system reported 77,000 people without power.
12/4/2002	Freezing rain began over the extreme southern mountains of North Carolina during the early afternoon on the 4th, and had spread into the southwest piedmont by mid afternoon. Resultant damage due to ice accumulation began during the mid-to-late afternoon. The intensity of the freezing rain increased after midnight, and by sunrise on the 5th, devastating ice accumulations of 1/2 to 1 1/2 inches were observed.

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Date	Description
	The hardest hit area was Charlotte metro. Hundreds of thousands lost power, and the outages lasted for as long as 2 weeks in some areas.
2/3/2005	Scattered damage to trees and power lines began to occur across the mountains during the pre-dawn hours, and continued into mid-morning, as freezing rain fell.
12/15/2005	Ice accretion began to cause damage across the southern mountains and foothills of North Carolina just prior to sunrise. By late morning, the ice storm had become quite serious, as thousands of trees fell across the area, and power outages were widespread. Numerous trees and large limbs fell on and damaged homes and vehicles. It was estimated that three-quarters of Henderson County residents lost power. Most who lost power were without it for at least 24 hours. In some areas, it took as much as 5 days to restore electricity. Despite the devastation, road problems were few and far between, as temperatures hovered right around freezing for most of the event. Duke Power estimated costs for overtime and line repair at 72 million dollars for the event, though these costs are not reflected in the property damage values for the event above. In Henderson County, 2 deaths (indirect) occurred as a result of the ice storm. A woman died of carbon monoxide poisoning after running a generator in a garage. A man died of carbon monoxide poisoning due to a malfunctioning gas stove.
2/1/2008	Freezing rain continued through the early morning hours of the 1st in areas along the Blue Ridge. Ice accumulations of up to 1/2 inch occurred, resulting to significant damage to trees and power lines. Power outages were widespread from Brevard to Hendersonville. Sleet mixed in with the freezing rain, resulting in up to 2 inches of sleet accumulation in the Northern Mountains. Precipitation actually began during the evening of January 31st, but ice storm criteria were not met until the early morning hours of February 1st.
1/12/2019	Moist air flowing over a wedge of cold air banked against the eastern slopes of the Appalachians resulted in precipitation development across the Blue Ridge and surrounding areas beginning during the evening of the 12th. The atmosphere quickly cooled to or below freezing near the escarpment and out across the lower elevations of the foothills and far northwest Piedmont. This resulted in much of the precipitation falling as freezing rain in these areas. The freezing rain continued through the overnight across the Blue Ridge and surrounding areas before tapering off around daybreak on the 13th. Total ice accretion of one quarter to one half inch was reported, with the heaviest amounts being across the foothills and immediately along the Blue Ridge escarpment. Scattered downed trees and power outages were reported throughout the area.

TABLE G.10: LIGHTNING EVENTS (2000-2019)

Location	Date	Description
Hendersom County		
TUXEDO	6/14/1996	
EDNEYVILLE	7/14/1996	
HORSE SHOE	8/13/1998	Lightning struck a house and caused a roof fire.
TUXEDO	2/12/2000	A lightning bolt from a morning thunderstorm struck a power line, then traveled into a two story home and ignited a blaze which completely destroyed the home and its contents.
HENDERSONVILLE	7/18/2003	Lightning ignited a house fire.
HENDERSONVILLE	6/27/2005	Lightning ignited a house fire near the Laurel Park Shopping center. The fire destroyed much of the roof.
HENDERSONVILLE	4/27/2006	Lightning struck a house, blowing out one of the walls.
VALLEY HILL	5/8/2009	Lightning struck a home on Kanuga Rd, igniting a fire in the attic.
FRUITLAND	5/28/2009	Lightning struck a home on Good View Dr, igniting a fire that rendered the home unlivable. Location is approximate.
SMYTH	6/6/2011	Lightning started a fire at a barn, destroying the structure.
FRUITLAND	6/21/2011	Lightning struck a mobile home on McMinn Woods Dr, starting a fire that damaged one room of the home.
BRIGHTWATER	7/5/2011	Lightning struck a home on Solomon Circle, igniting a fire that destroyed most of the home. One person received minor injuries from the lightning.
GOODLUCK	7/5/2011	Lightning struck a home on Locust Grove Rd, igniting a fire that caused some minor damage.
BRIGHTWATER	1/11/2012	Lightning struck a home on Nimbus Lane, starting a fire that destroyed the structure.
VALLEY HILL	4/5/2012	Lightning struck a gas line at a home on Kanuga Forest Dr, causing an explosion that collapsed the exterior walls and igniting a fire that completely destroyed the structure.
BLUE RIDGE	8/22/2012	Lightning struck a tree that fell on and heavily damaged a home on Toone Town Terrace. An occupant was briefly trapped inside.
MILLS RIVER	6/27/2016	Spotter reported lightning struck near a home on Chestnut Ridge Rd, igniting a structure fire.
DRUID HILLS	8/17/2016	A radio station took a direct lightning hit, causing major damage to equipment both outside and inside the station. A nearby barn was also struck by lightning about the same time, igniting a fire that burned it down.
Polk County		
TRYON	7/14/1996	A few trees were blown down in a severe thunderstorm. Storms in and near the mountains caused a great deal of lightning, some of which apparently started fires.
TRYON	6/2/1997	Severe thunderstorms moved in from Upstate South Carolina during the early morning hours becoming more widespread across portions of western North Carolina. Large and damaging hail occurred in many locations, and a number of places were affected by two or three different storms. The hail caused extensive damage and the dollar total will no doubt end up in the millions for both property and crop damage. The counties which were hit hardest were McDowell and Rutherford. At one car dealership in Marion the damage reached \$500 thousand quickly. At least one insurance company set up a disaster center to process claims involving many cars and roofs which were hail damaged. Only one downburst was known to have occurred and resulted in trees downed across Highway 221 north of Rutherfordton. At Tryon, an historic house and contents including some antiques, burned to the ground. Lightning at Newton struck several residences, causing fire damage.
SALUDA	8/24/2002	Lightning ignited a fire, destroying a house and much of its contents.
MILL SPG	7/21/2006	Four children and 2 adults were injured when lightning struck their tent.
MC GINNIS XRDS	8/20/2014	FD reported lightning struck a house and ignited a fire on Chesnee Highway.

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COLLINSVILLE	7/4/2019	Emergency manager reported lightning caused a structure fire at a home on Jackson Grove Rd.
Rutherford County		
UNION MILLS	7/16/1997	Severe thunderstorms developed mainly in the foothills of North Carolina during the afternoon. Damaging winds up to 75 mph downed trees and power lines. U.S. Highway 74 in Henderson county was blocked for 2 hours due to a large oak tree that fell across the road. Another large tree in Cleveland county fell onto 2 pickup trucks, totalling them. Three houses were damaged by fallen trees, a car was damaged by a collapsed convenience store canopy and trees blocked roads near Indian Trail. Power outages were scattered across the region, some due to lightning. Up to 4300 people were without power in Union county.
ELLENBORO	7/16/1997	A mobile home was destroyed by lightning in Union Mills and a home severely damaged by lightning in Ellenboro. Damage estimates are unknown.
ALEXANDER MILLS	8/20/1999	A line of strong to severe thunderstorms moved west to east across western North Carolina during the early morning hours on the 20th. A very severe thunderstorm produced a long narrow path of wind damage across northern Yancey county. Numerous trees were downed, one on a car, a barn was destroyed and crops were flattened by the wind. There was also significant hail damage to crops. A public report of a roaring noise associated with the wind led some to believe it was a tornado. However, there was not enough evidence to classify the event as such. Trees were also downed in a few other counties and there were a few reports of dime to quarter size hail.
FOREST CITY	7/31/2000	Strong, nearly stationary thunderstorms dumped excessive rain and produced damaging lightning strikes and gusty winds over and near Forest City during the early morning hours. An estimated 5 inches of rain fell in the area causing urban flooding to begin around midnight. Soon after though, numerous creeks flooded, washing away parts of several streets and roads. One lightning strike cause a fire which burned an outbuilding. Some trees were downed from a combination of the heavy rain, wind and lightning.
BOSTIC	6/15/2001	Lightning earlier in the afternoon struck a tree and later caused it to fall across a barn.
GILKEY	4/17/2002	Lightning struck a tree and entered a nearby house, causing a fire. The fire burned a large part of the house.
LAKE LURE	7/4/2002	Lightning caused fires at 6 buildings.
CHIMNEY ROCK	7/18/2003	A person was injured when he was struck by lightning.
RUTHERFORDTON	7/21/2003	A lightning strike ignited a fire at a barn, destroying the barn and its contents.
FOREST CITY	7/31/2003	A man was injured when he was struck by lightning. Lightning also ignited several structure fires in the area, one of which caused significant damage.
BOSTIC	7/31/2003	Lightning sparked several fires.
LAKE LURE	5/8/2004	Lightning ignited several fires and downed some power lines.
RUTHERFORDTON	6/27/2005	Tree trees snapped off by lightning.
CLIFFSIDE	7/9/2009	Lightning struck and injured 5 workers at a power plant near Cliffside. Although most of the injuries were minor, two people were transported to the hospital.
ELLENBORO	4/6/2017	Newspaper reported lightning struck a home in Ellenboro, igniting a fire that caused significant damage.
Transylvania County		
BREVARD	6/4/1999	Lightning was suspected to have started a fire in a home about 12 hours after the actual strike. The home and its contents were destroyed.
BREVARD	7/27/1999	A severe thunderstorm downed several trees and power lines. In addition, a great amount of cloud to ground lightning was produced, which resulted in 3 injuries. One person was injured while in the basement, touching a water heater. Another injury occurred while talking on the phone.
BREVARD	6/6/2002	Lightning ignited a few fires.

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SAPPHIRE	8/10/2003	A man was injured in Gorges State Park when the stream he was swimming in was struck by lightning.
CONNESTEE	7/11/2004	Lightning struck a house, igniting a fire which destroyed the house and its contents.
CEDAR MTN	7/6/2008	Lightning ignited a fire which destroyed most of a house on Fox Tower Rd.
DAVIDSON RIVER	8/20/2009	Lightning ignited a fire at a home on Wilson Rd, about two miles east northeast of Brevard, causing damage to the roof and attic.
OAKLAND	5/15/2010	Lightning ignited a fire at a business on highway 64, causing significant damage to a portion of the building. Although the fire was contained, lightning apparently struck this location again at 11:30 pm that evening, causing another fire which destroyed the remainder of the building.
BLANTYRE	2/28/2011	A lightning strike damaged a home on Sandrock Trail.
BREVARD	4/20/2011	Lightning struck a tree at Brevard College, causing minor injuries to two people standing nearby.
DAVIDSON RIVER	5/3/2011	A tree fell after being struck by lightning, damaging a home and destroying an outbuilding in the Williamson Creek area.
NORTH BREVARD	6/13/2012	Lighting started a fire in the basement of a home on Pine Mountain Trail, causing some minor damage before being extinguished by a burst water line.
BLANTYRE	7/19/2016	Media reported a trailer transporting horses was struck by lightning on Turkey Pen Rd. One horse was killed and the trailer severely damaged.

TABLE G.11: SLEET EVENTS (2000-2019)

Date	Description
Henderson County	
1/8/1997	
12/23/1998	Freezing rain and sleet developed early Wednesday morning and persisted through the morning of Christmas Eve. These areas would receive enough glaze by Christmas Eve morning to cause damage.
3/9/1999	Light snow and sleet fell during the morning, associated with a strong low-pressure area moving north through the Mississippi River Valley. Accumulations by noon ranged between 1 and 3 inches. Some light freezing rain mixed in from time to time as well.
2/22/2001	Cold, dry air plunged south over western North Carolina following the passage of a cold front the day before. Moisture return began almost immediately thereafter, ahead of an advancing storm system from the Gulf Coast region, and as an upper level disturbance approached the area, precipitation became widespread. Air was cold enough in the mountains to support mostly snow, while in the foothills and piedmont, the dry air in the lower levels of the atmosphere created ideal conditions for a sleet/snow mixture. In the mountains, thundersnow occurred.
Transylvania County	
1/8/1997	
12/23/1998	Freezing rain and some sleet developed early Wednesday morning and persisted through the morning of Christmas Eve. Some areas later received enough glaze to cause damage.
3/9/1999	Light snow and sleet fell during the morning, associated with a strong low-pressure area moving north through the Mississippi River Valley. Accumulations by noon ranged between 1 and 3 inches. Some light freezing rain mixed in from time to time as well.

TABLE G.12: TORNADO EVENTS (2000-2019)

Location	Date	Description
Henderson County		
Unincorporated Area	10/17/1975	
Unincorporated Area	2/18/1976	
Unincorporated Area	8/17/1977	
Polk County		
Unincorporated Area	8/17/1977	
RODDY STORE	10/26/2010	This tornado touched down in the Sandy Plains Rd area just north of White Oak Creek, breaking off the tops of several trees and some large branches. The tornado then skipped east northeast, snapping and uprooting a small but concentrated area of trees in the Coxe Rd area. One large tree fell on a home on Coxe Rd before the tornado lifted.
TRYON	10/8/2017	NWS storm survey found an area of tornado damage in downtown Tryon. This tornado developed from the same storm that produced a tornado just over the state line in the Lake Lanier area of northern Greenville County. The tornado touched down on Melrose Ave, a block west of Pacolet St and continued moving to the north-northeast with continuous damage for a distance of less than a mile. Hundreds of trees were snapped or uprooted, homes had damaged shingles and siding, damaged roofs, while other homes and vehicles were damaged by falling trees. One company had 6 generators damaged with one 2400 pound generator moved 30 feet. The tornado lifted just north of the downtown area.
Rutherford County		
Unincorporated Area	5/27/1973	
Unincorporated Area	5/18/1975	
Unincorporated Area	5/18/1975	
Unincorporated Area	5/5/1989	
RUTHERFORDTON	5/24/2000	A few thunderstorms crossed the mountains, then exploded and quickly became large supercells as they moved into the foothills late in the afternoon. The most damaging of the supercells developed in northern McDowell county and became severe along the Burke/McDowell county line near Lake James, dropping baseball size hail. This severe storm tracked southeast along the county border, producing golf ball to softball size hail all the way to the Rutherford county line. In addition to the very large hail, this supercell was able to generate a few weak (F0) tornadoes. The first tornado briefly touched down near Bridgewater and blew windows out of a house. It may also have been responsible for wind damage at a nearby mobile home park where 15 to 25 mobile homes sustained damage from both wind and hail. The second tornado developed in extreme eastern McDowell county and blew down trees across Interstate 40 before crossing into Burke county. Several motorists on Interstate 40 sighted the tornado and had their vehicles damaged by softball size hail. A resident in extreme southwest Burke county, near the Rutherford county line measured a 94-mph gust of wind as the parent supercell moved overhead. A damage survey team did not find any tornadic damage in the vicinity but suspected this may have been the actual mesocyclone on the ground. There was extensive hail damage to homes, vehicles and plants from softball size hail that was seen bounding" down the hillside. The third tornado developed near South Mountain State Park in northeast Rutherford county and blew down

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		numerous trees in the vicinity of the park. This storm went on to produce nickel to baseball size hail in Cleveland county.
FOREST CITY	7/7/2005	This tornado moved into far southern Rutherford County from Spartanburg County in the Jonas Rd area. The metal roof was torn off a barn just across the state line. Otherwise, damage was mainly confined to snapped off an uprooted tree, some of which fell on homes. Near the end of the track, a mobile home was lifted and dropped 50-100 feet from its original position, resulting in severe damage.
FOREST CITY	10/26/2010	This tornado began just southwest of Crowe Dairy Rd, where the tops of several trees were blown out. The tornado intensified as it moved northeast, blowing the porch off a home and scattering debris as far as 50 yards. In addition, part of the roof was lifted off an attached garage and doors were blown in on a shed at this location.
ELLENBORO	1/11/2012	A tornado damage path began near the Ellenboro community, just northeast of the intersection of Pinehurst Rd and Bridge Rd. The track was relatively weak and intermittent for the first mile or so, as it crossed into a wooded area before emerging on Tiney Rd near the Corinth community. The aluminum siding and some roofing was peeled off a shed at this location. The intermittent path continued to the northeast, before becoming more concentrated in the area near Piney Mountain Rd and Piney Mountain Church Rd. The tornado reached its peak intensity as it moved roughly parallel to Piney Mountain Rd, crossing W E Padgett Rd toward Walls Church Rd. Several homes received minor to major damage in this area, while two mobile homes were completely destroyed. Ten people were injured, one seriously. Several outbuildings were also destroyed, while numerous trees and power lines were felled. The tornado began to weaken as it continued northeast, crossing Walls Church Rd and Dycus Rd before lifting just north of Salem Church Rd. The tornado was the first winter tornado in Rutherford County recorded history, and the first significant tornado (F2/EF2 and stronger) to affect the county since 1989.
CLIFFSIDE	10/23/2017	This tornado moved into Rutherford County from Cherokee County, SC near the intersection of Camp Ferry Rd and State Line Rd. The tornado moved northeast, initially paralleling Highway 221A (just to its west). In addition to the uprooting and snapping of numerous trees, some structural damage occurred in the Cliffside area, with windows blown out of a school while trees fell on several structures. The tornado crossed Highway 221A in the vicinity of the Broad River, then roughly paralleled Highway 120 to the Cleveland County line. Some of the most significant damage occurred in the vicinity of the intersection of Highways 120 and 74, where a camper was overturned and a man was thrown 15-20 yards with no significant injuries. Overhead doors also collapsed at a warehouse building at this location.
ELLENBORO	6/8/2019	Media released drone footage of multiple downed trees around a home on Webb Rd. The trees were arranged in a distinct convergent/rotational pattern, indicating tornado damage.
Transylvania County		
Unincorporated Area	4/3/1974	
Unincorporated Area	1/10/1975	
Unincorporated Area	6/20/1984	

Source: NOAA, NCEI

TABLE G.13: THUNDERSTORM WIND EVENTS (1990-2019)

Location	Date	Description
Henderson County		
Unincorporated Area	4/20/1991	
Unincorporated Area	8/27/1992	
Balfour	6/26/1995	Mobile home destroyed by falling trees.
Fletcher	8/11/1995	Trees and power lines down.
HENDERSONVILLE	5/26/1996	Slow moving severe thunderstorms pounded a small area in the mountains. Walnut size hail was reported in Cullowhee and numerous trees and power lines were downed. Residents were convinced that a tornado hit. In Hendersonville downed trees and power lines blocked streets.
HENDERSONVILLE	7/7/1996	The wind blew 3 large oak trees onto a home. Also, 1700 customers were without power as a result of wind damage.
ETOWAH	8/24/1996	
FLETCHER	2/21/1997	
ETOWAH	2/21/1997	
HENDERSONVILLE	6/14/1997	Severe thunderstorms blew down trees and power lines in Henderson county and caused large hail near the South Carolina border in Polk county. The most damage occurred around Shelby where trees were blown down in 15 locations near town. At least one tree fell on a vehicle and another fell on a house.
ETOWAH	7/4/1997	Severe thunderstorms moved into the mountains from Tennessee in the early evening on the Fourth, before moving into or redeveloping in the foothills and western piedmont later in the evening. Damaging winds raked much of western North Carolina, downing trees and power lines, and a few reports of hail as large as golf balls were reported. Several counties reported trees and power lines down countywide, often blocking roads and damaging homes and/or vehicles. Outflow from the storms propagated southeast into the Charlotte metro area before midnight, producing gusty winds between 35 and 45 mph for a short period of time. Dollar amounts for much of the damage were not available at the time of this writing.
HENDERSONVILLE	7/4/1997	A man suffered a head injury when a tree fell on him.
BAT CAVE	7/16/1997	Severe thunderstorms developed mainly in the foothills of North Carolina during the afternoon. Damaging winds up to 75 mph downed trees and power lines. U.S. Highway 74 in Henderson county was blocked for 2 hours due to a large oak tree that fell across the road. Another large tree in Cleveland county fell onto 2 pickup trucks, totaling them. Three houses were damaged by fallen trees, a car was damaged by a collapsed convenience store canopy and trees blocked roads near Indian Trail. Power outages were scattered across the region, some due to lightning. Up to 4300 people were without power in Union county.
ETOWAH	6/22/1998	Multi-cell thunderstorms moved across the mountains and into the foothills during the evening hours. Some of the storms became severe and produced mainly wind damage. Winds were estimated as high as 75 mph in Rutherford county early in the evening, resulting in downed trees damaging several homes and a barn destroyed. A National Weather Service cooperative observer measured a 63-mph wind gust on Flat Top Mountain. A tree fell on a house in west Asheville as well as in Hickory. Elsewhere, scattered trees and some power lines were downed.
HENDERSONVILLE	6/24/1998	Multi-cell thunderstorms again developed in the early evening and moved south across the southern mountains and piedmont. A few became severe and produced large hail up to golf ball size, as well as damaging winds. Wind damage was confined to downed trees and power lines. The hardest hit area was northeast of Brevard where roads were blocked.

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Location	Date	Description
MILLS RIVER	1/23/1999	Unseasonably warm, moist air and strong winds through a deep layer of the atmosphere combined to produce a line of thunderstorms along a cold front advancing east across North Carolina. Some of these storms became severe, bringing damaging wind speeds to the surface in some of the southern and central mountain counties. Wind speeds were reported in the 60 to 70 mph range with a measured gust recorded on Flat Top Mountain (elev. 4320 ft) to 78 mph. A 9-mile-long damage path through Mills River and northern Henderson county was initially 100 yards wide, then narrowed to between 25 and 50 yards. Numerous trees and power lines were downed.
HENDERSONVILLE	5/13/1999	Scattered thunderstorms developed during the afternoon and evening of the 13th and a few pulsed to severe levels. In Henderson county, golf ball size hail covered Highway 280 and a large tree fell onto a house in Hendersonville, causing significant damage to the house and outdoor furniture. Dime to golf ball size hail was reported in Union county along with a measured wind gust to 85 mph. Quarter size hail was reported late in the evening in Avery county. There was a public report of a sighting of a very weak tornado that appeared to make a brief touchdown, but caused no damage, north of Marion. Due to insufficient data in support of this report, an official tornado event will not be entered..
LAUREL PARK	8/10/2000	Numerous trees were blown down countywide, but especially in the western half. A 250 year old tree fell and damaged 2 vehicles.
HENDERSONVILLE	8/18/2000	Several trees were blown down on Hebron Road.
HENDERSONVILLE	5/22/2001	Trees down on Shepherd Street.
HENDERSONVILLE	7/8/2001	Trained spotter measured a wind gust at Hoopers Creek.
HENDERSONVILLE	7/8/2001	Numerous trees and power lines down. Some trees fell on houses. Over 7000 homes lost power during the storm and remained without power for much of the night.
HENDERSONVILLE	8/10/2001	Severe thunderstorm winds brought down at least two trees in the city. One fell across a mobile home, injuring the occupants inside.
MILLS RIVER	5/2/2002	Some trees were blown down.
HENDERSONVILLE	8/24/2002	Several trees and powerlines were blown down.
HENDERSONVILLE	11/11/2002	Several trees were blown down.
FLETCHER	5/2/2003	Some trees were blown down.
HENDERSONVILLE	5/2/2003	Numerous trees were blown down.
ASHEVILLE RGNL ARPT	7/16/2003	
HENDERSONVILLE	7/18/2003	Several trees were blown down, including two on 4th Avenue.
ASHEVILLE RGNL ARPT	7/21/2003	Numerous power lines and trees were blown down, including nine Bradford Pear trees at a golf course.
EDNEYVILLE	5/20/2005	Trees down along highway 64. Trees were also reported down around Sugarloaf Mountain.
ETOWAH	5/20/2005	Trees down along highway 64.
DANA	8/14/2005	Several trees blown down.
HENDERSONVILLE	6/11/2006	A tree was blown down onto power lines just north of town, with 2 other small trees down in the same area.
BAT CAVE	6/23/2006	Trees and lines down.
MOUNTAIN HOME	7/4/2006	Numerous tree limbs blown down and a large swing set overturned
MILLS RIVER	7/21/2006	Trees and power lines down.
MOUNTAIN HOME	7/21/2006	Trees and power lines down.
ETOWAH	8/30/2006	Numerous trees blown down, including some 70-foot pine trees, centered around the area near the intersection of Cummings Cove Rd and Big Willow Rd. Nickel to quarter size hail was also reported.

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Location	Date	Description
HENDERSONVILLE	9/28/2006	Trees blown down on power lines.
EDNEYVILLE	10/11/2006	Several trees blown down.
MILLS RIVER	6/25/2007	Large tree limbs blown down, which took down some power lines.
FLETCHER	7/10/2007	Trees down on Justice St and Wiltshire Ct. One tree fell on and damaged a house on Justice St. Also, 7 doors were blown out of the Fletcher FD building.
HENDERSONVILLE	8/26/2007	Several trees blown down near exit 49 off of I-26, including trees blocking parts of N Main St and upper Ridgewood Blvd, and a tree on a car on Oak St. Also, several large limbs took down power lines.
HENDERSONVILLE	3/4/2008	Numerous trees blown down across the county.
ETOWAH	6/27/2008	Several large tree limbs and power lines were blown down.
EAST FLAT ROCK	6/28/2008	Numerous trees were blown down.
HENDERSONVILLE	7/7/2008	Several trees blown down around Flat Rock and vicinity.
MILLS RIVER	6/10/2009	A tree fell on a home on Amywood Lane in Mills River. Trees were also blown down in Mountain Home.
OTTANOLA	6/10/2009	Trees were blown down from Slick Rock Rd to Sugarloaf Mountain.
FLETCHER	6/18/2009	Several trees were blown down from Fletcher to Hendersonville.
ETOWAH	6/18/2009	Several trees were blown down.
DANA	7/27/2009	Trees were blown down on Deep Gap Rd.
EDNEYVILLE	8/5/2009	Several trees were blown down in the Old Clear Creek Rd. area.
UPWARD	6/25/2010	A tree was blown down near the intersection of I-26 and Upward Rd.
DANA	6/25/2010	A tree was blown down near the intersection of Deep Gap Rd and Deep Gap Loop Rd.
MILLS RIVER	7/11/2010	Numerous trees were blown down in the Mills River area extending from about 4 miles west northwest of Mills River along North Mills River Road, to River Loop Road, to Turnpike Rd, ending about 2 miles southeast of Mills River along Ladson Rd.
RUGBY	7/17/2010	About two dozen trees were blown down on South Rugby Rd.
BRIGHTWATER	7/18/2010	Several large tree limbs were blown down about 3 miles west of Hendersonville and a tree was blown down on Lakeside Dr near Willow Rd.
ETOWAH	10/25/2010	Numerous trees were blown down across the county.
ETOWAH	4/4/2011	Dozens of trees were blown down around a golf course on the north side of Etowah. Other trees and power lines were blown down sporadically toward the Hendersonville area.
HORACE	4/28/2011	Trees and power lines were blown down.
CAROLINA HILLS	6/10/2011	A tree was blown down on Pattys Chapel Rd with another blown down on Asheville Highway in Fletcher.
LAUREL PARK	6/12/2011	Multiple trees were blown down in and around Hendersonville, mainly on the south side of town. One tree fell on a house on Whitted St.
ETOWAH	6/15/2011	Multiple trees were blown down in the Etowah area.
MILLS RIVER	6/18/2011	Multiple trees were blown down from Mills River, across the north side of Hendersonville, to the Dana community, to East Flat Rock. One tree fell on a vehicle on Shady Bottom Rd in Mills River.
GERTON	6/21/2011	A few trees were blown down in the northeast part of the county, including on Bearwallow Mountain and near Bat Cave.
HORACE	6/21/2011	A tree was blown down along Lamb Mountain Rd, about 6 miles south southwest of Bat Cave.
MILLS RIVER	6/22/2011	A tree blew down and blocked highway 191 in Mills River. There were also power lines blown down on Rugby Rd and power lines down on Naples Rd, both a few miles east of Mills River.
ETOWAH	7/4/2012	Trees were blown down in Etowah and surrounding areas.

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Location	Date	Description
LAUREL PARK	7/17/2012	Multiple trees and power lines were blown down on 4th Ave W near North Washington St.
BRIGHTWATER	7/27/2012	Numerous trees were blown down across the Hendersonville area. At least seven roads had trees across them. A tree fell on a home on Dana Rd about 1.5 miles north of downtown.
TUXEDO	8/2/2012	Multiple trees were blown down on highway 25 south of Hendersonville and Flat Rock.
HORSE SHOE	8/9/2012	Multiple trees were blown down about 2 miles south southwest of Mills River. A tree was also blown down on South Mills River Rd 2 miles west of town.
HORACE	8/14/2012	A tree was blown down on Summer Road near the Polk County line.
FLETCHER	6/7/2013	Several trees were blown down around Fletcher.
HORSE SHOE	8/12/2013	Multiple trees were blown down on the southwest side of the Mills River community, including on Ray Hill Rd, Turnpike Rd and on Schoolhouse Rd.
GERTON	9/1/2013	Multiple trees and power lines were blown down in the Gerton community.
EDNEYVILLE	9/1/2013	Numerous trees were blown down in the Edneyville area.
GERTON	9/1/2013	A thunderstorm knocked down trees and power lines in the Gerton community, about 20 minutes after another thunderstorm caused wind damage in the same area.
ETOWAH	5/27/2014	County comms reported multiple trees blown down on the south side of Etowah, including on Eade Rd and Pleasant Grove Rd.
ETOWAH	6/20/2014	FD reported multiple trees and power lines blown from between Etowah and Horse Shoe to the southern end of the county.
HOOPERS CREEK	7/27/2014	Law enforcement reported a tree and powerline blown down near Apple Blossom Park Dr (2 ENE Fletcher). County comms reported several trees and power lines down in Mountain Home area.
TUXEDO	9/2/2014	FD reported two trees blown down on Highway 176.
RUGBY	6/2/2015	County comms reported two trees blown down along Rugby Rd.
RUGBY	6/26/2015	County comms reported trees blown down on Rugby Rd.
MOUNTAIN HOME	7/13/2015	County comms reported multiple trees blown down in the Etowah and Mountain Home communities.
MILLS RIVER	7/14/2015	County comms reported multiple trees blown down in the Mills River area.
ETOWAH	8/4/2015	Public reported several dozen trees blown down throughout the Etowah community.
BOWMAN BLUFF	7/14/2016	Spotter reported a few trees blown down on Fairway Noll Rd.
TUXEDO	7/21/2016	County comms reported numerous trees and power lines blown down along Green River Rd.
UPWARD	5/19/2017	Public reported two trees blown down near Dana.
HOLLY SPGS	5/27/2017	County comms reported multiple trees blown down throughout Henderson County.
HENDERSONVILLE	6/13/2017	County comms reported trees blown down in the vicinity of Laurel Park.
EAST FLAT ROCK	6/13/2017	FD reported at least 2 trees blown down with one tree down across Highway 25 and blocking traffic.
VALLEY HILL	7/15/2017	County comms reported a few trees blown down in the Valley Hill area.
LEAD	7/15/2017	County comms reported a few trees blown down in the Green River area.
HOOPERS CREEK	7/23/2017	FD reported multiple trees blown down east of Fletcher.
MILLS RIVER	6/3/2018	Spotter reported multiple large trees blown down along Highway 191 near Mills River, with one tree down on a house.
BARKER HGTS	6/3/2018	County comms reported numerous trees blown down from the east side of Hendersonville to the Dana area.
MILLS RIVER	6/26/2018	County comms reported multiple trees blown down in the Mills River area.
FLETCHER	6/26/2018	County comms reported multiple trees blown down in the Fletcher area.
LEAD	4/14/2019	Public reported a chimney blown off and partial roof damage to a home on Tall Oak Acres.

APPENDIX G: NCEI STORM EVENT DATA

Location	Date	Description
BOWMAN BLUFF	4/19/2019	County comms reported trees and power lines blown down on River Rd in Etowah and other trees down closer to Hendersonville.
BOWMAN BLUFF	8/21/2019	Public reported three trees blown down at a golf course off Cummings Rd.
MOUNTAIN HOME	10/31/2019	Public reported (via Social Media) a large tree limb blown down through a truck windshield on Naples Rd.
Polk County		
Unincorporated Area	6/9/1990	
Unincorporated Area	8/21/1990	
Unincorporated Area	5/15/1994	Strong thunderstorm winds blew down trees and power lines.
MILL SPG	6/24/1996	
MILL SPG	8/21/1996	Downburst winds caused a fair amount of damage around Collettsville where tin was ripped off roofs, trees and power lines were blown down and signs were destroyed. In Mill Spring some power poles and trees were downed.
COLUMBUS	7/4/1997	Two people were injured by tent poles that were sent hurtling through the air by severe thunderstorm winds. Power loss to 35,000 customers also occurred.
MILL SPG	7/28/1997	Thunderstorms developed in a very warm and unstable atmosphere during the afternoon. Several storms became severe and produced damaging straight line winds for the most part. A few reports of large hail were also received. Most of the damage took the form of downed trees and power lines. However, roofs were partially blown off a mobile home in Rutherford county and a building in Mt. Holly in Gaston county. A tree fell on a trailer in Haywood county and dime size hail fell for 10 minutes in Marshall.
COLUMBUS	7/11/2000	Scattered thunderstorms rumbled in the foothills, with a couple becoming severe during the late evening. A roof was blown off a trailer in the Green Creek community east of Columbus and shingles were blown off roofs in Shelby. Otherwise, numerous trees and power lines were blown down causing power outages.
TRYON	7/11/2000	Scattered thunderstorms rumbled in the foothills, with a couple becoming severe during the late evening. A roof was blown off a trailer in the Green Creek community east of Columbus and shingles were blown off roofs in Shelby. Otherwise, numerous trees and power lines were blown down causing power outages.
COLUMBUS	8/24/2000	An isolated slow-moving severe thunderstorm produced a couple areas of straight-line damaging winds. Power lines were blown down west of Columbus and trees and power lines were downed in the city.
COLUMBUS	8/24/2000	An isolated slow-moving severe thunderstorm produced a couple areas of straight-line damaging winds. Power lines were blown down west of Columbus and trees and power lines were downed in the city.
COUNTYWIDE	5/21/2001	At least 11 trees were blown down county-wide by a morning severe thunderstorm.
COLUMBUS	6/13/2001	Sheriff's department reported numerous trees and power lines down. Between 10 and 20 trees were blown onto Interstate 26. A public report of a roof being torn off a building at a country club was also received.
BEULAH	7/8/2001	Trees down along N.C. 9 near Mill Spring. Stop signs were blown down near Beulah.
COUNTYWIDE	5/13/2002	A few trees were blown down.
COLUMBUS	7/4/2002	A few trees and powerlines were blown down.
SALUDA	9/14/2002	Some trees were blown down.
SUNNY VIEW	9/14/2002	Some trees were blown down.
COLUMBUS	11/11/2002	Several trees were blown down.

APPENDIX G: NCEI STORM EVENT DATA

Location	Date	Description
COLUMBUS	5/2/2003	Numerous trees and power lines were blown down. A tree fell on a porch, resulting in significant damage.
COUNTYWIDE	6/27/2003	Several trees were blown down.
TRYON	8/22/2003	A tree and some power lines were blown down.
COLUMBUS	5/30/2004	Numerous trees and power lines were blown down.
MILL SPG	6/12/2004	Several trees were blown down.
COUNTYWIDE	6/6/2005	Numerous trees down across the county.
TRYON	6/27/2005	Trees down on highway 176 between Tryon and Saluda.
COLUMBUS	7/28/2005	Trees down in the Collinsville Rd area.
COLUMBUS	4/19/2006	Trees reported split by the wind.
COLUMBUS	6/11/2006	Numerous trees blown down in the Sunny View community.
COLUMBUS	6/23/2006	Large tree limbs blown down in the Green Creek area.
TRYON	7/15/2006	Four trees blown down in Tryon.
TRYON	9/28/2006	Two trees took down power lines on highway 108 in the Lynn community, knocking out power to a large portion of Tryon.
TRYON	8/21/2007	A couple of trees and power lines blown down.
TRYON	3/4/2008	A few trees blown down.
COLUMBUS	3/4/2008	A few trees blown down across the county.
MILL SPG	6/27/2008	Trees were blown down along Wilson Rd.
COLUMBUS	7/6/2008	A tree was blown down on highway 74 near Columbus, and another tree was downed on Fox Mountain Rd.
SUNNY VIEW	5/28/2009	Trees and large tree limbs were blown down along highway 9 near the Sunnyview community, over to the Rutherford County line.
SUNNY VIEW	6/9/2009	Large tree limbs were blown down.
MILL SPG	6/9/2009	A tree was blown down along highway 9 north of Mill Spring, and another tree was downed near the intersection of highway 108 and Toney Rd.
SUNNY VIEW	6/10/2009	Large tree limbs were blown down along highway 9 in the Sunnyview community.
SUNNY VIEW	6/11/2009	Large tree limbs were blown down along highway 9 near the Sunnyview community.
MILL SPG	7/23/2009	Two trees were blown down in the Mill Spring community.
MC GINNIS XRDS	7/28/2009	Trees were blown down on Poors Ford Rd.
SANDY PLAINS	8/5/2009	Several trees were blown down just off highway 9.
SALUDA	6/15/2010	A couple trees were blown down in the Saluda area.
MILL SPG	6/16/2010	Multiple trees were blown down between highway 108 and highway 9.
SUNNY VIEW	7/18/2010	A couple trees were blown down in the Big Level Rd.
VALHALLA	9/27/2010	Numerous trees and large limbs were blown down in and around Tryon, especially in the Harmon Field Rd, highway 176 area. Two homes were damaged by falling trees and several roads were blocked.
SALUDA	4/4/2011	Numerous trees were blown down across the county, with the Tryon area being the hardest hit. Numerous trees fell on roads, and at least one tree fell on a vehicle in Tryon.
TRYON	5/26/2011	Multiple trees were blown down in the Tryon area.
MELROSE	6/18/2011	Trees were blown down on power lines on Howard Gap Rd and on I-26 at mile marker 62. Two more trees fell along highway 108 near Harmon Field Rd.
VALHALLA	8/14/2011	Trees were blown down on Walcott Farm Lane and on Hunting Country Rd. Trees were also blown down on Lanrum Rd and Collinsville Rd to the southeast of Columbus.

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Location	Date	Description
MILL SPG	7/1/2012	Multiple trees were blown down to the north of Mill Spring.
COLUMBUS	7/9/2012	Two trees were snapped and two large limbs blown down along I-26 between mile marker 69 and 70.
MT VLY	7/27/2012	County reported trees blown down on Holbert Cove Rd.
MELVIN HILL	7/27/2012	Three trees were blown down in the Green Creek community.
MILL SPG	8/14/2012	A small tree was blown down just outside the reception area for Bright's Creek Golf and Equestrian Community.
COLLINSVILLE	9/3/2012	A tree was blown down on Phillips Rd about 6.5 miles southeast of Columbus.
MELVIN HILL	9/3/2012	A tree was blown down on Coxe Rd in the Green Creek community.
TRYON	1/30/2013	Multiple trees were blown down in the Tryon area.
MELVIN HILL	1/30/2013	Multiple trees were blown down in the Green Creek community.
TRYON	5/22/2013	Trees were blown down on North Trade St.
COLLINSVILLE	5/22/2013	A tree was blown down on Landrum Rd. Several large limbs were blown down nearby on Woody Circle.
COLLINSVILLE	6/9/2013	Trees were blown down on Collinsville Rd and John Weaver Rd in the Green Creek community.
COLUMBUS	7/12/2013	A few trees were blown down from Tryon to the Green Creek community.
COLUMBUS	8/23/2013	Multiple trees were blown down on a home on Red Fox Rd, about 5 miles east northeast of Tryon. A tree was blown down on power lines on Golf Course Rd near Landrum Rd. A fell on a home Collinsville Rd, about 6 miles east southeast of Columbus. A shed was also flipped in the area.
COLLINSVILLE	9/12/2013	Multiple trees were blown down near South Phillips Rd and Bee Hive Rd.
MC GINNIS XRDS	8/20/2014	FD reported multiple trees and power lines blown down along Chesnee Highway, from just east of the center of the Green Creek community to the Rutherford County line.
TRYON	6/16/2015	EM reported 6 to 8 trees blown down in extreme southern Polk County near the intersection of Hunting Country Rd and Red Barn Rd.
BEULAH	6/19/2015	County comms reported multiple trees blown down east of Mill Spring, including along Polk Central Ln, John Shehan Rd, and Moore Rd.
MT VLY	7/8/2015	Public reported multiple trees and power lines blown down.
MILL SPG	7/21/2015	County comms reported a tree blown down just south of Mill Spring and another tree down on Medford Rd.
TRYON	7/21/2015	County comms reported a tree blown down on S River Rd and another tree down on Carriage Way.
MC GINNIS XRDS	8/5/2015	HAM radio operator reported numerous trees blown down in the Green Creek area, from Melvin Hill Rd near the South Carolina border, across Chesnee Rd, to McMurray Rd and Stacey Rd near the Rutherford County line.
VALHALLA	7/8/2016	Public reported (via Social Media) trees blown down on Miller Mountain Rd.
COLLINSVILLE	7/1/2017	County comms reported numerous trees blown down on Landrum Rd.
MELVIN HILL	7/8/2017	FD reported multiple trees and some power lines blown down in the Green Creek area, centered around Green Creek Drive.
MILL SPG	5/10/2018	EM reported several trees blown down in the Mill Spring area.
TRYON	5/10/2018	EM reported multiple trees blown down along I-26, with one on a tractor-trailer.
SUNNY VIEW	6/27/2018	County comms reported multiple trees down near the Rutherford County line including on Polk County Line Rd and Rock Springs Rd.
COLUMBUS	6/27/2018	County comms and the public reported numerous trees blown down in the area around Fox Mountain Rd, Smith Dairy Rd, and Huntview Ln.

APPENDIX G: NCEI STORM EVENT DATA

Location	Date	Description
TRYON, MT VALLEY	4/14/2019	EM reported numerous trees blown down across the county. One tree fell on a mobile home causing significant damaged in the Mill Spring area.
COLUMBUS	7/4/2019	Emergency manager reported numerous trees blown down in central Polk County, including the Columbus area. Trees fell on two homes on Red Fox Road near Columbus.
Rutherford County		
Unincorporated Area	2/10/1990	
Unincorporated Area	7/24/1991	
Unincorporated Area	6/8/1992	
Rutherfordton	8/16/1994	Trees and power lines were blown down. One mobile home was blown onto its side.
Rutherfordton	5/10/1995	Trees fell on two automobiles.
Rutherfordton	6/9/1995	Trees down in numerous areas of the county.
Northeastern Rutherfordo	6/10/1995	Numerous trees down.
RUTHERFORDTON	5/25/1996	A severe thunderstorm developed in the foothills and drifted southwest. It caused large hail in McDowell county and blew down trees in Rutherford county.
HARRIS	6/8/1996	
RUTHERFORDTON	6/13/1996	A powerful severe thunderstorm blew down numerous trees in town. Some fell on cars, destroying one and damaging many others. Other trees fell on houses and some structural wind damage to buildings was reported. Lightning destroyed one steer near Statesville.
UNION MILLS	8/28/1996	A severe thunderstorm moving from the north blew down a few trees.
UNION MILLS	6/2/1997	Severe thunderstorms moved in from Upstate South Carolina during the early morning hours becoming more widespread across portions of western North Carolina. Large and damaging hail occurred in many locations, and a number of places were affected by two or three different storms. The hail caused extensive damage and the dollar total will no doubt end up in the millions for both property and crop damage. The counties which were hit hardest were McDowell and Rutherford. At one car dealership in Marion the damage reached \$500 thousand quickly. At least one insurance company set up a disaster center to process claims involving many cars and roofs which were hail damaged. Only one downburst was known to have occurred and resulted in trees downed across Highway 221 north of Rutherfordton. At Tryon, an historic house and contents including some antiques, burned to the ground. Lightning at Newton struck several residences, causing fire damage.
RUTHERFORDTON	7/4/1997	Severe thunderstorms moved into the mountains from Tennessee in the early evening on the Fourth, before moving into or redeveloping in the foothills and western piedmont later in the evening. Damaging winds raked much of western North Carolina, downing trees and power lines, and a few reports of hail as large a golf balls were reported. Several counties reported trees and power lines down countywide, often blocking roads and damaging homes and/or vehicles. Outflow from the storms propagated southeast into the Charlotte metro area before midnight, producing gusty winds between 35 and 45 mph for a short period of time. Dollar amounts for much of the damage were not available at the time of this writing.
CHIMNEY ROCK	7/16/1997	Severe thunderstorms developed mainly in the foothills of North Carolina during the afternoon. Damaging winds up to 75 mph downed trees and power lines. U.S. Highway 74 in Henderson county was blocked for 2 hours due to a large oak tree that fell across the road. Another large tree in Cleveland county fell onto 2 pickup trucks, totaling them. Three houses were damaged by fallen trees, a car was damaged by a collapsed convenience store canopy and trees blocked roads near Indian Trail. Power outages were scattered across the region, some due to lightning. Up to 4300 people were without power in Union county.

APPENDIX G: NCEI STORM EVENT DATA

Location	Date	Description
RUTHERFORDTON, FOREST CITY	7/28/1997	Thunderstorms developed in a very warm and unstable atmosphere during the afternoon. Several storms became severe and produced damaging straight line winds for the most part. A few reports of large hail were also received. Most of the damage took the form of downed trees and power lines. However, roofs were partially blown off a mobile home in Rutherford county and a building in Mt. Holly in Gaston county. A tree fell on a trailer in Haywood county and dime size hail fell for 10 minutes in Marshall.
RUTHERFORDTON	8/5/1997	Powerful severe thunderstorms caused widespread damage across the eastern half of Rutherford county and in southern Cleveland county as they moved east southeast. Especially hard hit were the areas near and east of Forest City and near Boiling Springs. Macrobusts with embedded microbursts downed hundreds of trees which fell on many homes and businesses. Roads and streets were blocked for much of the night. A roof was partially blown off of a manufacturing plant at Caroleen, and at Boiling Springs the roof of a house collapsed and a barn was blown down.
CAROLEEN, FOREST CITY	8/5/1997	Powerful severe thunderstorms caused widespread damage across the eastern half of Rutherford county and in southern Cleveland county as they moved east southeast. Especially hard hit were the areas near and east of Forest City and near Boiling Springs. Macrobusts with embedded microbursts downed hundreds of trees which fell on many homes and businesses. Roads and streets were blocked for much of the night. A roof was partially blown off of a manufacturing plant at Caroleen, and at Boiling Springs the roof of a house collapsed and a barn was blown down.
GILKEY, UNION MILLS	5/26/1998	Multi-cell thunderstorms developed in a hot and humid airmass just ahead of a cold front sagging south across North Carolina during the evening of the 26th. Several storms became severe and produced widespread hail and wind damage. Hail and wind lasted 15-20 minutes at some locations. Numerous trees and power lines were downed, some on homes, and numerous power outages occurred. In the town of Gilkey, in Rutherford county, a storage building was blown into the woods. Four homes were damaged by fallen trees in Union Mills and windows were blown out.
FOREST CITY, ELLENBORO	6/22/1998	Multi-cell thunderstorms moved across the mountains and into the foothills during the evening hours. Some of the storms became severe and produced mainly wind damage. Winds were estimated as high as 75 mph in Rutherford county early in the evening, resulting in downed trees damaging several homes and a barn destroyed. A National Weather Service co-operative observer measured a 63 mph wind gust on Flat Top Mountain. A tree fell on a house in west Asheville as well as in Hickory. Elsewhere, scattered trees and some power lines were downed.
RUTHERFORDTON	7/4/1998	Straight-line winds from a severe thunderstorm moved from Rutherfordton to Forest City, downing trees and power lines. Part of a porch was blown off and never found. Another severe thunderstorm downed several trees just east of downtown Charlotte.
CLIFFSIDE	7/23/1998	Trees were blown down by an isolated severe thunderstorm.
RUTHERFORDTON	7/7/1999	Severe thunderstorms across the foothills of North Carolina produced damaging wind gusts which downed trees and power lines. In the northwest piedmont, trees were downed across Hwys 158 and 801. A large tree fell across a mobile home in Hillsdale. Lightning strikes started fires which destroyed a house roof in Statesville, damaged a house in Kings Creek, and damaged several structures across Catawba county. Excessive rain in northern Burke county caused a flash flood which covered many roads at the base of the mountains.
RUTHERFORDTON	8/23/1999	Clusters of thunderstorms developed during the late afternoon in the foothills of North Carolina. One became severe, producing damaging wind which downed trees and power lines from the Lake Lure area to just north of Rutherfordton. Some fires were started due to the downed power lines. Brown Mountain Beach Campground reported damaging winds and large hail, and trees and power lines were downed near Valmead.
LAKE LURE	8/23/1999	Clusters of thunderstorms developed during the late afternoon in the foothills of North Carolina. One became severe, producing damaging wind which downed trees and power lines

APPENDIX G: NCEI STORM EVENT DATA

Location	Date	Description
		from the Lake Lure area to just north of Rutherfordton. Some fires were started due to the downed power lines. Brown Mountain Beach Campground reported damaging winds and large hail, and trees and power lines were downed near Valmead.
SPINDALE	8/4/2000	A severe thunderstorm uprooted trees along a 3 to 4 mile stretch of Hwy 108 near the Polk county line. Several trees were downed at Fox Haven Plantation and one large tree fell on a house and two vehicles.
RUTHERFORDTON	8/10/2000	Numerous trees were blown down.
RUTHERFORDTON	8/18/2000	Numerous trees and power lines were downed across the county, but especially along this path. In Forest City, many trees and power lines fell on cars and houses. In Spindale, there were 16 separate reports of downed trees. There were 4200 people left without power in the county.
ELLENBORO	5/21/2001	Trees and power lines down in Ellenboro.
FOREST CITY	5/21/2001	Large limbs torn off trees.
FOREST CITY	6/14/2001	Numerous trees and power lines blown down between Forest City and Sandy Mush, including at Bostic and Cliffside. At a local park in Forest City, a tent was split in two by the wind and portable toilets were blown over. Trees fell on a car and a truck.
RUTHERFORDTON	6/25/2001	
LAKE LURE	7/4/2001	Numerous trees and power lines knocked down.
RUTHERFORDTON	7/4/2001	Numerous trees and power lines blown down between Rutherfordton and Forest City. Power poles were snapped in half. Urban flooding occurred, closing three streets. A car was trapped under downed power lines. Some trees were blown onto houses.
LAKE LURE	7/8/2001	Trees blown down.
RUTHERFORDTON	7/8/2001	Numerous trees blown down onto roads and streets. Power lines down countywide.
LAKE LURE	4/17/2002	A few trees were blown down.
RUTHERFORDTON	4/17/2002	Trees were reported down in the Mt. Vernon community.
CHIMNEY ROCK	5/2/2002	Several trees were blown down.
LAKE LURE	5/2/2002	Some trees were blown down.
FOREST CITY	5/2/2002	Numerous trees and powerlines were blown down.
BOSTIC	5/7/2002	A few trees were blown down.
RUTHERFORDTON	5/13/2002	Numerous trees and powerlines were blown down, some onto vehicles and homes.
RUTHERFORDTON	6/6/2002	Numerous trees were blown down.
FOREST CITY	7/1/2002	Trees were blown down along Newton Cole Rd.
CAROLEEN	7/2/2002	Numerous trees were blown down. Two people were injured on the morning of the 3rd, when a large tree damaged by the storm fell.
FOREST CITY	7/3/2002	Numerous trees and powerlines were blown down. One tree fell on a house. A vehicle collided with a tree that had fallen on Highway 120.
RUTHERFORDTON	7/4/2002	Hundreds of trees and powerlines were blown down across the county. Some trees fell on homes. Some homes received minor roof damage from the wind.
HARRIS	8/24/2002	Numerous trees were blown down. Some blocked roads.
FOREST CITY	11/11/2002	Numerous trees and power lines were blown down in and near Forest City.
LAKE LURE	5/2/2003	Trees and power lines were blown down.
UNION MILLS	5/2/2003	Widespread tree and power line damage occurred in areas from Union Mills, to Rutherfordton, to Spindale. Especially hard hit was Rutherfordton, where some homes and buildings received significant damage.
RUTHERFORDTON	5/3/2003	Numerous trees and power lines were blown down.

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Location	Date	Description
RUTHERFORDTON	5/3/2003	Numerous trees and power lines were blown down. Some trees fell on and damaged structures. A portion of a roof was blown off of one building.
ELLENBORO	5/3/2003	Numerous trees and power lines were blown down from Ellenboro to the Cleveland County line.
LAKE LURE	5/15/2003	A microburst blew down numerous hardwood trees in a 25,000 square yard area.
UNION MILLS	6/8/2003	Some trees were blown down.
RUTHERFORDTON	6/15/2003	Some trees and power lines were blown down.
BOSTIC	7/12/2003	Some trees were blown down.
THERMAL CITY	7/12/2003	Large tree limbs were blown down.
SUNSHINE	7/12/2003	Trees and power lines were blown down.
UNION MILLS	7/12/2003	Some trees were blown down.
RUTHERFORDTON	7/16/2003	Trees were blown down.
BOSTIC	7/31/2003	Several trees were blown down.
FOREST CITY	8/4/2003	Numerous trees, large tree limbs, and power lines were blown down.
LAKE LURE	8/22/2003	Numerous trees were blown down.
BOSTIC	5/9/2004	Trees were blown down.
RUTHERFORDTON	5/30/2004	Numerous trees and power lines were blown down. Power outages were widespread in several communities.
CHIMNEY ROCK	6/12/2004	A few trees were blown down.
RUTHERFORDTON	6/12/2004	Trees were blown down along Bostic-Sunshine Rd.
HARRIS	6/12/2004	Trees and power lines were blown down. Power outages were widespread in the area.
HARRIS	6/12/2004	Trees and power lines were blown down in the Sandy Mush area.
LAKE LURE	7/10/2004	Numerous trees were blown down around Bills Creek Rd.
FOREST CITY	6/19/2005	Trees down near Forest City, some on roads and houses, and power lines down on highway 221 south of Rutherfordton.
FOREST CITY	6/27/2005	Trees also down in Spindale around the same time.
RUTHERFORDTON	7/5/2005	Seven trees blown down.
ELLENBORO	7/7/2005	Trees and power lines down.
HARRIS	7/28/2005	A tree and power line down.
FOREST CITY	8/14/2005	Quite a few large trees blown down, especially on Cherry Mountain Rd. One tree fell on a home, causing minor damage. Another tree fell on a vehicle and other trees fell on power lines.
RUTHERFORDTON	6/11/2006	Two small trees blown down on highway 108 near the Polk County line.
LAKE LURE	6/22/2006	Several trees blown down in the Lake Lure area.
FOREST CITY	6/22/2006	Several trees down east of Forest City and a tree down off of highway 74 near Sandymush.
SPINDALE	7/21/2006	Trees down in Green Hill, Spindale, and Bostic.
RUTHERFORDTON	8/3/2006	Top of a tree blown out on Union Rd and another tree down on Pleasant Hill Rd.
RUTHERFORDTON	10/11/2006	Trees down on Big Island Rd.
FOREST CITY	10/11/2006	Trees down in the Ellenboro area.
RUTHERFORDTON	6/8/2007	Several trees blown down in the Rutherfordton area and around Main St in Spindale.
FOREST CITY	6/16/2007	Four trees blown down.
CLIFFSIDE	6/24/2007	Trees blown down along Camp Ferry Rd.

APPENDIX G: NCEI STORM EVENT DATA

Location	Date	Description
RUTHERFORDTON	8/21/2007	Numerous trees blown down in the northwest part of the county. Trees and power lines were blown down on Main St in Spindale. Trees were also blown down on South Mitchell St in Rutherfordton.
SUNSHINE	8/23/2007	Numerous trees blown down in and around the Sunshine community.
ELLENBORO	8/24/2007	Trees blown down on highway 74 and on highway 120 in the Ellenboro area.
FOREST CITY	8/25/2007	Trees blown down in the Caroleen and Sandy Mush area.
RUTHERFORDTON	3/4/2008	Numerous trees, power lines, and power poles blown down from the Green Hill area to Rutherfordton, to the Sunshine community. At least one tree fell on a home near Rutherfordton.
RUTHERFORDTON	5/20/2008	Large tree limbs were blown down.
LAKE LURE	6/27/2008	Multiple trees and power lines were blown down and some power poles snapped from the Lake Lure area to the Shingle Hollow area.
CLIFFSIDE	7/21/2008	Trees were blown down.
SPINDALE	7/31/2008	A tree was blown down on Thunder Rd in Rutherfordton and another tree down on Cherry Mountain St in Forest City.
RUTHERFORDTON	8/2/2008	Numerous trees were blown down by two thunderstorms across the northern part of the county.
HARRIS	4/10/2009	Trees were blown down in the Harris community.
GILKEY	5/9/2009	Trees were blown down in the Gilkey community.
CHIMNEY ROCK	6/9/2009	Several trees were blown down in and around Lake Lure.
BOSTIC	6/15/2009	Several trees were blown down across town.
RUTHERFORDTON	6/18/2009	Large tree limbs and signs were blown down on highway 221 near the highway 74 junction in town. A scattering of trees was blown down along highway 221 from Rutherfordton south to Harris Hanrietta Rd.
FOREST CITY	7/23/2009	Five trees were blown down across the city.
LAKE LURE	5/16/2010	Several trees were blown down along highway 64/74 in the Lake Lure area.
LAKE LURE	6/22/2010	Trees and power lines were blown down in the Lake Lure area.
BOSTIC	7/18/2010	Numerous trees were blown down in the town of Bostic.
HOLLIS	8/5/2010	Trees were blown down on highway 226.
RUTHERFORDTON	8/5/2010	Several trees were blown down from Rutherfordton to Spindale to Forest City.
FOREST CITY	10/25/2010	A few trees and power lines were blown down in and around Forest City.
FOREST CITY	11/16/2010	A couple trees were blown down near West Main Dr.
RUTHERFORDTON	4/4/2011	Trees were blown down across the north side of the county. One tree fell on a man on Hudlow Rd, about 6 miles north of Rutherfordton.
HARRIS	4/4/2011	Numerous trees were blown down in extreme southern sections of the county near Cliffside. A roof was blown off a mobile home near the intersection of Ferry Rd and Goode's Creek Church Rd about 3 miles west of Cliffside.
WHITEHOUSE	5/10/2011	Numerous trees were blown down across the county, some of which fell on homes and vehicles. A large tree fell on a mobile home on Spurlin Rd in Ellenboro, killing two 18-year-old twin sisters.
FOREST CITY	5/10/2011	Numerous trees were blown down in the southern part of the county. Some trees fell on homes and vehicles. In addition, a part of a high-tension line tower was blown down off Rabbit Moffit Rd, near the South Carolina line.
UREE	5/23/2011	A few trees were blown down in the Bills Creek area.
UREE	5/26/2011	Numerous trees were blown down across the western part of the county, with Lake Lure being the hardest hit.

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Location	Date	Description
RUTH	5/26/2011	Trees were blown down in the Rutherfordton area.
ROCK SPGS	6/5/2011	Trees were blown down east of Lake Lure, near the Green Hill community.
GILKEY	6/9/2011	A tree was blown down on Sarah Lee Rd.
UNION MILLS	6/9/2011	A tree was blown down in the Union Mills area.
SUNSHINE	6/12/2011	A couple trees were blown down in the northeast part of the county.
ALEXANDER MILLS	6/22/2011	Multiple trees were blown down from Forest City to Ellenboro.
FOREST CITY	6/26/2011	Multiple trees were blown down around Forest City.
RUTHERFORDTON	6/26/2011	Multiple trees were blown down along highway 221 south of Rutherfordton.
GILKEY	7/13/2011	Multiple trees were blown down on Painters Gap Rd.
SPINDALE	7/31/2011	Numerous trees were blown down from Rutherfordton to Spindale to Forest City. Multiple trees fell on homes and vehicles, particularly in the Spindale area. A barn was damaged on Whiteside Rd in Rutherfordton.
SUNSHINE	9/2/2011	Numerous trees were blown down in the eastern part of the county from the Sunshine community south to Forest City.
CHIMNEY ROCK	5/15/2012	Trees were blown down on Boys Camp Rd.
CLIFFSIDE	6/12/2012	A large tree was blown down near the intersection of Pea Ridge Rd and highway 221. Multiple additional trees were blown down nearby along highway 120 north of Cliffside.
UREE	7/3/2012	Multiple large tree limbs were blown down, a tree was snapped and several anchored tents were blown away at a campground about 4 miles east of Lake Lure. Other trees were blown down along highway 64/74 between Rutherfordton and Lake Lure and about a half dozen trees down on Sid Sims Rd.
UREE	7/4/2012	Large tree limbs were blown down about 3 miles northeast of Lake Lure.
ROCK SPGS	7/4/2012	A few trees were blown down in the Riverbend area about 5 miles east of Lake Lure.
LAKE LURE	7/5/2012	Multiple trees were blown down in the Lake Lure area.
LAKE LURE	7/5/2012	Three trees were blown down in the Lake Lure area.
UNION MILLS	7/19/2012	A tree was blown down in the Union Mills community and another was blown down in the Cane Creek area.
RUTHERFORDTON	7/23/2012	A few trees were blown down on the northwest side of town.
RUTHERFORDTON	7/23/2012	A few trees were blown down in the Cleghorn Plantation area.
AVONDALE	8/9/2012	Numerous trees were blown down across eastern portions of the county.
GILKEY	9/8/2012	A couple trees were blown down on Rucker Rd.
RUTHERFORDTON	5/22/2013	Multiple trees were blown down across the central part of the county.
CLIFFSIDE	6/25/2013	Trees and power lines were blown down off Duke Power Rd.
LAKE LURE	7/6/2013	A couple trees were blown down on highway 64 near Lake Lure.
RUTHERFORDTON ARPT	7/12/2013	Multiple trees were blown down across the central and western part of the county, from the north side of Rutherfordton, to between Forest City and Rutherfordton, to just south of Rutherfordton. One fallen tree ruptured a gas line on Oscar Justice Rd.
HARRIS	7/12/2013	Trees were blown down on Big Island Rd about 9 miles south southeast of Rutherfordton.
SUNSHINE	7/17/2013	Numerous trees were blown down in the northeast part of the county.
ELLENBORO	7/17/2013	Multiple trees were blown down in the Ellenboro and Bostic areas.
ALEXANDER MILLS	7/28/2013	At least two trees were blown down on Rollins Rd.
GILKEY	8/1/2013	Several trees were blown down in the Green Hill community. One large tree fell on a vehicle traveling along highway 64/74 near Green Hill, destroying the vehicle and causing serious

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Location	Date	Description
		injuries to the two occupants. The 66-year-old male driver died from his injuries several days later.
WHITEHOUSE	8/31/2013	A tree was blown down on Cove Rd, about 10 miles northwest of Rutherfordton. Another tree was blown down nearby on Owens Chapel Rd near Union Mills.
RUTHERFORDTON	1/11/2014	A tree blown down on East 2nd St in Rutherfordton.
BOSTIC	1/11/2014	A tree was blown down on Pea Ridge Rd at Whitesides Rd.
SUNSHINE	6/19/2014	County comms reported multiple trees and power lines blown down in the area between Bostic and the Sunshine community.
SUNSHINE	7/2/2014	FD reported two trees blown down in the Golden Valley community.
UREE	7/27/2014	Public reported a tree blown down near Lake Lure Dam (1.5 ESE Lake Lure) and another tree down on power lines near the intersection of Pheasant St and Redbird Dr (2.5 ESE). A spotter reported a tree blown down on a house in the Green Hill community, and trees blown down on Thunder Rd (2 S Rutherfordton).
HARRIS	7/27/2014	Spotter reported multiple trees and power lines blown down on Poors Ford Rd.
HARRIS SPICERS ARPT	8/20/2014	FD reported multiple trees down along Airport/County Line Rd along the Polk County line.
FOREST CITY	7/20/2015	County comms reported multiple trees blown down at Butler Rd and Hazelwood Dr.
ALEXANDER MILLS	7/21/2015	County comms reported numerous trees and power lines blown down in the southern part of Rutherford County.
HARRIS	8/5/2015	Public reported numerous tree limbs, with a few large limbs blown down on Dewitt Owens Rd.
RUTHERFORDTON	9/10/2015	FD reported multiple trees blown down across downtown Rutherfordton.
CLIFFSIDE	9/11/2015	County comms reported trees blown down on Hines Rd.
HARRIS SPICERS ARPT	2/24/2016	County comms reported multiple trees blown down across the southeast part of the county.
UNION MILLS	5/1/2016	County comms reported numerous trees blown down in the northeast part of the county.
RUTHERFORDTON	6/14/2016	County comms reported multiple trees blown down across Rutherfordton.
HOLLIS	7/3/2016	County comms reported multiple trees blown down on Stroud Rd.
FOREST CITY	7/8/2016	Spotter reported a large portion of the entrance overhang to a department store on Allendale Dr was blown off. Newspaper reported multiple trees and power lines blown down in the nearby Forest Hills neighborhood.
RUTHERFORDTON	7/17/2016	County comms reported multiple trees blown down south of Rutherfordton.
LAKE LURE	7/18/2016	County comms reported multiple trees blown down in the Hickory Nut Gorge.
GILKEY	7/22/2016	County comms reported numerous trees and power lines blown down along Cove Rd.
FOREST CITY	7/31/2016	Newspaper reported a tree was blown down on a home and a vehicle on Conner St.
ALEXANDER MILLS	3/1/2017	EM reported trees blown down on Oak St. Public reported (via social media) damage to the roof of a car dealership.
CHIMNEY ROCK	5/27/2017	County comms reported multiple trees blown down throughout the county, with the highest concentration of damage in the Lake Lure area.
ELLENBORO	7/15/2017	County comms reported a couple of trees blown down in the Ellenboro area.
UREE	7/23/2017	County comms reported numerous trees and power lines blown down from the Lake Lure area, across Shingle Hollow, to near Rutherfordton. A tree was blown down on a house near Rutherfordton.
GILKEY	9/1/2017	FD reported a few trees blown down north of Thermal City.
LAKE LURE	10/8/2017	FD reported numerous trees blown down in the Lake Lure area in association with a thunderstorm. However, the EM also reported additional sporadic trees fell with strong prevailing winds throughout the day.

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Location	Date	Description
HENRIETTA	4/15/2018	County comms reported a tree blown down on a power line in the Henrietta area and another tree down on a power line near the Cleveland County line west of Mooresboro.
FOREST CITY	5/10/2018	Media reported numerous trees blown down, with some blocking Roads between Forest City and Ellenboro.
RUTHERFORDTON	5/31/2018	County comms reported a tree and power lines blown down on Chimney Rock Rd and a tree down on Highway 108.
ROCK SPGS	5/31/2018	County comms reported multiple trees blown down on Rock Springs Church Rd.
HARRIS	6/1/2018	County comms reported a few trees blown down on Jack McKinney Rd near Highway 221.
RUTH	6/3/2018	County comms reported multiple trees blown down in Rutherfordton, with additional trees down on Pea Ridge Rd in Bostic and on Piney Mountain Church Rd near Ellenboro.
RUTH	6/26/2018	County comms reported multiple trees blown down on West St and Main St.
HENRIETTA	6/26/2018	County comms reported numerous trees and power lines blown down in the Henrietta and Cliffside areas.
HARRIS SPICERS ARPT	6/27/2018	Public reported trees uprooted on Hogan Rd near Highway 221.
CHIMNEY ROCK	7/6/2018	County comms reported numerous trees blown down near Lake Lure.
BOSTIC	7/6/2018	County comms reported numerous trees blown down in the Bostic area.
ROCK SPGS	7/11/2018	FD reported a few trees and at least one power line blown down on Clark Road.
GILKEY	7/21/2018	County comms reported trees and power lines blown down in the Green Hill area.
RUTHERFORDTON	7/21/2018	County comms reported trees and power lines blown down near Rutherfordton and also across the southern part of the county.
ROCK SPGS	4/14/2019	Law enforcement reported numerous trees and power lines blown down across the county.
CHIMNEY ROCK	7/4/2019	County comms reported numerous trees blown down in the Chimney Rock area.
CHIMNEY ROCK	7/31/2019	County comms reported multiple trees blown down in the Rumbling Ridge area.
CHIMNEY ROCK	7/31/2019	County comms reported multiple trees blown down in the Boys Camp Rd area.
RUTHERFORDTON	8/10/2019	Fire dept reported multiple trees blown down in the Rutherfordton and Spindale area, including on Fairforest Dr and on Polar St.
ALEXANDER MILLS	10/31/2019	County comms reported several trees blown down across the southern part of Rutherford County, with a tree on a power line that sparked a fire on Rock Corner Rd near Forest City.
Transylvania County		
Unincorporated Area	9/17/1991	
Unincorporated Area	8/27/1992	
BREVARD	4/20/1996	
PISGAH FOREST	2/21/1997	
CONNESTEE	6/2/1997	Severe thunderstorms moved in from Upstate South Carolina during the early morning hours becoming more widespread across portions of western North Carolina. Large and damaging hail occurred in many locations, and a number of places were affected by two or three different storms. The hail caused extensive damage and the dollar total will no doubt end up in the millions for both property and crop damage. The counties which were hit hardest were McDowell and Rutherford. At one car dealership in Marion the damage reached \$500 thousand quickly. At least one insurance company set up a disaster center to process claims involving many cars and roofs which were hail damaged. Only one downburst was known to have occurred and resulted in trees downed across Highway 221 north of Rutherfordton. At Tryon, an historic house and contents including some antiques, burned to the ground. Lightning at Newton struck several residences, causing fire damage.

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Location	Date	Description
COUNTYWIDE	7/4/1997	Severe thunderstorms moved into the mountains from Tennessee in the early evening on the Fourth, before moving into or redeveloping in the foothills and western piedmont later in the evening. Damaging winds raked much of western North Carolina, downing trees and power lines, and a few reports of hail as large a golf balls were reported. Several counties reported trees and power lines down countywide, often blocking roads and damaging homes and/or vehicles. Outflow from the storms propagated southeast into the Charlotte metro area before midnight, producing gusty winds between 35 and 45 mph for a short period of time. Dollar amounts for much of the damage were not available at the time of this writing.
BREVARD	5/27/1998	A frontal boundary in the area again provided the focus for thunderstorm development during the afternoon of the 27th. Many storms became severe across western North Carolina and produced hail ranging in size between dimes and quarters. Severe straight-line winds downed numerous trees and power lines, some on houses, in Sylva and Brevard. A few cars were damaged as well. Several trees and power lines were downed in Cornelius later in the afternoon. Lightning struck an apartment in Hickory and caused an attic fire.
BREVARD	6/19/1998	A line of thunderstorms strengthened and bowed out across Jackson and Transylvania counties. Severe straight line winds downed trees in Sylva, and trees and power lines were downed on Hwy 215 near Balsam Grove.
BREVARD	6/24/1998	Multi-cell thunderstorms again developed in the early evening and moved south across the southern mountains and piedmont. A few became severe and produced large hail up to golf ball size, as well as damaging winds. Wind damage was confined to downed trees and power lines. The hardest hit area was northeast of Brevard where roads were blocked.
BREVARD	6/24/1998	Multi-cell thunderstorms again developed in the early evening and moved south across the southern mountains and piedmont. A few became severe and produced large hail up to golf ball size, as well as damaging winds. Wind damage was confined to downed trees and power lines. The hardest hit area was northeast of Brevard where roads were blocked.
BREVARD	1/23/1999	Unseasonably warm, moist air and strong winds through a deep layer of the atmosphere combined to produce a line of thunderstorms along a cold front advancing east across North Carolina. Some of these storms became severe, bringing damaging wind speeds to the surface in some of the southern and central mountain counties. Wind speeds were reported in the 60 to 70 mph range with a measured gust recorded on Flat Top Mountain (elev. 4320 ft) to 78 mph. A 9-mile-long damage path through Mills River and northern Henderson county was initially 100 yards wide, then narrowed to between 25 and 50 yards. Numerous trees and power lines were downed. A tree fell on a home in Brevard causing substantial damage.
BREVARD	7/27/1999	A severe thunderstorm downed several trees and power lines. In addition, a great amount of cloud to ground lightning was produced, which resulted in 3 injuries. One person was injured while in the basement, touching a water heater. Another injury occurred while talking on the phone.
BREVARD	8/10/2000	Trees and power lines were blown down all over the city.
BREVARD	5/19/2001	
LITTLE RIVER	6/14/2001	Trees blown down.
BREVARD	8/23/2001	Several trees blown down in town. Marble-sized hail (1/2 inch) also observed.
BREVARD	6/6/2002	Some small trees and live branches were blown down.
BREVARD	8/18/2002	Some trees and powerlines were blown down.
BREVARD	11/11/2002	A number of tree and power lines were blown down.
LAKE TOXAWAY	5/2/2003	Numerous trees were blown down.
BREVARD	5/2/2003	Numerous trees were blown down.
LAKE TOXAWAY	6/11/2003	Some trees were blown down.
BREVARD	7/16/2003	Numerous trees and power lines were blown down.

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Location	Date	Description
BREVARD	7/18/2003	Trees were blown down.
BREVARD	8/8/2003	Some trees were blown down.
ROSMAN	6/6/2005	Several trees blown down.
BREVARD	8/4/2005	Trees down on highway 276 south of Brevard.
ROSMAN	4/22/2006	Trees down on Indian Camp Mountain Rd.
BREVARD	6/22/2006	Trees down north of Pisgah Forest
BALSAM GROVE	8/4/2006	A few trees blown down.
ROSMAN	9/28/2006	A Bradford pear tree snapped off on Calvert Rd, and several 2 to 3-inch diameter limbs blown down on Old Rosman Highway.
ROSMAN	6/23/2007	Two large trees blown down on Hannah Ford Rd.
LAKE TOXAWAY	5/20/2008	Trees blown down in the Sapphire and Lake Toxaway area.
GRANGE	5/20/2008	Trees blown down in the Little River area.
BALSAM GROVE	7/21/2008	Trees were blown down on highway 215.
BREVARD ARPT	7/29/2008	A tree was blown down on Wilson Rd and a tree was blown onto power lines on highway 276 southeast of town.
SAPPHIRE	6/17/2009	Trees were blown down on Whisper Lake Dr.
GRANGE	6/25/2010	Numerous trees were blown down between the Connestee and Little River communities.
BALSAM GROVE	10/25/2010	Multiple trees and power lines were blown down across the county.
SELICA	2/28/2011	A tractor trailer was blown over and greenhouses were damaged at a plant nursery on Hannah Ford Rd.
LAKE TOXAWAY	4/4/2011	Numerous trees and power lines were blown down across the county, with at least one tree on a house.
SAPPHIRE	4/28/2011	Law enforcement reported trees blown down in the Sapphire area with all three severe thunderstorms that moved across the region during the late night and early morning hours.
GRANGE	4/28/2011	Trees and power lines were blown down in the Little River area.
BALSAM GROVE	6/15/2011	Multiple trees, power lines, and power poles were blown down across the county. In Brevard, trees were blown down on homes on South Caldwell St and Merrill Loop, with significant damage occurring to both homes.
JOHN ROCK	6/21/2011	Several trees were blown down on highway 276 through Pisgah National Forest.
OAKLAND	7/4/2011	A few large tree limbs were blown down west of Lake Toxaway. A church building under construction was heavily damaged in town as well.
CONNESTEE	8/20/2011	Large tree limbs and power lines were blown down on Island Ford Rd.
BALSAM GROVE	3/2/2012	Scattered trees were blown down as a supercell thunderstorm moved across the northern part of the county.
BREVARD	7/1/2012	Multiple trees were blown down in the Brevard area.
GRANGE	7/1/2012	A second severe thunderstorm moving over eastern Transylvania County blew down multiple trees in the Little River area.
BREVARD ARPT	7/5/2012	Large tree limbs were blown down on North Country Club Rd.
BALSAM GROVE	7/5/2012	A small tree and several large limbs were blown down along highway 215.
REID	1/30/2013	Multiple trees were blown down across the county as a line of heavy rain showers with embedded thunderstorms moved over the region.
ROSMAN	6/13/2014	County comms reported multiple trees and power lines blown down.
BREVARD ARPT	7/8/2014	FD reported a few trees and power lines blown down near Becky Mountain.
CEDAR MTN	6/8/2015	County comms reported trees and power lines blown down in the Cedar Mountain area, and at least one tree down in the Little River community (3 N).

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Location	Date	Description
CONNESTEE	7/8/2016	Public reported a few trees blown down along Highway 276 south of Brevard.
BALSAM GROVE	3/21/2017	County comms reported a few trees blown down on power lines from the Balsam Grove area to Brevard.
QUEBEC	5/27/2017	County comms reported multiple trees and large limbs blown down on Wildwood Drive.
CALVERT	6/16/2018	FD reported a tree blown down on Highway 64 near Old Rosman Highway and power lines down on Highway 64 in Rosman.
LAKE TOXAWAY	6/25/2018	County comms reported numerous trees and power lines blown down throughout the county.
ROSMAN	6/17/2019	County comms reported multiple trees and power lines down along Diamond Creek Road and vicinity and multiple lines down along Highway 178 south of Rosman.
LAKE TOXAWAY	6/22/2019	County comms reported trees blown down across roads in the vicinity of Lake Toxaway.
JOHN ROCK	6/22/2019	County comms reported trees blown down across roads in the Pisgah National Forest.
CALHOUN	7/6/2019	County comms reported trees and power lines down on Hart Rd at Everett Rd. Time estimated from radar.
LAKE TOXAWAY	8/1/2019	Fire dept reported large tree limbs blown down across Blue Ridge Road.
PENROSE	8/19/2019	County comms reported a few trees blown down in the Penrose area.
BALSAM GROVE	10/31/2019	County comms reported multiple trees blown down near Balsam Grove.

TABLE G.14: WINTER STORM EVENTS (1996-2019)

Location	Date	Description
Henderson County	1/6/1996	Snow began early in the morning and by mid-day had reached heavy criteria over part of the mountains with accumulations exceeding 6 inches in some areas. Remaining mountain locations picked up heavy snow accumulations a bit later in the afternoon. At the start of the storm the snow was very wet and accumulations caused power outages in some places. The heavy snow continued through the night and into the next day. Accumulations in the mountains ranged from 4 to 12 inches over the central and southern mountains with 18 to 30 inches in the northern mountains. Brutally cold conditions followed the snow with very windy conditions reported. Blizzard conditions may have been reached in some areas. Extreme cold followed the storm in much of the mountains with wind chills of 20 to 30 below zero.
Henderson County	1/11/1996	The second snowstorm within a week caused more excitement in North Carolina. Up to a foot of snow was reported in some of the mountains with most mountain and foothill locations receiving 3 to 6 inches. In the piedmont, there was more of a mixture of ice with minimal ice storm conditions reported in and around the Charlotte area. There were some power outages and numerous traffic accidents.
Henderson & Transylvania County	2/13/1997	
Henderson County	2/16/2003	A light freezing rain developed along the Blue Ridge during the morning hours, and began to intensify during the afternoon. By mid-afternoon, a quarter of an inch of glaze had accumulated across much of the area. The precipitation transitioned to mainly sleet during the late afternoon, and by mid-evening, around an inch of sleet had accumulated on top of the glaze of ice. Numerous traffic accidents and road closures resulted from the precipitation.
Transylvania County	12/4/2003	Heavy snow and sleet began during the early morning hours across the North Carolina mountains, and by late afternoon had accumulated to 3 to 4 inches across much of the area. Some slopes with an eastern exposure had up to 5 inches.
Henderson & Transylvania County	1/29/2005	After light precipitation fell for much of the overnight hours, snowfall intensity increased around sunrise, and continued through the morning, before changing to a mixture during the afternoon. Total snowfall across the area ranged from 2 to 4 inches. A trace of sleet and freezing rain fell on top of that during the afternoon and evening hours.
Polk & Rutherford County	2/1/2007	Light snow began around sunrise across the southern piedmont and foothills of North Carolina. The precipitation became heavy at times during mid-morning before mixing with sleet and freezing rain. By late morning, up to 3 inches of snow had accumulated across the area, while some locations received light accumulations of sleet. A mix of sleet and freezing rain continued across the southern foothills through early afternoon. By late morning, up an eighth of an inch of ice and as much as a half inch of sleet had accumulated on top of 2-3 inches of snow. By early afternoon, most of the precipitation had transitioned to rain.
All Counties	3/1/2009	Rain changed to snow across portions of the southern and central mountains, generally in locations from the Balsams to areas north and east, and continued through the afternoon. The snow became heavy at times, and quickly accumulated to 1-4 inches by early evening. Locally higher amounts were reported in the higher elevations of the Balsams and Newfound Mountains. Snow, heavy at times continued into the evening hours. By the time the snow tapered off, accumulations of 2-5 inches were common across the area. However, locally higher amounts occurred, especially in the higher elevations, where up to 10 inches were reported. The heavy wet snow, combined with gusty winds, caused some trees to fall and isolated power outages.
All Counties	12/18/2009	A strengthening area of low pressure moved out of the Gulf of Mexico, across southern Georgia, and then up the southeast coast. As the low passed south of the region, snow became heavy across the foothills and piedmont during the afternoon, and continued to fall heavily throughout the afternoon and evening. Snowfall rates of 1-2 inches per hour became common over the

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Location	Date	Description
		foothills. The heavy, wet snow combined with gusty winds to cause a few trees and power lines to fall. Scattered power outages were reported. Total accumulations over the foothills ranged from 4-6 inches in the lower elevations near the piedmont to as much as 14 inches closer to the Blue Ridge. Over the piedmont, the snow mixed with rain and sleet at times, which cut down on the amount of accumulation, especially in areas closer to the I-85 corridor. Total accumulations ranged from 2 inches near the I-85 corridor, to 6 or 7 inches in areas along and north of I-40. After the storm ended, continuous melting and refreezing of ice and snow resulted in several mornings of treacherous driving across the area, with numerous accidents reported.
All Counties	2/4/2010	As low pressure moved across the deep south, snow, mixed with sleet, developed over the southern mountains during the late afternoon hours. The precipitation fell heavily at times, and up to 4 inches of snow accumulated across the area by early evening. Snow continued to fall overnight, but became mixed with or changed to sleet around midnight. Total sleet and snow accumulations of 2 to 5 inches occurred across the area by sunrise. By mid-morning of the 5th, precipitation changed to freezing rain, with damaging ice accumulations occurring. Total ice accretion in excess of 1/2 inch occurred along the Blue Ridge, resulting in widespread damage to trees and power lines, and widespread power outages along the southeastern escarpment. Ice accretion diminished rapidly north and west of the Blue Ridge.
Rutherford County	2/12/2010	Light snow developed during the evening rush across portions of the Carolina piedmont and southern foothills. The snow intensified through the evening, and began to quickly accumulate. By mid-evening, 1 to 3 inches of snowfall had occurred across the area. Numerous traffic accidents resulted, particularly in the Charlotte metro area. The snow continued until around midnight, with total accumulations of 2 to 4 inches across the area.
All Counties	2/12/2014	A Miller type-A low pressure system moved up along the South Carolina coast bringing widespread heavy snow and sleet to the Blue Ridge Mountains of North Carolina. Most areas saw snow and sleet accumulation of 3-5 inches.
All Counties	2/16/2015	Snow and sleet overspread portions of the North Carolina foothills and Piedmont during the afternoon. Precipitation changed quickly to sleet in most areas, before mixing with freezing rain from southwest to northeast during the late afternoon and early evening. Sleet and freezing caused deteriorating road conditions by late evening, when heavy accumulations of sleet and/or freezing rain were reported across much of the area. Most locations saw around a half inch to an inch of sleet, along with around a tenth of an inch of ice accretion. However, areas south of I-85 saw more in the way of freezing rain, with up to a quarter inch of ice accretion reported in addition to light sleet accumulations. Scattered power outages were therefore more concentrated there. Roads became very treacherous and impassable in many areas until melting began on the afternoon of the 17th.
Transylvania County	2/23/2015	Light snow associated with a wave of low pressure overspread the southern Appalachians by late evening of the 23rd, and continued into the overnight. Snow, heavy at times, continued into the pre-dawn hours, when heavy snow accumulations were reported across much of the area. Total accumulations were generally in the 3 to 5-inch range, with locally higher amounts reported in the high elevations. The snow tapered off shortly after sunrise.
All Counties	2/25/2015	After the significant snowfall that fell across portions of the North Carolina mountains on the morning of the 24th, an area of low pressure moving along the Gulf Coast spread yet another round of snow across the southern Appalachians and adjacent foothills during the evening of the 25th. The snow was heavy at times, and quickly accumulated, with occasional mixed rain undercutting the totals a bit across the southern foothills. Many areas reported heavy accumulations by late evening. By the time the snow tapered off during the early morning of the 26th, total accumulations ranged from 4 to 6 inches, with locally higher amounts across the mountains. Across the foothills, where snow occasionally mixed with or changed to rain along the Highway 74 corridor, accumulations ranged from 2 to 5 inches.
Transylvania County	1/22/2016	Light snow developed around midnight across the southwest mountains of North Carolina in association with an area of low pressure. The snow became moderate to heavy at times during the

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Location	Date	Description
		pre-dawn hours. By sunrise, accumulations of 2-6 inches were common across the area. Warm air began filtering into the valleys from the southwest through the morning, and by late morning, most of the Little Tennessee Valley and surrounding valleys south of the Smokies had transitioned to rain. Total accumulations ranged from 2-5 inches in the far southwest valleys, to more than a foot across the high elevations and the upper French Broad Valley, where the cold air remained in place through the day.
All Counties	12/8/2017	As moisture associated with developing and strengthening low pressure over the northeast Gulf of Mexico overspread the western Carolinas, rain and snow developed over the southern foothills and northwest Piedmont of North Carolina, becoming all snow by early afternoon. As moderate to occasionally heavy snow continued across the area, heavy snowfall accumulations were reported by early evening. By the time the snow tapered off to flurries and light snow showers around midnight, total accumulations ranged from 3 to 5 inches across the area. Rain and sleet mixing in with the snow during the evening likely undercut these totals a bit, especially south of I-40. While occasional flurries and light snow showers produced locally light additional accumulations into the overnight and early daylight hours of the 9th, the accumulating snow ended in most areas by late evening on the 8th.

Source: NOAA, NCEI