## **CHAPTER 12. WINTER STORMS**

Severe winter storms affect far more people in Wyoming than their summer counterparts, even though they are inherently less violent. Blizzard conditions bring the triple threat of heavy snowfall, strong winds and low temperatures. Poor visibility and huge snowdrifts are major hazards caused by blowing snow. These storms disrupt work, make travel difficult or impossible, isolate communities, kill livestock by the hundreds or thousands and sometimes leave human fatalities in their wake.

A blizzard is defined as a perilous winter storm which lasts for at least three hours with winds of at least 35-mph accompanied by considerable blowing snow, reducing visibility. Heavy snow is defined as four inches or more during a 12-hour period. All areas of Converse County are vulnerable to winter storms and experience them almost yearly.

Data show that Lake Yellowstone and Lander lead the state in frequency of major snowstorms with an average of about five such days per year. The time of year when they receive these storms, however is quite different. Major snowstorms strike most often in the mid-winter months at Lake Yellowstone and throughout most of western Wyoming. At Lander and most other parts of the state (excluding the high mountains) major snowstorms hit with greatest frequency in March and April. The springtime snowstorm peak is particularly destructive for ranchers because it coincides with calving and lambing seasons. Converse County can experience damaging "winter" storms not only in the typical winter months, but also in late spring and the fall.

## **History**

The winter storm history in Wyoming extends from 1886 to 2009. A history of storms that involved Converse County and caused damage, significant closure of highways, and/or impacts to the livestock industry is provided in Table 12.1. Converse County (along with Niobrara County) had one of only two winter storms to receive a Presidential Disaster Declaration. A heavy wet snowstorm in October 1998 resulted in PDD #FEMA-DR-WY-1268. On October 4-5, 1998, 8 to 12 inches of heavy, wet snow fell across eastern Converse County and Niobrara County. The heavy snow downed trees and power lines. Ice build-up was up to 6 inches around many power lines. (Wyoming Multi-Hazard Mitigation Plan.) The data were derived from the monthly Storm Data reports from National Oceanic and Atmospheric Administration's (NOAA) National Climatic Data Center (NCDC) and from the Wyoming Multi-Hazard Mitigation Plan.

According to this data, Converse County has a winter storm of significance about every two years, based on 62 events during a 124-year period. There have been a few winter storms in the county that have caused great damage.

**Table 12.1 Winter Storms in Converse County** 

Date	Location	Deaths	Damage	Information
1886-1887	Statewide	Several	50% livestock	The winter of 1886 to 1887 was the earliest severe economic disruption. The snow that winter came early and grew very deep. A freak thaw turned much of this to water. As cold weather moved back in, this froze into a crust of ice, which prevented cattle getting through to the forage underneath. These conditions, accompanied by blizzard of unusual severity, caused a loss of more than 50% among the state's livestock operations. The snow was 6 feet deep on the level between Mountain Home and Woods Landing. On February 12, 1887 the storms were still raging over the state, and the snow was packed so hard that stages could drive over it. Trains were stalled on their tracks. The winter sounded the death knell of the open range cattle business as it had been during previous years. Cattlemen called the disastrous winter of 1886 "The Equalizer." During the spring of 1887, in certain sheltered areas, residents were able to step from one carcass to another without touching ground.
Jan. 1888	Statewide	Many	Thousands of cattle	This blizzard covered a number of states. The combination of strong winds, snow, and rapid temperature drops made it very dangerous. Loss of life was great and thousands of cattle died.
March 1931	Statewide	2		This blizzard covered several states. Temperatures dropped rapidly. Strong winds drifted snow badly, blocking highways for several days.
April 1939	Statewide		Sheep lost	A number of sheep were reported killed in a blizzard that swept the State on the sixteenth.
April 1945	Statewide			A heavy snow storm occurred on Easter Sunday and the following two days. This storm covered the entire State but was especially heavy over the southern third.
June 1947	Statewide		\$250,000	Heavy losses were experienced in livestock during the storms on June 11-12 and 20-21. One rancher in the Cheyenne area reported losses of approximately \$15,000, and in Natrona County losses are estimated at \$125,000. It is estimated that the losses throughout the state from these two storms will run to approximately a quarter of a million dollars. These losses were confined entirely to newly shorn sheep and young lambs. Some damage resulted to the bean crop and wheat by frost following the storm of June 11-12, but the principal damage was to gardens.
Jan-Feb 1945	Laramie, Albany, Carbon, Campbell, Crook, Niobrara, Goshen, Weston, Platte, and Converse	17	\$9,000,000 Livestock losses were great	Most significant blizzard in Wyoming's history. Snowfall measured up to 30 inches, with drifts 20 to 30 feet high. Within 24 hours ofthe storm initiation, all bus, rail, and air traffic was halted. There were thousands of stranded motorists and rail passengers. Thirty-three hundred miles of state highway lay in the storm area, there was an estimated loss of 15% of the state's cattle. Seventeen people perished, along with 55,000 head of cattle and more than 105,000 sheep. As the storm continued, Wyoming cities began to run out of food in the stores. Several other blizzards followed the first. "It is estimated from reports of field men that 4194 people received aid through the Interior Department operations; that 104,839 cattle and 421,479 sheep were relieved; and that help was given to 994 ranches. A total of 12,894 miles of roads and feed lanes were opened; 1457 tons of food, fuel, and other supplies were hauled over opened roads; 26,604 tons of feed was hauled over opened roads or made available; and the total number of operated machine hours, for snow moving equipment only totaled 18,310. Wind speeds were 30 to 78 mph with an average of 55 mph. Temperature was below zero. Funding: \$200,000 initial relief, later an additional \$500,000, federal government turned over \$125,000. Out of the \$700,000 appropriated, more than \$450,000 was returned. Damage and cost: Highway department normally spent \$265,000 for snow removal, this storm generated costs of \$618,029.50; total economic loss is estimated at more than \$9 million. Time spent: December through March snow removal equipment spent 139,000 hours; man-hours amounted to 201,000 hours. Cost of these operations to the government is estimated at \$169,550.64, with a unit total cost of approximately \$13.15 per mile of road opened and approximately \$9.25 per operated hour of snow moving equipment.
March 1950	Statewide	1		Heavy snow and strong winds covered much of several states, including Wyoming. Snowfall up to 60 inches fell in Wyoming. There was widespread damage to power lines and many cars and trains were stranded. Drifts were up to 16 feet and one person died in the state.
February 1953	Statewide	5		A storm covered the entire State but was generally light west of the Continental Divide and moderate to heavy over the east portion. Many observers reported this storm as the worst since the blizzard of 1949. Roads in the east portion of the State were blocked and many secondary roads were still blocked at the end of the month. A total of

				five persons lost their lives during the month as a result of motor vehicle accidents.
February 1955	Statewide	4		This blizzard covered several states, including Wyoming. Up to 11 inches of snow fell with winds to 65 mph and temperatures below zero. There were four deaths in Wyoming.
November 1956	Eastern WY			A severe blizzard on November 1-3 wrought general havoc in the eastern half of Wyoming; transportation was disrupted, utilities damaged, and livestock lost.
October 1961	Eastern WY	5	\$27,500	Snow accompanied by high winds began early afternoon and continued through the evening. Three people were killed and four were injured in auto accidents caused by low visibility. Two hunters were lost and died in the storm.
September 1965	Statewide		\$2,750,000	A cold wave moved over the state the evening of the 15th and caused considerable damage to crops, trees, power, and phone lines, stopped much of the transportation by closing roads, caused an estimated 5% shrinkage in marketable livestock and a few death losses in livestock. Temperature dropped quite low for so early in the season and the heavy (18- to 22-inch) band of snow from the southwest part of the state to the northeast part was by far the heaviest so early in the season.
April 1967	Eastern WY		\$275,000	Heavy snowstorm began early evening spreading over eastern Wyoming with strong winds. Considerable damage was done to power and phone lines. Highways were blocked with travel halted.  Stockmen in northeast quarter of the state lost stock especially newborn calves and lambs.
April 1969	Northeastern WY		\$5,500,000	Heavy wet snow with strong winds, occasionally reaching 60 knots did about \$5.5 million damage over much of northeast Wyoming. Losses of sheep were especially heavy as shearing and lambing were well underway. Lighter losses were incurred in the cattle industry. Forests were damaged as well as utility lines, and roads.
March 1973	Statewide		\$275,000	Heavy snow and strong winds blanketed the state, with roads, streets, and farms and ranches blocked. There were numerous power and communications outages as well as livestock losses.
March 1975	Statewide		\$2,750,000	A severe blizzard with winds 40 to 50 mph and gusts to 75 mph, snow and temperatures down to 0 degrees started the morning of the 27th and continued to the evening of the 28th. Highways were blocked and some people stranded for varying times but all rescued. Some damage to signs, windows, trees, etc., but most damage to livestock, especially new born, and to cows (udders frostbitten, etc.). The storm was most severe over the eastern half of the state and most of the damage was there also.
November 1977	Statewide	1	\$275,000	Snow with large accumulations entered the state the afternoon on the 16th, accompanied by very cold temperatures. Some blowing and drifting caused hazardous driving conditions in many areas. The snow ended by the morning of the 18th but was quickly followed by strong, gusty, westerly winds that moved the large amounts of loose snow into ground blizzards with severe problems on highways, ranches, etc. One man was killed in Rawlins as he tried to walk into town along the interstate from the west. Numerous people were stranded along the highways and in towns and ranches until the roads were opened.
May 1978	Central and Eastern portions of Wyoming		\$11,753,000	This late spring snowstorm dumped 15 to 32 inches of wet heavy snow over much of central and eastern Wyoming including 11 counties (Big Horn, Campbell, Converse, Crook, Johnson, Natrona, Sheridan, Washakie, Weston, Hot Springs, and Niobrara). Extensive damage to crops and livestock was estimated at \$11,743,890. Numerous local power outages were reported. Many county and state roads were closed, especially in the Laramie area. Interstate 80 was closed west of Cheyenne for nearly two days.
December 1978	Statewide		\$275,000	This very heavy snowstorm dumped over a foot of snow across much of the state causing road and airport closures in many areas throughout the state. Winds gusting to 75 mph caused extensive blowing and drifting snow, stopping both local and interstate travel. This storm isolated livestock from ranchers, contributing to subsequent substantial losses of cattle and sheep in Wyoming.
January 1979	Statewide		\$2,500,000	Numerous heavy snows combined with prolonged extremely cold temperatures caused widespread damage across much of Wyoming during the month of January. Estimated loss of 2700 sheep and 2000 cattle with projected losses of calves and lambs to 35,000 head are reported. Also, numerous towns and communities across the state have extensive damages to their water systems due to frozen water mains and sewer systems. Emergency Winter Storm Relief Aid of \$2.5 million was asked for by the State.
January 1980	Statewide	4		Snow and blowing snow from the morning of the 25th to the evening of the 27th swept across Wyoming dumping a record 11 inches of snow on Cheyenne in a 12-hour period. Heavy snow and slick road surfaces due to bitter cold temperatures closed many highways and interstates, including I-80 from the Nebraska state line to Rock Springs.

				Near Bitter Creek Hill, 38 miles east of Rock Springs, 21 cars and trucks were involved in a pile-up on the afternoon of the 25th. Two men were killed at 1900 MST on the 26th, 9 miles east of Powell when the driver lost control, ejecting both men. One fatality occurred on the 27th at 1130 MST on I-80 near Rock Springs when a car slowed down because of poor visibility and slick roads and the truck driver, trailing the vehicle, failed to slow down in time and crushed the back end of the car in which the victim was riding. A man died about 1245 MST on the 27th when the flatbed truck he was driving 95 miles south of Gillette jack-knifed on a left-hand curve and rolled on its top. Schools in Cheyenne were closed at noon on Friday and did not reopen until Wednesday. Most churches in Cheyenne remained closed on Sunday. Casper thermometers dipped to record lows of -27° on Saturday, -28° on Sunday night, and -32° Monday morning. Cheyenne reported temperatures at 0 or below zero for a period of 79 hours. Weather-related problems may have caused the derailment of 12 empty freight cars at Point of Rocks at 0645 MST on the 25th.
May 1980	Central WY	1		A sudden spring snowstorm covered the area with heavy, wet snow. The storm caused power failures, closed schools, threatened livestock, and was blamed for at least one traffic death when a car skidded into the path of an oncoming snowplow on Ross Road, north of Douglas. Two passengers were injured.
January 1982	Converse, Albany, and Natrona		\$27,500	Wind gusts to 85 mph downed power poles causing electrical outages to most of Casper for 3.5 hours. High winds broke windows and commercial signs, while debris hurled by winds injured at least 4 people. I-80 between Laramie and Rawlins was closed due to high winds and blowing snow.
December 1982	Eastern and Central WY	1		A major winter storm dumped heavy snow in the state Wednesday and Thursday morning. Casper was hit the hardest with 24 inches of snow, breaking the previous 24-hour total. The Wind River Canyon between Shoshoni and Thermopolis also reported 24 inches. Elsewhere in the basins and plains, amounts varied from 5 to 11 inches. Winds to 40 mph caused blizzard conditions in the central and northeast areas causing drifts of 5 to 8 feet deep.
December 1982	Central WY			A major winter storm through central and southeast Wyoming packed strong winds and moderate to heavy snow. Shoshoni experienced winds that exceeded 60 mph causing over-turned trailers and a boat at the Boysen Lake Marina. Casper recorded a record 29 inches of snow from the storm. Lander and Cheyenne accumulated around 6 inches each. Strong winds gusting into the 40 mph range caused blizzard conditions which forced the closure of many highways in central and southeast areas, stranding holiday travelers.
April 1983	All but NW and North central WY			A two-day storm buried most of the state with 6 to 15 inches of snow. Some mountain locations near Casper received up to 2.5 feet of snow. In addition, north winds of 25 to 40 mph caused near blizzard conditions mainly in the southwest and southeast with many roads closed. Power also was interrupted for up to 6 hours in quite a few areas of the state.
April 1983	All but SE quarter			A spring snowstorm swept through northern, central, and western Wyoming dumping an average of 6 to 12 inches of snow. Up to 18 inches fell in some western mountain towns. Near blizzard conditions occurred in southwest Wyoming as northeast winds of 30 to 40 mph whipped up 2 to 4 foot drifts. At least two interstate highways were closed for a period of time, and lots of traffic accidents were reported across the state.
December 1983	Statewide		\$2,750,000	The worst arctic outbreak ever in December hit Wyoming fullforce with almost all of the state remaining below zero for five days. Overnight lows in the 20 to 40 below range were common, with quite a few towns setting record Dec lows. Most Wyoming residents fared much better in the cold than mechanical items. A malfunctioning transformer left the town of Lander without power for 12 hours, and numerous vehicles were damaged by the extreme temperatures. The greatest damage, however, occurred to homes and businesses as hundreds of water pipes froze and burst. The State Capitol Building in Cheyenne, for example, suffered almost \$250,000 in damage due to burst water pipes.
March 1987	Central and Eastern WY			A small but vigorous winter storm developed over south central Wyoming on the morning of the 20th. This storm raced through eastern Wyoming by the morning of the 21st and ushered in spring with 6 to 12 inches of snow in its path. Strong gusty winds of 35 to 55 mph accompanied the storm, creating many areas of blowing and drifting snow. Many roads were closed for a time, even all the interstate highways from Rawlins in the south to Sundance in the northwest. This was due to the wind pushing fast-developing drifts over roads and blowing snow reduced visibilities at times to near zero. Numerous minor accidents were noted across central and eastern Wyoming. Also some ranchers had trouble feeding their livestock as well. Some individual snowfall reports were 11 inches at

			Douglas, 9 inches at Casper, and 6 inches in Gillette.
December 1987	SE WY		A very strong upper level trough developed over Arizona on the 25th and moved into eastern Colorado on the morning of the 27th. This trough developed blizzard conditions over southeast Wyoming from 0700 to 1800 MST. Snowfall amounts varied from 6 to 20 inches. Wind speeds over southeast Wyoming were clocked at 25 to 35 mph with gusts to 45 mph. These strong winds combined with the heavy snow amounts frequently lowered visibilities below 0.25 mile. The winds also produced over 4-foot tall snow drifts, particularly over roadways. These included I-80 to the Nebraska border and I-25 from Douglas to the Colorado border. These roads stayed closed for much of the 27th to the morning of the 28th. This blizzard stranded over 300 holiday travelers in the tiny town of Chugwater. Some particular snowfall totals associated with this blizzard are Albin, 14 inches; Carpenter, 8 inches; Chugwater, 10 inches; Double Four Ranch (Albany County), 16 inches; Encampment, 6 inches; La Grange, 19 inches; Lusk, 6 inches; Pine Bluffs, 15 inches; Saratoga, 9 inches; Wheatland, 10 inches.
January 1988	Eastern Wyoming		A very strong upper level northwest flow of air over Wyoming mixed down and accelerated surface winds to 30 to 45 mph with gusts 55 to 70 mph from north-central to southeast Wyoming. The most noticeable wind gusts were at Arlington, 65 mph; Casper, 70 mph; Cheyenne, 58 mph; and Sheridan, 71 mph. Also, this strong northerly airflow helped to dump 5 inches of new snow about 25 miles west of Laramie near Centennial. Most roads were closed over south-central and southeast Wyoming due to blowing and drifting snow.
January 1988	Bighorn Mountains and NE plains		Very strong upper level northerly flow of air continued to prevail over eastern Wyoming. This strong flow of air induced strong surface winds of 35 to 45 mph with gusts of 55 to around 70 mph. Peak wind gusts of 72 mph on the 24th flipped over a fairly large mobile home onto two cars in the Gillette area. Also, these strong winds tore the roof off a house 4 miles west of Gillette. A power plant northeast of Wheatland clocked wind gusts of 70 mph from 0200 to 0630 MST on the 24th. From 2000 MST on the 24th to 1000 MST on the 25th sustained winds of 35 to 45 mph were clocked with gusts near 58 mph from Arlington to Cheyenne along I-80 over southern Wyoming. This storm dumped 10 inches of snow at Burgess Junction in the Big Horn Mountains. These strong winds produced snow drifts 14 to 16 feet deep over the southeast. Numerous roads were closed over east Wyoming due to strong winds and the associated snow drifts. The National Guard had to dig out stranded ranch families in southern Goshen County.
March 1988	Eastern WY	\$275,000	An intense winter storm which developed over Nevada on the 9 <sup>th</sup> moved through Colorado on the 10th and 11th and into Kansas on the 12th. This winter storm combined with good easterly flow over Wyoming first smashed into west and central Wyoming with 5 to 14 inches of new snow. As this winter storm moved through Colorado it intensified and produced blizzard conditions over much of eastern Wyoming from the 10th to the morning of the 12th. Six to 25 inches of new snow generally dumped on eastern Wyoming with this storm. Also sustained winds of 25 to 40 mph with gusts of 50 to 65 mph raked across eastern Wyoming. This heavy snow and strong winds frequently kept visibilities below 0.25 mile over much of southern and eastern Wyoming. The strong winds and heavy snow whipped snow drifts to a depth of 10 to 30 feet over eastern Wyoming. Most roads were closed at times over southern and eastern Wyoming due to the extremely low visibilities and blowing and drifting snow. Numerous traffic accidents occurred across the state with at least five people sustaining injuries. Travelers were stranded throughout eastern Wyoming with more than 200 people trapped at the Snowy Range Ski Resort west of Laramie. The skiers spent the night sleeping on floors and tables. The eastern plains were particularly hard hit by the blizzard from Douglas southeast to the LaGrange area. A few travelers in the eastern plains were completely trapped in their vehicles for 36 to 40 hours. Drifts ranging from 15 to 30 feet high were common around Lusk with a number of vehicles totally buried by the snow. Ranchers over the eastern plains were in the midst of calving and lambing season. About 15 to 35 head of calves were lost. Some noticeable snowfall totals were Albin, 18 inches; Bates Creek, 13 inches; Burgess Junction, 20 inches; Douglas, 11 inches; Gillette, 12 inches; Keeline, 10 inches; LaGrange, 21 inches; Lander, 10 inches; Laramie, 11 inches; Lusk, 20 inches; Rock Springs, 20 inches; and Snowy Range, 14
February 1989	Statewide		Record cold temperatures gripped the state from the 2 <sub>nd</sub> through the morning of the 6th, the coldest in at least 5 years. Many locations had at least 80 to 100 consecutive hours of subzero readings. Wind chills from 50° to 90° below zero accompanied the cold. Most overnight lows were between minus 20° and minus 40° with maximum

March 1990	Central Plains, Eastern Plains, Southern Mountains, Laramie Valley, Southeast Plains		temperatures struggling above 15° or 20° below zero. On the morning of the 3rd, Sheridan set a record low of minus 32°, eclipsing the old record of 24° below zero, set in 1985. Casper had a record low of 27° below zero. The minimum at Cheyenne was minus 24°, one degree shy of the record low for the 3rd, dating back to 1883. Weston, located over far northern Wyoming, dropped to 47° below zero while locations in Yellowstone National Park dipped lower than minus 40°. These low temperatures were typical through the 6th. The maximum temperature for Cheyenne on the 3rd was 18° below zero. Not only was that a record low maximum, but the second coldest such reading since weather records have been kept at Cheyenne, back more than 100 years. During the morning of the 6th, the temperature at the capitol city finally rose above zero. The record is 120 hours, set in December 1983. This was the coldest February ever for Casper. It was also the worst cold spell for Gillette in a decade.  An intense slow-moving storm system caused a prolonged heavy snow event for roughly the southeastern quarter of the state. The storm lasted for about 54 hours, from the evening of the 5 <sup>th</sup> through the early morning on the 8th. The heaviest snow occurred during the 6th, when 24-hour snow totals ranged from 6 to 18 inches. Total snow amounts for the event were generally from 1 to 4 feet. During the 6th and 7th, at least 300 miles of roads were closed. Nearly all travel to and from Cheyenne, the state capitol, was halted. Additionally, there were power outages because of downed power lines due to the wet, heavy snow. Storm totals of 3 to 4 feet of snow were common at several locations in the Laramie Mountains. Some other reports included 20 inches in Centennial; 19.2 inches in Cheyenne. For Cheyenne, this was the greatest single snowfall event ever in March and the storm tied for ninth place on the list of biggest snowstorms.
March 1990	Eastern WY		During much of the 15th, high winds blew across eastern Wyoming. Sustained winds of 40 to 55 mph were common. Some peak wind gusts were: 67 mph near Wheatland; 65 mph on the I- 80 summit, 30 miles west of Cheyenne; 60 mph in Sheridan; and 58 mph in Gillette. These winds produced widespread blowing and drifting snow and ground blizzard conditions across the far southeastern part of the state. During most of the 15th, almost all roads to and from Cheyenne and Laramie were closed because of the blowing snow. It was not until the afternoon of the 16th that the roads were reopened to travel.
December 1990	Statewide	\$27,500	A major winter storm followed by a bitter-cold Arctic outbreak, plagued most of Wyoming for about two to four days. Heavy snows with strong winds occurred on the 18th over the far western part of the state, with up to a foot in the mountains. Light snows of 2 to 6 inches generally occurred over the rest of the state, except in the far southwest where storm totals approached 15 to 20 inches by 1800 MST on the 19th. Bitter-cold Arctic air started spilling into the state after 1200 MST on the 18th. On the 19th and 20th, wind chills dropped to -40° to -75° at times in many areas. The coldest temperatures occurred on the 21st and 22nd, with most areas from -25° to -45°. Minus 50° readings were reported at Worland and near Jackson. Casper set an all-time record-low of -41° on the 21st. Major roads affected by the snow and winds were confined to the far west and southwest. The worst conditions occurred along I-80 from Rock Springs to Rawlins on the night of the 19th and 20th where snow and strong winds closed the road, stranding many people. The bitter cold caused power outages in some places, most notably in Jackson. Schools and other events were widely canceled due to the cold weather.
September 1995	East central Wyoming	\$13,500	An early season winter storm dropped 6 to 12 inches of snow from Casper and the south end of the Big Horn Mountains to the Nebraska border. The snow damaged trees, breaking many branches. Power was out in the area for a time in the morning, with as many as 4000 homes without power from Casper to Glenrock. In Lusk, snow snapped a 2x4 beam in a building.
October 1995	All except SW Wyoming	\$1,000,000	Heavy snow and strong winds caused blizzard conditions over much of Wyoming. Snowfall amounts ranged from 4 inches at Rock Springs and Gillette to 17 inches at Casper Mountain. Generally, 6 to 10 inches of snowfall was common. Winds gusted to 55 mph and caused blizzard conditions with drifts up to 5 feet deep. Reported drifts of 2 to 4 feet were common. Many roads were closed from the 22nd to the afternoon of the 23rd due to drifting and near-zero visibilities. Many travelers were stranded across the state until the 23rd and a number of hunters had to be rescued. Power was out for a time in various places, due to downed power lines from the heavy snow and strong winds.
January 1996	Big Horn, Campbell,		Strong winds, snow, and cold temperatures combined to create blizzard conditions over eastern and northern Wyoming. During that time, winds gusted to as high as 55 mph creating wind chill temperatures as low as 70° below

December 1996	Converse, Hot Springs, Johnson, Natrona, Niobrara, Park, Sheridan, Washakie Albany, Carbon, Converse, Fremont, Laramie, Natrona, and Sweetwater	zero. Two to 6 inches of snow fell through late afternoon on the 17th. This wind and snow produced very low visibilities in blowing snow. Some roads were closed in northeastern Wyoming on the 17th and schools were cancelled in some areas on the 18th.  Winds were sustained between 40 and 50 mph from Jeffrey City and Casper, southeast to just east of the Laramie Mountains. Wind gusts were between 55 and 65 mph, with the strongest gust being 71 mph, 10 miles south of Wheatland between 1753 and 1909 MST. Highway 191, south of Rock Springs was closed due to blowing snow from 2300 to 0600 MST.
March 1996	Natrona, Converse, Niobrara, Laramie, Platte, Goshen, and Albany	Snow and strong winds combined to produce blizzard conditions in east central and southeastern Wyoming. Visibilities were near zero and wind chill temperatures as low as 45° below zero. Three to 6 inches of snow were common in the area, with drifts as high as 7 feet in the Cheyenne area. Many roads were closed during this time.
October 1996	Albany, Carbon, Converse, Laramie, Niobrara, and Platte	Heavy snow and strong winds created blizzard conditions in much of south central and eastern Wyoming. The snow and winds closed many roads in that area, especially in and near the southeast mountains. The heaviest snowfall was in the Laramie Mountains and Snowy Range, where 12 to 18 inches of snow was reported. Other snowfall amounts in the area were 7 inches in Laramie, 8 inches in Douglas and 5 inches in Lusk. Only 1 to 4 inches fell in parts of the southeast plains. Winds gusted to near 50 mph and produced near zero visibilities. Drifts as high as 5 feet were observed in the Laramie Mountains between Cheyenne and Laramie. The strong winds and snow caused power outages to many rural areas in south central and southeast Wyoming.
April 1997	Albany, Carbon, Converse, Goshen, Laramie, Niobrara, and Platte	Strong winds combined with snow amounts of generally 8 to 12 inches to create widespread blizzard conditions in southeast Wyoming and the Nebraska panhandle. By 2045 MST on the 4th, all roads had been closed in and out of Cheyenne except for I-25. Closed and impassable roads became the norm from the evening of April 4 through April 6 due to blowing and drifting snow. Many automobile accidents occurred as a result of the treacherous conditions, and many power lines were downed due to the weight of snow. Many livestock were killed by the snow and accompanying cold temperatures because the storm occurred in the calving season. The highest snow amount was 12 inches at Albin and Lusk, and sustained winds were generally 40 to 50 mph through the event.
October 1997	Albany, Carbon, Converse, Goshen, Laramie, Niobrara, and Platte	An early season blizzard dumped up to 20 inches of snow in areas of southeastern Wyoming, downing power poles and power lines as well as making many roads impassable. Wet, wind-driven snow damaged trees in addition to unharvested milo, corn, and sunflower fields. Many motorists were stranded on impassable roads or when vehicles slid off roads. High School athletic events were postponed, and high school bands and athletic teams were stranded when their buses could continue no further. The following occurrences were documented as occurring on the 24th. Semi-tractor trucks with trailers tipped over after jackknifing on I-80 near Sinclair and at milepost 340. The Wyoming Highway Patrol received 198 accident reports by 1645 MST, compared to the normal of 30 to 50. I-25 was closed from the Colorado border to Wheatland at approximately 1600 MST. I-80 was closed the entire length of Wyoming by late evening. The following occurrences were documented as occurring on the 25th. I-80 remained closed from the Nebraska border to Rock Springs. A Wyoming Department of Transportation employee received minor injuries when the snow plow he was operating flipped over east of Cheyenne. Postal delivery service from Cheyenne was shut down for the first time in at least 15 years. Two hunters were rescued in the Snowy Range near

			Arlington after spending the previous night in the Medicine Bow National Forest. The Wyoming Highway Patrol received 252 accident reports since 0800 MST on the 24th, several times the normal figure.
March 1998		\$65,000	A winter storm affected parts of southeast Wyoming, with a total of 11 inches of snowfall reported in Rawlins, 10 inches at Lusk and Hanna, and 8 inches of snowfall was reported across Platte County. The Wyoming Highway Patrol received 19 reports of automobile accidents involving injuries due to snow packed roads, and another 90 accidents without injuries between midnight and 1917 MST.
October 1998	Converse and Niobrara	\$225,000	Eight to 12 inches of heavy, wet snow fell across eastern Converse County and Niobrara County. The heavy snow downed trees and power lines. The build-up of ice up to 6 inches around the power lines along with 40 mph winds, caused 200 power poles to snap; 4000 people were without power for up to five days in the Lusk, Manville, Van Tassel, and Lance Creek areas. I-80 between Cheyenne and Laramie was closed due to near zero visibility.
February 2000	Albany, Carbon, Converse, Niobrara, and Platte	\$100,000	Heavy snow fell over parts of south-central and eastern Wyoming, resulting in icy roads and numerous accidents. I-80 was closed for a while between Laramie and Rawlins. Around 8 inches of snow accumulated in Rawlins, with 6 inches reported in Douglas, Wheatland, and Lusk. Twelve injuries.
February 2000	Converse and Niobrara	\$100,000	Heavy snow combined with gusty winds over east-central Wyoming to produce blizzard-like conditions with near zero visibilities in some areas. Many roads were closed with numerous accidents, stranding some travelers. Snowfall of 3 to 5 inches was common. 15 injuries.
February 2000	Albany, Carbon, Converse, Laramie, and Platte	\$100,000	Heavy snow fell over south central and southeast Wyoming over a two-day period, with 5 to 9 inches common. Elk Mountain, reported 12 to 14 inches of snow while Cheyenne, recorded a record 10.5 inches. I-80 between Laramie and Rock Springs, as closed during much of the storm, stranding up to 1200 travelers, mostly in Rawlins.
February 2001	Carbon, Converse, Sweetwater		Heavy snow fell in a swath from south central into east central Wyoming, with as much as 11 to 13 inches of snow reported in Rawlins and 6 to 7 inches in Douglas. A 250-mile stretch of I-80 was closed for much of the day between Laramie and Rock Springs, with many secondary roads also closed.
April 2001	Albany, Carbon, Converse, Goshen, Laramie, and Platte	\$100,000	The second major winter storm in 10 days produced heavy snow over much of southeast Wyoming, with blizzard conditions in some spots. Twelve to 16 inches recorded in Wheatland and Cheyenne. All roads out of Cheyenne, were closed again, as was much of I-80. Power outages were also reported in parts of Laramie County as winds gusted to around 40 mph.
March 2002	Converse, Carbon, Niobrara	\$10,000	Heavy snow fell across a swath of southeast Wyoming from near Rawlins to Lusk. Lusk was buried under 24 to 26 inches of snow, which caused a drive-in canopy to collapse. Douglas reported around 18 inches of snowfall while Rawlins and Shirley Basin recorded 12 to 15 inches. Many roads in the area were closed for more than 24 hours.
March 2003	Albany, Carbon, Converse, Goshen, and Platte	\$100,000	A powerful winter storm produced heavy snow and blizzard conditions over much of southeastern Wyoming over a 2.5-day period, closing most roads and isolating many areas. Snowfall amounts of 2 to 3 feet were reported over the Laramie Mountains west of Cheyenne. Snowfall amounts from 12 to 20 inches were common over the adjacent plains from Douglas to Cheyenne, with Cheyenne recording just over 18 inches. In addition, gusty winds from 30 to 45 mph combined with the snow to produce drifts from 6 to 10 feet in some areas.
March 2007	Albany, Carbon, Converse, Niobrara		4 to 8 inches of snow reported with unofficial amount near 12 inches. Visibilities occasionally less than 1/4 mile due to blowing snow with drifts in excess of 6 feet.
December 2008	Converse		Extreme cold and windchills.
January 2009 April	Converse Converse		Blizzard Blizzard and winter storm
·	001170100	1	Billedia and Millor otom

2009			
October 2009	Converse		Heavy snow
December 2009	Converse		Winter Storm
May 2010	Converse		Heavy snow

## Impacts

Winter storms usually cover a significant part of the State, and as such are difficult to describe regionally or on a county-specific level. The historic dollar impact of winter storms statewide is roughly \$161 million. In 2010 dollars the statewide impact is nearly \$463 million. The actual impacts are much greater because of the effects on transportation and because of loss of life and injuries. The impacts from loss of livestock can carry over for many years.

Winter storms in Converse County could cause:

- power and communications system outages,
- closures of schools and businesses,
- road closures,
- temporary shortages of food, fuel, and medical supplies,
- stranded motorists,
- traffic accidents,
- temporary loss of emergency services,
- hardships for people, livestock and wildlife,
- property damage due to snowloads and frozen pipes, and
- flooding due to rapid snowmelt.

The history of winter storms in Converse County indicates that for a worst-case scenario the dollar impacts could be in excess of \$20 million (2010 dollars.) This figure was arrived at by dividing the statewide figure of \$463 million by the number of counties in the state (23.) Enough power lines could be toppled that emergency intervention could be required and significant property and stock/crop damage could occur. Life safety will continue to be a concern for motorists, hunters, or outdoor enthusiasts stranded by winter storms. Injuries and deaths will likely occur during storm related vehicle accidents. Converse County has a winter storm of significance about every two years.

## Summary

PROPERTY AFFECTED: Medium POPULATION AFFECTED: Medium

PROBABILITY: High

**JURISDICTION AFFECTED: County**