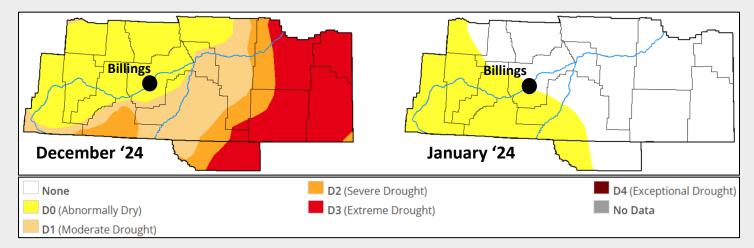


The following is a weather review for the Billings forecast area, which includes southeast Montana, parts of southcentral Montana, and Sheridan County in Wyoming.

Overall, 2024 was a warm and dry year. In fact, Sheridan broke its record for warmest year with an average temp of 49.0°F. Drought conditions deteriorated over the course of the year, with Severe to Extreme drought conditions in southeast Montana and much of northern Wyoming by the end of the year, and the summer wildfire season was active. Below is a comparison of regional drought conditions in mid-December (left) and early January (right).



There were two large fires that impacted our region this summer. The first was the **Remington Fire**, which ignited in the far northeast corner of Sheridan County and spread quickly northward into Montana, toward Birney and staying east of the Tongue River. The Remington Fire burned just under 200,000 acres in late August into early September. The other was the **Elk Fire**, which burned along the eastern slopes of the Bighorns west of Dayton and Sheridan from late September to early November. The Elk Fire burned just under 100,000 acres, resulted in some evacuations near Dayton,

and closed US-14 from Dayton to Burgess Junction for a time. There were a few other small fires in similar areas, including Short Draw, Barber and Badger.

Though it was an overall warm year, a stretch of bitter cold impacted the region in mid-January. The air mass was the coldest our region has seen since 1997, and resulted in widespread low temperatures in the minus 30s and 40s. Huntley dropped to -52° on the morning of January 13<sup>th</sup>. There were also bitterly cold wind chills in the minus 50s and 60s. All our main climate stations broke daily record lows during this cold snap.

The severe thunderstorm season was quiet but there were a few significant storms. One of the most memorable storms of 2024 impacted Billings in the late afternoon of August 6<sup>th</sup>. The airport recorded a peak gust of 76 mph, and a DOT station at Arrow Creek Hill (just east of Billings on I-90) had a peak of 78 mph. There was widespread wind damage across the Billings metro area, including snapped/uprooted trees, downed power lines and damage to homes and businesses. During the evening of July 13<sup>th</sup>, a swath of severe thunderstorms caused wind damage from northern Rosebud to Custer, Fallon, and Carter Counties. Many sites reported peak gusts over 70 mph, and there was a variety of wind damage across the area.

September was a hot month and contained a couple of significant periods of heat in the latter part of the month. Sheridan reached 102° on the 25<sup>th</sup> (the latest 100° on record by 18 days). September 29<sup>th</sup> saw Miles City reaching 100°, its latest on record, while Brandenberg and Powderville each hit triple digits too.

The last three months of the year were on the warm and dry side, with largely unremarkable weather. With an average temp of 39.7°, Livingston had its warmest December on record.

|            | Average<br>Temp                                    | Total Precip  | Warmest<br>Temp                       | Coldest Temp                 | Wettest Day                       | Peak Wind                         | Records<br>Began |
|------------|--|---|---------------------------------------|------------------------------|-----------------------------------|-----------------------------------|------------------|
| Billings   | <b>50.4°</b><br>+ 2.2°<br>5 <sup>th</sup> warmest  | <b>11.96"</b><br>- 2.35"<br>28 <sup>th</sup> driest | <b>105°</b><br>(July 24,<br>August 2) | <b>-26°</b><br>(January 13)  | <b>2.02"</b><br>(May 23)          | <b>76 mph</b><br>(August 6)       | 1934             |
| Livingston | <b>47.9°</b><br>+ 2.4°<br>7 <sup>th</sup> warmest  | <b>13.15"</b><br>- 1.40"<br>24 <sup>th</sup> driest | <b>102°</b><br>(July 24)              | <b>-29°</b><br>(January 13)  | <b>0.89"</b><br>(September<br>17) | <b>92 mph</b><br>(February<br>28) | 1948             |
| Miles City | <b>48.1°</b><br>+ 1.9°<br>14 <sup>th</sup> warmest | <b>11.11"</b><br>- 1.77"<br>33 <sup>rd</sup> driest | <b>108°</b><br>(July 24)              | - <b>34°</b><br>(January 14) | <b>1.25"</b><br>(May 6)           | <b>68 mph</b><br>(June 3)         | 1937             |
| Sheridan   | <b>49.0°</b><br>+ 3.6°<br><mark>#1 warmest</mark>  | <b>10.68"</b><br>- 4.25"<br>12 <sup>th</sup> driest | <b>105°</b><br>(August 2)             | <b>-31°</b><br>(January 13)  | <b>0.99"</b><br>(May 6)           | <b>64 mph</b><br>(June 15)        | 1907             |
| Baker      | <b>45.9°</b><br>+ 2.4°<br>4 <sup>th</sup> warmest  | <b>10.58"</b><br>- 4.00"<br>4 <sup>th</sup> driest  | <b>109°</b><br>(July 25)              | <b>-33°</b><br>(January 13)  | <b>0.99"</b><br>(June 22)         | <b>79 mph</b><br>(July 13)        | 1998             |

Below are 2024 statistics for each of our main climate stations.

The following tables are lists of daily records either tied or broken at our four main climate sites (excluding Baker due to its short period of record). Records go back to 1934 at Billings, 1937 at Miles City, 1907 at Sheridan and 1948 at Livingston.

| Billings Records            |                     |  |  |
|-----------------------------|---------------------|--|--|
|                             | 60° on January 29   |  |  |
|                             | 62° on January 30   |  |  |
|                             | 71° on March 18     |  |  |
|                             | 80° on April 14     |  |  |
| Record High Temps           | 105° on July 24     |  |  |
|                             | 105° on August 2    |  |  |
|                             | 94° on September 29 |  |  |
|                             | 58° on December 20  |  |  |
|                             | 58° on December 21  |  |  |
|                             | -26° on January 13  |  |  |
| Record Low Temps            | -22° on January 14  |  |  |
| Record Low Temps            | 38° on June 18      |  |  |
|                             | 39° on June 19      |  |  |
|                             | 0.66" on April 6    |  |  |
| <b>Record Precipitation</b> | 0.73" on May 8      |  |  |
|                             | 2.02" on May 23     |  |  |
|                             | 4.2" on February 15 |  |  |
| Record Snowfall             | 4.3" on April 6     |  |  |
|                             | 3.3" on November 24 |  |  |

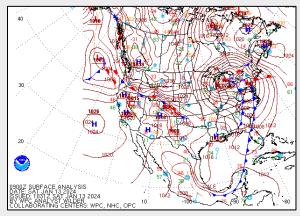
| Sheridan Records            |                      |  |  |
|-----------------------------|----------------------|--|--|
|                             | 66° on January 28    |  |  |
|                             | 68° on January 30    |  |  |
|                             | 76° on April 3       |  |  |
|                             | 79° on April 12      |  |  |
|                             | 103° on June 23      |  |  |
|                             | 101° on June 30      |  |  |
|                             | 102° on July 11      |  |  |
|                             | 104° on July 24      |  |  |
|                             | 105° on August 2     |  |  |
| Record High Temps           | 102° on August 21    |  |  |
|                             | 101° on September 2  |  |  |
|                             | 102° on September 25 |  |  |
|                             | 93° on September 27  |  |  |
|                             | 93° on September 28  |  |  |
|                             | 98° on September 29  |  |  |
|                             | 87° on October 9     |  |  |
|                             | 85° on October 14    |  |  |
|                             | 87° on October 16    |  |  |
|                             | 62° on December 20   |  |  |
|                             | -31° on January 13   |  |  |
| Record Low Temps            | -24° on January 14   |  |  |
|                             | 32° on June 19       |  |  |
| <b>Record Precipitation</b> | NONE                 |  |  |

| Miles City Records   |                      |  |  |
|----------------------|----------------------|--|--|
|                      | 105° on July 25      |  |  |
| Bacard High Tomps    | 105° on August 2     |  |  |
| Record High Temps    | 100° on September 29 |  |  |
|                      | 59° on December 7    |  |  |
|                      | -33° on January 13   |  |  |
| Pacard Low Tomps     | -34° on January 14   |  |  |
| Record Low Temps     | 19° on April 20      |  |  |
|                      | 37° on June 19       |  |  |
| Record Precipitation | 0.93" on August 26   |  |  |
| Record Frecipitation | 0.44" on December 15 |  |  |

| Livingston Records          |                       |  |  |
|-----------------------------|-----------------------|--|--|
|                             | 58° on January 28     |  |  |
|                             | 60° on January 29     |  |  |
|                             | 63° on January 30     |  |  |
|                             | 62° on January 31     |  |  |
|                             | 63° on February 1     |  |  |
|                             | 76° on April 12       |  |  |
|                             | 96° on June 23        |  |  |
|                             | 98° on July 11        |  |  |
|                             | 102° on July 24       |  |  |
| Record High Temps           | 97° on July 25        |  |  |
| Record right temps          | 101° on August 2      |  |  |
|                             | 92° on September 29   |  |  |
|                             | 86° on October 4      |  |  |
|                             | 84° on October 9      |  |  |
|                             | 83° on October 14     |  |  |
|                             | 81° on October 16     |  |  |
|                             | 58° on December 3     |  |  |
|                             | 54° on December 7     |  |  |
|                             | 60° on December 20    |  |  |
|                             | 57° on December 21    |  |  |
|                             | -26° on January 14    |  |  |
| Record Low Temps            | -24° on January 15    |  |  |
|                             | 30° on June 1         |  |  |
|                             | 0.29" on February 3   |  |  |
| <b>Record Precipitation</b> | 0.59" on March 1      |  |  |
|                             | 0.89" on September 17 |  |  |

The following is a chronological list of significant or noteworthy weather events that occurred across the region in 2024.

January 12-15: A frigid air mass dropped out of Canada, producing bitter cold and dangerous wind chills for a few days. Billings (-26°) and Sheridan (-31°) observed their coldest temps since Jan 1997. Baker's high of -20° on the 13<sup>th</sup> was a record for the site, dating back to 1998. Several locations reached -40°. To the right is a summary of coldest temps and wind chills at various stations. Below is a surface analysis showing very cold high pressure dropping out of Canada on the 13<sup>th</sup>.



| Coldest Observ   | ed Temns | Coldest Observed V | Vind Chills |  |
|------------------|----------|--------------------|-------------|--|
| Jan 12-1         | •        | Jan 12-15          |             |  |
| Huntley          | -52°     | Albion 12NW        | -69°        |  |
| Hysham 25SSE     | -47°     | Ekalaka 7SE        | -68°        |  |
| Ryegate 18NNW    | -44°     | Alzada             | -66°        |  |
| Roundup 15SW     | -44°     | Baker              | -65°        |  |
| Melville 4W      | -42°     | Judith Gap         | -63°        |  |
| Brandenberg      | -42°     | Baker 13NE         | -63°        |  |
| Ingomar 9E       | -42°     | Harlowton 4NNE     | -62°        |  |
| Busby            | -41°     | Big Timber         | -59°        |  |
| Broadus          | -38°     | Hardin             | -59°        |  |
| Columbus         | -38°     | Reed Point 9NE     | -59°        |  |
| Ekalaka          | -37°     | Miles City         | -58°        |  |
| Forsyth          | -36°     | Livingston         | -57°        |  |
| Hardin           | -35°     | Billings           | -53°        |  |
| Miles City       | -34°     | Crow Agency        | -53°        |  |
| Baker            | -33°     | Forsyth            | -52°        |  |
| Sheridan         | -31°     | Columbus           | -51°        |  |
| Billings NWS     | -31°     | Fishtail 3W        | -51°        |  |
| Livingston       | -29°     |                    |             |  |
| Billings Airport | -26°     |                    |             |  |

**January 28-31:** A stretch of very warm weather impacted the region with many locations seeing multiple days of 60° or warmer. At right is a list of some high temperatures observed during this 4-day period. For Billings, it was the first month on record in which there were three days with sub-zero high temps and four days with temps reaching 60°.

**January** was a roller coaster ride of extreme temperatures. For example, after dropping to -52° on the 13<sup>th</sup>, Huntley soared to 65° on the 30<sup>th</sup>, a difference in extremes of 117 degrees! Below are daily records tied or broken during the month.

| Warmest Observed Temps Jan 28-31 |     |  |
|----------------------------------|-----|--|
| Big Horn                         | 68° |  |
| Sheridan                         | 68° |  |
| Brandenberg                      | 67° |  |
| Billings Water Treatment Plant   | 66° |  |
| Roundup 15SW                     | 66° |  |
| Broadus                          | 66° |  |
| Dayton                           | 65° |  |
| Huntley                          | 65° |  |
| Livingston                       | 63° |  |
| Ekalaka                          | 61° |  |

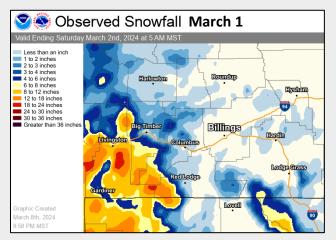
1/31 high of 62°

| Daily Temperature Records Tied or Broken in January |                  |                  |                  |                  |
|---|------------------|------------------|------------------|------------------|
| Billings  | Livingston       | Miles City       | Sheridan         | Baker            |
| 1935-present  | 1949-present     | 1937-present     | 1908-present     | 1999-present     |
| 1/13 low of -26°                                    | 1/14 low of -26° | 1/13 low of -33° | 1/13 low of -31° | 1/1 high of 45°  |
| 1/14 low of -22°                                    | 1/15 low of -24° | 1/14 low of -34° | 1/14 low of -24° | 1/12 low of -29° |
| 1/29 high of 60°                                    | 1/28 high of 58° |                  | 1/28 high of 66° | 1/13 low of -33° |
| 1/30 high of 62°                                    | 1/29 high of 60° |                  | 1/30 high of 68° | 1/14 low of -31° |
|   | 1/30 high of 63° |                  |                  | 1/20 low of -10° |
|   | 1/31 high of 62° |                  |                  | 1/28 high of 53° |
|   |                  |                  |                  | 1/29 high of 51° |
|   |                  |                  |                  | 1/30 high of 58° |

**February 14-16:** The region was impacted by periods of accumulating snowfall. Some totals: Mystic Lake 16", Melville 10ENE 11.5", Fort Smith 9.6", Shawmut 9", Big Timber 8", Luther 7.5", Sheridan 7.5", Livingston 7.3", Lame Deer 8E 6.2", Ridgeway 6", Springdale 6", Harlowton 6", Joliet 5", Dayton 5", Billings area 4-8".

**February 24-26:** A period of strong winds impacted the foothills. Some peak gusts included: Livingston 71 mph, Timbercrest Raws (west of Red Lodge) 70 mph, Crazy Raws 72 mph, Bighorn Mountain Raws 66 mph, Big Timber 61 mph, Molt 8W 61 mph, Emigrant 3ESE 61 mph, Melville 9SE 60 mph, Sheridan 59 mph, Luther 58 mph.

**February 28:** A peak wind gust of 92 mph was observed at the Livingston airport at 7:53am. This was the 2<sup>nd</sup> strongest gust on record at Livingston, behind only the 94 mph gust that occurred on 12/21/1978. The strong winds produced blowing and drifting snow as well, affecting travel on I-90.



**March 1:** Heavy snow impacted the west, especially during the morning. Springdale to Livingston and Pine Creek (along the Yellowstone valley) saw 5-8", but 10" fell at McLeod and up to 16" in the Absarokas only 7 miles ESE of Livingston. The Beartooth-Absarokas saw heavy snow from the 1<sup>st</sup> to the 3<sup>rd</sup>, with 1 to 2 feet of accumulation. Livingston's 0.59" of precipitation was a daily record (most of it fell in just a few hours). Map at left shows snowfall accumulations.

**March 18-20:** A very warm stretch of weather, with many locations seeing the first 70-degree temps of the year. A few highs included: Huntley 75°, Hardin & Billings NWS 74°,

Pompey's Pillar & Forsyth 72°, Dayton & Billings Airport 71°, Sheridan & Broadus 70°.

**March 23-24:** Parts of our central and east saw several inches of accumulating snowfall. Some totals included: Baker 25SSE 10", Luther 3SSW 9.0", Red Lodge area 4-7", Busby 6.8", Ekalaka 6.7", Fort Smith 5.5", Lame Deer 8E 5.1", Forsyth 4.5", Plevna 4.5", Hysham 4.9", Dayton 4", Baker 4". Billings and areas to the west received only 1-3".

**April 6-8:** Heavy and wet snow fell, especially over the Pryors, Bighorns and higher hills to the southeast of Billings. Accumulations were very elevation dependent. 16" of snow was reported near Lame Deer and Sonnette, but a county official indicated up to 23" near Lame Deer. A few other totals: Story area 12-18" (but less than an inch around Sheridan), Otter 11ENE 13.2", Ridge 7.5", Broadus 19NNW 7.0", Forsyth 4", Billings area 1-5". Billings airport set daily records on the 6<sup>th</sup> with 0.66" of precipitation and 4.3" of snow. Up to 30" of snow fell at Burgess Junction in the Bighorn Mountains.



**April 12:** In the late evening, decaying showers over the Paradise Valley caused wind gusts as high as 72 mph at Livingston.



**April 17-18:** Heavy snow fell along the southern mountains and foothills. In the high country, 16 to 25 inches of snow was observed at Snotel stations in the Beartooths and Bighorns. Some lower elevation totals included: Red Lodge 10", Big Horn & Story 8", Nye 7", Pine Creek & Big Timber 6", Sheridan area 4-7", Billings less than an inch (though the hills above Lockwood were white when the snow ended).

**May 5:** The first severe storm of the season occurred near Hysham. Hysham Hills DOT on I-90 reported a peak wind gust of 60 mph, but there were two private weather stations just north of Hysham that measured a peak gust of 79 mph. Some tree damage was observed, and a horse trailer was blown into a garage. Radar image is at right.

**May 6-7:** A dynamic low-pressure system over the western Dakotas brought a 2-day period of strong westerly winds to the region. There were reports of a few power outages, mainly in central Montana. Much of the region experienced



several hours of wind gusts of at least 50 mph. The following table summarizes the peak wind gusts at several sites. Image below is from Red Lodge.

| March 6-7: Tree damage in Red Lodge | SITE               | MAY 6-7 PEAK WIND GUST |
|-------------------------------------|--------------------|------------------------|
|                                     | Lockwood 6S        | 68 mph                 |
|                                     | Billings Airport   | 67 mph                 |
| and the second second second        | Reed Point 7S      | 67 mph                 |
|                                     | Roundup 13NW       | 66 mph                 |
|                                     | Big Timber 9SE     | 65 mph                 |
|                                     | Big Timber Airport | 64 mph                 |
|                                     | Sheridan Airport   | 63 mph                 |
|                                     | Busby 7N           | 62 mph                 |
|                                     | Broadus 2E         | 62 mph                 |
|                                     | Livingston Airport | 61 mph                 |
|                                     |                    |                        |

**May 5-9:** The same weather system that produced strong winds also resulted in widespread precipitation over a 5-day period, including heavy snow over the mountains. Heaviest snow was on the 7-9<sup>th</sup> over northeast aspects (Placer Basin 3.1" of snow water equivalent, Burgess Junction 2.8" of SWE, Cole Creek 2.4" of SWE). Heaviest precipitation was west of Baker & Ekalaka. Most of the region saw 1-2" of rain, but some areas east of the foothills and west of Fallon & Carter Counties picked up 3-4.5". A few totals: Forsyth 4.92", Volborg 18SW 4.69", Lame Deer 8WSW 4.50", Story 4.28", Ridge 4NE 4.02", Melstone 6E 3.98", Klein 5SE 3.95", Miles City 20NW 3.90", Hysham 25SSE 3.74", Miles City airport 3.03".

**May 23:** A short-lived but dynamic weather system produced widespread rain, heaviest along the foothills, and snow in the mountains. Rain totals included: Joliet 3.50", Billings area 2-3", Park City 6WSW 2.91", Big Timber 2.86", Roscoe 2N 2.64", Absarokee 2.11", Red Lodge 2.08". Cole Creek saw 3.3" of snow water equivalent and snow depth increased from 20" to 42" over a 14-hour period. This event prevented Beartooth Pass from opening on time above Vista Point. Billings metro area saw some minor urban flooding. Billings airport total of 2.02" was a daily record.

**May 29:** A severe thunderstorm produced 1.25" hail 20 miles NNE of Baker. This was the first severe hail report of the season. A funnel cloud was spotted near Albion.

**June 3:** A decaying line of thunderstorms produced severe wind gusts at the Miles City airport (peak of 68 mph) and Baker airport (peak of 63 mph) during the late evening.

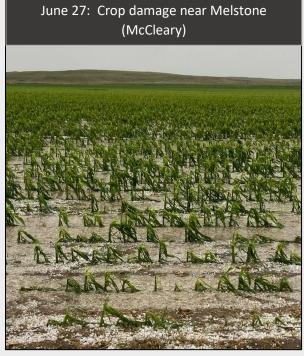
**June 15:** A few thunderstorms produced severe wind gusts. Peak gusts included: Ingomar 78 mph, Livingston 68 mph, Sheridan 64 mph, Miles City 62 mph (a long distance from a thunderstorm), Forsyth 58 mph, Billings airport 58 mph. In most cases, the gust front was well-removed from the thunderstorm.

**June 17-18:** A cold weather system produced accumulating snow over the Crazy and Beartooth-Absaroka Mountains. South Fork Shields Snotel (8100' in Crazy Mtns) picked up over 2" of SWE and around a foot of snow accumulation. Porcupine Snotel (6500' in Crazy Mountains) received about 5" of snow. Beartooth Highway closed for a couple days (though heaviest snow was to its west). Snow levels fell enough for snow to fall briefly over Bozeman Pass (5748').

**June 21-22:** During the late evening and into the overnight hours, a strong thunderstorm tracked from northwest Rosebud County into Custer County. There were no severe reports, but storms produced very heavy rain, including (in less than an hour) Knowlton Raws 1.87", Ingomar 9E 1.62", Baker 25SSE 1.23", Miles City 1.03", Baker 0.99", Volborg 15SSW 0.96". Miles City underpass flooded.

June 27: This was the most active severe weather day yet of 2024. Severe storms occurred east of Billings. There were a few hail reports (1.75" at Custer, 1.5" hail near Angela, 1" hail at Colstrip and 12E Roundup), but most of the severe weather was from wind. There were power poles broken and shingles blown off in Miles City. Some peak gusts included: Baker 76 mph, Bascom 9ENE 67 mph, Miles City 66 mph, Stacey 6SSW 65 mph, Worden 8NE and Billings 3ESE 64 mph, Busby 10NW and Ingomar 2W 62 mph, Billings airport 61 mph, Hardin 61 mph, Sheridan and Big Horn 60 mph. To the right is a photo of crop damage from hail & wind near Melstone.

**June 30:** In the evening, severe thunderstorms produced 1.75" hail just east of Hysham (with estimated 60 mph wind gusts) and a wind gust of 61 mph at the Miles City airport.



**July 13:** During the evening, a swath of intense severe thunderstorms with strong winds impacted northern Rosebud to Custer, Fallon, and Carter Counties. At bottom right is a photo of wind damage in Miles City (courtesy Montana Storms). Below is a summary of damage and peak gusts reported across this area.

| LOCATION           | IMPACT                         |  |
|--------------------|--------------------------------|--|
| Tusler 8SE         | Gust 77 mph                    |  |
| Miles City 5S      | Gust 61 mph                    |  |
| Baker              | Power poles & large tree limbs |  |
| Dakei              | downed                         |  |
| Ridgeway           | Gust 70 mph                    |  |
| Angela 9SSE        | 2.92" of rain                  |  |
| Baker airport      | Gust 79 mph                    |  |
| Knowlton 4SE       | Gust 72 mph                    |  |
| Medicine Rocks 4NE | Gust 70 mph                    |  |
| Plevna 5ENE        | Gust 65 mph                    |  |
| Belltower 4N       | Gust 70 mph                    |  |
| Ekalaka 15SE       | Gust 63 mph                    |  |
|                    | Tree, roof & power line        |  |
| Miles City         | damage; gust 72 mph; most of   |  |
|                    | city w/o power for the night   |  |
| Miles City 4NE     | Gust 70 mph                    |  |
|                    | Many power poles snapped;      |  |
| Carter County      | crop damage; damage to         |  |
|                    | barns and storage sheds        |  |



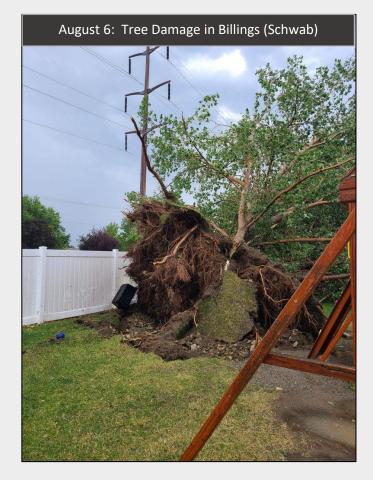
**July 24-25:** HEAT. Triple digit temperatures impacted the entire region over this two-day period. Though its period of record is short (beginning in 1998), the Baker Airport set its all-time record with a high of 109°. Other highs included: Ingomar 9E 109°, Billings NWS 109°, Biddle 8SW 109°,

Powderville 8ENE 108°, Plevna 108°, Miles City 108°, Forsyth 107°, Hardin 106°, Huntley 106°, Broadus 106°, Ekalaka 106°, Billings airport 105°, Sheridan 104°, Livingston 102°.



**August 6:** In the late afternoon, a severe thunderstorm produced very strong straight-line winds in Billings (and later, to Crow Agency and Busby). The Billings airport recorded a peak gust of 76 mph, its 2<sup>nd</sup> strongest wind gust on record (back to 1972). A DOT station at Arrow Creek Hill (I-90 east of Billings) recorded a peak gust of 78 mph, the strongest measured wind with this storm. Other gusts: Soda Springs Raws (south of Billings) 76 mph, Little Bighorn Raws (at Crow Agency) 72 mph, Busby 7N 66 mph. There was widespread damage across Billings, including snapped/uprooted trees, downed power lines, home/business damage.







August 12: Tree damage in Hardin (Gribble) **August 12:** In the late afternoon, an apparent microburst occurred at Hardin, producing a 70-mph gust at the airport, and an 81-mph gust at the middle school. Some tree damage was reported, as well as a blown trampoline and displaced lawn furniture.

August 21: A severe thunderstorm produced 2.50" hail near Volborg.

**August 22:** The Remington Fire was discovered 20 miles north of Leiter, WY. It spread rapidly across the Montana border and toward Birney. By August 30<sup>th</sup> it had burned just under 200,000 acres over multiple counties.

**September 3:** A severe thunderstorm formed over the Beartooths and spread off the foothills, producing strong winds. Peak gusts included: Roscoe 70 mph, Columbus 12S

66 mph, Laurel airport 61 mph, Billings airport 61 mph, Billings 10S 59 mph.

**September 12:** A late season severe thunderstorm produced 1-2" diameter (quarter to hen egg) hail in Sheridan. Some streets turned white from minor hail accumulation.

**September 17-18:** A strong weather system brought heavy rain and strong winds to a good portion of the region. Heaviest rain occurred over the west half of our forecast area, where totals in excess of an inch were common (and locally 3+ inches), while the east saw much less. Steamboat Raws (north of Billings) received 3.75" of rain, Roundup 8.5NNE 2.75", Livingston



12S 2.13", Melville 10ENE 2.10", Harlowton 1.98", Livingston 1.51" and Billings 1.31". Many locations saw winds gusting



in excess of 50 mph for several hours. The peak gust was 63 mph at Busby 7N. Heavy snow also fell over the high elevations of the Beartooth-Absaroka and Crazy Mountains, with snow levels down to near 7500 feet. It is estimated that elevations over 10,000 feet in the Beartooths saw one to two feet of heavy wet snow. Photo at left was taken on 9/21 and shows fresh snow on the high peaks of the Absaroka Mountains just south of Livingston.

**September 25:** A very hot day. The high temp of 102° at Sheridan was the latest in the year (by 18 days) a triple digit

temp was ever observed at the airport, dating back to 1907. It was also the latest in the year for the state of Wyoming for a 100° temperature to be recorded. A few other highs on this day: Moorhead 9NE 99°, Brandenberg 99°, Powderville 8NNE 99°, Fort Howes 99°, Clearmont 5SW 98°, Crow Agency 98°, Dayton 98°, NWS Billings 97°, and Broadus 96°.



**September 27:** The Elk Fire (at left) was detected in the Bighorn Mountains west of Dayton, the cause of which was determined to be lightning. The fire grew rapidly on the night of the 29<sup>th</sup>. The fire went on to burn 98,352 acres along the eastern slopes of the Bighorns west of Dayton and Sheridan, and was fully contained on November 10<sup>th</sup>. There were some evacuations near Dayton, and US-14 was closed for a time from Dayton to Burgess Junction.

**September 29:** Another very hot early fall day. Miles City hit 100°, its latest on record. Brandenberg and Powderville also reached 100°. Other highs: Ingomar 99°, Busby & Hardin 98°, Bridger & Baker 97°.

**October 4-5:** A dry cold front produced strong west to northwest winds in the late evening and overnight. Peak gusts: Quad Creek Raws (above Vista Point at 9774 feet) 85 mph, Livingston & Baker 67 mph, Forsyth & Billings 64 mph, Hailstone Wildlife Refuge 63 mph, Melstone 62 mph, Harlowton 61 mph, and Sheridan 59 mph.

**October 17-18:** A slow-moving weather system brought the first measurable rain in four weeks. Some locations in the west and south received near an inch of precipitation, while mountains saw accumulating snow. Some wet snow fell along the foothills, with little accumulation.

**November 5-6:** A weak weather system brought some lower elevations their first snow of the season. Snowfall of 6-11" fell in parts of southern Bighorn County, including 10.9" at Lodge Grass 7W. Billings airport measured 0.1" of snow.

**November 17:** Strong gap winds at Livingston produced frequent gusts of 65-75 mph, especially in the morning. There were power outages in the Livingston area.

**November 24:** A period of snow impacted areas from Billings westward and southward. Most places received between 1 and 4 inches of snowfall. For the city of Billings, it was the first snowfall to stick and cause travel issues. The 3.3" total at the Billings airport set a daily record. Roads were icy.

**December 15:** Freezing rain impacted parts of southeast Montana. Miles City airport reported an ice accumulation of 0.08", and as a result of icy conditions, I-94 was closed from 2am until noon. US-212 was also closed from Alzada to the South Dakota border. There was some wet snow on the back side of this weather system, with up to 3" reported in the Bull Mountains. Miles City's 0.46" of precipitation was a daily record.

**December 18:** Strong winds impacted the region behind a cold frontal passage. Peak gusts were widespread in the 50s and 60s, with some 70s, including: Quad Creek Raws



(elevation 9770') 93 mph, Big Timber 76 mph, Harlowton 76 mph, Livingston 74 mph, Home Creek Divide (east of Ashland) 68 mph, Judith Gap 68 mph, Badger Peak (near Lame Deer Divide) 68 mph, Reed Point 6S 67 mph, Fishtail 66 mph, Angela 66 mph, Nye 65 mph, Broadus 2E 65 mph, Billings 62 mph, Fort Howes 62 mph, Emigrant 60 mph, Sheridan



59 mph, Miles City 59 mph, and Broadview 58 mph. Image at left shows a tipped semi which closed I-90 westbound near Livingston. US-191 was also closed north of Harlowton due to a semi blow over.

**December 30-31:** It was a very warm month (record warmest December at Livingston), but it ended on a chilly note with areas of snow. Most of the region picked up 1 to 4 inches of snow, while the Beartooth-Absaroka and Crazy Mountains saw 1 to 2 feet.

## Have a great 2025 everyone!!