



Bottom Line Up Front:
Quiet Start → Active Summer

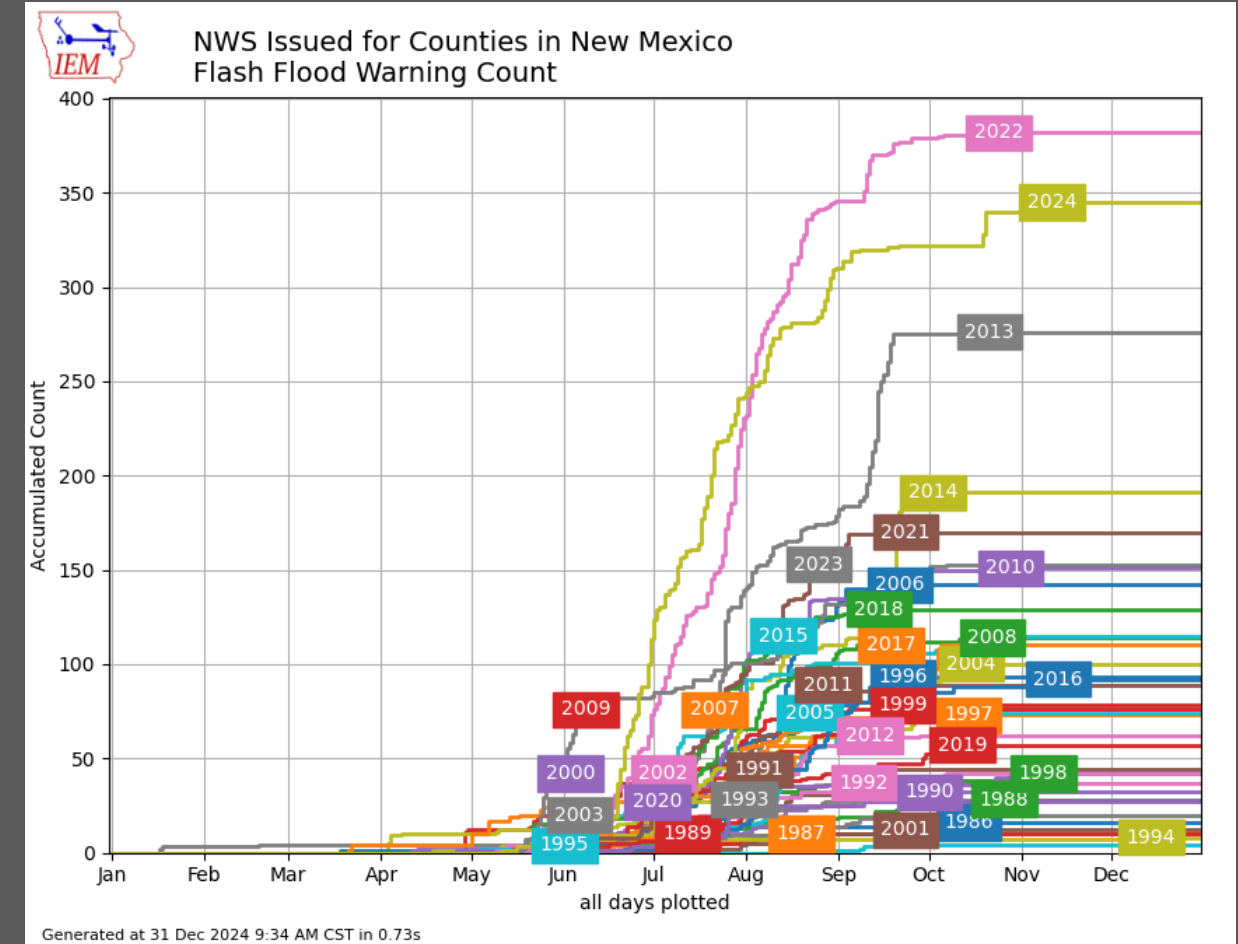
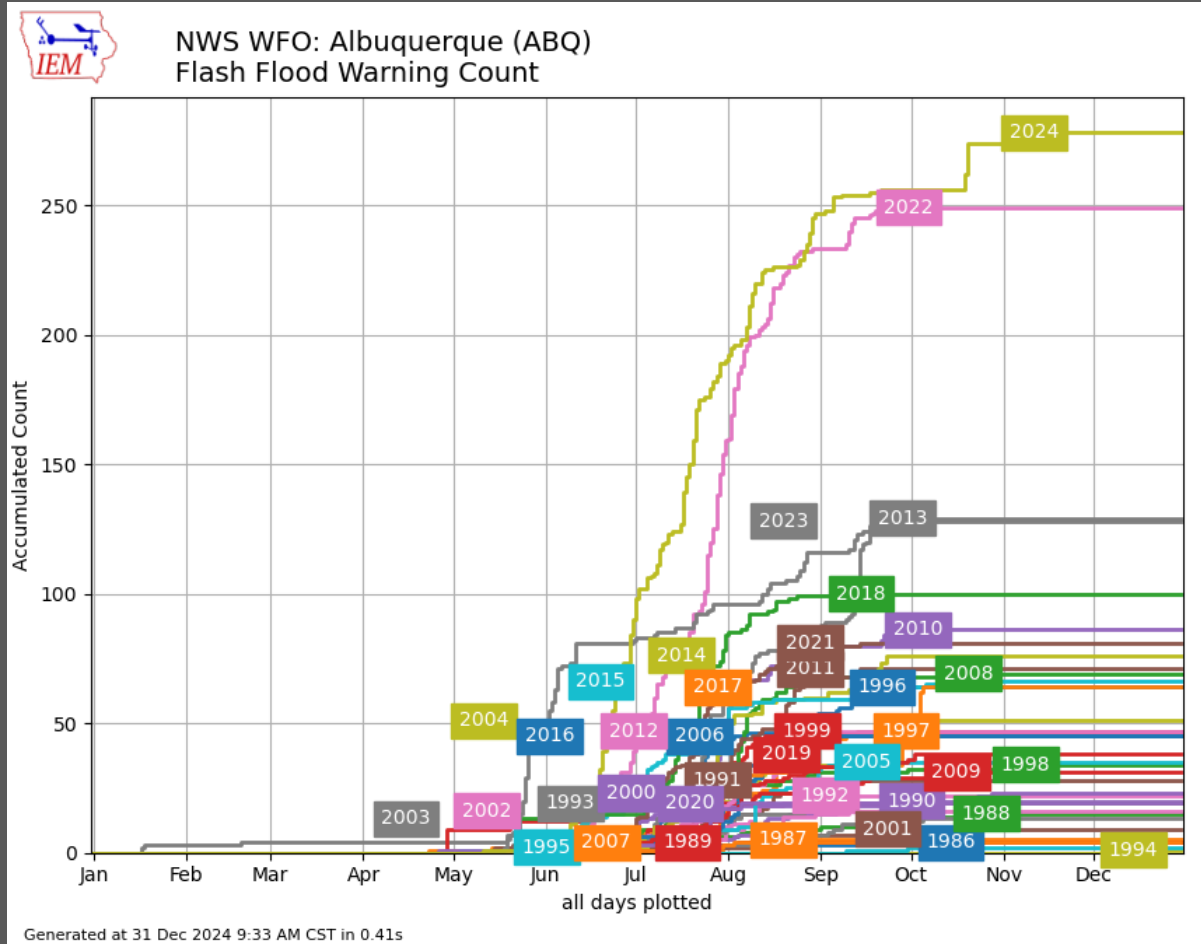
2024 Severe Weather Reports		
Event	NWS ABQ County Warning Area	Statewide
Tornado	10	12
Hail	79	98
Thunderstorm Wind Gust	80	112
Flash Flood	79	90
Total	248	312



2024 was not quite as active as 2023, except when it came to flash flooding, especially burn scar flash flooding. Of the 79 flash flood reports received this year, 38 of them were related to burn scars. In total, 312 reports were received this year across New Mexico, which is less than the 407 that were received last year, but is near average. The average number of reports over the last 10 years is approximately 320.



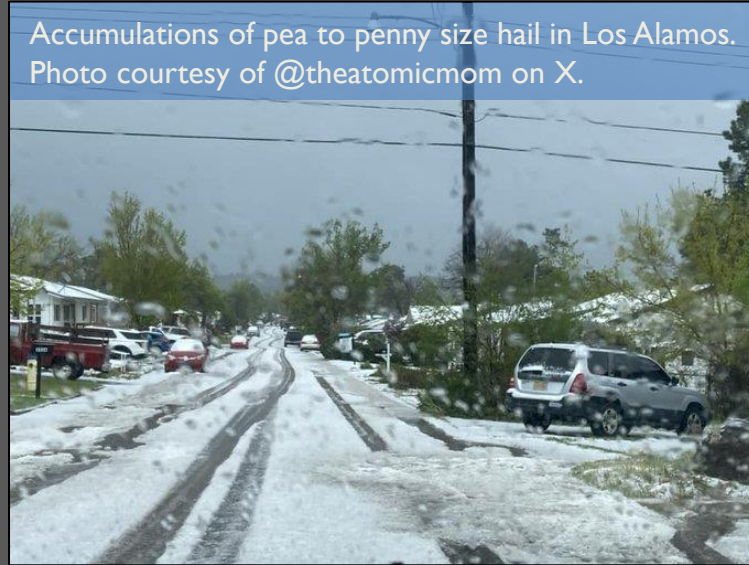
278 Flash Flood Warnings were issued by NWS Albuquerque in 2024, which exceeded the astronomical number of warnings in 2022 (249)! This record setting number of flash flood warnings is in great part due to several burn scars across the area. In fact, of the 278 flash flood warnings, 109 were issued for burn scar flash flooding or approximately 39%. For statewide totals, 2022 remains the record at 382 Flash Flood Warnings, but 2024 is a close second at 345. Of the 345 warnings, 135 were issued for burn scar flash flooding.



Number of Flash Flood Warnings by burn scar for WFO Albuquerque:
 Hermits Peak/Calf Canyon: 58; Sacramento Mountains (McBride, Salt, South Fork and/or Blue 2): 37; Cerro Pelado: 10; Indios: 3; Other: 1.



While an upper low over the Great Basin progressed east towards Colorado during the day, at the surface, a backdoor front pushed as far west as the Continental Divide. Abundant moisture behind the front combined with lift from the upper low allowed severe storms to develop across central New Mexico. One storm spawned a tornado in the Jemez Mountains northeast of Battleship Rock at an elevation of 8150 feet. Little known damage occurred. Later, significant hail accumulations of pea to penny size hail occurred in Los Alamos. Storms then moved east into the highlands and plains of eastern New Mexico during the evening hours where they produced quarter to golf ball size hail. A storm that produced golf ball size hail in southern Chaves County also caused some flash flooding along State Highway 13 and on the normally dry Rio Felix. Ping-pong to golf ball size hail was also reported around Santa Rosa.



Accumulations of pea to penny size hail in Los Alamos. Photo courtesy of @theatomicmom on X.



Piles of pea to penny size hail in Los Alamos. Photo courtesy of @oldgypsywoman on X.

Wind Speed Estimation		Hail Ruler (inches)
Speed (mph)	Effects on Land	
25-31	Large tree branches in motion	
32-38	Whole trees in motion; resistance felt walking into wind	
39-46	Twigs broken off trees	
47-63	Limbs up to 1" broken. Possible slight structural damage	
64-72	Branches 1-3" broken; Shingles blown off roofs	
72 or more	Substantial structural damage begins; Trees uprooted	

Dime size hail in Portales. Photo courtesy of Scout Harrison.

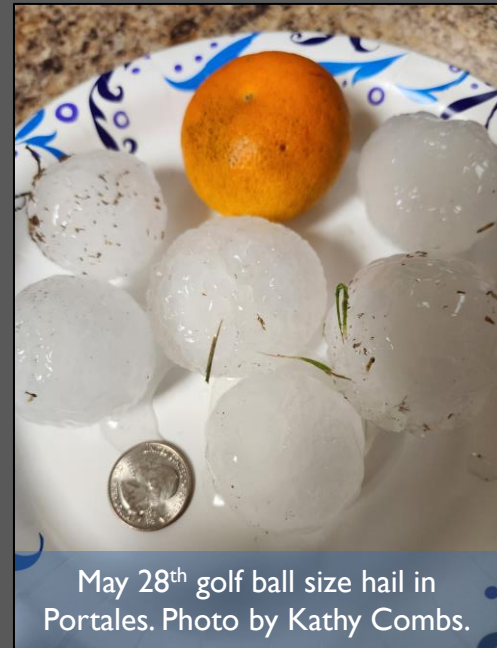
May 28th golf ball size hail in Dora. Photo by Corbin Voges.



During the early afternoon hours on May 28th, severe storms developed across Union County. One of these storms produced a brief tornado just southwest of Mount Dora along with quarter to golf ball size hail before the storm drifted into the Texas Panhandle. However, colliding outflow boundaries resulted in the development of new storms across northeast NM. These storms drifted south just west of the NM/TX state line during the evening hours dropping quarter to golf ball size hail and producing damaging winds gusts of up to 70 mph. The storms also caused flash flooding when moving through Clovis. Storms exited Roosevelt County into the Texas South Plains shortly before midnight local time.



May 29th tennis ball size hail at Cannon AFB. Photo courtesy of Ruthann Kelly.

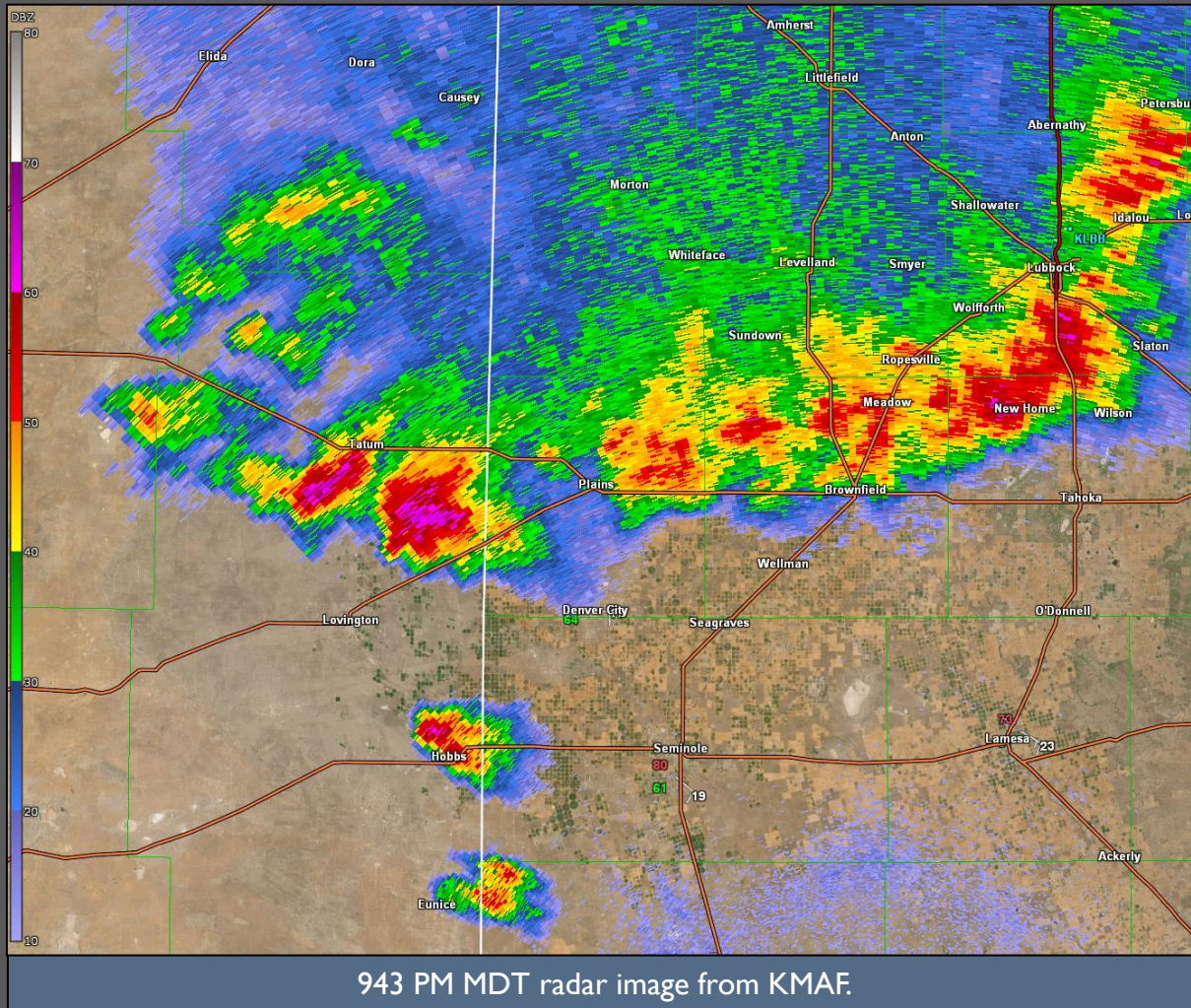


May 28th golf ball size hail in Portales. Photo by Kathy Combs.

After the severe weather on the 28th, a boundary remained draped across east central NM during the evening hours of May 29th. A strong supercell developed along the boundary and drifted south and southeast through Curry County. The supercell produced two brief tornadoes along with golf ball to baseball size hail in central and southeast Curry County near Cannon Air Force Base. Rotation weakened as the supercell moved south into Roosevelt County. However, it still dropped baseball to 3 inch hail in Portales.



May 29th tennis ball size hail in Portales. Photo courtesy of Corbin Voges.



Afternoon thunderstorms merged into a broken line and pushed southward across eastern NM and the Texas Panhandle on May 31st. While the storms in Texas brought gusty winds and heavy rain, the storms in eastern NM were considerably more damaging. Golf ball size hail was reported as the storms went through Elida. A little later, as the supercells moved through the area near Tatum, wind gusts were estimated to be near 100 mph. The combination of hail and wind downed power lines, broke skylights, and a wind turbine fire is expected to be caused by the strong winds as well. This occurred shortly before the radar image was taken on the left. The rainfall also caused standing water on all roads in Tatum, including Highways 206 and 380. Meanwhile, a small supercell that develop ahead of the line near Hobbs dropped between golf ball and tennis ball size hail. Lea County certainly took the brunt of the severe weather on this day.

A burst of monsoon moisture led to several days of heavy rainfall, flash flooding and severe weather of all types. Initially, moisture surged into eastern NM the morning of June 19th and abutted up against the east slopes of the Central Mountain Chain by mid day. Slow moving severe thunderstorms developed and dumped copious amounts of rain and hail. One storm moved over the Hermits Peak/Calf Canyon burn area from 2022 and the ensuing debris flows made roads impassible. Another severe storm formed over the Blue 2 burn area and then the ongoing South Fork wildfire. While the rain helped to put out the fire, the heavy rainfall was no match for the scorched soil and flash flooding quickly developed and impacted the Ruidoso and Bonito Lake areas. To add insult to injury, large hail also occurred with each of these storms. One of the most impressive severe storms occurred near Willard, NM. This storm persisted over the same area for nearly 4 hours dropping unimaginable amounts of hail and rainfall amounts up to 6 inches or more. The flood waters and piles of hail resulted in stranded cars along nearby highways. Additionally, a severe thunderstorm moving northward from the Sandia Mountains toward I-25 produced a localized dust storm that resulted in a 30 car accident along I-25 just north of Placitas. 18 people were injured in the accidents.

The moisture pressed through the gaps of the central mountain chain late that afternoon and evening, bringing high wind gusts of up to 58 miles per hour to parts of the Albuquerque metro. At least one tree was downed as a result.

Hail accumulation and flash flooding near Willard.
Photos below by Mike Bischoff, Blue Sky Productions Utah.





Sand-laden floodwaters in Arroyo La Madera. Courtesy of Jeff Sargent, Espanola Emergency Manager.

1.5 to 2 inch hail in the neighborhood of Villa Madonna, west of Alto, NM over the Blue 2 burn scar. Photo by Tom Bird, NWS EPZ Incident Meteorologist.



Flash flooding continued on June 20th. Heavy rains forced sharp rises along the Rio Chama between Medanales and Espanola. These rises were observed to peak at 7.95 feet at the Rio Chama near Chamita (CMTN5) gauge, resulting in flooding along U.S. Highway 84 between the junction of U.S. Highway 285 and Abiquiu that impacted 40 residences. Heavy flows in Arroyo La Madera, which flows into the Rio Chama, left heavy sand deposits within the Rio Chama near Medanales that resulted in the river re-routing through adjacent agricultural fields two days later on June 22nd. Additionally, another day of flash flooding occurred on the Hermits Peak/Calf Canyon burn scar which resulted in a washed out bridge on County Road A3.

Quarter size hail 5 miles southwest of Bloomfield. Photo by Fallon Hoover.



Flash flooding along Highway 64 in Farmington. Photo by Caitlyn Vecillio.



Impacts from flash flooding and severe weather shifted westward on the June 21st, though the burn scars were still at risk. Heavy rains over the Hermits Peak/Calf Canyon burn area resulted in a flash flood emergency when flood waters overrode the Peterson Reservoir within the Gallinas Creek watershed just upstream of Las Vegas. An evacuation order was issued by city and county officials for residents along the Gallinas Creek and areas along State Road 65. Farmington and Grants also had significant flash flooding. In Grants, the Rio San Jose rose out of its banks, several streets were flooded and numerous swift water rescues occurred. In Farmington, there were multiple reports of flash flooding across city streets and low water crossings. This included U.S. Highway 64 at Andrea Drive as well as

between County Road 5500 and 5777 where the road was impassible due to swift moving water. The La Plata river was also reported to be raging and partly out its banks. In addition to the heavy rainfall high winds and hail were reported between Farmington and Bloomfield. The high winds pushed a single wide mobile home off its blocks with minor damage to the structure.



Flash Flooding in Las Vegas, NM at 7th St and Mills Ave. Courtesy of Mark Rowley, NMSP.



Tree damage on the east side of Farmington. Courtesy of @Kkttinman on X.

While storms occurred elsewhere on the 19th, the area of main concern was over the Pecos River Valley near Roswell. A line of storms shifted eastward over the Pecos River Valley during the evening and produced historically high rainfall. An all-time record daily maximum rainfall amount was set at Roswell of 5.78 inches, breaking the previous record of 5.65" set on November 1, 1901. Numerous other mesonet and public weather stations recorded 4 to 9 inches in Roswell as well. Flood waters inundated homes forcing people to their attics and rooftops. Numerous vehicles were submerged in over 4 feet of water while several more were swept away. All roads into the city were closed due to flooding. The Roswell Daily Record reported that as many as 500 rescues were carried out over the weekend during and after the flooding. Estimates have as many as 400 homes and 200 businesses facing significant damage. The Roswell Convention Center was hosting a UFO festival when flood waters up to 5 feet entered the building. Attendees were being rescued from the rooftop. NM Highway 2 in Hagerman and U.S. Highway 285 south of Roswell were overtopped by the Rio Felix and U.S. Highway 285 was damaged. The Pecos River reached 20.34 feet at the Lake Arthur river gage, which was in minor flood stage. The Chaves County Emergency Manager reported that flooding did not recede until Monday morning on October 22nd in Roswell. Another round of severe storms with damaging wind gusts and large hail impacted northeast and east central NM during the evening and early overnight hours of October 20th.

U.S. Highway 285 over the Rio Felix on October 20th. The river overtopped the highway the previous day as evident by the debris and water marks.



Golf ball size hail 12 miles east of Tucumcari on October 20th. Photo by Relissa Nials.



Flooding in Roswell. Photo by Eric Queller.

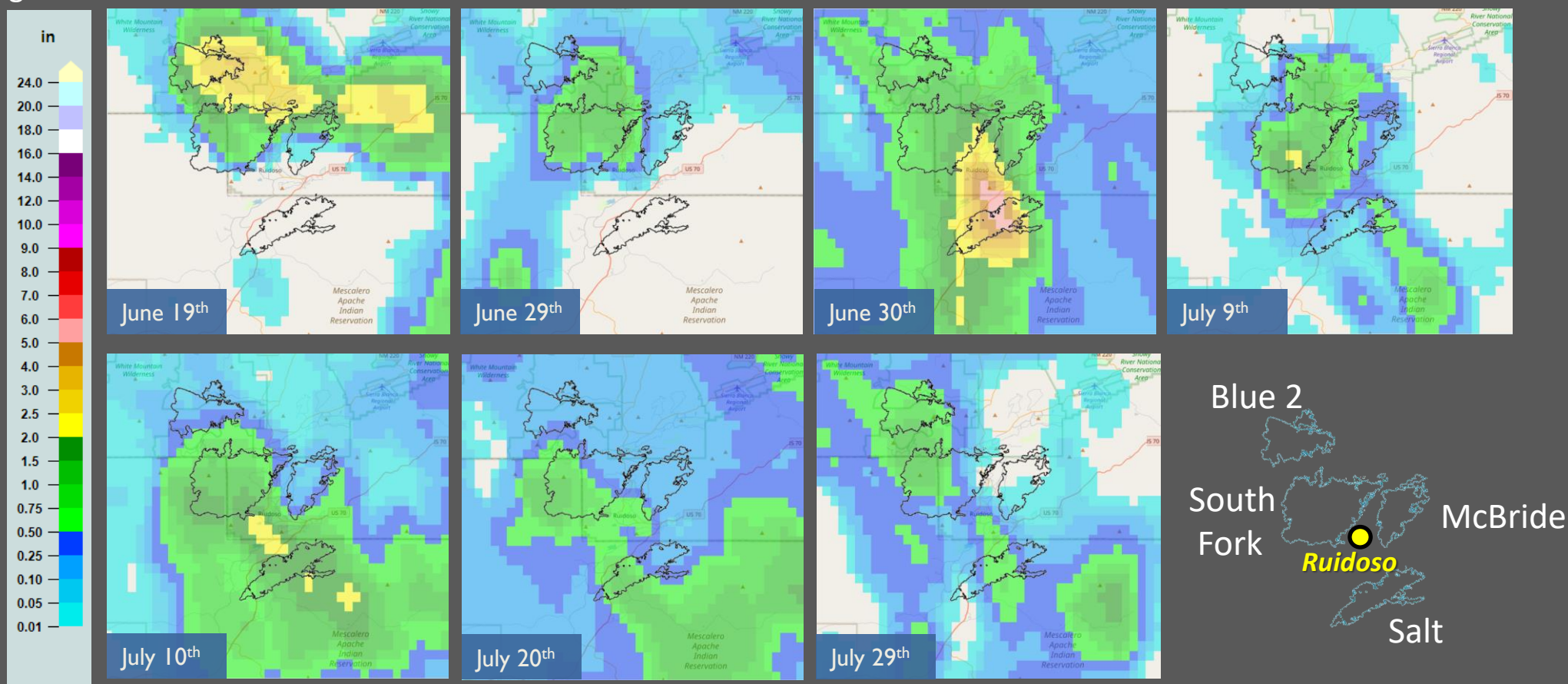


Showers and thunderstorms developed after sunset November 1st continuing into the morning hours of November 2nd. Storms repeatedly moved from southwest to northeast over the same areas across Chaves and Roosevelt counties. U.S. Highway 285 and State Road 2 (Old Dexter Highway) in and around Dexter were impassible due to flood water moving across the respective roadways. Walnut Creek also overflowed onto State Road 2. Additionally, the neighborhood area near Ken Road west of U.S. Highway 285 was under 2 to 3 feet of water. High waters were flowing over Bottomless Lakes Road north of the park causing the roadway to be closed.

Another round of storms developed across southeast NM around midday. These storms mainly affected Eddy and Lea counties with hail between quarter size and nearly 3 inches! Two tornadoes were also reported west of Oil Center. No damage was reported with either tornado.

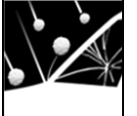
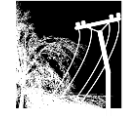


The 2022 McBride burn scar resulted in extensive flooding across eastern portions of Ruidoso in 2022 and 2023, but the addition of the Blue 2, South Fork and Salt burn scars in 2024 just made the Ruidoso area that much more vulnerable to heavy thunderstorm rains during the monsoon. Runoff from both the South Fork and Salt wildfires races toward portions of Ruidoso while the Blue 2 runoff impacts areas around Alto. Oftentimes, the time between onset of rainfall and onset of flash flooding was 30 minutes or less, and sometimes, much less. No two events were exactly alike, but all created devastating flash flooding. The images below show rainfall amounts from seven events when Flash Flood Emergencies were issued. Each event resulted in multiple flash flooding reports in and around Ruidoso. Note how the rainfall distribution varied significantly, but all were heavy rainfall amounts. The black outlines are the burn scar perimeters, with the key noted in the bottom right.





Biggest, Fastest & Most Destructive | When and Where



Tornado

EF-0/EF-U

All 12 tornadoes that occurred were largely in very rural areas and resulted in little to no known damage. One exception was a landspout near Hagerman that destroyed a poorly constructed and dilapidated mobile home.

Hail

3.00 inches

The biggest hail this year was recorded 2.7 miles west-northwest of Jones City in Lea County on November 2nd.

Thunderstorm Wind

100 mph

The highest thunderstorm wind gust was estimated to be 100 mph occurring in and near Tatum, NM on May 31st. Downed powerlines, broken skylights and a wind turbine fire were thought to be the result of the damaging winds.

Non-Thunderstorm Wind

96 mph

The highest non-thunderstorm wind gust occurred at San Augustin Pass on January 11th.

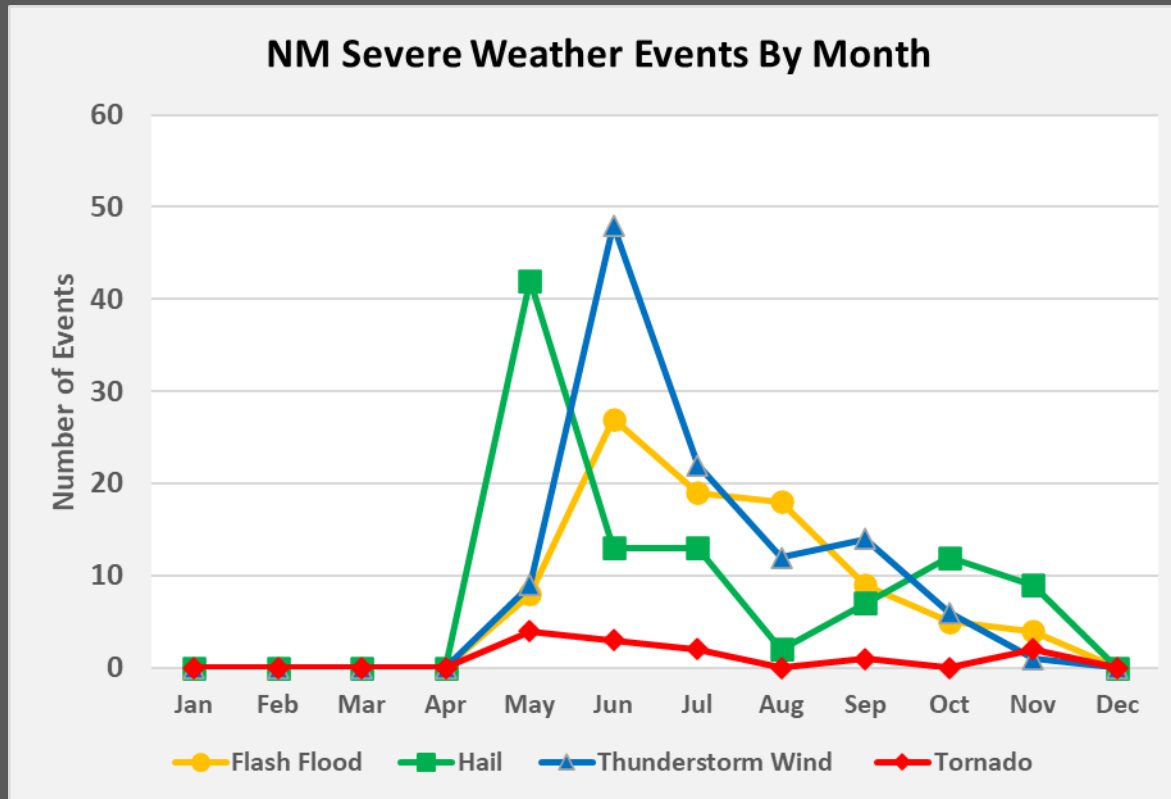


How does 2024 compare to normal?



Event Reports	Normal	2024	Verdict
Tornadoes	9 to 10 per year	12	Near Normal
Hail	~150 per year	98	Well Below Normal
Thunderstorm Wind Gusts	~80 per year	112	Above Normal
Flash Floods	~75 per year	90	Above Normal

Notes: At least one tornado has been reported each year since 1953, and before that it is likely that most tornadoes went unreported. The highest number of tornadoes ever reported was in 1991, when 31 tornadoes devastated parts of the state, especially Eddy and Lea counties. The average number of reports for most types of severe weather has steadily increased since 1950 due to increased awareness and accessibility to reporting. Normal values are averaged over the last 10 years (2014-2023).



The graph on the left shows the distribution of New Mexico severe weather events by month for 2024. New Mexico's primary severe weather season is in the spring, though a secondary season often occurs in the fall, while the summer monsoon brings most of the flash flooding.

Interestingly, all forms of severe weather held off until May, with the first severe weather report on May 3rd. Then, both hail and wind reports quickly ramped up, followed by flash flooding in the summer months. A weak secondary severe weather season, most notable in the hail reports, occurred during the fall.