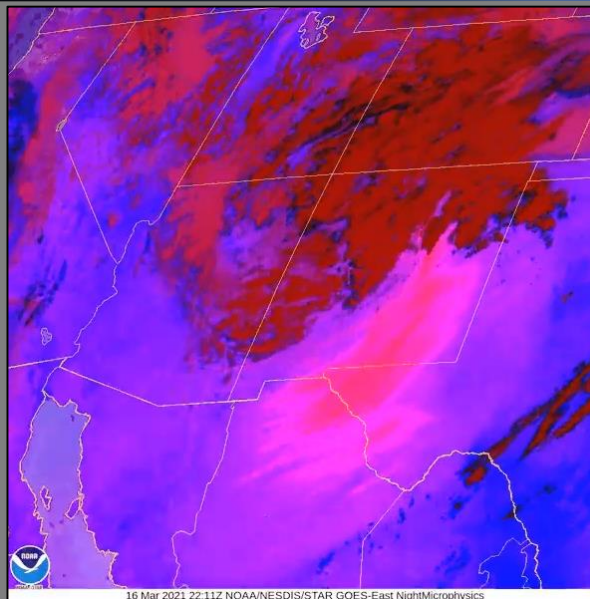




Other Memorable Events



Multi-Vehicle Accident on Interstate 40 near MM243
March 24, 2021 | Courtesy of NM State Police



NOAA GOES-East
Nighttime Microphysics
Enhanced Imagery for
March 16, 2021

Image Capture Courtesy
of Scott Overpeck

COVID Test Site Wind
Damage | Dec. 15, 2021
Courtesy of Frank Kozeliski



Rio Peñasco in
Southwest
Chaves County
on Aug. 14, 2021



Courtesy of
Wendell Malone



Smoke from
Three Rivers Fire
from Alto, NM

Courtesy of
@TexasBones11
April 26, 2021



Luna Burn Scar Flash Flooding on July 27
Courtesy of Polly Mullen



Belen, NM, Canal Breach on July 7, 2021
Courtesy of Sarah Gillen



A very dynamic storm system impacted New Mexico on March 13-14, bringing a variety of weather hazards to the state. While snow was piling up across the northern mountains, a potent upper level jet resulted in strong winds across the eastern plains. On Saturday evening, dust from the playas in Mexico was being lofted and transported northward (hot pink color in the satellite image in lower right corner). What was particularly unique about this event, this dust was transported through New Mexico and into Colorado, and mixed with the heavy snow (see tweet from NWS Boulder).

Another potent system impacted the state on March 16. While snowfall totals were not as impressive, it did bring another round of strong to damaging winds, reduced visibilities due to blowing dust as well as blizzard conditions to the northeast plains. The image and table below depict the strongest peak wind gusts as well as the poor visibility in the Roswell area. In fact, visibility was so poor, the NMDOT reported NM Route 2 closed in all directions from Mile Marker 17-19 (near Hagerman, NM), and the relief route was closed in all directions between Brasher Rd. and Sunset Ave. in the Roswell area. Visibility dropped to under one mile at times.

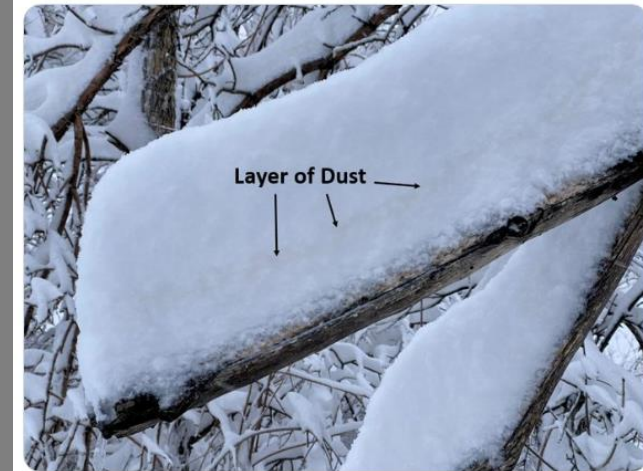


Roswell, NM | March 16 | ©JennyKnobZoe

Location	Peak Wind Gusts on March 16
Clines Corners 1 SSE	68
Roswell 4 SSE	63
Fort Stanton 2 SSW	63
Dunken 2 NE	59
Bingham	58
Bosque del Apache Refuge	55
Willard 7 NW	55
Encinosa 18 NNE	54
Oscuro 5 WSW	53

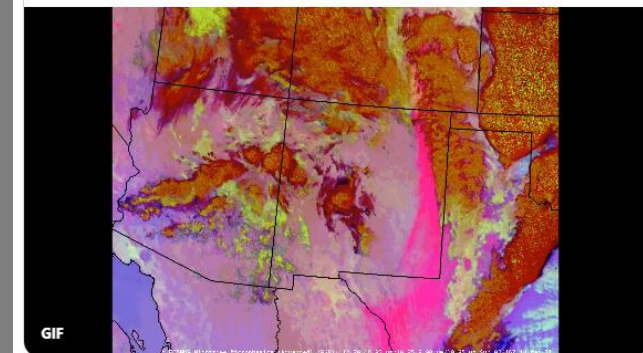
NWS Boulder @NWSBoulder

Check it out! We received a few comments that people saw a brownish layer in the snow and we were able to capture a picture of it here at the office. This is actually a layer of dust transported from Mexico!
[@NWSAlbuquerque](#) pointed it out on satellite last night. #COWx

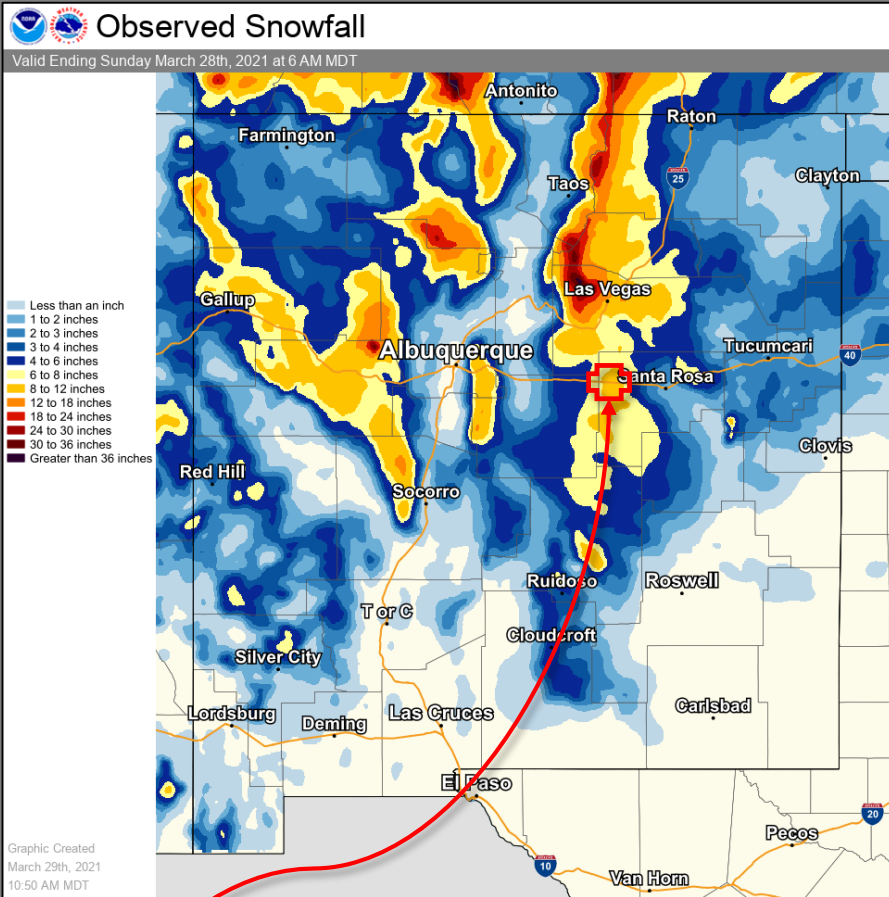


NWS Albuquerque @NWSAlbuquerque · Mar 13, 2021

The dust that was lofted this afternoon from the playas in Mexico (hot pink on the satellite imagery) has now been transported all the way into Colorado! Fortunately, the dust seems to be above the surface, so no restrictions to visibility in NM. #nmwx



11:52 PM · Mar 14, 2021 · Twitter Web App



**Multi-Vehicle Accident on Interstate 40 near MM243
March 24, 2021 | Courtesy of NM State Police**

Red outlined area on snowfall analysis depicts the approximate locations of the incident



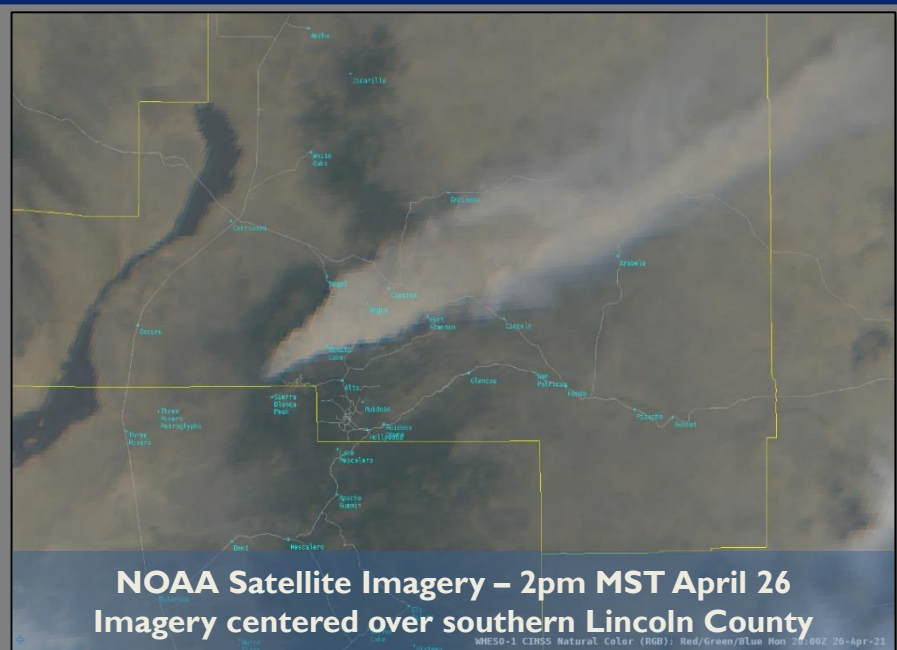
An upper level storm system strengthened over the Great Basin region, then migrated eastward into the Land of Enchantment. The greatest snowfall accumulations were noted in the northern and western high terrain, as typical in these events, however a backdoor front also created upslope flow along the eastern slopes of the central mountains and adjacent highlands. This is where the greatest impacts were felt, particularly along the Interstate 40 corridor in eastern NM.

Rapidly changing weather conditions from the Estancia Valley to the Texas border were noted, and this was even evident in the snowfall accumulation map to the left. Snow rates increased considerably across western Guadalupe County, creating rather slick road conditions. Unfortunately, a major accident involving 39 vehicles east of Moriarty and west of Santa Rosa led to several injuries and the closure of the interstate. Meanwhile, as the cold front pushed through the central mountain chain, very strong gap winds were observed in the Rio Grande Valley. While, significant snowfall didn't occur in the ABQ area, the Sunport measured a peak wind gust of 68 mph, resulting in numerous reports of downed trees and power outages.

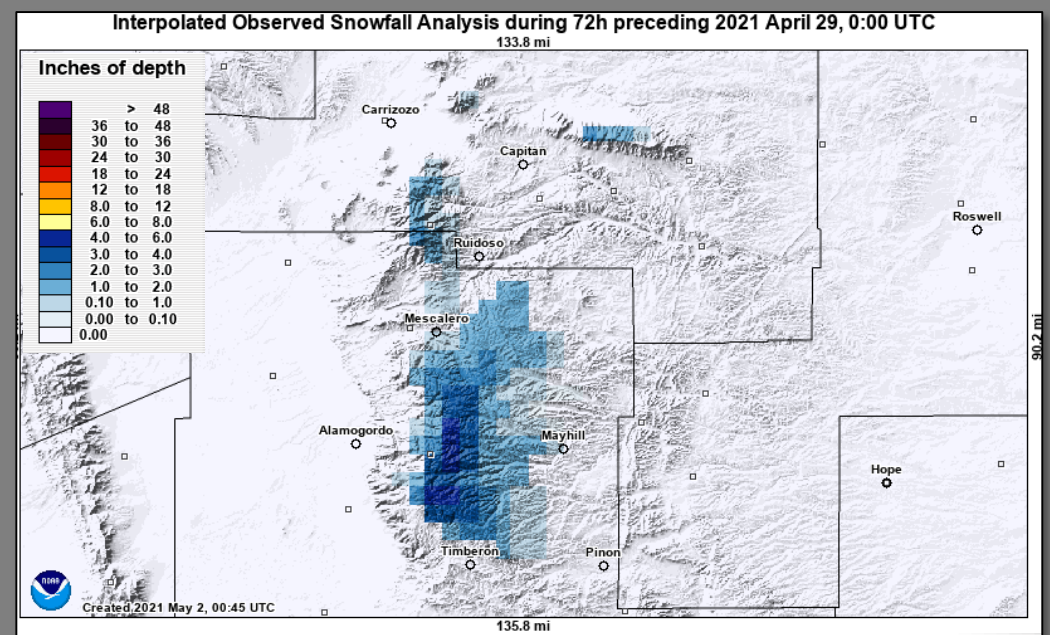
Location	Snowfall Amounts
Sena 3 SSW	19.0
Rociada 8 SW	18.0
Red River 8 SSW	17.0
Chupadero 7 ESE	15.0
Black Lake	13.7
Anton Chico to Vaughn (Guadalupe Co)	6.0 - 8.0



Station (April 26)	Gust	MinRH
Smokey Bear	59	6%
Las Vegas Airport	51	6%
Dunken	48	4%
Roswell Airport	47	3%
Raton Airport	47	4%
Gallup Airport	46	9%
Clayton Airport	46	6%
Sierra Blanca Airport	45	6%
Santa Fe Airport	45	6%
Clines Corners	44	7%
Mills Canyon (Harding Co.)	42	5%
Chupadera	42	5%
Melrose Range	40	4%



A strengthening low-pressure system was tracking across the western U.S., allowing for windy and dry conditions to impact parts of New Mexico. The table to the upper left depicts some of the peak wind gusts and minimum afternoon humidity on April 26. Unfortunately, the Three Rivers Wildfire quickly developed in the Lincoln National Forest during the mid-morning hours. Initial conditions were rather favorable for rapid growth and spread, and by 2pm MDT, smoke was already spreading into parts of Texas (middle image above). According to InciWeb (an interagency online resource), the fire grew to over 6,000 acres in size within 24 hours and approximately 250 citizens were impacted by evacuations in the surrounding areas. Winds remained rather strong to severe on Tuesday afternoon (72 mph wind gusts southeast of Corona!), allowing for additional fire growth and downstream smoke impacts. What made this event unique was that snow fell on the fire Wednesday night and Thursday morning, serving beneficial for containment activities. The Three Rivers Wildfire eventually migrated into the Little Bear Fire burn scar of 2012, which helped decrease fire activity.



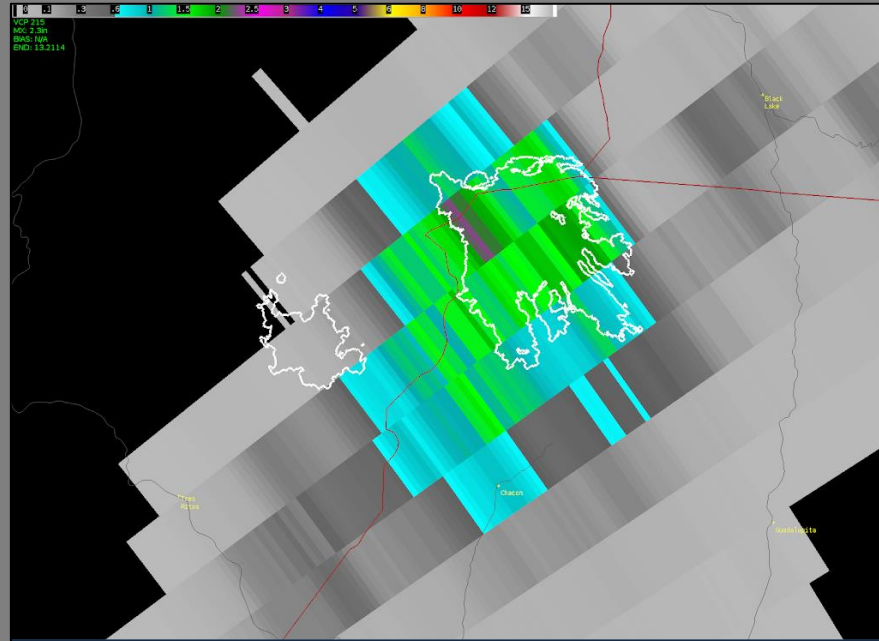
References: <https://inciweb.nwcg.gov/incident/7440> | <https://nmfireinfo.com/2021/04/27/april-27-2021-three-rivers-fire-morning-update-fire-receives-snow-and-rain>

The Luna burn scar was related to a late season wildfire that began on Oct. 17, 2020, approximately two miles from Chacon, NM, or 15 miles from Mora. Hydrologic impacts were not a concern in 2020; however, it proved to be a significant problem for burn scar flash flooding in 2021, especially during the active month of July.

The first sign of issues was observed on July 2. Trained spotters near Chacon reported 30-45 minutes of heavy rain over the burn scar that resulted in significant flash flooding as well as three to twelve inches of mud and debris. The rapidly moving water also displaced boulders that blocked a residential driveway.

On July 6, rainfall totals just under one inch in a rather short period of time fell across the Luna burn scar. The fast-moving water and debris flow washed out large boulders and downed trees near Luna Canyon Road, and a private road to many cabins was also washed out. A CoCoRaHS observer reported the Lujan Canyon road was impassable due to washed out culverts and large amounts of debris on the road.

Water and debris destroyed one bridge and several roads became impassable on July 13 due to heavy rain. A CoCoRaHS observer near Chacon reported the Luna Creek, which is normally just a few feet wide was 100 yards wide. Campsites on private land were demolished. The NM Governor declared a state of emergency in Mora County for the significant flooding.

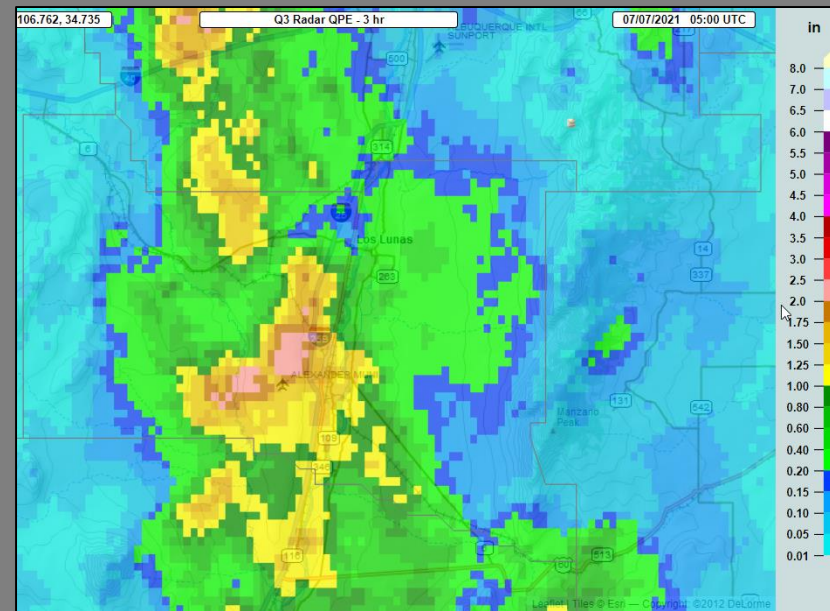


July 13, 2021: 1.50-2.50" of rain was noted by KABX radar over the burn scar (image above). The force of water altered the vegetative landscape. Water and debris destroyed a bridge and roads were impassable. Images to the right are courtesy of Polly Mullen

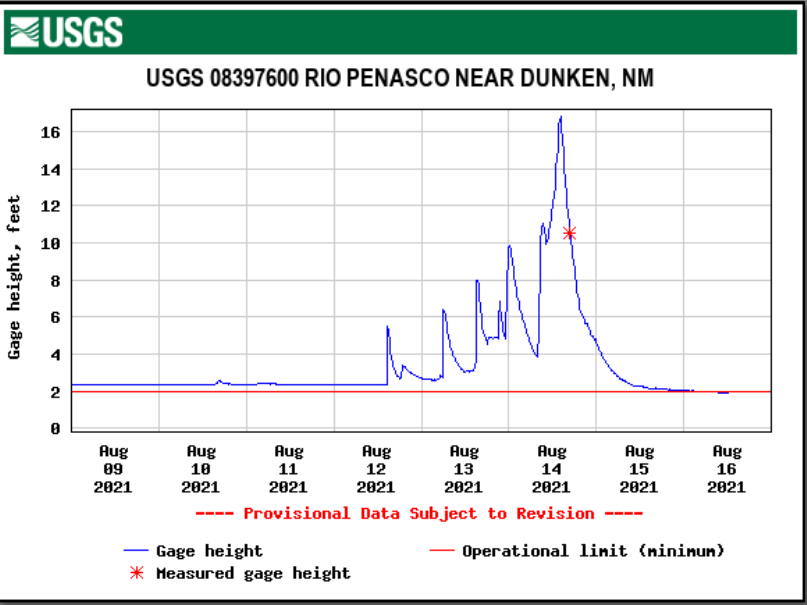
Two more events were reported on July 27 and 31. Only a quarter of one inch of rain in under one hour resulted in building damage along Luna Creek in Luna Canyon on the 27th. For the last day of the month, a CoCoRaHS observer reported flash flooding along Luna Creek and Luna Canyon Road as well as other structures were damaged.



Between 8 p.m. and 10 p.m. MDT on July 6, a cluster of thunderstorms developed north of Belen, NM, and moved south over the area. These storms produced a broad area of 1.5" to 2" of rainfall over the two hour period, including two inches at the Belen Airport. The runoff was too much for the Highline Canal that already contained water from previous rains on the day prior. The Highline Canal breached and flood waters moved down Delgado Street in Belen towards Main Street from the high school and nearby cemetery. This caused several structures including homes and businesses to flood between 10 p.m. and midnight. Recovery efforts went well into the night with shelters being opened and clean-up lasting several days. The NM Governor signed an executive order declaring a State of Emergency in Valencia County due to the flooding.

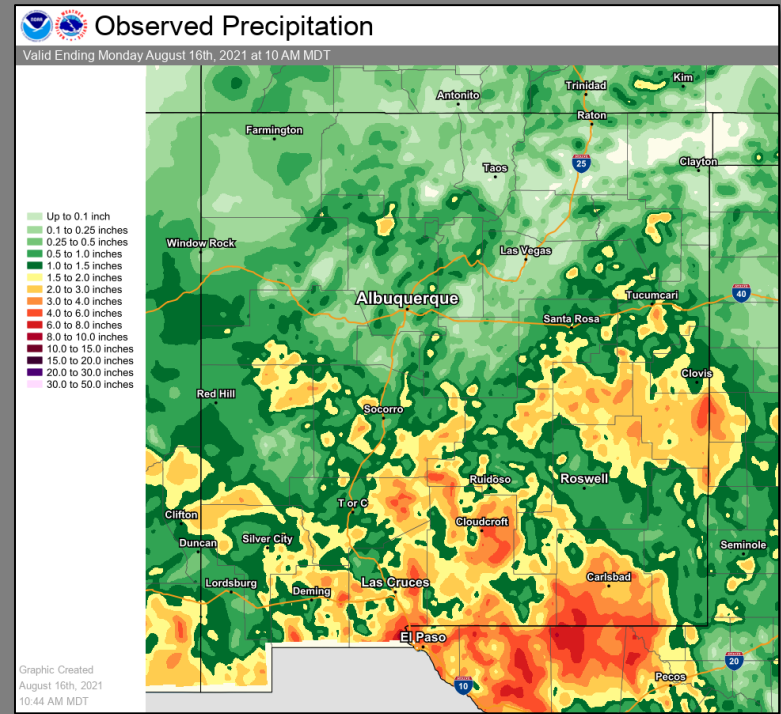


All photos courtesy of Sarah Gillen | Upper right and lower right images depict flood waters in a parking lot and on Main Street on night of July 6
Lower left image depicts the Highline Canal breach on the day after the heavy rainfall event | Center depicts the heavy rainfall over Valencia County



All Photos on August 14, 2021, and courtesy of Wendell Malone (@WDMalone)
 Left image depicts water flowing over a bridge about 18 miles north of Dunken, NM
 Right image depicts Rio Peñasco along U.S. Highway 82 where fences and campgrounds were flooded

A very slow-moving storm system over southeast New Mexico brought several days of precipitation to the southern half of New Mexico, particularly the Sacramento Mountains and southeast plains. According to CoCoRaHS observations between August 9 and 14, nearly 1.25" of precipitation fell near Capitan, over an inch near Arabela and Alto, and almost three-quarters of an inch near Ruidoso. However; notably higher amounts ranging from one to over three inches of rain were reported in Otero County (NWS El Paso's forecast area), and much of this water worked its way into the streams and channels over southwest Chaves County (NWS Albuquerque's forecast area), including the normally dry Rio Peñasco. A river gauge along this river near Dunken, NM, peaked at 9.89 feet around midnight on August 14. While it receded overnight, the gauge reached new crest levels of 16.8 feet by mid-afternoon. At the peak of the event, the river was estimated to be 50 to 100 yards wide (normal width is about six feet). This water eventually worked its way into Eddy County (NWS Midland's forecast area). While widespread or significant damage was not reported, it is an excellent reminder to not drive through flooded roads and/or camp immediately along water channels. The images to the upper right show the fast-flowing water, which would have swept anyone off their feet or their car downstream. Always remember: Turn Around Don't Drive! Of note, on August 15, 2021, a similar rapid rise of water from heavy rainfall was noted along the Animas River north of Aztec, NM (San Juan County).





One of the strongest and more widespread wind events of 2021 impacted northern and central New Mexico from the early morning through afternoon hours on Wednesday, Dec. 15. An unusually strong jetstream coupled with a potent cold front brought very strong to damaging winds from the Arizona border to the Oklahoma and Texas State Line. Some of the severe wind gusts were associated with a broken line of thunderstorms that formed along the cold front. Blown sheds, large downed trees on to homes and businesses, and numerous power outages were reported throughout the region, including Gallup, Santa Fe, Jemez Springs, Red River, Albuquerque, Isleta Pueblo, Taos, Las Vegas, La Cienega, Greenville, and Amistad.

Full List of Reports:

<https://www.weather.gov/images/abq/pns/2021December15WindEvent.pdf>

Damage Assessment Graphic: <https://bit.ly/32T8q70>



Red River | Dec. 15 | ©BrolinTSC
Permission for NWS Use Only



Santa Fe Airport, NM | Dec. 15 | ©precisionapch



Taos Ski Valley, NM | ©jwthiesing | December 27



Taos, NM | Dec. 20 | Courtesy Scott Overpeck

Location	Peak Wind Gusts
Kachina Peak at Taos Ski Area	103
Las Vegas	90
Magdalena 10 SSE	85
Raton Crews Airport	84
Los Cerrillos	81
Agua Fria 4 N	77
Clayton 2 ENE	76
Roswell 4 SSE	69
El Vado 12 SSW	69