

LESSONS FROM RUIDOSO

WILDFIRE AND POST-FIRE FLOODING RECOVERY ROUNDTABLE

March 26th, 2026

Christina Greene, CLIMAS, University of Arizona
Rebecca Patterson-Markowitz, CLIMAS, University of Arizona
Eric Queller, Emergency Manager, Village of Ruidoso

EXECUTIVE SUMMARY

The Village of Ruidoso, New Mexico, experienced a series of cascading wildfire and post-fire flood disasters since 2022, including the McBride Fire in 2022 and the Salt and South Fork Fires in 2024. This report synthesizes findings from the ***Lessons from Ruidoso Wildfire and Post-Fire Flooding Recovery Roundtable*** held in Ruidoso on March 26, 2026. The Roundtable convened emergency managers, response and recovery organizations, and disaster management partners to jointly identify lessons learned in wildfire and post-fire flooding response and recovery.

This report summarizes lessons learned from the roundtable across three disaster risk management areas: preparedness and mitigation, response, and recovery. Key challenges identified include debris management; communication and trust-building with residents and seasonal visitors; mental health and disaster fatigue among both responders and community members; recovery timelines that far outlast available funding; and a shifting federal landscape for disaster management support. Key lessons learned include: (1) decades of proactive fuel management meaningfully reduced wildfire intensity and spread, validating Ruidoso’s WUI-based ordinances and forestry program; (2) pre-disaster relationship building—particularly between the Office of Emergency Management, the National Weather Service, and COAD/VOAD partners—was critical to effective response coordination; (3) recovery timelines dramatically exceed the duration of available funding, with unmet needs intensifying 18–24 months post-disaster; and (4) cascading disasters expose structural gaps in federal and state disaster frameworks designed for single-event response.

Ruidoso’s experience demonstrates that investment in professional emergency management, sustained community collaboration, and systematic evaluation and learning strengthens disaster management capacity.

All photos courtesy of Village of Ruidoso Office of Emergency Management

CONTEXT: WILDFIRES AND POST-FIRE FLOODING IN RUIDOSO

Ruidoso is a mountain community in south-central New Mexico located in the Sierra Blanca foothills, with a population that includes long-term residents, seasonal tourism workers, and a significant visitor economy tied to recreation and outdoor tourism. The Village has a census population of 7,000–8,000 but swells to 50,000–70,000 in summer due to tourism. Its high-elevation, forested terrain sits at the intersection of drought-prone and monsoon-influenced climate systems, producing extreme summer monsoon rains that amplify both wildfire and post-fire flooding risks.



The Village of Ruidoso has experienced a series of cascading wildfire and flood disasters, beginning with the McBride Fire in 2022. On April 12th, 2022, a drought-stressed tree fell onto power lines during windy conditions. The fire rapidly spread through residential areas, killing two residents, destroying more than 200 homes, and forcing large-scale evacuations. Before firefighting operations had concluded, monsoon rains triggered flash flooding and post-fire debris flows. In 2024, the Salt Fire and South Fork Fire together burned an additional 17,569 acres and destroyed roughly 1,400 structures, again setting the stage for post-fire flooding. Floodwaters damaged homes, roads, utilities, and businesses, while emergency responders conducted repeated evacuations and swift-water rescues throughout the summer of 2024 and into 2025. The July 8, 2025,

flood was the deadliest event in recent history, killing three people, requiring over 30 water rescues, and causing extensive damage. Together, the fires and flooding produced long-term displacement, economic disruption, infrastructure loss, ecological instability, and ongoing public safety risks from unstable burn scar conditions.

In response, local, tribal, state, and federal emergency management agencies significantly expanded coordination, flood monitoring, evacuation planning, debris mitigation, and public communication systems. Community organizations, volunteers, businesses, and residents have also demonstrated significant resilience through mutual aid, fundraising, recovery efforts, and continued rebuilding despite repeated setbacks. At the same time, the Village of Ruidoso and the region face ongoing challenges related to disaster fatigue, infrastructure strain, housing instability, and uncertainty surrounding future monsoon seasons and increasingly severe wildfire conditions. These events have underscored both the importance of long-term mitigation planning and the need for sustained recovery support.

PREPAREDNESS AND MITIGATION

Ruidoso developed strong wildfire mitigation and preparedness strategies in response to its long history of wildfires. The village first established a forestry department to oversee wildfire mitigation and forest health management following the 2002 Kokopelli Fire. The department's strategy centers on fuel reduction, creating defensible space, and educating landowners on best practices. A Village Ordinance requires all landowners to maintain Firewise standards, including thinning trees and vegetation to reduce risk to structures. Inspectors assess each property and ensure that identified risks are addressed, with financial and legal consequences for failure to address risks. These municipal efforts have proven effective at minimizing wildfire impacts by keeping fires low to the ground and preventing them from becoming more intense and destructive. Notably, thinning treatments in Ruidoso significantly reduced the potential spread and impact of both the 2016 Moon Mountain Fire and the 2022 McBride Fire.

In addition to a robust mitigation strategy, Ruidoso has been investing in preparedness for wildfires and floods. The Village of Ruidoso funds an Office of Emergency Management that began updating warning systems and running tabletop exercises with response partners after the McBride fire.

SUCCESSES IN PREPAREDNESS AND MITIGATION



Building relationships before a disaster is a crucial component of preparedness.

Mitigation and preparedness require extensive coordination with state and federal agencies, landowners, weather and climate services, Community Organizations Active in Disaster (COAD), Voluntary Organizations Active in Disaster (VOAD) groups, and local community members. Relationships and trust among partners needs to be built before a disaster strikes. Crucial to Ruidoso's response and recovery were relationships built between the Office of Emergency Management and the National Weather Service, as well as long-term recovery groups organized through local COAD/VOAD groups that were included in preparedness planning.

Fuel management minimizes the impacts of wildfire. A vigorous mitigation strategy has successfully decreased the intensity and spread of wildfire within the Village. A Wildland Urban Interface (WUI) Coordinating Group meets quarterly to discuss wildfire mitigation projects and provides input to the Community Wildfire Protection Plan (CWPP), which allows the community to apply for fuel management grants. Over 90% of homes in the Village of Ruidoso have had

their vegetation thinned at least once, and short-term rentals are required to be inspected and certified before occupancy. Fuel management is a growing local industry, with 80–100 individual contractors available for thinning projects.

CHALLENGES IN PREPAREDNESS AND MITIGATION

Fuel management costs remain a financial challenge. Fuel management carries high costs that can present a significant financial burden, especially for residents. The community attempts to reduce costs through cost-sharing grants for thinning with neighborhoods and community workdays.

Communication and trust-building for community preparedness. Creating a risk-informed community in an age of communication saturation presents a challenge. Ruidoso is developing communication strategies to prepare for an economically important population of summer visitors who are often unaware of the risks of fire and post-fire floods, without dissuading their visits. Communicating mitigation outcomes, as well as the limits of what fuel and post-fire flooding management can and cannot achieve, remains a difficult endeavor.



Ruidoso Wildfire History

The Village of Ruidoso has robust wildfire mitigation and preparedness planning due to a long history of wildfires.

- Kokopelli Fire 2002: 1,000 acres burned, 32 homes destroyed
- White Fire 2011: 10,000 acres burned, 2 homes, 1 business, and 5 structures destroyed
- Swallow Fire 2011: 10 acres burned, 9 houses destroyed
- Little Bear Fire 2012: 44,330 acres burned, 254 structures destroyed
- Moon Mountain Fire 2016: 200 acres burned
- McBride Fire 2022: 6,159 acres burned, 220 structures destroyed, 2 fatalities
- South Fork Fire 2024: 17,569 acres burned, 1,400 structures destroyed, 2 fatalities

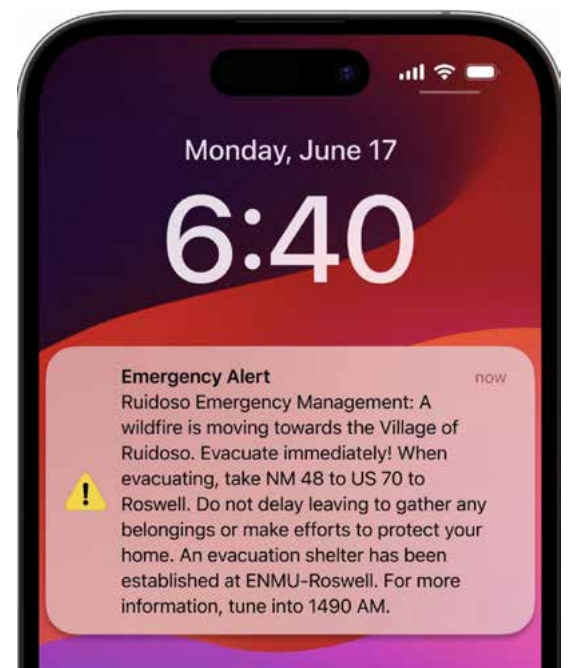
RESPONSE

Burn scars can turn moderate rain events into historic disasters. After a fire, the burned leaf litter and soil create a water-repelling layer that can lead to flash floods and debris flows. Flash flood threats remain elevated for 5–7 years after a fire and only diminish when 66% of the burn scar is revegetated. Throughout July 2024, repeated flash flood emergencies in Ruidoso required ongoing evacuations, sandbag distribution, and emergency response operations. The combined wildfire and flood response in 2024 spanned 111 days of active emergency operations and drew on response partners from across the country. Emergency management personnel from 14 states answered the call for assistance, while meteorologists and hydrologists provided weather monitoring and impact-based decision support for 99 days. In 2025, repeated flash floods once again demanded active emergency responses and water rescues. More detailed information on the response efforts can be found in Ruidoso’s After-Action Report.

SUCCESSES IN DISASTER RESPONSE

Close partnerships between the Office of Emergency Management and partner agencies were critical in supporting the response to fire and post-fire flooding.

Examples of these partnerships included calling on Roswell Emergency Management on short notice to shelter the population evacuated from Ruidoso. A close working relationship with the National Weather Service was vital for issuing appropriate alerts as monsoon storms presented flash flood risk throughout the summers of 2024 and 2025. The Weather Service provided daily briefings on thunderstorm threat guidance and chance of rain over burn scars specific to the local context. Ruidoso suffers from poor radar coverage due to the mountain topography, so the Weather Service and USGS assisted with precipitation and stream gauges to monitor local conditions.

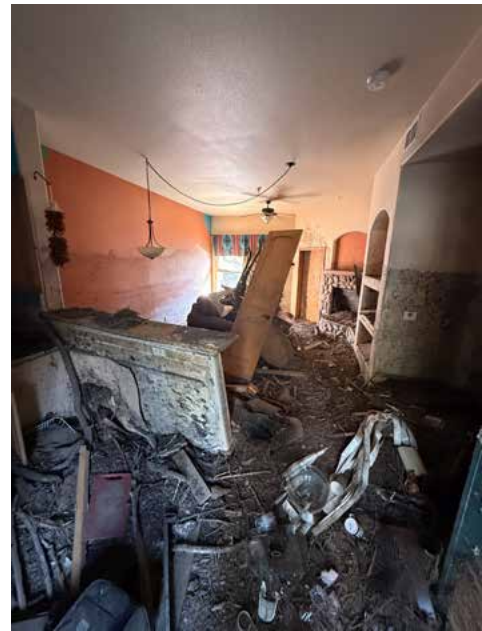


Planning for communication and messaging to the community. After the 2022 McBride Fire, the Village of Ruidoso invested in multi-channel alerting systems, including cell phone alerts, outdoor warning systems, and public address (PA) systems mounted on vehicles. As part of preparedness planning, emergency management already had pre-scripted messaging. As presented at the Roundtable by Dr. Jeannette Sutton, effective alert warning messaging should include in plain language: 1) source, 2) hazard and impacts, 3) location, 4) time, and 5) protective action guidance. During the Salt Fire, all communications went down 60 minutes after the evacuation alert was sent.

CHALLENGES IN DISASTER RESPONSE

Response personnel were also disaster survivors.

Twenty-seven Village of Ruidoso employees lost their own homes in the South Fork Fire—and then reported to work to manage the disaster. In rural communities, the line between responder and survivor often disappears and emergency and recovery personnel are managing their household response and recovery as well as that of the community. Support, including mental health support, for response personnel is critical. Roundtable attendees described the compounding mental impacts of disaster fatigue and “emotional bankruptcy.” This has translated into a decline in response and recovery volunteers as well as people deciding to move away from the community after living through repetitive emergency warnings.



Changing landscape in federal assistance. Two federal disaster declarations were issued, one for Ruidoso wildfires in 2024 and one for post-fire flooding in 2025. Federal disaster declarations open funding support for response and recovery; however, federal financial support policies are changing. Incident management responses are very expensive, and despite cost-sharing programs and federal assistance, the financial aspects of disaster response remain a challenge. Ruidoso must plan carefully to fund future response and recovery efforts that may not receive federal financial support.

Lessons from Hermit's Peak/Calf Canyon Fire

The National Weather Service implemented lessons learned after the 2022 HP/CC fire that assisted Ruidoso Response:

- Layers of communication: communicate days in advance, several hours before event, and real time during the event.
- Development of Daily Briefing templates
- Thunderstorm threat guidance adapted to local context (e.g. moisture in the atmosphere)
- ArcGIS dashboard that addresses needs of partners

RECOVERY

Recovery in Ruidoso has not followed a linear path. The recovery process that started after the Salt and South Fork Fires in 2024 faced interruptions and pivoted towards emergency response with repeated flash floods in 2024 and 2025. Ruidoso stood up a Community Organizations Active in Disaster (COAD) and a Long-Term Recovery Group (LTRG) together under the same coordination after the McBride Fire. When the monsoon season required full activation of emergency operations and the COAD, long-term recovery efforts paused for months at a time. The COAD and LTRG have since been split to be coordinated separately to ensure capacity for both activities to co-occur. As a rural community, Ruidoso has limited capacity and personnel to work on long-term recovery. Burnout and disaster fatigue are being felt by those working on long-term support. FEMA case management has been helping fire and flood survivors. This support ends in June 2026, and not all cases will be closed. Recovery in the Ruidoso context means planning not for a single recovery arc, but for multiple overlapping cycles of response and rebuilding.

CHALLENGES IN DISASTER RECOVERY

Recovery takes far longer than expected, but funding peaks early and then disappears. The Unmet Needs Committee, conceptualized by the LTRG in Ruidoso as a last-line safety net for community members, became more critical 18–24 months post-disaster, after initial response donations were exhausted, and organizations had shifted their focus elsewhere. Ruidoso must now absorb state and federally funded disaster case managers' responsibilities when their positions end in June 2026, leaving the community responsible for significant caseloads. Running COAD and Long-Term Recovery Group under the same leadership proved unsustainable. When monsoon season demanded full response focus, long-term recovery went on hiatus for 4 to 5 months. Rural communities like Ruidoso generally lack the staffing depth to manage both immediate response and long-term recovery simultaneously if coordinated by the same people.



Debris Management remains a monumental recovery task for the community. The management of debris from the destruction caused by fires and floods continues to be a financial threat to recovery. Communities need multiple disposal strategies (such as grinding/mulching, public firewood, landfill, and air curtain incinerators) as no single method scales to match the debris from the fire and floods. The Village of Ruidoso has taken innovative steps to address the scale of debris management, including installing a biofuels plant to process burned trees. A public-private partnership manages the biofuel plant with the goal to create revenue, create jobs, and offset debris management costs.

SUCCESSES IN DISASTER RECOVERY

Local community organizations play a large role in community recovery. The Ruidoso COAD was activated shortly after the fire and floods of 2024. The COAD coordinated sheltering, food, volunteers, and donations—functions that government agencies cannot mobilize as quickly. It also consolidated donations to a single warehouse with four distribution points, transforming what could have been chaotic donation management into a self-sustaining 90-day operation. In rural communities with fewer agencies and organizations available, local church groups and nonprofits are part of core recovery infrastructure.

Caring for unmet needs during recovery. Caring for the community starts and ends locally. A fiscal agent arrangement through the Community Foundation of Lincoln County has allowed the LTRG to accept tax-deductible donations and ensure money remains in the community. If insurance, individual household program/housing assistance, small business administration loans (SBA), or other need-assistance falls through, the LTRG's Unmet Needs Committee works as a safety net for local residents. The committee hears applications from case workers and other local advocates, and then makes decisions about what they can support. They use their funds to finance specific household-scale projects, rather than distributing cash directly to families.



INTEGRATING PREPAREDNESS, MITIGATION, RESPONSE, AND RECOVERY ACROSS CASCADING HAZARDS

The Village of Ruidoso did not face one disaster—it faced a wildfire-to-flood sequence with small recovery windows in between. With the increase and frequency of wildfires and associated post-fire floods, the recent experiences of the Village of Ruidoso hold important lessons for preparedness, mitigation, response, and recovery in the face of cascading hazards.

Cascading disasters have cumulative impacts. Recovery, response, and prevention are cumulatively impacted by cascading disasters. Some of these impacts are immediately visible, such as compounding issues with debris that creates new wildfire vulnerabilities. Less visible impacts include the compounding impacts from mental health and disaster fatigue. Disaster fatigue affects professional emergency management as well as the capacity of volunteers and nonprofits, important local sources for aid coordination and distribution. These impacts affect the community's capacity to respond to future disasters.

Disaster response and recovery strategies and funding are not built for cascading disasters. There is a need for more local capacity and strategies, as well as advocacy for federal-level policies and programs that are matched to cascading hazards.

Preparedness, mitigation, response, and recovery occur simultaneously. The Village faced simultaneous and competing demands on recovery, response, and preparedness, thus challenging models that describe these phases as sequential. Figure 1 depicts the distribution of disaster risk management capacity for Ruidoso, highlighting the complexity of the demands on disaster management during cascading hazards.

Strong relationships between the Office of Emergency Management and partners such as the Weather Service and the COAD organizations provided the Village of Ruidoso with the capacity to actively manage across preparedness, response, and recovery. These relationships were built before the Salt and South Fork Fires and underscore the importance of relationship building as part of disaster preparedness.

Evaluation and learning are a critical part of disaster risk management.

Another cross-cutting theme that emerged at the workshop was the importance of continual evaluation and learning. Many of the successes in wildfire and flooding responses were the result of lessons learned from Ruidoso's experience with previous fires. These include creating a Village Forestry Program after the Kokopeli Fire, investing in community messaging after the McBride Fire, and evaluating the accuracy and effectiveness of hazard alert messaging with the Weather Service after the Salt and South Fork Fires.

Ruidoso's experience illustrates that **investment in professional emergency management, community collaboration, and evaluation and learning** translates into strong disaster management capacity.

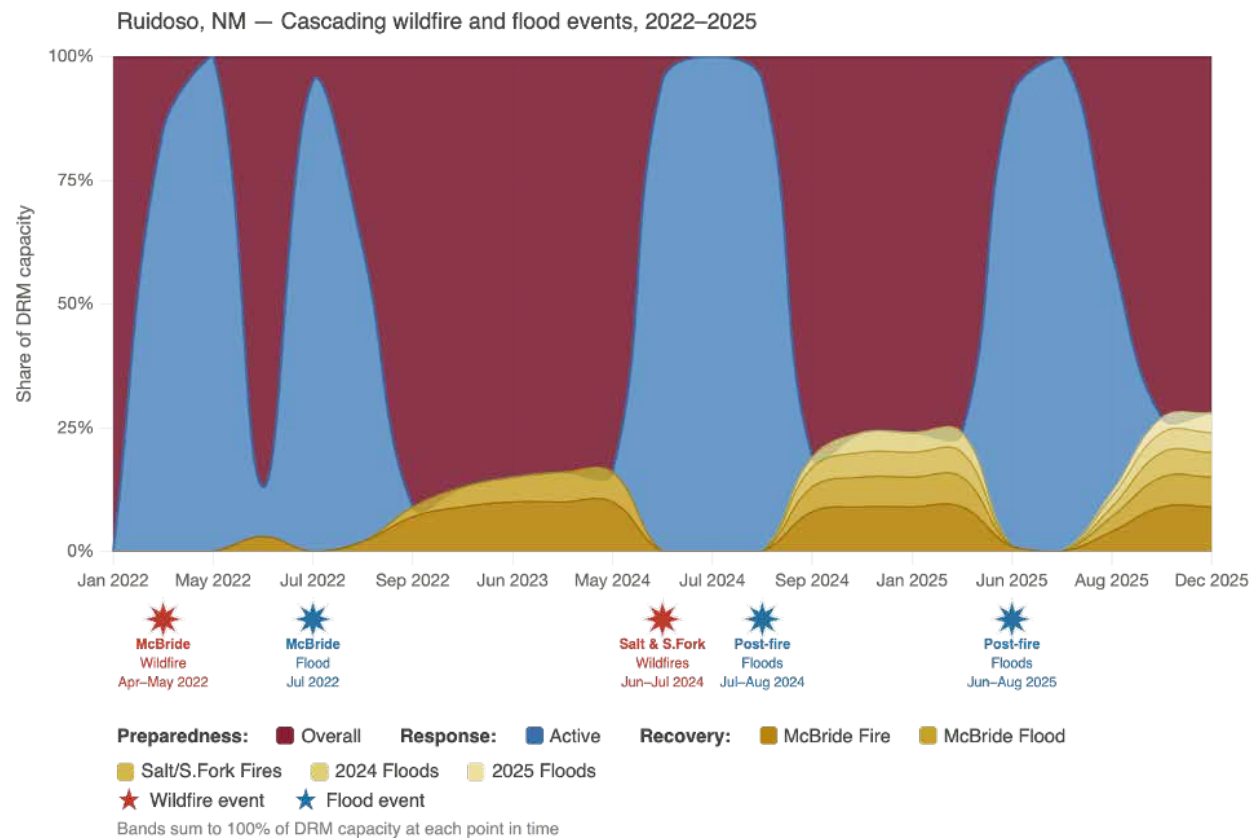


Figure 1. Disaster Risk Management (DRM) Capacity in Ruidoso, adapted from Terzi et al., 2022.¹

Acknowledgments

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Suggested Citation:

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¹ Terzi, Stefano, et al. "Learning from the COVID-19 Pandemic in Italy to Advance Multi-Hazard Disaster Risk Management." *Progress in Disaster Science*, vol. 16, no. 100268, December 2022, <https://doi.org/10.1016/j.pdisas.2022.100268>.

LESSONS FROM RUIDOSO: WILDFIRE AND POST-FIRE FLOODING RECOVERY ROUNDTABLE AGENDA

March 26th, 2026

- 8:00–8:15 AM **Welcome and Overview**
- 8:15–8:30 AM **Research Introduction to Long-term Wildfire Recovery**
- 8:30–8:55 AM **Ruidoso Wildfire History** — Dick Cook
- 9:00–9:25 AM **South Fork and Salt Fire Overview** — Brian Samson
- 9:30–10:30 AM **Weather Service Burn Scar Hydrology and Data** — NWS ABQ
- 10:30–10:45 AM **Coffee Break**
- 10:45–11:15 AM **LTRG/ COAD Response** — Kristen Hall & Jason Rust
- 11:15–12:00 PM **Wildfire Alerting Best Practices** — Dr. Jeanette Sutton
- 12:00–1:00 PM **Lunch**
- 1:00–2:30 PM **Lessons Learned from Ruidoso** — Eric Queller
- 2:30–3:30 PM **Wildfire Mapping Activity** — UofA
- 3:30–4:30 PM **Group Conversation: Where Do We Go from Here?** — UofA
- 4:30–5:00 PM **Close Out**

