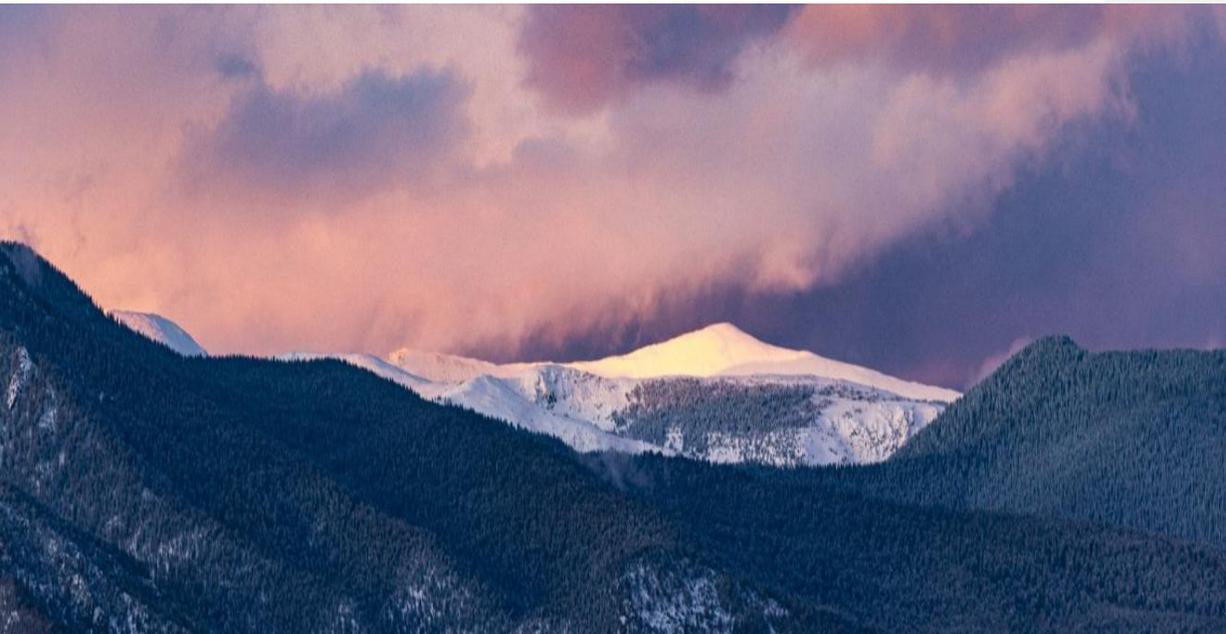




Taos County
NEW MEXICO



Taos County Hazard Mitigation Plan

2026-2031



Executive Summary

The 2026 Hazard Mitigation Plan (HMP) for Taos County is a comprehensive strategy designed to address and mitigate the long-term risks posed by various hazards specific to the county. This plan aims to make Taos County and its residents less vulnerable to future hazard events by focusing on the unique needs and circumstances within the jurisdiction.

The update of this HMP reflects Taos County's commitment to mitigating risks from hazards and serves as a strategic tool to guide decision-makers in directing mitigation activities and resources effectively. The plan engages stakeholders to include residents, businesses, non-governmental agencies, as well as local and state government officials. The input from these local stakeholders ensures that the mitigation actions reflect the community's priorities and capabilities.

This HMP has been meticulously crafted to meet the requirements set forth by the Federal Emergency Management Agency (FEMA) and the state, ensuring compliance with the Disaster Mitigation Act of 2000 and other relevant guidelines and regulations. By doing so, the plan ensures that Taos County remains eligible for specific federal disaster assistance programs, such as the FEMA Hazard Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation Program (PDM), and the Flood Mitigation Assistance Program (FMA).

Each year, natural disasters claim the lives of hundreds of people in the United States and injure thousands more. Nationwide, taxpayers spend billions of dollars annually to help communities, organizations, businesses, and individuals recover from these events. These expenditures only partially reflect the true cost of disasters, as additional expenses incurred by insurance companies and nongovernmental organizations are not covered by tax dollars. Many natural disasters are predictable, and much of the damage they cause can be mitigated or even prevented. The purpose of hazard mitigation is to reduce or eliminate long-term risk to people and property from such hazards.

The HMP outlines specific mitigation strategies and actions tailored to reduce the impact of hazards on Taos County, thereby improving resilience and safety for the community. The plan must be adopted by the governing body, Taos County Office of Emergency Management, and reviewed by the New Mexico Division of Homeland Security and Emergency Management (DHSEM) before being submitted to FEMA for final approval. Having a FEMA-approved HMP makes Taos County eligible for various federal and state grants aimed at hazard mitigation, which can help fund the implementation of the identified actions.

In conclusion, the 2026 Hazard Mitigation Plan for Taos County aligns with the characteristics and requirements of a Local Hazard Mitigation Plan. It focuses on hazards, engages the community, complies with regulatory standards, and outlines specific mitigation strategies, demonstrating the County's dedication to safeguarding its residents, properties, and resources from potential future disasters, ensuring a safer and more resilient community.

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Chapter One: Introduction

Background & Scope

Each year in the United States, natural disasters claim the lives of hundreds of people and injure thousands more. Nationwide, taxpayers pay billions of dollars annually to help communities, organizations, businesses, and individuals recover from disasters. These funds only partially reflect the true cost of disasters, as additional expenses incurred by insurance companies and nongovernmental organizations are not reimbursed by tax dollars. Many natural disasters are predictable, and much of the damage caused by these events can be reduced or even eliminated.

Hazard mitigation is defined by FEMA as “any sustained action taken to reduce or eliminate long-term risk to human life and property from a hazard event.” The results of a three-year, congressionally mandated independent study to assess future savings from mitigation activities provide evidence that mitigation activities are highly cost-effective. On average, each dollar spent on mitigation saves society an average of \$6 in avoided future losses, in addition to saving lives and preventing injuries (National Institute of Building Science Multi-Hazard Mitigation Council 2019 Report).

Hazard mitigation planning is the process through which hazards are identified, likely impacts determined, mitigation goals set, and appropriate mitigation strategies determined, prioritized, and implemented. This plan documents Taos County’s hazard mitigation planning process, identifying relevant hazards and vulnerabilities, and outlining strategies that the County will use to decrease vulnerability and increase resiliency and sustainability throughout the community.

This Hazard Mitigation Plan (HMP) was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 (Public Law 106-390) and the implementing regulations set forth by the Interim Final Rule published in the Federal Register on February 26, 2002 (44 CFR §201.6) and finalized on October 31, 2007. Hereafter, these requirements and regulations will be collectively referred to as the Disaster Mitigation Act (DMA) or DMA 2000. While the act emphasized the need for mitigation plans and more coordinated mitigation planning and implementation efforts, the regulations established the requirements that hazard mitigation plans must meet for the jurisdictions to be eligible for certain federal disaster assistance and hazard mitigation funding under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288). This planning effort also follows FEMA’s most recent planning guidance.

This plan update includes the integration of other comprehensive planning documents that are in effect within Taos County. These are included in the following table.

Table 1. Integrated Plans Table

| Document | Jurisdiction/Area | Original/Last Update |
|------------------------------------|--------------------------|-----------------------------|
| Taos County Hazard Mitigation Plan | Taos County | 2018 |

| | | |
|--|-------------------|------|
| Taos County Community Wildfire Protection Plan | Taos County | 2022 |
| Affordable Housing Plan | Town of Taos | 2020 |
| Taos Code Assessment Report | Taos County | 2025 |
| Taos Canyon Community Wildfire Protection Plan | Taos County | 2021 |
| Tais County Comprehensive Plan (Draft) | Taos County | 2025 |
| Flood Damage Prevention | Town of Taos | 2025 |
| Flood Insurance Study | Taos County | 2010 |
| Land Use Development | Town of Taos | 2025 |
| Metropolitan Re-Development Area Plan | Town of Taos | 2024 |
| Parks & Recreation Master Plan | Town of Taos | 2018 |
| Community Wildfire Protection Plan | Village of Questa | 2008 |
| Continuity of Operations Plan | Taos County | 2022 |
| Emergency Operations Plan | Taos County | 2024 |
| Threat Hazard Identification Risk Assessment | Taos County | 2024 |
| Regional Water Plan | Taos County | 2016 |
| Comprehensive Plan | Town of Taos | 2022 |
| Community Wildfire Protection Plan | Taos Pueblo | 2009 |

Taos County has adopted actions that promote the integration of the Hazard Mitigation Plan and the comprehensive plans in effect within the planning area. This integration ensures that high-priority initiatives and projects to mitigate possible disaster impacts are funded and implemented, creating a safer and more resilient community.

Taos County is subject to various hazards, making access to FEMA grant programs vital. The information in this HMP will guide and coordinate mitigation activities and decisions for future land use policy. Proactive mitigation planning will help reduce the cost of disaster response and recovery for communities and their residents by protecting critical community facilities, reducing liability exposure, and minimizing overall community impacts and disruptions. The HMP aims to create a safer, more resilient Taos County by systematically identifying hazards, assessing vulnerabilities, and developing strategies to reduce risks and enhance community preparedness.

This plan is a Hazard Mitigation Plan (HMP) that geographically covers the entire area within Taos County’s jurisdictional boundaries (hereinafter referred to as the planning area). The following jurisdictions participated in the planning process and are seeking approval of this HMP plan update:

- Taos County (unincorporated)
- Town of Taos
- Town of Red River
- Village of Questa
- Village of Taos Ski Valley

Purpose

The purpose of this Hazard Mitigation Plan is to reduce or eliminate the long-term risk to human life and property from hazards. The plan aims to identify and assess risks and implement strategies to protect people and property from future hazard events. It addresses a variety of hazards, including natural, technological, and human-caused incidents that could potentially impact Taos County, New Mexico. In addition to enhancing community resilience, this HMP ensures that Taos County is eligible for certain federal disaster assistance programs, including the FEMA Hazard Mitigation Grant Program (HMGP), and the Flood Mitigation Assistance Program (FMA). By aligning with federal requirements and leveraging available resources, Taos County strives to create a safer, more prepared, and resilient community capable of withstanding and recovering from future hazard events.

This HMP identifies resources, information, and strategies for reducing risk from natural hazards. Elements and strategies in the plan were selected because they meet program requirements and best meet the needs of Taos County and its citizens. This plan will help guide and coordinate mitigation activities throughout Taos County. The plan was developed to meet the following objectives:

- Meet or exceed the requirements of the DMA.
- Enable Taos County to use federal grant funding to reduce risk through mitigation.
- Meet the needs of Taos County as well as state and federal requirements.
- Create a risk assessment that focuses on hazards of concern specific to Taos County.
- Create a single planning document that integrates all planning efforts within Taos County, supporting partnerships and future updates.
- Meet the planning requirements of FEMA's Community Rating System (CRS), allowing Taos County to participate in the CRS program and enhance its CRS classifications.
- Coordinate existing plans and programs so that high-priority initiatives and projects to mitigate possible disaster impacts are funded and implemented.

All citizens, businesses, government agencies and non-profit organizations are the ultimate beneficiaries of this hazard mitigation plan. The plan reduces risk for those who live in, work in, and visit the County. It provides a viable planning framework for all foreseeable natural hazards that may impact Taos County. Participation in the development of the plan by key stakeholders in the County helped ensure that outcomes will be mutually beneficial. The resources and background information in the plan are applicable countywide, and the plan's goals and recommendations can lay the groundwork for the development and implementation of mitigation activities and partnerships.

Authority

The federal Disaster Mitigation Act (DMA) of 2000 (Public Law 106-390) required state and local governments to develop hazard mitigation plans as a condition for federal disaster grant assistance. Prior to 2000, federal disaster funding focused on disaster relief and recovery, with limited funding for hazard mitigation planning. The DMA increased the emphasis on planning for disasters before they occur. The DMA encourages state and local authorities to work together on pre-disaster planning promoting sustainability for disaster resistance. Sustainable hazard mitigation includes the sound management of natural resources and the recognition that hazards and mitigation must be understood in the largest possible social and economic context. The enhanced planning network called for by the DMA helps governments articulate accurate needs for mitigation, resulting in faster allocation of funding and more cost-effective risk reduction projects.

Planning Participants

The 2026 Hazard Mitigation Plan update for Taos County includes participation from Taos County and 4 towns within its jurisdiction. Participants include Taos County and the Town of Taos, the Town of Red River, the Village of Questa, and the Village of Taos Ski Valley.

The updated HMP includes detailed information about hazards that historically occurred within the county with a focus on events since 2018. The plan incorporates repair costs and damage estimates associated with these hazard events as available in addition to an updated critical facilities review and associated risk assessment and vulnerability information. A variety of additional resources were used to gather data on historic and recent hazard events within the county, vulnerabilities related to future events, and the potential costs and damages that could result. This comprehensive approach ensures the plan reflects current risks and supports effective mitigation strategies.

Plan Organization

The 2026 Taos County Hazard Mitigation Plan has been structured to meet the Disaster Mitigation Act of 2000 (DMA 2000) requirements while incorporating the latest updates from the Federal Emergency Management Agency (FEMA). This plan is designed to assess risks, identify mitigation strategies, and ensure that Taos County and the associated jurisdictions can effectively reduce hazard vulnerabilities and enhance community resilience.

- The Introduction provides an overview of the plan, outlining its authority, purpose, background, and scope, as well as details regarding the plan layout and adoption process to ensure compliance with FEMA requirements. The Overview of Hazard Mitigation Planning explains how proactive risk reduction efforts contribute to minimizing disaster impacts on people, property, infrastructure, and the environment.
- The Planning Process section describes the approach used to develop the plan, highlighting the formation of the planning team, interagency coordination, public engagement, and review of existing hazard planning documents. It also outlines stakeholder involvement, chronological development, and formal plan adoption. Public input played a crucial role, with community members contributing through meetings, surveys, and workshops.
- The Community Profile section provides a historical overview of Taos County, covering its geography, climate, population demographics, economy, land use, and infrastructure. It also assesses future development trends and employment sectors, ensuring that mitigation strategies consider projected growth and economic shifts. Additionally, a review of federally and state-declared disasters in Taos County highlights past wildfires, floods, earthquakes, and extreme weather events, which have shaped the county's risk landscape.
- The Risk Assessment and Methodology section details the process used to evaluate Taos County's hazard exposure, vulnerabilities, and potential losses. It includes hazard identification, assessment, and an evaluation of climate change impacts. The plan profiles specific hazards such as severe winter weather, flooding, dam/levee failure, drought, wildfires, air quality, earthquakes, seismic activity, landslides, public health incidents, agricultural hazards, and man-made hazards. The Vulnerability Assessment Process further analyzes critical infrastructure, facilities, and economic assets at risk while estimating potential financial losses through GIS modeling and hazard simulation tools.
- The Capability Assessment evaluates Taos County's ability to implement mitigation actions by examining administrative, technical, and fiscal resources, as well as public education, outreach programs, and interagency partnerships. The Mitigation Strategy section outlines the county's goals and objectives for hazard reduction, identifies potential mitigation actions and projects, and ranks them through a prioritization process. The Mitigation Action Plan provides a roadmap for implementation, ensuring alignment with existing county and state planning mechanisms.
- The Mitigation Strategy serves as the action-oriented core of the plan, articulating Taos County's long-term vision for reducing hazard risk and vulnerability. This section outlines comprehensive goals and objectives directly derived from the findings of the risk assessment, ensuring all subsequent actions are focused and purposeful.
- The Plan Implementation and Maintenance section establishes procedures for monitoring, updating, and integrating mitigation strategies into other planning efforts, such as zoning laws, building codes, and emergency response plans. This section also details the maintenance schedule, progress tracking, and ongoing public involvement to keep the community engaged in hazard mitigation efforts.

- The Jurisdictional Annexes ensure that the multi-jurisdictional nature of Taos County is fully addressed, integrating the specific needs and capabilities of each participating community. Each annex represents a dedicated chapter for a defined area (such as the Town of Taos, Village of Questa, or other districts), detailing how the overall county plan applies locally. Within each annex, the planning process is documented from the local perspective, including unique risk assessments for that jurisdiction, locally relevant mitigation goals, and a distinct list of priority mitigation actions identified by that community's leadership. This structure reinforces local ownership, demonstrates compliance with federal requirements for each participating entity, and ensures that mitigation actions are appropriately tailored to address hazards specific to their geographic area.
- The Supporting Document Appendices provide all necessary background data, technical specifications, public involvement records, and legal documentation that validate and support the main body of the Hazard Mitigation Plan. These appendices act as the primary reference library for plan users and external reviewers.
- The Documentation of Planning Participation ensures that all jurisdictions involved in the planning process are recognized for their contributions, reinforcing a collaborative approach to hazard mitigation.

The 2026 Taos County HMP serves as a comprehensive framework for reducing hazard risks and enhancing resilience. Through interagency collaboration, community engagement, and data-driven mitigation strategies, the plan provides a proactive approach to disaster preparedness, ensuring the safety and sustainability of Taos County.

Plan Adoption

44 CFR Section 201.6(c)(5) requires documentation that a hazard mitigation plan has been formally adopted by the governing body of the jurisdiction requesting federal approval of the plan. This plan will be submitted for a pre-adoption review to the DHSEM and FEMA prior to adoption. Once pre-adoption approval has been provided, all planning partners will formally adopt the plan. All partners understand that DMA compliance and its benefits cannot be achieved until the plan is adopted. When FEMA Region VI grants final approval of the 2026 Taos County Hazard Mitigation Plan and its eligible planning partners, copies of the FEMA approval letter can be found in Appendix E.

Plan Development

This Hazard Mitigation Plan was developed pursuant to the requirements of the Disaster Mitigation Act of 2000 (Public Law 106-390) and implementing regulations set forth by the Interim Final Rule published in the Federal Register on February 26, 2002

(44 CFR §201.6) and finalized on October 31, 2007. Taos County followed a planning process prescribed by FEMA as detailed in the table below:

Table 2. DMA & CRS Process for Developing the HMP Table

| Step | DMA 2000 Process | CRS Process | Description |
|------|------------------------------------|--|---|
| 1 | 201.6(c)(1) & 201.6(b)(1) | Organize the Planning Effort (CRS Step 1) | Organize resources, assemble a planning team, secure funding, and define the scope and objectives of the plan. Ensure alignment with existing community plans and policies. |
| 2 | 201.6(b)(2) & 201.6(b)(3) | Involve the Public (CRS Step 2) | Conduct public meetings, surveys, and workshops to ensure community input in the planning process. Provide education on hazard risks and mitigation strategies. |
| 3 | 201.6(b)(1) & 201.6(c)(1) | Coordinate with Other Agencies (CRS Step 3) | Engage various departments and agencies to integrate their expertise and resources, ensuring alignment with land-use planning, floodplain management, and emergency response plans. |
| 4 | 201.6(c)(2)(i) | Assess Hazard Exposure (CRS Step 4) | Identify natural and human-made hazards affecting the community using historical data, hazard maps, and climate projections. Ensure climate change and equity considerations are included. |
| 5 | 201.6(c)(2)(ii) | Conduct Risk Assessment (CRS Step 5) | Assess vulnerabilities by analyzing the probability, extent, and impact of each hazard on people, property, infrastructure, and the economy. Use FEMA's Hazus-MH or GIS modeling for detailed risk assessment. |
| 6 | 201.6(c)(3)(i) & 201.6(c)(3)(ii) | Set Goals and Develop the Mitigation Strategy (CRS Step 6) | Define risk reduction goals and objectives. Develop and prioritize mitigation actions to reduce risks, considering cost-benefit analysis and feasibility. |
| 7 | 201.6(c)(3)(ii) & 201.6(c)(3)(iii) | Review Possible Mitigation Actions (CRS Step 7) | Evaluate various mitigation activities, including infrastructure improvements, land-use policies, and emergency preparedness strategies. Incorporate nature-based solutions where applicable. |
| 8 | 201.6(c)(3)(iii) | Draft an Action Plan (CRS Step 8) | Create a detailed implementation plan that outlines specific mitigation actions, responsible agencies, timelines, and potential funding sources. Integrate the plan with floodplain management and land-use policies. |
| 9 | 201.6(c)(5) & 201.6(c)(4) | Adopt the Plan and Implement Actions (CRS Step 9) | Formally adopt the mitigation plan through local government approval. Ensure integration with other local, regional, and state planning mechanisms. Implement prioritized actions and seek funding sources. |
| 10 | 201.6(c)(4) & 201.6(d)(3) | Monitor, Evaluate, and Update the Plan (CRS Step 10) | Establish a monitoring framework to track progress, update the plan every five years (per FEMA), and conduct annual CRS recertifications. Adjust mitigation actions based on new data, community feedback, and lessons learned from recent disasters. |

Key DMA Updates

Step 1: (Organize the Planning Effort): DMA references expanded to include 201.6(b)(1) for resource organization.

Step 2: (Involve the Public): DMA 201.6(b)(2) now includes provisions for equitable public outreach.

Step 3: (Coordinate with Agencies): reinforced by 201.6(c)(1) to emphasize coordination with lifelines and interagency roles.

Step 7: (Develop Mitigation Actions): added emphasis on 201.6(c)(3)(ii) for action development and 201.6(c)(3)(iii) for prioritization.

Taos County is subject to various hazards, making access to FEMA grant programs vital. The information in this HMP will guide and coordinate mitigation activities and decisions for future local land use policy. Proactive mitigation planning will help reduce the cost of disaster response and recovery for communities and their residents by protecting critical community facilities, reducing liability exposure, and minimizing overall community impacts and disruptions. The HMP strives to create a safer, more resilient county by systematically identifying hazards, assessing vulnerabilities, and developing strategies to reduce risks and enhance community preparedness.

Plan Process

To develop the Taos County Hazard Mitigation Plan, the County followed a process that had the following primary objectives:

- Secure grant funding for the hazard mitigation planning process, ensuring financial resources for plan development and implementation.
- Issue a Request for Proposal (RFP) to hire a qualified consultant to assist in updating the Taos County Hazard Mitigation Plan in compliance with FEMA's 2025 Local Mitigation Planning Guide.
- Select a vendor (Chloeta) that meets all RFP requirements at the lowest cost to facilitate plan coordination, stakeholder engagement, and technical updates.
- Establish the Core Planning Team by utilizing Taos County Emergency Management as the lead planning group.
- Form a planning partnership by identifying and engaging local, state, tribal, and federal stakeholders, including emergency management, public works, utilities, businesses, and community organizations.
- Define the planning area to ensure all relevant jurisdictions and unincorporated areas are included in the mitigation strategy.

- Conduct multi-agency coordination by engaging local government departments, regional planning bodies, neighboring counties, and tribal nations to integrate hazard mitigation efforts.
- Review and integrate existing programs, plans, and studies, such as land use plans, floodplain management plans, wildfire protection plans, capital improvement programs, and emergency response strategies.
- Conduct a comprehensive risk assessment by identifying hazards, assessing vulnerabilities, and evaluating potential losses using FEMA’s Hazus-MH modeling and GIS tools.
- Ensure compliance with FEMA’s Whole Community Approach by incorporating equity considerations, vulnerable population assessments, and climate resilience strategies into mitigation planning.
- Develop a public engagement strategy that includes community surveys, stakeholder meetings, social media outreach, dedicated websites, and public workshops to gather input and educate residents on hazard risks and mitigation efforts.
- Document all planning activities and stakeholder participation to ensure transparency and meet FEMA’s plan adoption and documentation requirements.

These objectives are discussed in the following sections.

Resources and Information Collection

As part of the hazard mitigation planning process, 44 CFR states hazard mitigation planning must include review and incorporation, if appropriate, of existing plans, studies, reports, and technical information (Section 201.6.b(3)). The planning team conducted a comprehensive review of existing programs, plans, ordinances, and studies currently in place throughout Taos County and its participating jurisdictions. Efforts to identify plans that were utilized in each section to provide a source of data has been completed. Mitigation actions were developed to further integrate these planning mechanisms into the hazard mitigation planning process. These documents provide critical context for understanding how hazard mitigation is already being addressed across various sectors, and they serve as a foundation for integrating mitigation strategies into broader community planning efforts. By identifying opportunities for coordination and alignment, the team ensures that the Hazard Mitigation Plan complements and supports ongoing initiatives in land use planning, emergency management, environmental protection, infrastructure development, and public safety. The following table summarizes the key local and state-level documents relevant to hazard mitigation in Taos County and reviewed during the planning process and their relevance to hazard mitigation goals.

Table 3. Review of Existing Plans and Studies Table

| Plan or Study | Application to Hazard Mitigation |
|---|--|
| Taos County Emergency Operations Plan (EOP) | Outlines all-hazards emergency response procedures; integrates mitigation, preparedness, response, and recovery. |

| Plan or Study | Application to Hazard Mitigation |
|---|---|
| Community Wildfire Protection Plan | Identifies wildfire risks, prioritizes fuel treatments, and guides community wildfire risk reduction efforts. |
| Debris Management Plan | Supports wildfire and flood recovery by organizing safe debris removal; facilitates FEMA reimbursement. |
| Strategic Master Plan | Directs growth and land use with resilience considerations; supports long-term wildfire and water infrastructure goals. |
| Fleet Maintenance and Replacement Plan | Ensures readiness of response vehicles for emergencies; supports continuity during hazard events. |
| Road Maintenance and Improvement Plan | Enhances accessibility; can be expanded to prioritize road improvements in high hazard areas. |
| Comprehensive Plan | Guides safe development practices in town; includes hazard exposure and mitigation policies. |
| Floodplain Ordinances & NFIP Participation | Regulates development in flood-prone areas; ensures FEMA compliance and access to insurance and funding. |
| Burn Restrictions & Firewise Programs | Promotes defensible space and wildfire mitigation at the community level. |
| School Emergency and Safety Plans | Ensures hazard-specific preparedness, including evacuation and lockdown protocols. |
| Capital Improvement and Economic Plans | Can prioritize infrastructure upgrades that also reduce vulnerability to hazards. |
| Local Zoning Ordinances | Directs development away from hazard-prone areas and supports long-term resilience. |
| Drainage / Stormwater Ordinances | Manages runoff, controls erosion, and reduces flood risk through infrastructure and regulation. |
| New Mexico State Hazard Mitigation Plan | Provides state-level data, guidance, and support for alignment of local mitigation efforts. |
| LEPC / Tier II Reporting | Enhances preparedness and response for hazardous material releases. |
| New Mexico Drought Mitigation & Response Plan | Guides drought planning and adaptation, with mitigation strategies for water scarcity. |
| Transportation Master Plans | Prioritizes upgrades to road networks critical for evacuation, access, and hazard response. |

Table 4. Review of Existing Programs – Taos County Table

| Program | Administering Agency | Relation to Hazard Mitigation |
|--|-----------------------------|--|
| National Flood Insurance Program (NFIP) | FEMA Region 6 | Regulates floodplain development and provides insurance access. Supports long-term flood risk reduction and compliance. |
| Firewise USA® Program | NFPA | Encourages communities to take wildfire mitigation actions like defensible space and home hardening. |
| Community Rating System (CRS) | FEMA/ISO | Rewards communities for flood mitigation activities with insurance premium discounts; not currently active in Taos County. |
| Pre-Disaster Mitigation (PDM) / Building Resilient Infrastructure and Communities (BRIC) | FEMA / DHSEM | Grant funding to reduce hazard risks before disasters occur. Taos County may apply for mitigation project support. |

| Program | Administering Agency | Relation to Hazard Mitigation |
|---|---|---|
| Hazard Mitigation Grant Program (HMGP) | FEMA / DHSEM | Provides post-disaster mitigation funding for projects that reduce future risk (e.g., infrastructure upgrades, defensible space). |
| State and Local Drought Plans | New Mexico OSE/ISC | Guides response and adaptation to drought. Supports agricultural resilience and water supply planning. |
| Emergency Management Performance Grant (EMPG) | FEMA / DHSEM | Supports emergency management program development, including planning and mitigation capacity. |
| State Hazard Mitigation Plan (SHMP) | New Mexico DHSEM | Establishes New Mexico's hazard mitigation priorities and supports alignment of local plans, like Taos County's HMP. |
| Ready, Set, Go! Program | International Association of Fire Chiefs (IAFC) | Educates residents on wildfire preparedness and evacuation; complements Firewise efforts. |

There are numerous other existing regulatory and planning mechanisms in place at the state, county, and municipal government levels supporting hazard mitigation planning efforts. These tools include the New Mexico All-Hazards Mitigation Plan, local floodplain management ordinances, local Emergency Operations Plans, local zoning ordinances, as well as local subdivision and land development ordinances. These mechanisms were discussed at meetings and are described in each jurisdiction mitigation section.

Planning Overview

The planning process for the Taos County Hazard Mitigation Plan (HMP) involved coordination with various government departments, non-governmental agencies, neighboring jurisdictions, Taos County officials, the New Mexico Division of Homeland Security and Emergency Management (DHSEM) and FEMA. Public involvement was actively solicited through public meetings, surveys, and community workshops, with the feedback collected playing an integral role in shaping the plan.

The process began with an initial planning meeting aimed at introducing the HMP process and identifying key stakeholders. This was followed by a hazard identification workshop in which community members and stakeholders participated, helping identify hazards and assess their potential impacts. The development of the mitigation strategy involved collaborative sessions where stakeholders worked together to establish goals, objectives, and actions to enhance the county's resilience to hazards.

Throughout the planning process, public participation was highly encouraged through community meetings, surveys, and public comment periods. Information was disseminated via the County's website, local newspapers, and social media platforms to

ensure outreach to a broad audience. Special efforts were made to include vulnerable populations in the planning process to ensure their concerns and needs were addressed.

The planning team included representatives from various sectors of Taos County, including government officials, emergency services, public health, education, businesses, and community organizations. These individuals collaborated closely to ensure the plan was comprehensive and addressed the needs of the entire planning area.

Planning Team

The development of the 2026 Taos County Hazard Mitigation Plan (HMP) was led by the Taos County Office of Emergency Management in coordination with FEMA Region VI and the New Mexico Division of Homeland Security and Emergency Management (DHSEM). The planning team was formed to ensure a multi-jurisdictional, collaborative approach that integrates local expertise, operational knowledge, and community priorities.

The 2026 planning team consisted of representatives from:

- Taos County, County Manager
- Taos County Office of Emergency Management
- Stakeholders of Community and Economic Development
- GIS and Mapping Specialists
- Public Schools
- Utility Providers
- Volunteers and community representatives
- Public Relations/PIO Department

A contracted technical consultant supported the planning team to facilitate data analysis, risk assessment, and plan documentation. Public engagement was prioritized through surveys, virtual meetings, and stakeholder workshops. This inclusive approach ensured that the 2026 HMP reflects the needs, capacities, and mitigation priorities of all jurisdictions within Taos County.

The Taos HMP Planning Team was well-diversified, and included county agency staff, county officials, emergency coordinators, and non-governmental organizations. These individuals were invited to participate in the hazard mitigation plan update process. The Planning Team worked throughout the process to attend meetings, provide information, and provide guidance to the contractor. The following County Staff comprised the Planning Team and provided guidance and data used to update this plan:

- Bobby Lucero, Taos County Office of Emergency Management Director
- Mark Ortega, Taos County Office of Emergency Management Coordinator
- Rudy Perea, Taos County Chief Planner

- Christopher Madrid, Taos County Deputy Manager

To ensure inclusive participation in the planning process, Taos County actively engaged a broad range of stakeholders throughout the development of the hazard mitigation strategy:

- Local and regional agencies involved in hazard mitigation activities (such as Department of Public Works (DPW), Office of Emergency Management (OEM), and related entities) were invited to participate through planning meetings, direct outreach, and inclusion in stakeholder workshops and surveys. These agencies provide critical insights on existing mitigation strategies and infrastructure needs.
- Agencies with authority to regulate development, including building officials, zoning boards, and economic development departments, were engaged via formal invitations to planning sessions and asked to review and comment on proposed strategies. Their input ensured alignment with local land use and development policies.
- Neighboring communities, including adjacent municipalities and relevant special districts, were notified and encouraged to participate through coordination meetings and workshops. These efforts promoted collaboration and consistency across jurisdictional boundaries.
- Businesses, academia, and private non-profits were engaged through public outreach campaigns, surveys, and targeted invitations to stakeholder meetings. These groups contribute diverse perspectives and helped identify community-specific vulnerabilities and capacities.

Planning Partnership

The 2026 Taos County Hazard Mitigation Plan (HMP) was developed through a collaborative partnership between various organizations and stakeholders, forming the foundation of the Planning Partnership. This partnership included commissioners, safety officers, administrators, town and county leaders, local and regional agencies, and planners.

These diverse stakeholders, working in tandem with the Taos County Office of Emergency Management and other county departments such as Planning and Zoning, Public Health, and Public Works formed a cohesive and integrated planning team. This team guided the development of the HMP to ensure it addressed the full spectrum of potential hazards and community needs across all jurisdictions in Taos County.

Title 44 of the Code of Federal Regulations (44 CFR) requires that opportunities for involvement in the planning process be provided to neighboring communities, the public and regional agencies involved in hazard mitigation, agencies with authority to regulate development, businesses, academia, and other private and nonprofit interests (Section 201.6.b.2). Involvement by various agencies and stakeholders is identified

throughout this document, and had invitations to include hazard input, invitations to serve on the planning team, review of data, information, and the draft and pre-adopted plan. Those identified were provided an opportunity to provide input, review, and/or comment on this plan throughout the effort as they elected to do so, with information provided via multiple websites, at various public outreach efforts, and via email. It should be noted that this is an overview and is not all-encompassing.

Plan Updates

The 2026 Taos County Hazard Mitigation Plan (HMP) update incorporated new and revised mitigation projects provided by municipalities. These updates were reviewed during meetings to ensure alignment with FEMA's criteria for actionable, measurable, and achievable mitigation strategies. Project information and jurisdictional data were validated and finalized after the collection of updated forms (included in the appendices).

Capability Section

This section provides detailed information on County agencies and the programs and projects implemented to reduce the effects of hazards. Jurisdictions within the county successfully implemented projects that significantly improved utility services to the community, advanced education and awareness efforts, and enhanced preparedness efforts. These efforts reflect the county's ongoing commitment to continually improve hazard mitigation strategies.

Mitigation Strategy Section

This section has also been updated to better serve the planning area. Each of the participating jurisdictions can now easily identify projects specific to their needs. This format simplifies annual reporting and will streamline the process for updating the plan during the net 5-year review cycle. The updated mitigation strategy includes:

- An assessment of 2018 projects.
- New projects developed during the 2026 plan update.
- Updated strategies with prioritized actions for each jurisdiction.

Risk Assessment Section

This section has been updated to include new hazards that were fully profiled for the 2026 plan update. The 2023 New Mexico State Hazard Mitigation Plan was used as a reference to identify potential hazards.

The 2026 plan integrates data from local, state, and federal sources in the risk assessment section. All data sources are cited in the text, maps, or appendices, with a complete list provided in the References section following the Appendices.

Draft Plan

The draft plan was delivered to the Taos County Office of Emergency Management on XXXXXX. A press release notified residents that a copy of the draft plan was available for review at the Taos County Office of Emergency Management building or on the Taos County website. The press release was published twice in two local newspapers to meet FEMA's public notification requirements. The draft plan was made available from XXXX to XXXX. Public comments were incorporated as appropriate.

Commented [MD1]: Insert Draft Plan Date

Commented [MD2]: Insert Availability

Neighboring counties were provided with a draft of the "FEMA-Approved Pending Adoption" version of the plan. This final version will be circulated prior to its formal adoption by each jurisdiction, ensuring neighboring stakeholders are informed.

Plan Maintenance

Maintenance of the plan during the 5-year approval period has been a challenge in the past. While previous plans indicated that regular meetings would occur, these meetings were held inconsistently. Taos County has faced ongoing recovery challenges related to flooding, wildfires, and other events, limiting the capacity for regular updates. Moving forward, the Taos County Office of Emergency Management will hold annual meetings to ensure compliance with FEMA requirements for plan maintenance and annual progress reporting.

This 2026 HMP update integrates relevant information and data that became available since the 2018 plans approval and adoption. It reflects updated hazard profiles, mitigation projects, and lessons learned to better prepare the planning area for future challenges.

Engagement

Stakeholder Participation

An initial meeting was conducted with Taos County Leadership to facilitate a meet-and-greet with Chloeta—the selected vendor—to discuss the hazard mitigation plan development process. Expectations, roles, and responsibilities for plan development were established, and a schedule for subsequent meetings was outlined during this meeting.

The next meeting included Chloeta and Taos County Leadership, who reviewed and approved the draft goals, objectives, and surveys designed to ensure public engagement and gather stakeholder input. These surveys were tailored to meet FEMA’s requirements for meaningful participation and feedback from diverse community members and stakeholders.

Bi-monthly follow-up meetings were held throughout the HMP development process to allow for discussion, input, progress updates, and review of supporting HMP materials. Comprehensive meeting notes are documented in the Appendix per FEMA’s record-keeping requirements.

On September 23rd, 2025, a meeting was conducted that included jurisdictional representatives, stakeholders, and members of the public. This meeting introduced the hazard mitigation planning process and presented the preliminary results of the Hazard Ranking and Vulnerability Assessment. These results were derived from jurisdictional and stakeholder input collected during the early phases of the project.

A subsequent hazard mitigation planning meeting with representatives from all jurisdictions was held on December 3, 2025. Participants reviewed the status of the HMP, confirmed jurisdictional participation, updated data, and validated hazard assessments to meet FEMA’s requirement for maintaining accurate and current risk information during this meeting.

The final meeting in this series occurred on **XXXXXX**, during which Taos County Emergency Management, jurisdictional representatives, and other stakeholders reviewed ongoing mitigation actions. They worked collaboratively to develop and prioritize mitigation strategy updates for the county and its jurisdictions. This meeting emphasized compliance with FEMA guidelines for integrating mitigation actions into broader community planning efforts and ensuring that actions were actionable, measurable, and achievable.

All participants were provided email invitations to the meetings held on September 23, 2025; December 3, 2025; and **XXXXXX**, to ensure full compliance with FEMA’s public and stakeholder engagement requirements. Agendas, presentation materials, and sign-in sheets from all meetings are included in Appendix F to demonstrate adherence to FEMA documentation standards.

Commented [MD3]: To be written in following meeting

Commented [MD4]: To be written in following meeting

Standardized forms and surveys were distributed and collected throughout the planning process to document mitigation actions, identify vulnerabilities, and ensure compliance with FEMA’s requirement for stakeholder engagement to gather input from municipalities and stakeholders. The Appendix also includes completed forms, surveys, and other documentation to demonstrate active participation and adherence to FEMA and NM DHS requirements.

Engagement opportunities were made available through:

- The Hazard Mitigation Plan website, which provided access to updates, data, surveys, and the draft plan.
- Public outreach efforts, including public forums.
- Email correspondence, which facilitated direct communication with stakeholders and agencies.

It should be noted that while key participants have been highlighted in this process, it is not an exhaustive list of all stakeholders and public contributors involved in the planning effort. Taos County Emergency Management ensured robust participation to meet FEMA’s requirements and reflect a wide range of community interests.

Table 5. Stakeholder Participation Table

| Taos County | Stakeholder Name | Contact Information |
|--|-------------------------|---|
| Taos County Office of Emergency Management | Bobby Lucero | bobby.lucero@taoscountynm.gov |
| Taos County Office of Emergency Management | Mark Ortega | mark.ortega@taoscountynm.gov |
| Taos County Manager | Brent Jaramillo | brent.jaramillo@taoscountynm.gov |
| Taos County Deputy Manager | Jason Silva | Jason.silva@taoscountynm.gov |
| Planning & Zoning Director | Rachel Romero | rachel.romero@taoscountynm.gov |
| Chief Planner | Rudy Perea | rudy.perea@taoscountynm.gov |
| Public Works Director | Joe Fernandez | joe.fernandez@taoscountynm.gov |
| Finance Director | Emily Rowlison-Elliot | Emily.rowlison-elliott@taoscountynm.gov |
| Chief Procurement Office | Elsa Vigil | elsa.vigil@taoscountynm.gov |
| Commissioner | Darlene Vigil | darlene.vigil@taoscountynm.gov |
| Commissioner | AnJanette Brush | anjanette.brush@taoscountynm.gov |
| Commission Chair | Ronald Mascarenas | Ronald.mascarenas@taoscountynm.gov |
| Commissioner | Bob Romero | bob.romero@taoscountynm.gov |
| Commission Vice-Chair | Miguel Romero Jr. | Miguel.romero@taoscountynm.gov |
| County Fire Chief | Mike Cordova | mike.cordova@taoscountynm.gov |
| EMS Chief | David Varela | david.varela@taoscountynm.gov |
| Sheriff | Steve Miera | steve.miera@taoscountynm.gov |
| Under Sheriff | Gabe Ortiz | gabe.ortiz@taoscountynm.gov |

| | | |
|---------------------------------------|-------------------------|-----------------------------------|
| Taos Central Dispatch Director | Roberto Zaragoza | Roberto.zaragoza@taoscountynm.gov |
| Critical Infrastructure & Utilities | Luis A. Reyes | lreyes@kitcarson.com |
| Critical Infrastructure & Utilities | Chris Baca | Christopher.baca@nmgco.com |
| NMCRD Safety Officer | David J. Smith | davids@ncrtd.org |
| Taos County Director | Jessica Stern | Jessica.stern@taoscountynm.gov |
| Town of Taos | Stakeholder Name | Contact Information |
| Facilities/EM Director | Valorie Mondragon | vmondragon@taosnm.gov |
| Town Manager | Lupe Martinez | lemartinez@taosnm.gov |
| Assistant Manager | Mark Flores | mflores@taosnm.gov |
| Town Mayor | Pasqualito Maestas | mflores@taosnm.gov |
| Town GIS Analyst | Tim Corner | tcorner@taosnm.gov |
| Town Fire Chief | Edward Joe Abeyta | eabeyta@taosnm.gov |
| Town Police Chief | Mark Archuleta | marchuleta@taosnm.gov |
| Taos Munciple Schools Safety Director | Marcos Herrera | marher@taosschools.org |
| Taos Schools Associate Superintendent | Renetta Mondragon | Renetta.comdragon@taosschools.org |
| Taos Ski Valley | Stakeholder Name | Contact Information |
| Administrator | Rick Bellis | rbellis@vtsv.org |
| DPS Chief | Virgil Vigil | vvigil@vtsv.org |
| Village of Questa | Stakeholder Name | Contact Information |
| Mayor | John Ortega | jortega@villageofquesta.org |
| Administrator | Karen Shannon | kshannon@villageofquesta.org |
| Project Manager | Jacob LaFore | jlafore@villageofquesta.org |
| Questa Police Chief | Esequiel Romero | eromero@villageofquesta.org |
| Questa Fire Chief | Greg Bobick | gbobick@villageofquesta.org |
| Town of Red River | Stakeholder Name | Contact Information |
| Mayor | Linda Calhoun | lcalhoun@redriver.org |
| Town Administrator | Georgiana Rael | grael@redriver.org |
| Marshal | Jason Rael | jrael@redriver.org |
| Fire Chief | Deke Willis | dwillis@redriver.org |
| Other Representatives | Stakeholder Name | Contact Information |
| | Shawn Duran | sduran@taospueblo.com |
| Tribal Council | Mike Martinez | hunting@taospueblo.com |
| | Delbert Chishom | dchishom@taospueblo.com |
| | Craig Lujan | craig@taospueblo.com |
| DPS Chief | Summer Mirabel | policechief@taospueblo.com |
| Tribal Secretary | Ashley Pyne | tribalsecretary@picurispueblo.org |

| | | |
|---------------------------------|---------------------|-------------------------------|
| Picuris Pueblo Police Chief | Jimmy Gladeau | policechief@picurispueblo.org |
| Agricultural/4h Extension | Will Jaremko-Wright | wjaremko@nmsy.edu |
| WUI Coordinator | J.R. Logan | johnrogerlogan@gmail.com |
| Taos Valley Acequia Association | Judy Torres | taosacequias@gmail.com |
| WUI Coordinator | Garret Hanson | ensowfs@gmail.com |
| State Forestry | Pablo Montenegro | pablo.montenegro@emnrd.nm.gov |
| State Forestry | Justin Williams | justin.williams@emnrd.nm.gov |
| Forest Service | Paul Mondragon | paul.mondragon@usda.gov |
| Red Cross | Mark Gordon | mark.gordon3@redcross.org |

Public Engagement

The public outreach and engagement process for Taos County Hazard Mitigation Plan (HMP) included various strategies to ensure broad community input and participation. A tailored outreach strategy was developed to guide how public feedback would be gathered and how stakeholders would be engaged throughout the planning process. This strategy ensured that communication efforts were tailored to reach all relevant groups in the county.

- **Questionnaire:** A structured questionnaire was distributed to residents and stakeholders to gather specific information on community perceptions of hazards, vulnerabilities, and preparedness. The questionnaire served as a key tool to collect insights from a broad segment of the population.
- **Survey Results:** The survey results, compiled from the questionnaire responses, provided critical data to identify priority areas for hazard mitigation. These results informed the planning team about public concerns and areas where community resilience needed improvement.
- **Website:** Taos County Website hosted relevant HMP documents, updates, and public notices. Multiple county webpages acted as the primary digital platforms for residents to access information about the planning process and participate in online surveys or provide feedback.
- **Social Media:** Social media platforms were utilized to promote awareness of the HMP process, encourage public participation, and share important updates. This outreach tool was particularly useful for reaching a wider audience, including younger demographics for HMP feedback.
- **Stakeholder Meetings:** Regular stakeholder meetings were held to gather input from key community members, including government agencies, local businesses, NGOs, and emergency services. These meetings allowed stakeholders to provide direct feedback and collaborate on the development of mitigation strategies.
- **Press Release Flyers:** Press release flyers were issued to local media outlets to inform the public about key milestones in the HMP process. They served to increase visibility of the plan, highlight the importance of public participation, and announce community engagement events.

The development of the Taos County Hazard Mitigation Plan (HMP) followed a structured and inclusive process that involved comprehensive public engagement, interagency collaboration, and thorough data analysis. From the initial strategy planning to the final approval, each step played a crucial role in shaping the HMP to reflect the unique needs and vulnerabilities of the community. By incorporating stakeholder feedback and utilizing multiple communication platforms, the planning team ensured broad participation across various sectors. The following chronological development table outlines the key phases of the HMP process, detailing the major milestones, public outreach efforts, and stakeholder involvement that occurred from the plan's inception to its completion.

Jurisdiction Participation

All interested jurisdictions were required to express their willingness to participate in the process and thereafter remain active participants throughout all stages of plan development to be included in the Taos County HMP. Active participation for each jurisdiction was gauged based on meeting attendance, information collection and research, plan review and comment, mitigation action submission, public review assistance, and final resolution to adopt the HMP. It was not necessary that a jurisdiction meet all listed criteria (e.g., meeting attendance) to be considered a participating member. Nevertheless, each jurisdiction was expected to participate and provide relevant information, such as by initiating follow-up email correspondence after missed meetings to catch up. Taos County Emergency Management and its consultants made a concerted effort to follow up with jurisdictions that needed more representation at project meetings.

Overall, it was determined that five jurisdictions within Taos County met the participation requirements and are, therefore, included and considered in this document. All participating jurisdictions have agreed to pass a resolution to adopt the HMP after NM DHS and FEMA review and approval. These resolutions will be added to Appendix E as they are adopted. For now, a sample resolution is provided.

Towns met with the contractor to supply information specific to their towns and villages. Forms were reviewed, and discussion on all aspects of the town and of hazards that occur. Supervisors were able to understand the planning process and what was expected from them in reference to providing information for the plan update.

The Appendix documents when these meetings occurred, and the attendees of each meeting are noted in the meeting minutes.

Meetings & Documentation

The development of the Taos County Hazard Mitigation Plan (HMP) followed a structured and inclusive process that involved comprehensive public engagement, interagency collaboration, and thorough data analysis. From the initial strategy planning to the final approval, each step played a crucial role in shaping the HMP to reflect the unique needs and vulnerabilities of the community. By incorporating stakeholder feedback and utilizing multiple communication platforms, the planning team ensured broad participation across various sectors.

Primary meetings were held during the planning process. Outside of primary meetings, bi-weekly meetings were held to review plan updates, provide an opportunity for collaboration on next steps, review supporting documents, and identify any concerns or issues throughout the plan development. All notes, invitations, agendas, and sign-in sheets for these meetings are included in the Appendix.

Chronological Development

The following chronological development table outlines all meetings that took place during the key phases of the HMP process, detailing the major milestones, public outreach efforts, and stakeholder involvement that occurred from the plan's inception to its completion. This timeline aligns with the requirements of the Disaster Mitigation Act (DMA) of 2000 and the Community Rating System (CRS) to ensure compliance with FEMA and New Mexico DHSEM guidelines. The table below highlights the dates, events, descriptions, and agencies or organizations involved in the development of the HMP. By documenting these steps, this section demonstrates the organized, collaborative, and transparent process undertaken to assess risks, engage stakeholders, and develop a comprehensive plan to enhance resilience in Taos County.

Table 6. Primary Meetings, DMA, & CRS Process of HMP Development Table

| Date | Event | Description | Attendance |
|------------|----------------------|--|-------------------------------|
| 07/09/2025 | HMP Kick Off Meeting | Introductions, data call, scheduling. | Documented in meeting minutes |
| 07/23/2025 | Planning Meeting | Bi-Weekly meeting-project workplan approval, tasks and roles. | Documented in meeting minutes |
| 08/06/2025 | Planning Meeting | Bi-Weekly meeting-project plan review, draft outline of HMP approved. | Documented in meeting minutes |
| 08/20/2025 | Planning Meeting | Bi-Weekly meeting-publishing of hazard surveys, stakeholder public engagement plan completed, information gathering. | Documented in meeting minutes |

| Date | Event | Description | Attendance |
|------------------|---------------------------------------|---|---|
| 08/05-09/16/2025 | Stakeholder & Public Engagement | Survey assessment for Hazards and Mitigation Input. | Public, Internal & External Stakeholders, Taos County OEM, Chloeta |
| 9/3/2025 | Planning Meeting | Bi-Weekly meeting-project plan review, survey response discussion, assessment reports, GIS discussion. | Documented in meeting minutes |
| 9/17/2025 | Planning Meeting | Bi-Weekly meeting-Hazard identification and discussion, review of current hazards, meeting expectations | Documented in meeting minutes |
| 9/23/2025 | Stakeholder Meeting/ Disaster Council | External Stakeholder HMP Meeting to review HMP Process & review Hazards for Updates | <ul style="list-style-type: none"> • Taos County • Town of Taos • Village of Questa |
| 10/15/2025 | Planning Meeting | Bi-Weekly meeting-Hazard review and discussion, identify jurisdictional meetings, review of completed actions | Documented in meeting minutes |
| 10/29/2025 | Planning Meeting | Bi-Weekly meeting-Hazard review and discussion, jurisdictional meeting discussion, updates | Documented in meeting minutes |
| 11/7/2025 | Jurisdictional Meeting | Hazard review and prioritization, mitigation discussion, interviews. | <ul style="list-style-type: none"> • Taos County • Town of Taos • Village of Questa • Taos Ski Valley |
| 12/3/2025 | Mitigation Workshop | Hazard review, mitigation action items, information gathering/sharing, jurisdictional input. | Documented in roll |
| 01/7/2026 | Planning Meeting | Mitigation review and discussion, jurisdictional updates, review updates. | Documented in meeting minutes. |
| 01/21/2026 | Planning Meeting | Draft discussion, jurisdictional review, potential loss updates. | Documented in meeting minutes. |

Commented [MD5]: Further meetings to be inserted.

County Profile

The 2026 Taos County Hazard Mitigation Plan (HMP) provides a comprehensive overview of the county's geographic, demographic, economic, and environmental characteristics. This section outlines key information such as the county's location, climate, population trends, and land use patterns, offering context for understanding its unique vulnerabilities to hazards. It also includes details on critical infrastructure,

community lifelines, and key industries that are essential to the county's functionality and resilience. By establishing a baseline understanding of Taos County's physical and social landscape, the profile section serves as a foundation for identifying risks, assessing vulnerabilities, and developing targeted mitigation strategies.

County Facts

| Facts | Metrics |
|---------------------------------|--|
| County Seat | Taos |
| Number of Towns | 2 (Taos, Red River) |
| Number of Incorporated Villages | 2 (Questa, Taos Ski Valley) |
| Number of Hamlets | 17, including Ranchos de Taos, Arroyo Seco, and Des Montes |
| Population | 34,489 |
| Land Area | 2,204 sq mi |
| Largest Lake within County | Williams Lake |
| Highest Elevation | Wheeler Peak (13,161 ft) |
| Largest Rivers | Rio Grande, Rio Pueblo de Taos, Red River |
| Interstate Highway | None |
| Railways | Cumbres & Toltec Scenic Railroad |
| Airports (municipal) | Taos Regional Airport (SKX) |
| Miles of Shoreline on Lake | 8.3 |
| Elevation at Lake | 8,200 ft |
| Prisons/Jails | Taos County Adult Detention Center |
| Electric Providers | Kit Carson Electric Cooperative |
| Hospitals/Medical Centers | Holy Cross Medical Center |
| School Districts | Taos Municipal Schools Questa Independent Schools Penasco Independent Schools (Boundaries extend into Taos) Mesa Vista Consolidated Schools (Boundaries extend into Taos) |
| Law Enforcement | Taos County Sheriff's Office, Taos Police Department, New Mexico State Police, Questa Police Department, Red River Police Department |

Historical Overview

Taos County, New Mexico was officially established in 1852 as one of the original nine counties created under the New Mexico Territorial Legislature. Located in the north-central region of the state, Taos County spans approximately 2,204 square miles of diverse landscapes, including rugged mountain ranges, scenic river valleys, desert mesas, and alpine forests. The county shares borders with Rio Arriba County to the west and north, Colfax and Mora Counties to the east, and Rio Arriba and Santa Fe Counties to the south. It also borders the state of New Mexico to the north. As of the 2020 U.S. Census, Taos County had a population of 32,795, reflecting modest growth in a region known for its cultural richness, scenic beauty, and rural character. The county is part of the Taos Micropolitan Statistical Area, and despite its small population, it has significant economic, cultural, and environmental importance within the state of New Mexico.

The name “Taos” derives from the Taos Pueblo, a Native American community that has been continuously inhabited for over 1,000 years and is recognized as a UNESCO World Heritage Site. The area was originally settled by ancestral Puebloan peoples, followed by Spanish colonization in the 16th and 17th centuries. Taos Pueblo remains a central and sovereign part of the community, representing one of the oldest living communities in the United States. During the Spanish colonial era, the region saw the establishment of several villages and missions, with the Taos Valley serving as a significant center for trade, agriculture, and religious activity. After Mexican independence in 1821, the region remained under Mexican control until 1848, when the Treaty of Guadalupe Hidalgo ended the Mexican American War and ceded the area to the United States. In 1847, amid growing tensions over U.S. control, local Hispano and Native residents launched the Taos Revolt, a significant uprising that reflects the region's resistance and resilience.

The Town of Taos, incorporated in 1934, serves as the county seat and cultural hub of the region. Taos County today includes four incorporated municipalities: the Town of Taos, the Village of Questa, the Village of Taos Ski Valley, and the Town of Red River, in addition to numerous rural and tribal communities such as Ranchos de Taos, Arroyo Hondo, Arroyo Seco, and Picuris Pueblo. Taos County is governed by a five-member Board of County Commissioners and supported by various county departments and special districts that manage services ranging from emergency management to public health. The Taos Pueblo and Picuris Pueblo communities also exercise tribal governance independently.

Historically, the local economy was shaped by agriculture, ranching, and trade. During the 20th century, it expanded to include tourism, art, and outdoor recreation, bolstered by attractions such as the Taos Ski Valley, the Rio Grande Gorge Bridge, and the Kit Carson National Forest. Today, the economy is supported by a mix of tourism, small business enterprises, federal land management, and traditional subsistence activities. Taos County's multi-cultural heritage, natural beauty, and historic resilience continue to define its identity. As it prepares for future growth and evolving climate and hazard conditions, the County remains committed to preserving its rural character, tribal

sovereignty, and unique cultural landscapes while enhancing its capacity for disaster preparedness, hazard mitigation, and sustainable development.

Natural and Cultural Resources

Taos County is defined by its rich natural landscapes and deeply rooted cultural heritage, which together shape the county's identity, resilience, and long-term sustainability. The county is home to a diverse array of ecosystems, ranging from the Sangre de Cristo Mountains and high desert mesas to fertile river valleys and alpine forests. Significant portions of the Carson National Forest lie within Taos County's boundaries, along with critical water features such as the Rio Grande, Red River, Rio Hondo, and numerous high mountain lakes and wetlands. These natural systems provide essential ecosystem services including wildfire risk reduction, flood control, water filtration, and habitat connectivity for a wide variety of plant and animal species.

The Rio Grande del Norte National Monument, managed by the Bureau of Land Management, encompasses rugged volcanic plateaus and the iconic Rio Grande Gorge, offering both environmental protection and recreational opportunities. Additionally, the county contains several designated wilderness areas and state parks that contribute to conservation, tourism, and hazard mitigation by acting as natural buffers and open space reserves. These landscapes are highly valued for outdoor recreation, agriculture, water resource management, and wildlife preservation.

Taos County's cultural resources are equally significant and span thousands of years of human history. The Taos Pueblo, a UNESCO World Heritage Site and National Historic Landmark, stands as one of the most well-preserved examples of Native American adobe architecture and one of the longest continuously inhabited communities in North America. The county also includes the Picuris Pueblo, historic Hispano villages, and a rich legacy of Spanish colonial missions, adobe churches, acequia systems, and trading outposts. More recent cultural landmarks include the Kit Carson Home and Museum, the Millicent Rogers Museum, and a vibrant artist community that has drawn global attention since the early 20th century.

Together, these natural and cultural resources are essential to Taos County's economy, community identity, and disaster resilience. The tourism industry, a primary economic driver for the region, relies heavily on the preservation of scenic landscapes and cultural destinations. At the same time, traditional lifeways, such as farming, ranching, and artisanal craftwork, remain vital to the social and economic fabric of the region, especially within tribal and rural communities.

Incorporating these resources into the County's hazard mitigation strategy helps ensure their continued protection, supports sustainable land use planning, and enhances the community's capacity to adapt to and recover from natural and human-caused disasters. Protecting water sources, reducing wildfire risk in forested areas, and preserving

historic sites from flood and erosion impacts are all critical objectives for long-term resilience planning in Taos County.

Table 7. Cultural Resources Inventory Table

| Resource Name | Type | Location | Historical / Cultural Significance | State Registered Date | National Registered Date |
|---------------------------------------|---------------------------------|-----------------|---|-----------------------|--------------------------|
| Taos Pueblo | Pueblo / NHL / UNESCO Site | Taos | One of the oldest continuously inhabited communities in North America. | 13-Mar-72 | 15-Oct-66 |
| San Francisco de Asis Mission Church | Spanish Colonial Mission Church | Rancho de Taos | A masterpiece of adobe architecture and a quintessential symbol of Northern New Mexico, famously photographed by Ansel Adams and painted by Georgia O'Keeffe. | Not listed | Not listed |
| San Francisco de Asis Mission Church | Spanish Colonial Mission / NHL | Ranchos de Taos | Adobe landmark; featured by Ansel Adams and Georgia O'Keeffe. | Not listed | 15-Apr-70 |
| Taos Downtown Historic District | Historic District | Taos | Historic core of Taos; reflects Spanish, Mexican, and American settlement. | 15-Apr-82 | 08-Jul-82 |
| Kit Carson House & Museum | Historic House / Museum / NHL | Taos | Home of frontiersman Kit Carson. | Not listed | 05-Oct-66 |
| Ernest L. Blumenschein House & Museum | Historic House / Museum / NHL | Taos | Residence of Taos Society of Artists co-founder. | Not listed | 15-Oct-66 |
| Mabel Dodge Luhan House | Historic House / Hotel / NHL | Taos | Cultural hub for artists and writers. | 09-Dec-77 | 15-Nov-78 |
| Rio Grande Gorge Bridge | Engineering Landmark | Taos | Fifth-highest U.S. bridge; vital transport link. | 09-May-97 | 15-Jul-97 |
| La Hacienda de los Martinez | Historic Hacienda / Museum | Ranchos de Taos | 1804 Spanish colonial fortress. | 25-Sep-70 | 23-Apr-73 |

| | | | | | |
|--------------------------------------|----------------------------------|-------------------|---|------------|------------|
| Taos Plaza | Historic Plaza | Taos | Longtime center of commerce and community. | 21-Mar-69 | 02-Oct-78 |
| La Loma Plaza Historic District | Historic District | Taos | Original fortified plaza. | 15-Apr-82 | 08-Jul-82 |
| Las Trampas Historic District | Historic District / NHL | Las Trampas | 18th-century Spanish village. | Not listed | 28-May-67 |
| San Jose de Gracia Church | Spanish Colonial Church / NHL | Las Trampas | Exemplary adobe mission. | Not listed | 15-Apr-70 |
| Picuris Pueblo | Pueblo | Picuris Pueblo | One of NM's oldest pueblos. | 30-Dec-71 | 13-Aug-74 |
| Ranchos de Taos Plaza | Historic Plaza | Ranchos de Taos | Historic community center. | 21-Mar-69 | 02-Oct-78 |
| Fechin, Nicholai, House | Historic House / Museum | Taos | Russian-American artist's home. | 22-Jun-79 | 31-Dec-79 |
| Gaspard, Leon, House and Collections | Historic House / Museum | Taos | Home of Russian painter. | 20-Oct-78 | 23-Feb-79 |
| Harwood Foundation | Cultural Institution / Museum | Taos | Early arts and education center. | 28-Feb-75 | 22-Dec-76 |
| Millicent Rogers Museum | Museum / Collections | Taos | Native American and Hispanic art. | 21-May-71 | Not listed |
| Turley Mill and Distillery Site | Historic Industrial Site | Arroyo Hondo | 1830s mill and distillery. | 21-Feb-69 | 16-Nov-73 |
| Ojo Caliente Mineral Springs | Natural Resource / Historic Spa | Ojo Caliente | Sacred hot springs; historic health resort. | 08-Mar-85 | 17-Nov-85 |
| Tres Piedras Railroad Water Tower | Historic Infrastructure | Tres Piedras | Rare surviving railroad-era water tower. | 20-Jan-78 | 02-Feb-79 |
| Saint Vrain's Mill Site | Historic Mill Site | Ranchos de Taos | Early grist mill. | 31-Oct-80 | Not listed |
| Dasburg, Andrew, House and Studio | Historic House / Studio | Ranchos de Taos | Home of modernist painter. | 04-Sep-81 | Not listed |
| Manby Hot Springs and House Site | Natural Resource / Historic Site | Near Arroyo Hondo | Ruins of early 20th-century spa. | 25-Jan-80 | Not listed |
| Red River Schoolhouse | Historic Schoolhouse | Red River | Early education site. | 16-Dec-83 | 23-Feb-84 |
| Red River Miner's Hospital | Historic Building | Red River | Former hospital. | 16-Dec-83 | Not listed |

| | | | | | |
|---|--------------------------------|---------------|---------------------------------------|-----------|------------|
| (Westoby House) | | | | | |
| Mallette, Orin Cabin | Historic Cabin | Red River | Pioneer-era log cabin. | 16-Dec-83 | 23-Feb-84 |
| Mallette, Sylvester M., Cabin | Historic Cabin | Red River | Pioneer-era log cabin. | 16-Dec-83 | 23-Feb-84 |
| Melson-Oldham Cabin | Historic Cabin | Red River | Preserved homestead. | 16-Dec-83 | 23-Feb-84 |
| Young, Brigham J., House | Historic House | Red River | Historic residence. | 16-Dec-83 | 23-Feb-84 |
| Pierce-Fuller House | Historic House | Red River | Historic residence. | 16-Dec-83 | 23-Feb-84 |
| Westoby, Edward P., Cabin | Historic Cabin | Red River | Historic residence. | 16-Dec-83 | 23-Feb-84 |
| Black Copper Mine and Stamp Mill District | Historic Mining Site | Red River | Mining boom remnant. | 18-Sep-98 | 16-Feb-01 |
| Lawrence, D.H., Ranch Historic District | Historic Ranch / Cultural Site | San Cristobal | Home of writer D.H. Lawrence. | 08-Aug-03 | 15-Jan-04 |
| Couse-Sharp Historic Site | Historic Artist Studios | Taos | Studios of E.I. Couse and J.H. Sharp. | 13-Feb-04 | 28-Sep-05 |
| Beimer, Bernard J., Residence | Historic House | Taos | Unique architectural style. | 05-Dec-05 | 22-Mar-06 |
| San Ignacio de Loyola Morada | Religious Site | Arroyo Seco | Penitente Brotherhood site. | 21-Feb-97 | Not listed |
| Morada de San Antonio | Religious Site | Arroyo Seco | Spiritual and cultural site. | 17-Nov-00 | Not listed |
| Church and Campo Santo of the Most Holy Trinity | Religious Site | Arroyo Seco | Historic church and cemetery. | 12-Dec-08 | Not listed |
| Taos County Courthouse | Government Building | Taos | Historic civic building. | 09-May-86 | Not listed |
| Historic Resources of the Canon Community | Historic District | Taos | Cluster of historic homes. | 17-Mar-11 | Not listed |
| Old Taos Guesthouse | Historic Inn | Taos | Historic lodging. | 17-Mar-11 | Not listed |
| Martinez Property | Historic Property | Taos | Historic residential site. | 17-Mar-11 | Not listed |

Population & Demographics

As of the 2020 U.S. Census, Taos County had 34,489 residents, a moderate increase from 2010, spread over 2,204 square miles, yielding a population density of approximately 16 people per square mile. The county is ethnically diverse: approximately 40% non-Hispanic White, 50.8% Hispanic or Latino, and 5% American Indian, with other races comprising the remainder. About 34% of households speak a language other than English at home, which is crucial for tailored communications during emergencies.

These demographic trends, especially the aging population, linguistic diversity, and income disparities, carry direct implications for hazard mitigation planning. Tailored outreach, accessible communications, and inclusive emergency support frameworks are essential to ensure all residents are prepared and protected during disasters.

Table 8. Demographic Profile Table

| Demographic Indicator | Approximate Value |
|-------------------------------|------------------------|
| Total Population | 34,489 |
| Land Area (sq. miles) | 2,204 |
| Population Density | 16 people per sq. mile |
| Median Age | 51.9 years |
| Population Under 18 | 20% |
| Population 65 and Over | 25% |
| White (Non-Hispanic) | 40% |
| Hispanic or Latino | 50.8% |
| Indian American | 5% |
| Two or More Races / Other | 5% |
| Persons with a Disability | 18.4% |
| Households Below Poverty Line | 14.4% |
| Median Household Income | \$58,908 |
| Limited English Proficiency | 6% |

Vulnerable Populations

Taos County is home to several population groups that may face heightened risks during emergencies and disasters due to age, health status, economic barriers, or geographic isolation. As of the latest census estimates, approximately 25% of the population is over age 65, and about 18.4% of residents have a disability, indicating significant needs for accessible communications, mobility assistance, and medical support during hazard events. The county's rural nature and low population density mean that many residents live far from emergency services, with limited access to healthcare, transportation, or broadband.

While the proportion of individuals with limited English proficiency is 6%, inclusive planning remains essential to ensure all populations receive timely warnings and

preparedness resources. Additionally, Taos County has around 14,459 households, with an average size of 2.4 people. The median household income is approximately \$58,908, while about 14.4% of the population lives below the poverty line.

The CDC/ATSDR Social Vulnerability Index (SVI) for 2020 highlights key county areas of vulnerability, which can impact the community’s capacity to prepare for, respond to, and recover from hazardous events. The SVI measures vulnerability at the census tract level using four themes: socioeconomic status, household composition, racial and ethnic minority status, and housing type/transportation. These factors provide insight into the populations most at risk during emergencies.

Parts of the county, particularly areas in the southern, western, and eastern regions where poverty rates, unemployment levels, and lower educational attainment are more prevalent, rank among the highest in social vulnerability. These areas face greater challenges in disaster preparedness and recovery due to socioeconomic and infrastructural factors. Conversely, the central area and part of the southern region generally exhibit lower levels of vulnerability, suggesting greater capacity to handle hazardous events. These factors can limit access to resources, making it more difficult for residents in these areas to prepare for or recover from disasters, particularly those involving infrastructure or financial loss.

| Vulnerable Population Group | Primary Risk Factors in Taos County | Why This Group is More Vulnerable | Hazards of Greatest Concern | Key Planning / Support Needs |
|---|---|---|---|--|
| Elders & Medically Fragile Residents | High elevation communities; winter heating reliance; widespread power outages; limited mobility; oxygen-dependent residents | Greater risk during extreme cold, heat, wildfire smoke, and long-duration outages; many live alone or in remote areas | Severe winter storms, extreme cold, wildfire smoke, power outages | Welfare checks, backup power, medical transport, priority re-energization, accessible shelters |
| Children & Youth | Schools in smoke-prone valleys; rural bus routes; reliance on school meal programs | Sensitive to smoke and extreme temperatures; vulnerable to school closures and transportation disruptions | Wildfire smoke, extreme temperatures, winter storms | Clean-air shelters, continuity of education, safe transport routes, childcare support |
| Low-Income Households | Rural housing, mobile/manufactured homes, limited vehicle access; acequia-dependent communities | Fewer resources for evacuation, repairs, or relocation; older housing more prone to flood/wind/smoke impacts | Flooding, wildfire, extreme temperatures, winter storms | Financial assistance, home-hardening programs, accessible warnings, transportation |
| Non-English Speakers & Limited Literacy | Language barriers; limited access to traditional media; | Difficulty understanding warnings, evacuation | Wildfire, flood, winter storms, hazmat | Multi-language alerts (English/Spanish/Tiwa), pictogram- |

| Vulnerable Population Group | Primary Risk Factors in Taos County | Why This Group is More Vulnerable | Hazards of Greatest Concern | Key Planning / Support Needs |
|---|---|---|---|--|
| Residents (notably Spanish-speaking & Tiwa-speaking households) | reliance on in-person networks | notices, or recovery processes | | based warnings, community liaisons |
| Residents in Remote / Mountain Areas (Taos Canyon, Taos Ski Valley Road, NM-518, Arroyo Seco, Pilar, Tres Piedras, Carson Mesa) | Long emergency response times; single-access roads; high wildfire and debris-flow exposure | Isolation during road closures; limited cell coverage; frequent power disruptions | Wildfire, debris flow, landslide/rockfall, winter storms, power outages | Redundant communications, community emergency teams, pre-identified shelter-in-place protocols |
| Individuals with Disabilities (physical, sensory, cognitive) | Remote housing; difficult terrain; limited paratransit availability | Require accessible transportation, sheltering, and communication during emergencies | All hazards; highest risk during wildfire evacuations and outages | Functional needs registries, accessible alerting, ADA-compliant shelters, medical transport |
| Cultural & Traditional Land Users (Tribal members, acequia perinates, subsistence users) | Watershed-dependent livelihoods; use of traditional lands for hunting, fishing, gathering, ceremonies | Loss of access after wildfire, debris flow, drought; impacts to sacred sites and cultural practices | Wildfire, post-fire flooding, drought | Cultural consultation, watershed protection, support for traditional subsistence activities |
| Tourism & Seasonal Workers (Ski Valley, arts/tourism corridor) | High turnover; non-permanent housing; reliance on service wages; limited local social supports | Less aware of local hazards; difficulty receiving warnings; dependent on employer communication | Winter storms, wildfire smoke, extreme cold | Employer-based alert systems, multilingual messaging, emergency housing |
| Unhoused / Housing-Insecure Residents | Concentrated near services in central Taos; limited transport; exposure to weather | Direct exposure to cold, heat, and smoke; lack of stable shelter during evacuations | Extreme temperatures, wildfire smoke, winter storms | Warming/cooling shelters, mobile outreach, accessible transportation |
| Veterans & Fixed-Income Retirees | High percentage in rural Taos County; many on limited income | Difficulty affording evacuation, repairs, | Extreme cold, wildfire smoke, power outages | Financial assistance, transportation support, medical continuity planning |

| Vulnerable Population Group | Primary Risk Factors in Taos County | Why This Group is More Vulnerable | Hazards of Greatest Concern | Key Planning / Support Needs |
|--|--|---|--|--|
| | | generators, or medical costs | | |
| Tribal Communities (Taos Pueblo) | Unique cultural needs; sovereignty; traditional homes; combined flood/wildfire exposure from adjacent watersheds | Higher smoke exposure; risk to traditional structures; culturally significant sites at risk | Wildfire, post-fire flooding, extreme temperatures | Tribal coordination, culturally respectful messaging, infrastructure hardening |
| Mobile Home & Substandard Housing Residents | Units vulnerable to wind, cold, and smoke infiltration; concentrated in low-income zones | Disproportionate structural damage; difficulty sheltering in place | Windstorms, extreme cold, wildfire smoke | Home weatherization, air filtration, structural retrofits |
| Agricultural & Acequia-Dependent Communities (Llano Quemado, Arroyo Hondo, Talpa, Ranchos) | Drought, debris flows, water shortages; fieldwork exposure | Economic losses, water insecurity, direct hazard exposure | Drought, post-fire flood/debris flow, extreme heat | Irrigation resilience, water storage support, farmworker safety protocols |

These demographic characteristics reinforce the need for tailored outreach, accessible shelters, and continuity planning that prioritizes equitable response and recovery for all community members. Mitigation strategies should incorporate the needs of these populations to build a more resilient and inclusive Taos County.

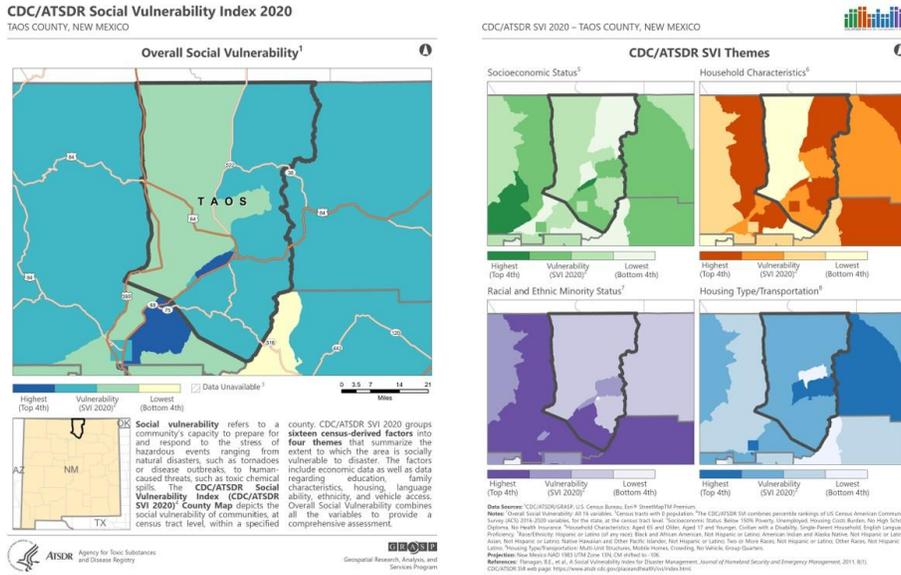


Figure 1. Social Vulnerability Index

Economy & Tax Base

Taos County's economy is driven by tourism, arts and culture, outdoor recreation, and residential property values. The Town of Taos serves as the economic center, supported by small businesses, hospitality services, and a strong creative sector. Key attractions like Taos Pueblo and Taos Ski Valley bring year-round visitors, contributing significantly to local revenue.

Property taxes, especially from second homes, form a major part of the county's tax base, making the local economy sensitive to real estate and seasonal shifts. Agriculture and ranching still play a role but represent a smaller economic share.

Major employers include the county and tribal governments, local schools, and healthcare providers. The economy relies on transportation corridors vulnerable to hazards like flooding and winter storms, underscoring the need for mitigation strategies to protect infrastructure, sustain tourism, and support economic resilience.

Table 9. Economic Statistics Table

| Statistic | Number |
|-----------------------------|------------|
| Median Household Income | \$58,908 |
| Mean Per Capita Income | \$40,019 |
| Poverty Rate – All Families | Approx 21% |
| Poverty Rate – All People | 14.5% |

Climate

Taos County experiences a high-desert, alpine-influenced climate characterized by cold winters, warm summers, and low to moderate annual precipitation. The county’s varied elevation, from the Rio Grande Valley at around 6,000 feet to the Sangre de Cristo Mountains above 13,000 feet, contributes to significant climatic diversity across short distances. Winters are typically cold, with snowfall common in the higher elevations, particularly in areas like Taos Ski Valley and the Carson National Forest. Snow accumulation supports winter recreation but also increases risks of avalanches, winter storms, and flooding during spring melt. Summers are warm and dry in the lower elevations, with daytime highs often exceeding 85°F. The region receives a sizable portion of its annual precipitation during the Southwest monsoon season (July–September), when afternoon thunderstorms can bring intense rainfall, increasing the risk of flash flooding, erosion, and wildfire ignition. Annual precipitation varies across the county, averaging 10 to 20 inches, with more rainfall and snowfall in the mountains and drier conditions on the mesas and valley floors. Drought conditions are common and can significantly impact local agriculture, water supply, and wildfire risk. Climate trends in the region, consistent with broader patterns across the Southwest, indicate increasing average temperatures, more frequent drought events, and more extreme weather patterns. These conditions heighten vulnerability to hazards such as wildfires, heatwaves, and water scarcity, reinforcing the need for climate-informed hazard mitigation planning.

Trees and other plants help cool the environment, making vegetation a simple and effective way to reduce urban heat islands. They may also contribute to improved air quality. The image below shows the percent tree canopy in selected areas.

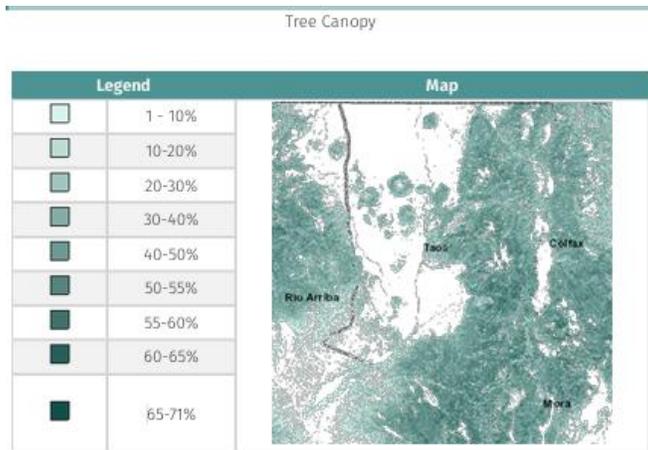


Figure 2. Tree Canopy Map

Impact of Climate Change

The following Climate Impact Tables, informed by recent assessments and climate change projections outlined in the New Mexico State Hazard Mitigation Plan, identify the primary hazards of concern for the Taos County Hazard Mitigation Plan (HMP). This matrix is a vital resource for understanding climate-related risks posing the greatest threats to Taos County’s communities, infrastructure, and natural environment.

By highlighting hazards most likely to be intensified by climate change, such as wildfire severity, prolonged drought, and intense flash flooding, the matrix enables local decisionmakers to prioritize mitigation actions aligning with state-level resilience goals. This approach ensures Taos County can effectively address both current and future challenges associated with the arid, high-altitude climate.

In addition to serving as a strategic planning tool, the matrix provides a foundation for assessing vulnerabilities, guiding resource allocation, and informing the development of targeted strategies to reduce risks to residents, critical infrastructure, and essential services. By integrating insights from the New Mexico State Hazard Mitigation Plan into local planning efforts, Taos County strengthens its ability to safeguard people and assets from severe weather impacts and evolving climate conditions unique to the northern New Mexico landscape.

Some anticipated climate change impacts to hazards of concern identified include:

Table 10. Climate Change Impacts on Hazards Table

| Hazard | Description & Climate Change Impacts |
|--|---|
| Wildfire | Wildfire is a high-priority hazard in Taos County, with increasing frequency and intensity due to hotter, drier summers and longer fire seasons. Climate change accelerates fuel drying and increases ignition potential, including from lightning. |
| Severe Winter Weather | Taos County regularly experiences heavy snow, blizzards, and extreme cold. Warming trends are leading to more freeze-thaw cycles, rain-on-snow events, and potential increases in avalanche and early-season flooding. |
| Flooding (Flash & Riverine) | More intense rainfall and rapid spring snowmelt increase the risk of flash and riverine flooding. Wildfire-scarred areas are particularly susceptible to post-fire flooding and debris flows. |
| Drought | Taos County faces growing drought concerns, with prolonged dry periods impacting vegetation, agriculture, and water resources. Climate projections indicate increasing drought frequency and severity. |
| Geological Hazards (Landslides, Rockfalls, Avalanches) | Steep terrain and weather extremes contribute to slope instability. Freeze-thaw cycles, wildfire loss of vegetation, and high precipitation events elevate risks for landslides, rockfalls, and avalanches. |
| Windstorm | Taos County is prone to strong frontal and downslope winds, especially in mountain passes. These winds can damage property, fuel wildfires, and may become more variable with shifting climate patterns. |
| Thunderstorm (Hail & Lightning) | Thunderstorms frequently produce damaging hail and lightning. Warmer atmospheric conditions may intensify storm severity. Lightning remains a primary cause of wildfire ignitions in the region. |
| Pandemic/Biological Hazards | Rural healthcare capacity may be stressed by emerging diseases. Climate change may facilitate the migration of disease vectors (e.g., ticks, mosquitoes) and zoonotic spillover. |

This Hazard Mitigation Plan incorporates climate change as a secondary impact within each evaluated hazard profile. Each hazard includes a qualitative assessment of how rising temperatures, changing precipitation patterns, and shifting seasonal norms may influence the frequency, intensity, and duration of future hazard events in Taos County.

Geography

Taos County is in north-central New Mexico and spans approximately 2,204 square miles, bordered by New Mexico to the north and several New Mexico counties. The landscape ranges from high desert plateaus to the Sangre de Cristo Mountains, including Wheeler Peak, the state’s highest point at over 13,000 feet. This dramatic elevation shift creates varied climates and contributes to the county’s exposure to hazards such as wildfires, flooding, and winter storms. The Rio Grande flows through the county, carving the Rio Grande Gorge and supporting multiple tributaries that influence flood risk and water supply. Significant federal and tribal lands, including Carson National Forest, Rio Grande del Norte National Monument, and Taos and Picuris Pueblos, require coordinated hazard mitigation strategies. Communities in the county range from the more densely populated Town of Taos to smaller rural and tribal areas like Questa, Red River, and Peñasco. Major highways like U.S. 64 and NM 68 are critical for access and emergency response. The county’s diverse topography and

dispersed settlement pattern present both challenges and opportunities for effective hazard mitigation planning.

Topography and Elevation

Taos County is characterized by dramatic, high-altitude terrain, defined by the majestic Sangre de Cristo Mountains and the arid Taos Plateau high desert. Elevations span a significant range, from approximately 6,000 feet in the deep Rio Grande Gorge to 13,161 feet at the summit of Wheeler Peak, the highest point in New Mexico. The mountains are home to attractions like the Taos Ski Valley, which, along with the historic Taos Pueblo and the area's rich art tradition, draws many tourists and residents. These same geographical characteristics create a challenging environment for infrastructure development and emergency response. High elevation areas experience heavy winter snowfall and extreme cold, while the lower, semi-arid regions are susceptible to prolonged drought and high wildfire risk. This combination of factors contributes to the county's unique climate and hazards, particularly the risk of intense flash flooding downstream from steep canyons and burn scars.

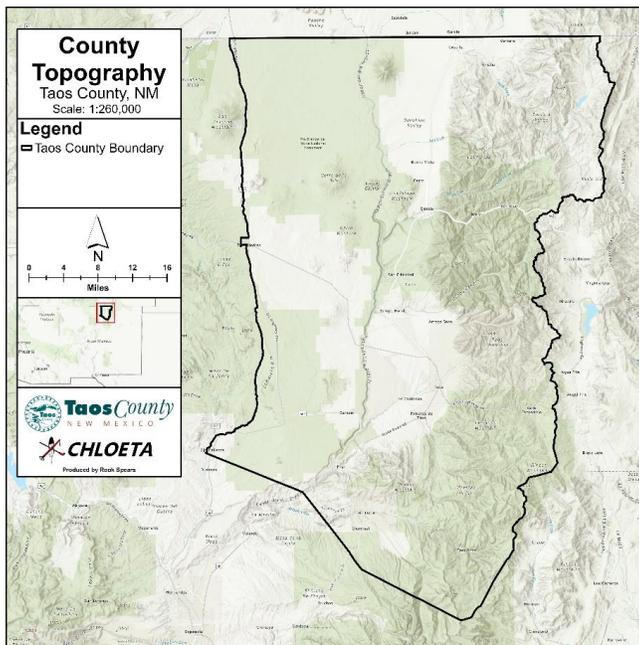


Figure 3. Taos County Topography

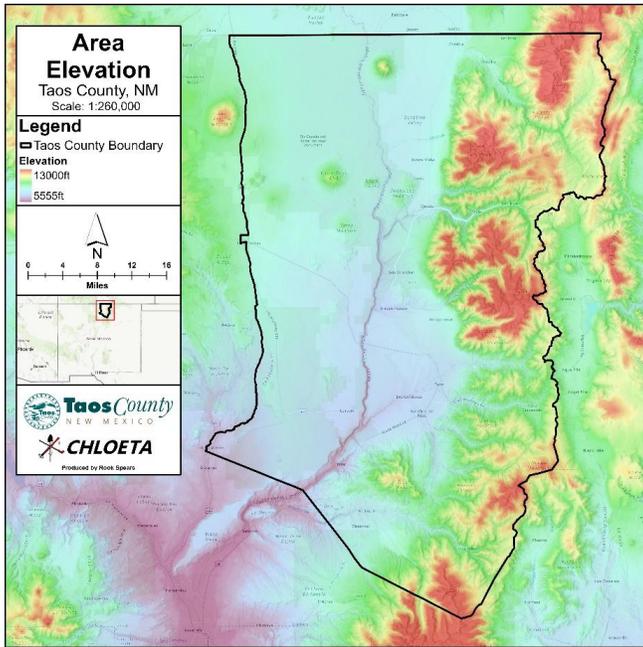


Figure 4. Taos County Area Elevation

Major Water Bodies and Watersheds

Water resources in Taos County are critically important and are defined by the arid climate and the essential reliance on mountain snowpack from the Sangre de Cristo Mountains.

The county's primary hydrological feature is the Rio Grande, which flows south through the spectacular Rio Grande Gorge that dramatically bisects the western half of the county. Unlike the abundant water sources of the Northeast, the Rio Grande system here is characterized by scarcity and intense water management, providing essential, limited resources for municipal supply, traditional irrigation (via historic *acequias*), and cultural practices, particularly for the Taos Pueblo. The river is also subject to complex interstate water compacts.

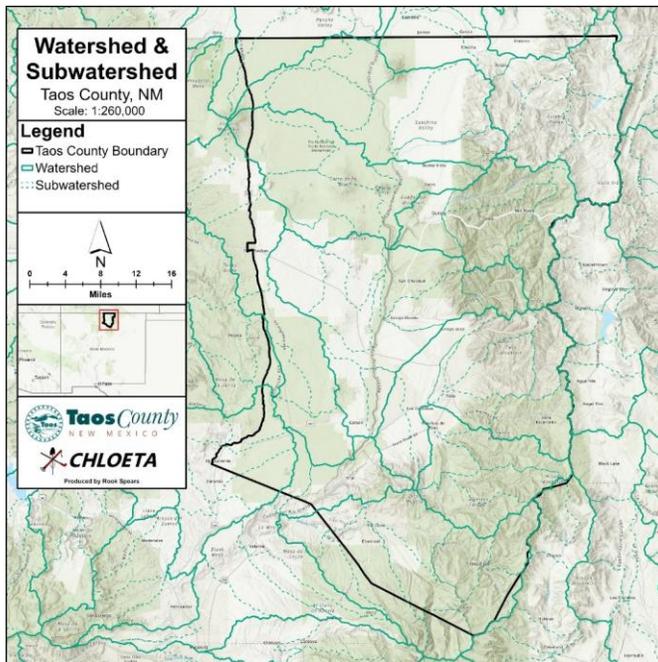


Figure 5. Taos County Watersheds

Drainage Systems

The county's drainage is almost entirely contained within the larger Rio Grande watershed. Numerous ephemeral streams, creeks, and rivers—including the Rio Pueblo de Taos, the Rio Fernando de Taos, and the Rio Hondo—originate high in the Sangre de Cristo Mountains. These tributaries flow rapidly westward, descending steeply through deep canyons and gorges before emptying into the Rio Grande.

This topography creates two distinct hydrological hazard profiles:

1. **Drought:** The overriding and constant hazard is prolonged drought, which severely impacts snowpack, reduces river base flows, and heightens the risk of catastrophic wildfire.
2. **Flash Flooding:** The steep, semi-arid terrain combined with high-intensity summer monsoonal rainfall creates a high and perennial risk of intense flash flooding in arroyos, canyons, and floodplains, a risk that is significantly exacerbated by areas affected by recent wildfires (burn scars).

found only along the major rivers and tributaries, which are vital for supporting historic *acequia*-fed agriculture and the county's population centers.

These geological and soil characteristics directly influence the county's hazards. The impermeable, rocky nature of the mountain and gorge terrain, combined with the loss of vegetation from wildfires, contributes significantly to the high risk of intense flash flooding (especially over burn scars). Additionally, the arid, loose soils of the plateau are highly susceptible to severe wind erosion and dust storms during prolonged drought periods.

Transportation and Accessibility

The geography and remote nature of Taos County create specific and often seasonal transportation challenges. The county's road network is primarily defined by a few key arterial routes that traverse mountainous and gorge areas, making them highly vulnerable to extreme weather and geological hazards.

The key north-south route is US Route 64, which passes through the historic town of Taos and across the dramatic Rio Grande Gorge Bridge. Major access to the region is provided by US Route 68 (from Santa Fe/Española) and US Route 522 (north toward Questa). East-west travel is challenging, relying on high-elevation mountain passes like New Mexico Route 64 over the Sangre de Cristos.

Road Vulnerabilities and Maintenance

Due to the mountainous and arid terrain, the county's roads are vulnerable to:

- **Winter Weather Closures:** Heavy snow and ice, particularly on high-altitude passes, frequently lead to seasonal closures or chain requirements.
- **Flash Flooding and Washouts:** Roads in canyon bottoms or adjacent to arroyos (dry stream beds) are highly susceptible to washouts and debris flows, especially following heavy monsoon rains or wildfires (over burn scars).
- **Rockslides and Landslides:** Steep slopes in the mountain ranges pose a constant risk of rockfall and slides, requiring continuous monitoring.

Inter-Jurisdictional Collaboration

Unlike many counties, the management of Taos County's roads involves a high degree of collaboration among various entities due to the significant presence of Federal and Tribal lands:

- **New Mexico Department of Transportation (NMDOT):** Maintains all US and State Routes, including snow and ice control on major corridors.

- Taos County Road Department: Responsible for maintaining the county's approximately 400 miles of local county roads, many of which are rural, unpaved, or low-volume.
- U.S. Forest Service (USFS) / Bureau of Land Management (BLM): Responsible for numerous forest roads and public access routes, which can be critical for wildfire response and evacuations.
- Taos Pueblo: Maintains roads within its sovereign territory.

Bridges and Critical Crossings

The county maintains a network of essential bridges and culverts. The Rio Grande Gorge Bridge is the most critical and heavily scrutinized piece of infrastructure, serving as a primary link for all traffic crossing the gorge. Ongoing maintenance efforts are focused on ensuring the integrity of structures subject to seismic risk and significant thermal expansion/contraction due to Taos's wide temperature swings. This collaborative, multi-agency approach is essential for sustaining the integrity and year-round accessibility of the region's vital transportation network.

Environmental and Ecological Features

Taos County is home to a highly diverse, vertical range of ecosystems, defined by the dramatic ascent from the arid high-desert plateau to the alpine peaks of the Sangre de Cristo Mountains. This transition is characterized by three primary ecological zones:

1. **Alpine Tundra and Subalpine Forests:** At the highest elevations, this zone includes alpine tundra and dense stands of spruce and fir. This area is vital for generating the county's limited water supply through snowpack.
2. **Pinyon-Juniper and Ponderosa Pine Woodlands:** Located on the mid-slopes and mountain fringes, these forests represent the transition between the high desert and the alpine zone. These areas are heavily utilized for recreation and are particularly vulnerable to wildfire.
3. **High-Desert Sagebrush Steppe:** Dominating the lower-elevation Taos Plateau and gorge rim, this arid landscape is characterized by sagebrush and grasses. This zone is sensitive to drought and extreme heat.

The county supports a variety of wildlife, including elk, mule deer, bighorn sheep, black bear, and a wide range of raptors and migrating birds along the Rio Grande corridor. Protected areas, including the Carson National Forest and the Rio Grande del Norte National Monument, are essential for preserving this biodiversity, but also serve as vital buffers that protect communities from erosion and localized flooding.

These ecosystems face significant vulnerability to climate change impacts, most notably:

- Prolonged Drought: Threatening water resources and increasing tree mortality, fueling catastrophic wildfire risk.
- Habitat Shift: Changes in temperature and precipitation patterns are expected to push habitat zones upward, stressing vegetation and wildlife populations at all elevations.
- Invasive Species: Drought-stressed landscapes are more susceptible to invasive species and insect infestations, further degrading the natural environment.

Hazard Implications

County geography contributes to several key hazards unique to the high-desert mountain environment. The combination of steep mountain terrain, the seasonal severity of the monsoon season, and dependence on limited snowpack increases the risk of multiple hazards.

The rugged terrain of the Sangre de Cristo Mountains and the presence of numerous canyons and *arroyos* (dry stream beds) make the county particularly susceptible to flash flooding following intense, short-duration summer storms. This flood risk is compounded in areas previously affected by wildfire (burn scars), where runoff is rapid and intense, often carrying heavy debris.

The high-desert, drought-prone climate and the presence of extensive Pinyon-Juniper and Ponderosa Pine Woodlands increase the county's wildfire risk during dry periods, which now extend well beyond the traditional summer season.

The rural, decentralized, and isolated nature of many communities, particularly those accessed by limited mountain roads, significantly complicates emergency response during hazard events, especially winter storms or active wildfires.

Geography provides both challenges and resilience opportunities. While the rugged terrain and protected Federal lands are essential for maintaining the watershed and natural buffers, they also present significant accessibility challenges for first responders. This plan utilizes these geographic realities in planning and prioritizing mitigation efforts to protect Taos County's communities, critical infrastructure, and natural resources from evolving threats.

Infrastructure

Taos County's infrastructure network is shaped by its rural and mountainous landscape, combined with widely dispersed communities. The county's primary transportation routes include U.S. Highway 64 and U.S. Highway 285, which serve as vital corridors for daily travel, tourism, commerce, and emergency evacuation. Secondary routes include State Highways 522 and 150, along with numerous county roads that provide access to

smaller communities and recreational areas. These roads are vulnerable to seasonal closures or disruptions caused by snowstorms, flooding, landslides, or wildfire.

Unlike urban areas, Taos County does not have major rail lines or public transit systems, which limit transportation alternatives. Broadband and cellular service coverage is variable, with many remote or mountainous areas experiencing limited connectivity, complicating emergency communication efforts. Utility services are provided by a combination of cooperatives, municipalities, and tribal utilities. Kit Carson Electric Cooperative mainly supplies electrical power, while natural gas usage is limited, with propane and wood heating common in rural homes. Water and wastewater services vary; incorporated towns maintain municipal systems, whereas many rural and tribal areas rely on private wells and septic systems.

Solid waste disposal is managed through regional facilities and transfer stations. Emergency services, including fire protection, EMS, and law enforcement, are provided by county agencies, tribal authorities, and special districts. Critical infrastructure such as roadways, power lines, water supply systems, and communication networks are at risk from wildfires, winter storms, flooding, and aging infrastructure conditions. Maintaining and enhancing the resilience of these lifelines is a priority for hazard mitigation and public safety, particularly in ensuring reliable evacuation routes and restoring service quickly after emergencies.

Hazardous Materials

Taos County hosts several sites where hazardous materials are used, stored, or transported, creating potential risks to public health, infrastructure, and the environment. These include fuel storage facilities, propane distribution centers, agricultural chemical storage, and wastewater treatment plants. Major transport routes for hazardous materials include U.S. Highways 64 and 285, which pass through populated areas and sensitive environmental zones.

While the county does not have major rail lines, hazardous materials may transit nearby by road, increasing the risk of spills or accidents. The Taos County Emergency Management and local fire districts coordinate with the New Mexico Environment Department and tribal authorities to comply with reporting requirements under the Emergency Planning and Community Right-to-Know Act (EPCRA). Ongoing training, interagency communication, and public awareness efforts are critical to minimizing risks and preparing for potential hazardous materials incidents that could impact residents, water supplies, or critical infrastructure.

Land Use

Taos County's land use is characterized by a mix of public lands, residential areas, agricultural uses, and culturally significant sites. Approximately 60% of the county's land area is publicly owned, including vast tracts managed by the Carson National

Forest and the Bureau of Land Management. These public lands encompass forested mountains, wilderness areas, and recreational spaces that serve as natural buffers to hazards such as wildfire and flooding. The remaining 40% is primarily private land used for residential development, agriculture, and tribal lands.

Residential development is concentrated in the towns of Taos, Ranchos de Taos, and Questa, along with smaller unincorporated communities scattered throughout the county. Many of these residential areas lie within or near the wildland-urban interface (WUI), increasing their susceptibility to wildfire risk. Agricultural lands, especially in the valleys and river basins, support traditional farming and ranching practices, which are vital both economically and culturally. The county also includes tribal lands of the Taos Pueblo, a historically and culturally significant area that is protected from development.

Future land use planning in Taos County is guided by local and tribal plans that seek to balance growth with preservation of natural and cultural resources. Hazard mitigation considerations are integrated into land use decisions to reduce risk from wildfires, flooding, and erosion, while supporting the county’s unique heritage and environmental sustainability.

Table 11. Distribution of Value by Property Use Table

| Property Use | Estimated 2025 Value (\$) | % of Current Roll |
|----------------------|----------------------------------|--------------------------|
| Residential | \$1.5-\$2B | 65-75% |
| Commercial | \$200-\$300M | 10-15% |
| Industrial | \$20-\$50M | 1-3% |
| Agricultural | \$50-\$100M | 3-6% |
| Public/Institutional | \$100-\$150M | 5-8% |
| Other | \$10-\$20M | <1% |

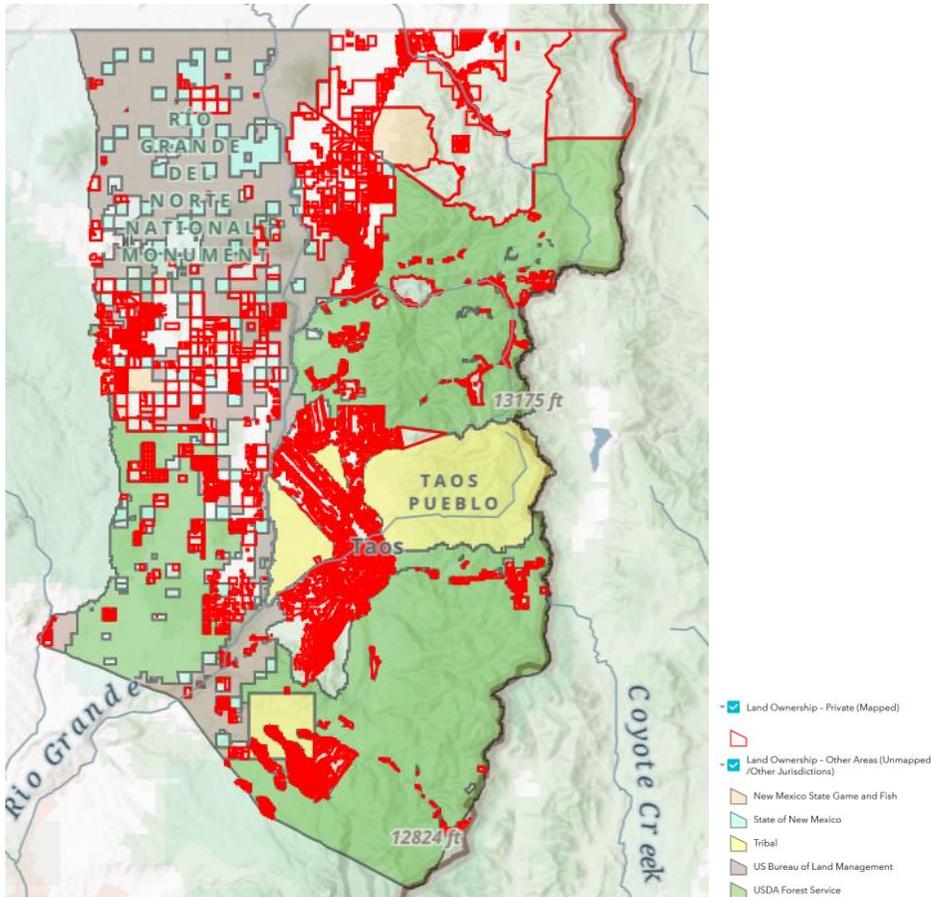


Figure 7. Taos County Land Use Map

The land use pattern in Taos County is characterized by a strong interplay between protected federal forest, historical water rights, and a highly concentrated tourism sector. Large portions of the county fall under federal or tribal jurisdiction, limiting development and emphasizing conservation and recreational use.

Forestry and Federal Lands

Forestry is intrinsically linked to the management of the Carson National Forest, which covers significant portions of the Sangre de Cristo Mountains in the county. Unlike the "forever wild" status of other places, land use here is managed under a multi-use policy.

Historically, forests were used by both Taos Pueblo and early Hispano communities for subsistence, including fuelwood collection, building materials, and grazing permits.

Today, large-scale commercial logging is rare. The primary focus of the U.S. Forest Service is watershed protection (critical for downstream irrigation), recreation, and hazardous fuels reduction (thinning) to mitigate catastrophic wildfire risk. This fuels reduction work is vital for protecting the forest-urban interface areas that surround Taos, Questa, and Taos Ski Valley.

Mining

Mining has played a major, though volatile, role in the history of Taos County. The industry focused primarily on hard rock minerals rather than the iron ore of the Northeast.

The most significant operation was the Questa Molybdenum Mine (Molycorp), located in the northern part of the county. From the mid-20th century, this mine provided a large source of employment, creating an economic boom/bust cycle that dramatically impacted local communities.

While the mine is now largely closed, its legacy includes vast tailings piles and a complex environmental cleanup effort to address water quality and soil contamination, which remains a key planning and remediation priority for the county.

Agriculture and Acequias

Agriculture is a culturally and historically vital sector in Taos County, defined by its reliance on the acequia (traditional community ditch) system, which pre-dates European settlement.

Unlike generalized farming, Taos agriculture is centered on irrigated small-scale farming using water diverted from mountain streams via these communal, centuries-old ditches, acequia systems. The acequias are not just infrastructure but are governed by traditional laws and managed by elected *mayordomos*, making them central to the region's land and water governance.

As for crops and production, the focus is on high-altitude, traditional crops, including alfalfa and hay (for livestock), chile, corn, and beans. This sector supports local food production and preserves the county's cultural heritage, though it faces increasing pressure from drought and water scarcity.

| Agriculture Metric | Value (2022 Census) |
|---------------------------|----------------------------|
| Number of Farms | 622 |
| Land in Farms | 229,129 acres |
| Average Farm Size | 368 acres |
| Crop Sales | \$7,732,000 |
| Livestock Sales | \$4,248,000 |

| | |
|-------------------------|---------------------------------|
| Primary Farmland Types | Cropland, Pastureland, Woodland |
| Acres of Cropland | 16,714 acres |
| Acres of Irrigated Land | 8,977 acres |

Tourism

Tourism is the single largest driver of the Taos County economy, attracting visitors for its unique combination of recreation, history, and arts.

- **Winter Recreation:** Taos Ski Valley is the primary winter destination, drawing visitors for skiing and snowboarding, with supporting businesses throughout the Town of Taos and surrounding areas.
- **Arts and Culture:** Taos is renowned globally as an art colony. The historic Taos Plaza, numerous museums, and hundreds of private galleries draw significant cultural tourism.
- **Historical Significance:** The Taos Pueblo, a UNESCO World Heritage Site and one of the oldest continuously inhabited communities in North America, is a major cultural and historical attraction, requiring careful management for visitor access and preservation.
- **Outdoor Activities:** The Rio Grande Gorge provides opportunities for white-water rafting, fishing, and hiking, cementing the county's role as a year-round outdoor recreation hub.

Transportation

The transportation system's economic function is to connect the various tourist and resource nodes. US Route 64 serves as the critical east-west corridor, linking the Ski Valley to the gorge. US Route 68 is the primary visitor route from the southern metropolitan centers. The vulnerability of these mountain highways to weather and geologic events directly impacts the county's ability to sustain its primary economic driver-tourism. Beyond US 64 and US 68, Taos County's access depends on a limited set of mountain highways (NM-38, NM 76, NM 522, and NM 518) that connect rural communities and provide alternate routes. These corridors are equally vulnerable to snow, ice, flooding, and landslides. The county's reliance on a small number of high-risk roads underscores the need for hazard mitigation strategies that address transportation resilience, as closures directly affect tourism, emergency response, and economic stability.

Growth and Development Trends

Taos County's future development is expected to be shaped by a combination of population growth, tourism demand, and efforts to preserve the area's unique cultural and natural resources. While the county remains predominantly rural and mountainous, moderate growth is anticipated in key communities such as Taos, Questa, and Ranchos de Taos, driven in part by retirees, second-home buyers, and those seeking a rural

lifestyle with access to outdoor recreation. Tourism and outdoor recreation will continue to be major economic drivers, encouraging the development of lodging, restaurants, and service-oriented businesses. This growth, however, will require careful planning to balance development pressures with conservation goals, particularly in areas adjacent to public lands, cultural sites, and environmentally sensitive habitats.

New residential and commercial development is likely to concentrate in existing population centers and designated growth areas to reduce sprawl and protect open spaces. Development in the wildland-urban interface (WUI) remains a concern due to increased wildfire risk, prompting local governments to incorporate stricter building codes, defensible space requirements, and land use planning strategies aimed at hazard mitigation. Infrastructure improvements, including expanded broadband access and upgraded transportation networks, are anticipated to support economic diversification and enhance emergency response capabilities. However, challenges such as limited water resources, aging infrastructure, and climate change impacts may constrain growth and necessitate sustainable resource management.

Overall, Taos County's future development trends emphasize resilience, cultural preservation, and environmental stewardship while accommodating responsible growth that supports the county's economy and quality of life. Hazard mitigation planning will play a critical role in guiding development to reduce vulnerabilities and ensure community safety.

Economic Characteristics and Employment

Taos County's employment landscape is diverse but largely shaped by its rural character, tourism economy, and public sector presence. Government and public administration jobs represent a significant portion of employment, including county government, tribal administration, and local municipal positions. Educational services and healthcare are also key employment sectors, reflecting the county's commitment to community well-being and services.

Tourism and hospitality, supported by the county's natural and cultural attractions, drive employment in accommodation, food services, and retail trade. Construction activity is steady, tied to residential growth and infrastructure improvements. Agriculture, forestry, and small-scale ranching remain vital to the local economy, though they comprise a smaller percentage of total jobs.

Professional and technical services, finance, and real estate play a supporting role in the economy, while manufacturing and utilities are relatively minor contributors due to the county's geographic and demographic characteristics.

The transportation and warehousing sectors are modest but essential for linking Taos County with broader markets and supply chains. The transportation network in Taos County is a critical component of the local economy and serves as a vital lifeline for

residents, businesses, and tourists. The network consists of a mix of state highways, county roads, and local routes. The most significant transportation corridors are U.S. Highway 64, which runs east-west through the county, and U.S. Highway 84/64, which connects the county to northern New Mexico. State Highway 518 provides a key route to the south.

The transportation system is particularly vulnerable to a range of natural hazards. Wildfires, especially in the Carson National Forest and other forested areas, can lead to road closures and impede emergency response and evacuation routes. Flash flooding from sudden intense rainfall events can wash out low-lying roads and culverts. Winter storms and heavy snowfall can make mountain passes impassable, isolating communities and disrupting supply chains. The county's rural nature means that many roads are unpaved, making them more susceptible to damage from erosion and flooding. These vulnerabilities highlight the importance of maintaining a resilient and redundant transportation network to ensure public safety and economic continuity.

Agriculture in Taos County plays a significant role in the local economy and culture. The rural landscape is primarily defined by small-scale, diversified farming operations that often include a mix of crops, livestock, and other agricultural products. The primary types of farmland in use are cropland and woodland, but the vast majority of agricultural land is pastureland and rangeland. Agricultural operations are a vital part of the county's heritage and a key consideration for hazard mitigation planning, as they are susceptible to climate-related risks such as drought, extreme heat, and wildfires.

Efforts to diversify and stabilize the economy focus on supporting small businesses, expanding broadband access, and fostering sustainable tourism and agricultural practices. These sectors' growth and resilience are key to Taos County's long-term economic health and community stability.

Table 12. Major Employers Table

| Industry | Estimated | Percentage of Total |
|--|------------|---------------------|
| | Employment | Employment |
| Government / Public Administration | 1,200 | 22% |
| Educational Services | 600 | 11% |
| Health Care & Social Assistance | 500 | 9% |
| Retail Trade | 450 | 8% |
| Construction | 300 | 5.5% |
| Accommodation & Food Services | 400 | 7% |
| Professional, Scientific & Technical Services | 250 | 4.5% |
| Agriculture, Forestry, Fishing & Hunting | 150 | 3% |
| Administrative & Support / Waste Management Services | 200 | 3.5% |
| Real Estate & Rental & Leasing | 150 | 3% |
| Other Services (Except Public Administration) | 180 | 3.5% |
| Transportation & Warehousing | 120 | 2% |
| Finance & Insurance | 100 | 1.8% |

| Industry | Estimated Employment | Percentage of Total Employment |
|---------------------------------------|----------------------|--------------------------------|
| Manufacturing | 80 | 1.5% |
| Utilities | 50 | <1% |
| Information | 40 | <1% |
| Wholesale Trade | 35 | <1% |
| Management of Companies & Enterprises | 25 | <1% |

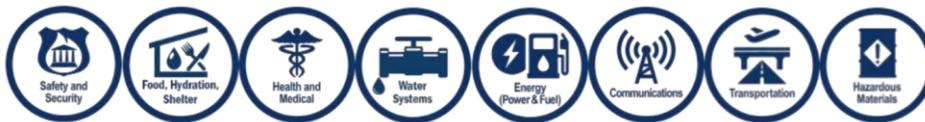
Note: Percentages are approximate and may not amount to 100% due to rounding.

Community Lifelines

Community Lifelines is a framework that identifies and organizes critical services that are essential to the health, safety, and economic stability of communities before, during, and after a disaster. These lifelines include the following categories:

This framework helps communities prioritize the restoration of services vital to resilience and recovery efforts. Disruptions to any lifeline can trigger cascading impacts across other sectors, worsening the effects of a disaster and extending recovery timelines. By focusing on lifelines, FEMA provides a structured approach for communities to protect critical services, mitigate risks, and improve their ability to withstand and recover from emergencies effectively.

As part of the Taos County HMP update, a critical aspect will be evaluating how each Community Lifeline may be affected by the hazards outlined in the plan. For hazards like severe winter storms, flooding, or wildfires, the analysis will identify which lifelines face the highest risk of disruption and examine the potential consequences for the community. This evaluation will guide Taos County in prioritizing mitigation strategies and preparedness efforts, focusing on protecting the most at-risk lifelines to enhance resilience and minimize the impact of future hazard events.



Community Resilience

Taos County demonstrates a relatively low community resilience score (36.73), which reflects the county’s ability to prepare for, respond to, and recover from natural hazards. Community Resilience is measured at the county level using the Baseline Resilience

Indicators for Communities (BRIC), often integrated into the Federal Emergency Management Agency's (FEMA) National Risk Index (NRI).

The complex interplay of a high percentage of federally and tribally managed land, decentralized rural settlements, and socio-economic vulnerabilities (such as high poverty rates and aging infrastructure) can temper the county's overall resilience score. While the strong sense of community, cultural tradition, and reliance on communal resources like the acequia systems provide foundational social resilience, these factors are often offset by challenges in funding and maintaining widely dispersed critical infrastructure, particularly in high-mountain and gorge areas. Effectively addressing these underlying vulnerabilities through targeted mitigation is essential for Taos County to strengthen its ability to safeguard residents and assets against future disasters.

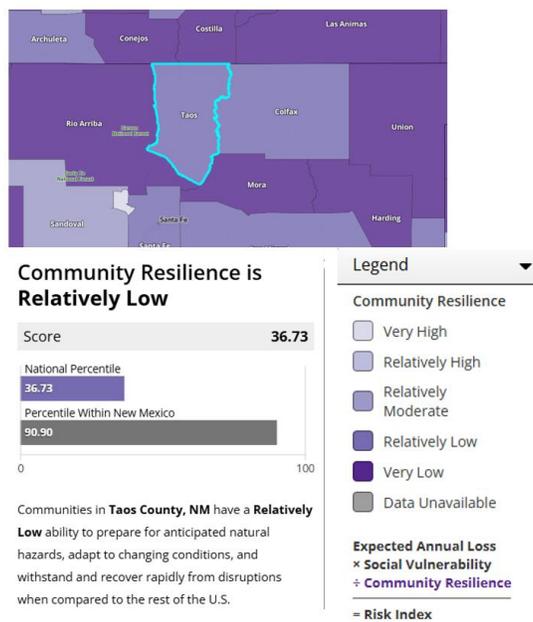


Figure 8. Taos Community Resilience Score

Risk Assessment and Methodology

As defined by the Federal Emergency Management Agency (FEMA), risk is a combination of hazard, vulnerability, and exposure. FEMA's updated guidance emphasizes that risk assessment is a dynamic process—one that evaluates both the

likelihood and severity of a hazard event, as well as the community's capacity to withstand, adapt to, and recover from such events. While a vulnerability assessment focuses on identifying the factors that make a community susceptible to harm, a risk assessment layers in the probability of a hazard occurring, resulting in a more comprehensive understanding of potential impacts.

By profiling relevant hazards and evaluating the exposure of people, property, infrastructure, and critical services, this approach provides a data-driven foundation for prioritizing mitigation actions and building long-term resilience. This assessment follows the FEMA Local Mitigation Planning Policy Guide (2025) and the methodology outlined in FEMA's Risk Assessment Guidance.

The Risk Assessment Section serves as the cornerstone of the 2026 Taos County Hazard Mitigation Plan. It establishes a robust, data-driven foundation for identifying, evaluating, and prioritizing regional hazards. This section provides a factual and scientific basis for justifying activities proposed in the county mitigation strategy. By linking hazard rankings directly to the county action plan, this assessment ensures alignment with targeted efforts aligned with state-level resilience goals. Evaluating the risks posed by natural hazards is essential for understanding their potential impacts on lives, property, and the local economy. Taos County's risk assessment uses both qualitative and quantitative analysis (based on the best available data) to identify county vulnerabilities. This process deepens the understanding of how natural disasters affect the community, laying the foundation for mitigation strategy development and prioritization outlined in the Mitigation Strategy section. The goal is to minimize damage and loss by enhancing preparedness, improving response capabilities, and directing resources to areas of greatest risk.

5-Step Process

This plan builds upon prior efforts, incorporating an updated risk assessment framework. It follows the methodology detailed in the 2023 Federal Emergency Management Agency (FEMA) Local Mitigation Planning Handbook, providing a systematic, 5-step process:

1. **Hazard Identification:** recognizes the hazards present in the county.
2. **Hazard Description:** details potential impacts, locations, frequency, and intensity of each hazard.
3. **Identifying Community Assets:** evaluates assets most at risk, accounting for recent development changes.
4. **Impact Analysis:** examines how hazards may affect community assets.
5. **Vulnerability Summarization:** combines all findings into a cohesive overview, guiding strategies to enhance resilience.

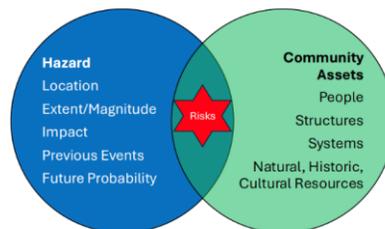
Each phase builds upon the previous, ensuring a comprehensive and systematic approach to risk assessment.

Taos County Risk Assessment Components

1. Hazard Identification. The assessment identifies and prioritizes natural hazards posing the greatest risks to Taos County participating jurisdictions, including an updated analysis of vulnerabilities and hazard rankings.
2. Hazard Profiles. Profiles for each hazard include data on geographical areas affected, historical occurrences, severity, and the probability of future events.
3. Community Assets. This selection evaluates at-risk resources, including population centers, infrastructure, essential services, and cultural and natural assets. The local economy and community activities vital to residents are also considered.
4. Impact Analysis. The analysis highlights vulnerabilities of identified assets and evaluates potential consequences of each hazard. These findings inform targeted mitigation and preparedness strategies.
5. Vulnerability Summarization. This section synthesizes key information from hazard profiles, emphasizing vulnerabilities, recent developments, and potential impacts to guide the prioritization of mitigation efforts and resource allocation.

The figure below represents the relationship between hazards and community assets to define risk. Hazards are characterized by location, extent or magnitude, impact, previous occurrences, and future probability, outlining the potential threats the community may face. Community assets, on the other hand, encompass the critical elements that could be affected by these hazards, including people, structures, systems, valued activities, and natural, historic, and cultural resources.

Risk is represented by the intersection of these two elements, where the potential threats overlap with the vulnerable community assets. This intersection highlights areas most in need of mitigation efforts. By understanding this relationship, decisionmakers can more effectively prioritize strategies to minimize hazard impacts on critical resources, enhancing community resilience.



This comprehensive approach enhances decision-making by providing a data-driven foundation for prioritizing mitigation actions and building long-term resilience. This risk assessment covers the entire geographical extent of the Taos County Planning Area. As this is a multi-jurisdictional plan, the Hazard Mitigation Planning Team has evaluated how hazards and risks vary between jurisdictions. These jurisdictional differences are noted in this section and further expanded in the jurisdictional annexes.

FEMA's latest standards also emphasize equity, climate resilience, and community adaptation, requiring jurisdictions to incorporate social vulnerability assessments, climate change projections, and mitigation strategies that account for future conditions.

By following these guidelines, Taos County ensures its hazard mitigation strategies align with federal requirements, funding opportunities, and best practices for disaster resilience.

This risk assessment covers the entire geographical extent of the Taos County Planning Area, including Taos County and special districts. Since this plan is a multi-jurisdictional plan, the Hazard Mitigation Planning Team is required to evaluate how the hazards and risks vary from each jurisdiction. While these differences are noted in this chapter, they are expanded upon in the jurisdiction's respective annex. If no additional data is provided in an annex, it should be assumed that the risk and potential impacts to the affected jurisdiction are like those described here for the entire Taos County Planning Area.

Update Process

This plan integrates data from multiple sources including:

- National Centers for Environmental Information (NCEI).
- FEMA disaster declarations.
- New Mexico State Climate change projections.
- FEMA National Risk Index.
- FEMA's Taos County Flood Insurance Study.
- Stakeholder surveys.
- Taos County Comprehensive Plan
- 2023 New Mexico State Hazard Mitigation Plan

The use of these resources helps to ensure an inclusive and accurate understanding of risks. New hazards like utility failures and pandemics, highlight emerging threats, providing a broader perspective on Taos County vulnerabilities.

Hazards affecting the planning area are identified and defined in terms of location, extent, magnitude of impacts, historical occurrences, and the probability of future events. In the 2026 Taos County Hazard Mitigation Plan, five hazards are ranked as High risk and three as Medium risk. While the rankings provide guidance, it is important to note that low-ranked hazards could still result in significant disasters, warranting due consideration and planning for potential loss estimates.

This update expands the scope of the 2018 Taos County Hazard Mitigation Plan by including additional hazards and an enhanced understanding of risks and emerging threats. The 2026 update introduces non-natural hazards like utility failures, transportation accidents, hazardous material incidents, pandemics, and infectious diseases, moving beyond the prior focus of natural hazards. These additions align with the comprehensive hazard review conducted in the 2023 New Mexico State Hazard Mitigation Plan.

Table 13. 2018 HMP Hazards Table

| Hazards Addressed in the 2018 Taos County HMP | | |
|---|--------------|-----------------------------|
| Dam Failure | Drought | Earthquake |
| Flood | High Wind | Landslide/Mudslide/Rockfall |
| Severe Winter Weather | Thunderstorm | Wildfire |
| Hazardous Materials | | |

Risk Assessment Process

Taos County conducted a comprehensive hazard evaluation as part of the 2026 Taos County Hazard Mitigation Plan (HMP). This process incorporated multiple methodologies including the incorporation of the most recent Taos County Threat Hazard Identification Risk Assessment (THIRA) and Stakeholder Preparedness Review (SPR). These efforts provided a detailed analysis of hazards based on scope, frequency, onset, impact, and duration.

Through collaborative efforts, hazards were analyzed by the Taos County Planning Team and stakeholders. This involved:

- Identification of hazards impacting Taos County.
- Analysis of geographic areas and populations at risk.

This process included stakeholder input, facilitated discussions, and mapping tools to identify gaps in capabilities. The most recent THIRA and SPR update was completed in 2025. The hazards identified in the process were utilized as a baseline for the Planning Team’s hazard identification.

Table 14. Planning Team Hazard Score Ranking Table

| Hazard | Likelihood | Consequence | Risk Tier |
|-----------------------|------------|-------------|-----------|
| Wildfire | Very High | Very High | Tier 1 |
| Severe Winter Weather | Very High | High | Tier 1 |
| Drought | High | High | Tier 1 |
| High Winds | High | High | Tier 1 |
| Avalanche | Medium | High | Tier 1 |
| Landslide | Medium | Medium | Tier 1 |
| Rockfall | Medium | High | Tier 1 |

| Hazard | Likelihood | Consequence | Risk Tier |
|-------------|------------|-------------|-----------|
| Flood | High | High | Tier 2 |
| Pandemic | Medium | High | Tier 2 |
| Dam Failure | Low | High | Tier 2 |

Comprehensive Hazard Ranking by the Planning Team

The Taos County Planning Team built upon the THIRA process by integrating data from multiple sources including FEMA disaster declarations, National Centers for Environmental Information (NCEI) data, stakeholder input, and public surveys. This effort produced a comprehensive hazard ranking, taking care to consider historical impacts and potential future risks. As applicable, the Planning Team further utilized FEMA’s Hazus (a standardized, GIS-based, risk assessment tool used to estimate potential losses from natural disasters) for loss estimation, reviewed historical trends, and analyzed climate projections. Geographic Information Systems (GIS) mapping was employed to more accurately visualize hazard zones and potential impacts. These tools provided data-driven insights into vulnerabilities across the county.

Once profiles were identified and completed, the following steps were used by planning partners to define the risk of each hazard:

- Determine exposure to each hazard— An inventory of structures, facilities, and systems was mapped. Exposure was determined by overlaying hazard maps with an inventory of structures, facilities, and systems to determine which of them would be exposed to each hazard.
- Assess the hazard impact areas describing the geographic extent a hazard can impact a jurisdiction uniquely defined on a hazard-by-hazard basis. Where spatial differences exist, hazard mapping allowed for hazard analysis by geographic location. Some hazards have varying levels of risk-based on location. Other hazards cover larger geographic areas and affect the area uniformly. A system must be established addressing all elements (people, property, economy, continuity of government) to consistently rate each hazard, and in a manner which addresses the functionality of each Planning Partner involved (e.g., municipality, fire district, public utility district, etc.).
- Assess the vulnerability of exposed facilities. The vulnerability of exposed structures and infrastructure was determined by interpreting the probability of occurrence of each event and assessing structures, facilities, and systems that are exposed to each hazard. Tools such as GIS and Hazus (discussed below) were used in this assessment. Vulnerabilities are described in terms of impact to critical facilities, structures, population, economic values, and functionality of government which can be affected by the hazard event as identified in the tables below.

- Where specific quantitative assessments could not be completed, vulnerability was measured in general, qualitative terms, summarizing the potential impact based on past occurrences spatial extent, and subjective damage and casualty potential. Those items were categorized utilizing the criteria established in the CPRI index.
- The final step in the process was to determine the cumulative results of vulnerability based on the risk assessment and Calculated Priority Risk Index scoring (discussed below), assigning a final qualitative assessment based on the following classifications:
 - Extremely Low—The occurrence and potential cost of damage to life and property is very minimal to nonexistent.
 - Low—Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal.
 - Medium—Moderate potential impact. This ranking carries a moderate threat level to the general population and/or built environment. Here the potential damage is more isolated and less costly than a more widespread disaster. Occurrences are frequent, with more documented historic events.
 - High—Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category have occurred in the past and have a high probability of reoccurring.
 - Extremely High—Very widespread with catastrophic impact. Hazards in this category may have occurred in the past and have a high probability of reoccurring.

Calculated Priority Risk Index Scoring Criteria

As part of the 2026 Taos County Hazard Mitigation Plan (HMP) update, the Planning Team conducted a comprehensive risk assessment using the Calculated Priority Risk Index (CPRI) methodology. This quantitative process was completed prior to finalizing the hazard rankings and served as the foundation for evaluating each hazard of concern at both the countywide and jurisdictional levels.

The CPRI applied a weighted scoring system to five core criteria: probability of occurrence (45%), magnitude or severity of impact (30%), geographic extent and location (15%), warning time or speed of onset (10%), and event duration (5%). Each hazard was scored numerically on these criteria, based on historical data, technical modeling, GIS exposure analysis (especially concerning the proximity of critical infrastructure and forest lands), and regional climate trends. This approach enabled the Planning Team to objectively calculate a composite CPRI score for each hazard, reflecting the relative risk it poses to people, property, critical infrastructure (CIKR), and continuity of government.

Once calculated, the CPRI scores were used to inform and compare against initial qualitative hazard rankings derived from prior plans, historical impact assessments, and

localized vulnerability analyses. The original rankings—classified as High, Medium, or Low—were based on a combination of expert judgment, past disaster history, population exposure, infrastructure sensitivity, and community capacity to respond across the region.

The comparison between the CPRI outputs and these initial assessments revealed a strong degree of alignment, with some important refinements specific to Taos County's environment:

- **High-Priority Hazards Confirmed:** Hazards such as Wildfire (CPRI: 3.90), Severe Winter Weather (CPRI: 3.70), and Drought (CPRI: 3.60) received the highest scores, confirming their prior designation as High-priority hazards. These events are endemic to the region; they occur frequently, often cause widespread utility disruptions (especially in isolated mountain communities), and pose significant threats to public safety and long-term water security.
- **Elevated Scores Suggesting Reprioritization:** Other hazards initially ranked as Medium, such as Landslides and Debris Flow or Geological (CPRI: 3.40) and High Winds (CPRI: 3.50), received higher-than-expected CPRI scores. The high score for Landslides, for instance, reflects the nearly annual occurrences, as well as significant potential impact of post-wildfire erosion on roads (especially canyon corridors like NM 68 and US 64) and key water infrastructure (acequias), despite relatively localized occurrences. Similarly, the elevated score for High Winds captures the increasing health and economic risks associated with climate trends, highlighting a need to incorporate more robust public health and utility preparedness into future mitigation strategies.
- **Consistent Medium/Low Rankings:** Hazards like Flooding (Riverine/Flash) (CPRI: 3.10) remained consistent with its Medium ranking, confirming that while impactful, it typically has localized effects or limited duration compared to the regional threats of wildfire and drought.
- **Localized Risk Highlighted:** Low-ranked hazards, including Pandemics (CPRI: 2.90) and Dam Failure (CPRI: 2.60), generally received lower scores, reinforcing their lower placement in the prioritization hierarchy. However, the score for Dam Failure exceeded expectations for a Low-ranked hazard, indicating a need for site-specific reassessment in areas where downstream populations, tribal lands, or critical assets (like primary access roads) are at risk. This insight underscores the value of the CPRI in highlighting the scale of potential consequences—even for hazards with low historical frequency—especially in the canyon environments of Taos County.

The CPRI analysis provided a transparent, evidence-based foundation for hazard prioritization in the 2026 plan. While most final rankings remained consistent with prior assessments, the integration of updated impact data, vulnerability analysis, and risk modeling led to a more refined and defensible hazard profile. The comparison of CPRI results with historical impact patterns and jurisdictional vulnerabilities enhanced the overall quality of the planning process, ensuring that mitigation efforts are accurately targeted to the most pressing risks facing Taos County's unique physical and cultural landscape.

Probability

The probability of a hazard event occurring in the future was assessed based on hazard frequency over a 100-year period (where available). Hazard frequency was based on the number of times the hazard event occurred divided by the period of record. If the hazard lacked a definitive historical record, the probability was assessed qualitatively based on regional history and other contributing factors. Probability of occurrence was assigned a 40 percent weighting factor, and was broken down as follows:

Rating Likelihood Frequency of Occurrence:

1. Unlikely: less than 1 percent probability in the next 100 years.
2. Possible: between 1 percent and 10 percent probability in the next year, or at least one chance in the next 100 years.
3. Likely: between 10 percent and 100 percent probability in next year, or at least one chance in the next 10 years.
4. Highly Likely: greater than 1 event per year (frequency greater than 1).

| Hazard | Probability Rating (1-4) | Qualitative Category | Justification (Taos-Specific) |
|---|--------------------------|------------------------|---|
| Wildfire | 4 | Highly Likely | Annual Red Flag days, multiple large fires since 1996, heavy fuels, drought, wind-driven spread; post-fire flooding common. |
| Severe Winter Storms / Blizzard | 4 | Highly Likely | Significant winter storms occur nearly every year; history of major blizzards (1967, 1993, 2003, 2011, 2019). |
| Flooding (Flash, Riverine, Post-Fire Debris Flows) | 3 | Likely | Monsoon flash floods occur regularly; major riverine events in 1993, 2005, 2013, 2023; burn scar flooding increasing. |
| Drought | 3 | Likely | Persistent drought cycles for decades; multiple extreme (D3-D4) years including 2000-2004, 2011, 2020-2022. |
| High Winds / Red Flag Wind Events | 3 | Likely | Every spring features high-wind warnings; frequent gusts >50 mph; 2021 >100 mph at elevation; drives wildfire spread. |
| Extreme Cold / Cold Waves | 2 | Occasional | Occurs every few years; 2011 and 2023 severe cold waves; more sporadic than snowstorms. |
| Pandemic / Infectious Disease | 2 | Occasional | Large outbreaks less frequent (COVID-19, H1N1), endemic diseases (Hantavirus, plague) rare but persistent. |
| Geological Hazards (Landslide, Rockfall, Avalanche) | 2 | Occasional | Rockfall/avalanche occur annually on small scale, but damaging events occur every 5-10 years. |
| Dam / Levee Failure (Non-Catastrophic) | 1-2 | Unlikely to Occasional | Small acequia failures happen annually; major storage dam issues are rare. Cabresto siltation = near-miss example. |

| Rating | Category | Definition (Taos-Specific Interpretation) |
|--------|---------------|---|
| 4 | Highly Likely | Event occurs annually or nearly annually; strong historic evidence; well-documented recurring impacts. |
| 3 | Likely | Event occurs every 2–5 years; repeatedly documented in Taos County or adjacent counties. |
| 2 | Occasional | Event occurs every 5–10 years; significant but less frequent and often localized. |
| 1 | Unlikely | Event occurs less than once every 10 years or has not historically produced damaging events in Taos County. |

Magnitude

The magnitude of potential hazard events was evaluated for each hazard. Magnitude is a measure of the strength of a hazard event and is usually determined by using technical measures specific to hazard. Magnitude was calculated for each hazard where property damage data was available and was assigned a 25% weighting factor. Magnitude calculation was determined using the following: $\text{Property Damage} / \text{Number of Incidents} / \$ \text{ of Building Stock Exposure} = \text{Magnitude}$. In some cases, the HAZUS model provided specific people/dollar impact data. For other hazards, a GIS exposure analysis was conducted. Magnitude was broken down as follows:

Rating Magnitude Percentage of People and Property Affected:

1. Negligible (Less than 5%): Very minor impact to people, property, economy, and continuity of government at 90%.
2. Limited (6% to 24%): Injuries or illnesses minor in nature, with only slight property damage and minimal loss associated with economic impact; continuity of government only slightly impacted, with 80% functionality.
3. Critical (25% to 49%): Injuries result in some permanent disability; 25-49% of population impacted; moderate property damage; moderate impact to economy, with loss of revenue and facility impact; government at 50% operational capacity with service disruption more than one week, but less than a month.
4. Catastrophic (More than 50%): Injuries and illness resulting in permanent disability and death to more than 50% of the population; severe property damage greater than 50%; economy significantly impacted because of loss of buildings, content, inventory; government significantly impacted; limited services provided, with disruption anticipated to last beyond one month.

Extent and Location

The measure of the percentage of the people and property within the planning area impacted by the event, and the extent (degree) to which they are impacted. Extent and location were assigned a weighting factor of 20%, and broken down as follows:

Rating Magnitude Percentage of People and Property Affected:

1. Negligible: less than 10 percent; few if any injuries or illness. Minor quality of life lost with little or no property damage. Brief interruption of essential facilities and services for less than four hours.
2. Limited: 10-24 percent; minor injuries and illness. Minor, short term property damage that does not threaten structural stability. Shutdown of essential facilities and services for 4 to 24 hours.
3. Critical: 25-49 percent; serious injury and illness. Major or long-term property damage, that threatens structural stability. Shutdown of essential facilities and services for 24 to 72 hours.
4. Catastrophic: more than 50 percent; multiple deaths, property destroyed or damaged beyond repair, complete shutdown of essential facilities and services for 3 days or more.

Warning Time/Speed of Onset

The rate at which a hazard occurs, or the time provided in advance of a situation occurring (e.g., notice of a cold front approaching or a potential hurricane, etc.) provides the time necessary to prepare for such an event. Sudden-impact hazards with no advanced warning are of greater concern. Warning Time/Speed of onset was assigned a 10% weighting factor, and broken down as follows:

Rating Probable Amount of Warning Time

1. More than 24 hours warning time.
2. 12-24 hours warning time.
3. 5-12 hours warning time.
4. Minimal or no warning time.

Duration

The time span associated with an event was also considered, the concept being the longer an event occurs, the greater the threat or potential for injuries and damages. Duration was assigned a weighting factor of 5%, and was broken down as follows:

Rating Duration of Event

1. 6-24 hours
2. More than 24 hours
3. Less than 1 week
4. More than 1 week

This summarizes the analysis conducted by way of completion of the Calculated Priority Risk Index (CPRI) for hazard ranking. These ratings were then incorporated into an Excel Workbook, which calculates the CPRI Score.

| CPRI Category | Impact Level ID | Description | Impact Factor | Assigned Weighting Factor |
|------------------------|------------------|---|---------------|---------------------------|
| Probability | 1- Unlikely | Rare with no documented history; <1% annual probability (~100+ years) | 1 | 45% |
| | 2- Possible | Infrequent; at least one historic event; 1–10% annual probability (~10+ yrs) | 2 | |
| | 3- Likely | Frequent; two or more historic events; 10–90% annual probability (~10 yrs) | 3 | |
| | 4- Highly Likely | Common; well-documented; >90% annual probability (annual occurrence) | 4 | |
| Magnitude/ Severity | 1- Negligible | Minor injuries; <5% infrastructure impact; minimal economic/government effect | 1 | 30% |
| | 2- Limited | Minor injuries; 5–25% infrastructure impact; short-term disruption | 2 | |
| | 3- Critical | Significant injuries/deaths; 25–49% impact; services disrupted <1 month | 3 | |
| | 4- Catastrophic | Major injuries/deaths; >50% impact; services disrupted >1 month | 4 | |
| Warning Time | 1- <6 hours | Minimal Lead Time | 1 | 15% |
| | 2- 6-12 hours | Short Lead Time | 2 | |
| | 3- 12-24 hours | Moderate Lead Time | 3 | |
| | 4- >24 hours | Ample Lead Time | 4 | |
| Duration | 1- <24 hours | Brief Event | 1 | 10% |
| | 2- <1 week | Short-term Event | 2 | |
| | 3- <1 month | Medium-term Event | 3 | |
| | 4- >1 month | Long-term Event | 4 | |

Table 15. Taos CPRI Score Table

| Hazard | Probability (1-4) | Magnitude / Severity (1-4) | Warning Time (1-4) | Duration (1-4) | CPRI Score |
|---|---------------------------------------|--|--|--|------------|
| Wildfire | 4 – Highly Likely | 4 – Catastrophic potential in WUI | 3 – Hours to days | 4 – Weeks | 3.9 |
| Severe Winter Storms / Blizzard | 4 – Highly Likely | 4 – Catastrophic (extended outages/closures/isolation) | 2 – Days of warning | 4 – Weeks (recovery + prolonged disruption) | 3.7 |
| Flooding (Flash, Riverine, Post-Fire Debris Flow) | 3 – Likely | 3 – Critical (roads, acequias, structures) | 3 – Hours to days | 4 – Days to weeks | 3.1 |
| Drought | 4 – Highly Likely (chronic) | 3 – Critical (water, ag, fire) | 3 – Weeks to months (onset indicators) | 4 – Months/years | 3.6 |
| High Wind / Red Flag Events | 4 – Highly Likely (seasonal) | 4 – Critical (wildfire spread, utility/infrastructure impacts) | 2 – Limited warning (hours to a day) | 2 – Hours to days | 3.5 |
| Geological Hazards (Landslide, Rockfall, Avalanche) | 4 – Highly Likely (corridor-specific) | 3 – Critical (transportation/access disruption) | 2 – Limited warning | 4 – Days to weeks (closures + stabilization) | 3.4 |
| Pandemic / Infectious Disease | 3 – Likely (recurring waves) | 3 – Critical (health, workforce, services) | 3 – Weeks to months | 2 – Weeks to months (peak disruption) | 2.9 |
| Dam / Levee Failure | 2 – Occasional | 4 – Critical (localized but severe) | 2 – Limited warning | 2 – Hours to days | 2.6 |

The Planning Team also took the following into consideration:

- Municipal Vulnerability Assessments. Each municipality conducted its own hazard rankings, which may differ from the countywide rankings due to localized priorities and recent events. For example, towns affected by recent floods may rank this hazard higher than others that may not have experienced the same conditions. Vulnerability analyses evaluated the hazard impacts on structures, critical facilities, and populations, identifying specific risks to buildings, infrastructure, and residents.
- Flood Vulnerability Assessment. Municipalities assessed flood vulnerability in detail, identifying the total value of structures within flood prone areas and reviewing the number of flood insurance policies per jurisdiction. This analysis provided a clear understanding of flood risks for each municipality, enabling countywide comparisons.

- Disaster Declarations. Taos County has been significantly impacted by both man-made and natural hazards, particularly the COVID-19 Pandemic and severe storms causing extensive damage to infrastructure, homes, and the local economy.

HAZUS & GIS Applications

Earthquake and Flood Modeling Overview

In 1997, FEMA developed the standardized Hazards U.S., or Hazus, model to estimate losses caused by earthquakes and identify areas that face the highest risk and potential for loss. Hazus was later expanded into a multi-hazard methodology, Hazus-MH, with new models for estimating potential losses from hurricanes and floods. Hazus is a GIS-based software program used to support risk assessments, mitigation planning, and emergency planning and response. It provides a wide range of inventory data, such as demographics, building stock, critical facility, transportation and utility lifeline, and multiple models to estimate potential losses from natural disasters. The program maps and displays hazard data and the results of damage and economic loss estimates for buildings and infrastructure. Its advantages include:

- Providing a consistent methodology for assessing risk across geographic and political entities.
- Providing ways to save data so that it can readily be updated as population, inventory, and other factors change and as mitigation-planning efforts evolve.
- Facilitation of the review of mitigation plans because it helps to ensure that FEMA methodologies are incorporated.
- Supporting grant applications by calculating benefits using FEMA definitions and terminology.
- Producing hazard data and loss estimates that can be used in communication with local stakeholders.
- Administration by the local government, managing and updating a hazard mitigation plan throughout its implementation.

Levels of Detail for Evaluation

Hazus provides default data for inventory, vulnerability and hazards. This default data can be supplemented with local data to provide a more refined analysis. The model can carry out three levels of analysis, depending on the format and level of detail of information about the planning area:

- Level 1: All of the information needed to produce an estimate of losses is included in the software's default data. This data is derived from national databases and describes in general terms the characteristic parameters of the planning area.
- Level 2: More accurate estimates of losses require more detailed information about the planning area. To produce Level 2 estimates of losses, detailed information is

required about local geology, hydrology, hydraulics and building inventory, as well as data about utilities and critical facilities. This information is needed in a GIS format. To calculate losses due to flooding, HAZUS uses the following inputs about the built environment: structure location, occupancy type, square footage, first floor height above grade, as well as replacement and content values.

- Level 3: This level of analysis generates the most accurate estimate of losses. It requires detailed engineering and geotechnical information to customize it for the planning area.

Disaster Declarations

One method to assess hazard risk is to examine historical events that have resulted in state or federal disaster declarations within Taos County. A disaster declaration is typically granted when the severity and magnitude of an incident exceed the ability of local agencies to respond and recover effectively. When local capacity is overwhelmed, the Governor of New Mexico may issue a state disaster declaration, which can authorize the deployment of state-level assistance and emergency resources. If the combined local and state resources are still insufficient, a federal disaster declaration may be requested through the Federal Emergency Management Agency (FEMA).

Federal declarations may also be issued by the U.S. Department of Agriculture (USDA) in response to agricultural losses, or by the Small Business Administration (SBA) to support business recovery. In addition to major disaster declarations, FEMA may issue emergency declarations, which provide more limited forms of assistance and are often used for immediate response measures such as evacuation or sheltering.

The number and type of disaster declarations serve as valuable indicators of recurring or severe hazards that impact Taos County. This section reviews FEMA, USDA, and SBA declarations affecting the planning area to support prioritization of mitigation strategies and identify trends in hazard frequency, severity, and economic impact.

Table 16. Disaster Declarations (1997-2025)

| Incident Date | Hazard Type | Declaration Date | Disaster Declaration |
|---------------|--|------------------|--------------------------|
| 6/24/2024 | Severe Storms, Flooding, Landslides | 7/30/2024 | DR-4529 |
| 12/15/2021 | Severe Winter Weather, Snow Squall | 12/21/2021 | Executive Order 2021-067 |
| 1/20/2020 | Pandemic | 3/30/2020 | DR-4529 |
| 9/9/2013 | Severe Storms, Flooding, Mudslides | 10/29/2013 | DR-4152 |
| 2/1/2011 | Severe Winter Storm, Extreme Cold Temperatures | 3/24/2011 | DR-1962 |
| 7/26/2006 | Severe Storms, Flooding | 8/30/2006 | DR-1659 |
| 5/5/2000 | Wildfire | 5/13/2000 | DR-1329 |
| 8/29/2005 | Hurricane Katrina Evacuation | 9/7/2005 | EM-3229 |

| Incident Date | Hazard Type | Declaration Date | Disaster Declaration |
|-------------------|-----------------|------------------|----------------------|
| 5/5/2000-7/7/2000 | New Mexico Fire | 5/10/2000 | EM-3154 |

Notable Declarations

Over the past several decades, Taos County has experienced multiple state and federal disaster declarations that underscore its vulnerability to a range of natural and human-caused hazards.

These events, among others, demonstrate the diversity of threats Taos County faces and provide critical context for shaping hazard mitigation strategies aimed at protecting infrastructure, natural resources, and public safety.

Flood Hazard Zones

For the Flood hazard zones, the most current flood hazard data layer was downloaded from the FEMA map service center which was dated to be current draft as of February 2025. The 100-year and 500-year flood zones were determined based on the attributes of the Special Flood Hazard polygon layer contained in the data downloaded from FEMA. County parcels were determined to be inside and or outside the 100- and 500-year flood zones using spatial query methods within ArcGIS Desktop. A critical facilities analysis was also conducted (inside and outside of HAZUS) and was based on general exposure rather than estimated losses for some hazards of concern. Risk to structures is identified based on the structure location and the corresponding exposure to hazard location, where geographically established.

Critical Facilities

A list of critical facilities developed by the planning area and its planning partners included geospatial data for fire, police, schools, medical facilities, etc. On completion of the analysis, each planning partner was provided with the critical facilities list, on which impact from each hazard is identified for each critical facility. That data was then utilized by each planning partner to determine dollar impact. The critical facilities list as a whole is considered privileged in nature from public disclosure; however, each planning partner was left to make the determination as to how they wished to identify specific structures based on their policies in place. In addition, specific critical facility structure impact data is further identified within the various Critical Facilities tables contained in each hazard profile, identified by critical facility type, e.g., power, water, wastewater, etc. Building impact was further identified in Loss Matrix Tables, which

provide the breakdown to each of the jurisdictional planning partners for use in completing their risk assessment. That data further identifies the number of structures impacted and the population impacted (where possible) based on the specific hazard of concern. As appropriate, that data is also identified within the various public outreach documents developed for the public outreach efforts. It should be noted that with all data, the critical facilities list is continually in an update process and should not be considered to be all-encompassing.

Hazard Ranking

Participants ultimately rated natural, technological and man-made hazards based on probability (likelihood) and severity of impact (consequences). The resulting comprehensive hazards (in the table below) selected by the county were profiled.

| Hazard Ranking | Event |
|----------------|---|
| High | Wildfires |
| High | Severe Winter Weather (Heavy Snow, Blizzards, & Ice Storms) |
| High | Windstorm (High Winds, Downslope/Chinook Winds) |
| High | Drought |
| High | Geologic Hazards (Landslides, Rockfalls, Avalanches) |
| Medium | Floods (Riverine, Flash) |
| Medium | Dam Failures (Structural Integrity Issues) |
| Medium | Pandemics and Infectious Disease (Future Pandemics and Influenza Outbreaks) |

Some hazards like severe winter weather and flood events, occur annually and have significant financial impacts on jurisdictions and residents. Less frequent hazards like avalanches may not happen often, but when they do occur, they can have substantial financial repercussions. While dam failures are not expected to occur regularly, their potential impact could be significant, affecting wide areas of the county. Although climate change was not ranked as a separate hazard, its effects—like increasing the frequency and severity of extreme weather events—are addressed throughout the plan due to their influence on other profiled hazards.

This plan emphasizes that hazard rankings are not predictive, but they do represent a tool to guide mitigation efforts. A low-ranked hazard could still result in significant impacts, underscoring the importance of a comprehensive and adaptive approach to hazard mitigation planning. By integrating insights from the planning team, historical data, and localized assessments, Taos County has established a robust framework to

understand both immediate and long-term risks allowing for the development of comprehensive mitigation efforts. These efforts ensure the planning area is well prepared to prioritize mitigation actions, protect vulnerable populations, and build resilience against future disasters.

Following a hazard mitigation workshop, hazards were listed and ranked by the planning team and stakeholders based on their likelihood and potential impacts to life, safety, property, critical facilities, economy, and environment.

| Hazard | Definition (Taos-Specific) | Ranking (High/Medium/Low) | Justification |
|---|---|---------------------------|--|
| Wildfire | Uncontrolled fire in forests, rangelands, and WUI areas driven by dense fuel loads, drought, steep terrain, and high wind. Wildfire also triggers post-fire flooding, debris flows, and severe smoke impacts. | High | High frequency + extreme WUI exposure + catastrophic potential + post-fire floods |
| Severe Winter Storms / Blizzard | Heavy snowfall, blizzards, extreme cold, and ice that cause roadway closures, power outages, isolation of rural communities, and interruptions to emergency services and tourism operations. | High | Frequent long-duration outages; repeated isolation of canyon communities |
| Flooding (Flash, Riverine, Post-Fire Debris Flow) | Rapid flooding in arroyos and canyons during monsoons, riverine flooding during spring melt, and debris-flow flooding in burn scar areas following wildfire. | Medium-High | Chronic, multi-sector impacts; influences wildfire, water supply, ag, and tourism |
| Drought | Prolonged periods of below-average precipitation that reduce water supply, intensify wildfire risk, impact acequias and agriculture, and weaken forest health and watersheds. | High | Recurrent, increasingly severe due to burn scars + snowmelt risk |
| High Wind / Red Flag Events | Strong seasonal winds capable of damaging roofs, downing trees, causing outages, producing dust storms, and rapidly spreading wildfires during dry periods. | High | Frequent but mostly infrastructure/utility impacts; major wildfire driver 2021 high wind caused 4000 people to be without power for a week. Communications, Power and Fiber Connectivity impacts |

| Hazard | Definition (Taos-Specific) | Ranking (High/Medium/Low) | Justification |
|---|--|---------------------------|--|
| | | | due to rural areas cables running above ground |
| Pandemic / Infectious Disease | Widespread infectious disease outbreaks (COVID-19, influenza, hantavirus, plague) that strain rural healthcare systems and disrupt schools, workforce, and tourism. | Medium | High social impact but low property impact; healthcare capacity limits |
| Geological Hazards (Landslide, Rockfall, Avalanche) | Slope failures, rockfalls, and snow avalanches occurring in steep terrain, especially along NM-150, Taos Canyon, US-64, and post-fire landscapes. | High | Localized but frequent disruptions in steep canyon corridors High impact areas – SR-68 BLM Land/ Centennial Lake Recreation Area/ Wastewater Facility |
| Dam / Levee Failure | Localized failures of small dams, acequia headworks, and diversion structures caused by erosion, rodents, heavy rain, or post-fire sediment loads. Creates localized flooding and agricultural loss. | Medium | Small-scale failures; no major dam failure history 3 High Hazard Dams If failed 70% of the area would be impacted – specifically vulnerable population |

| Ranking Level | Definition (Taos-Specific & FEMA-Compliant) |
|---------------|--|
| High | Hazards that occur frequently OR have the potential for widespread, severe, and life-threatening impacts. These hazards can significantly affect multiple sectors (life safety, WUI property, transportation corridors, utilities, water systems, economy, and major natural resources). They may trigger cascading hazards such as post-fire flooding, long-duration outages, or countywide emergencies. These hazards require priority mitigation actions. |
| Medium | Hazards that occur occasionally or seasonally, and whose impacts—while potentially serious—are generally localized or manageable with existing response capabilities. These hazards may disrupt transportation, utilities, or the economy but typically do not cause countywide disaster conditions. They require monitoring and targeted mitigation, especially where exposure is increasing. |
| Low | Hazards that occur rarely or have very limited or localized impacts when they do occur. Damage is typically small-scale, short-duration, and does not overwhelm response systems. These hazards do not drive major planning or mitigation decisions, though they may still require maintenance, monitoring, or contingency measures. |

Limitations

Various data sets were utilized in developing the risk assessment incorporated into this planning effort. In attempting to utilize the various sources, discrepancies may exist. The models and information presented in this document do not replace or supersede any official document or product generated to meet the requirements of any state, federal, or program, which may be much more detailed and encompassing beyond the scope of this project. This document is intended for planning purposes only. This document and its contents have been prepared and are intended solely for Taos County and its planning partners' information and use with respect to hazard mitigation planning, incorporating other relevant data into other planning mechanisms as appropriate. While this process utilized the best available science and scientific data, none of the planning partners conducted any scientific analysis within this document, and none should be construed. The process reproduced existing data only in different ways to meet the guidelines and requirements of 44 CFR 201.6. All data layers utilized are identified within the various sections of this document should reviewers wish greater clarification and information. Loss estimates, exposure assessments, and hazard-specific vulnerability evaluations rely on the best available data and methodologies. Uncertainties are inherent in any loss estimation methodology and arise in part from incomplete scientific knowledge concerning natural hazards and their effects on the built environment. Uncertainties also result from the following:

- Approximations and simplifications necessary to conduct a study,
- Incomplete or outdated inventory, demographic or economic parameter data,
- The unique nature, geographic extent and severity of each hazard,
- Mitigation measures already employed, and
- The amount of advance notice residents has available to prepare for a specific hazard event.

These factors can affect loss estimates by a factor of two or more. Therefore, potential exposure and loss estimates are approximate and are for planning purposes only, not life safety measures. The results do not predict precise results and should be used only to understand relative risk. Over the long term, as is customary with all such planning efforts, Taos County and its planning partners will continue to collect additional data to assist in better estimating potential losses associated with other hazards as science increases the validity of data. Some assumptions were made by the planning partnership to capture as much data as necessary to supplant any significant data gaps. One example of this is the valuation of structures within the assessed data. For structures for which data was not provided, the missing information was determined using averages of similar types of structures, determining square footage and applying a multiplier. This process is identified in the Hazus User's Guide. Some hazards are pre-loaded with scientifically determined scenarios which are used during the modeling process. This does not allow for manipulation of the data as with other hazards, such as flood. Therefore, while loss estimates are provided, they should be viewed with this flaw in mind. A much more in-depth scientific analysis is necessary to rely on this type of data with a high degree of accuracy. Readers should view this document as a baseline or

starting point, and information should be further studied and analyzed by scientists and other subject matter experts in specific hazard fields.

Hazard Profiles

This section provides detailed profiles of the hazards identified earlier that require further analysis in Taos County's overall risk assessment. A comprehensive range of resources were reviewed and analyzed to identify hazards posing the greatest threat to the county's unique high-altitude and mountainous environment. These resources included existing reports and plans, insights from local technical experts (including watershed and forest agencies), data from online sources, and essential feedback provided by the public and representatives from municipal and Pueblo jurisdictions during community meetings and surveys. This comprehensive analysis served to identify the most prevalent, potentially damaging hazards for inclusion in the 2026 Taos County Hazard Mitigation Plan (HMP).

Each hazard profile includes a hazard description, causes and impacts, the location and extent of affected areas, historical occurrences, and the probability of future events. These profiles also examine the influence of climate change, such as increasing temperatures and decreased snowpack, that may intensify the effects of hazards like wildfire and drought, which are critical threats to the region's acequia and water resources. The profiles assess impacts on populations with particular attention dedicated to vulnerable groups-especially those residing in isolated, unincorporated mountain communities or tribal lands-who may have limited access to resources or mobility during a disaster. The level of detail for each hazard is based on the availability of historical data, prior cost and damage estimates, and input from members of the Planning Team and jurisdictional representatives. These profiles incorporate specific information regarding historical hazard occurrences and their effects on individual jurisdictions, providing a thorough understanding of the risks facing the county. By integrating these insights, the hazard profiles support the development of effective mitigation strategies to protect county residents, critical infrastructure, and the irreplaceable natural environment.

Hazard: Wildfires

Background & Definition

Wildfire is an unplanned, uncontrolled fire burning in vegetative fuels such as forests, grasslands, brush, or scrublands. Wildfires can ignite from natural causes, such as lightning, or human activities, including campfires, burning debris, equipment use, or arson. Once ignited, wildfire spreads rapidly, especially under dry, windy, and hot conditions, and can threaten lives, homes, critical infrastructure, and ecosystems. In the context of hazard mitigation planning, wildfire hazards are assessed based on the potential for ignition, fuel availability, topography, weather conditions, and proximity of human development to wildland areas—commonly referred to as the wildland-urban interface (WUI). Wildfires may result in direct damage from the flame and heat, as well as secondary hazards such as air quality degradation, flooding, and erosion due to the destruction of vegetation.

Wildfire is a significant natural hazard in Taos County due to its rugged terrain, extensive forested areas, and dry climate conditions. The county is in the southern Rocky Mountains and is home to large tracts of public lands, including parts of the Carson National Forest, as well as private wildland-urban interface (WUI) zones where development meets vegetated areas. Seasonal drought, high winds, and accumulated vegetative fuels contribute to a heightened risk of wildfire, particularly during the late spring and summer months. In recent years, climate variability and increasing temperatures have extended fire seasons and intensified fire behavior across northern New Mexico. Historic wildfires such as the Osha Fire and more recent incidents have underscored the vulnerability of Taos County's communities, infrastructure, and natural resources. Effective wildfire mitigation planning is essential to protect life, property, cultural assets, and the environment, especially as population growth and development expand into high-risk areas.

Location & Extent

Location

Taos County is characterized by a significant wildland-urban interface (WUI), defined by the towering peaks and dense conifer forests of the Sangre de Cristo Mountains, the high-desert mesa surrounding the Rio Grande Gorge, and the lower valleys used for grazing and agriculture. This diverse landscape—dominated by mixed-conifer forests at high elevations and pinon-juniper woodlands at lower elevations—makes the entire County and its' participating jurisdictions highly susceptible to wildfire hazards. Although many fires are small and suppressed quickly by local fire departments and the U.S. Forest Service, the risk of catastrophic fires is severe. Factors such as prolonged, intense drought conditions, exceptionally windy spring seasons, and the accumulation of fuels resulting from forest health issues heighten the potential for large, destructive events like the recent mega-fires seen elsewhere in New Mexico. The threat is

compounded by the proximity of numerous communities, including Taos Ski Valley, Angel Fire, and Red River, to high-hazard wildlands, necessitating ongoing mitigation efforts.

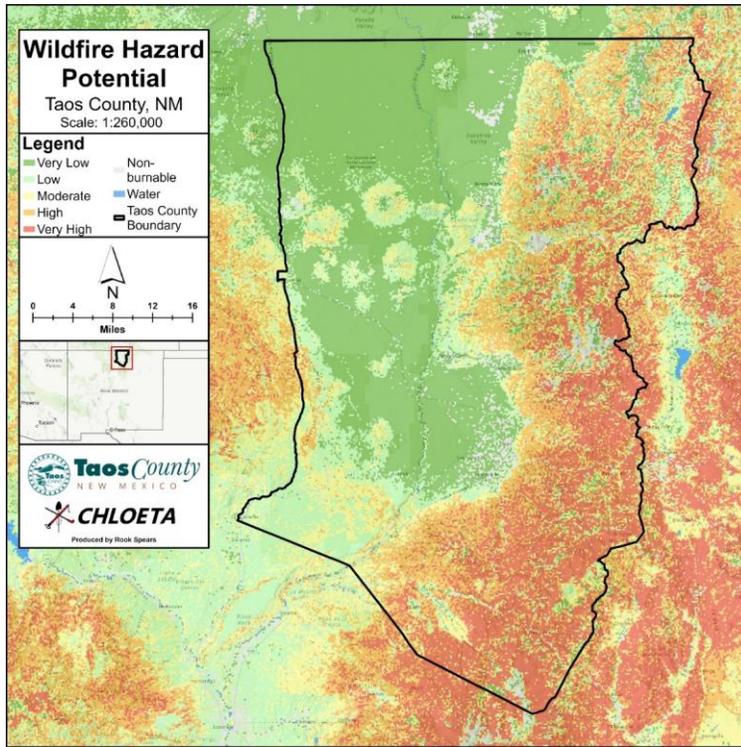


Figure 9. Taos County Wildfire Hazard Potential

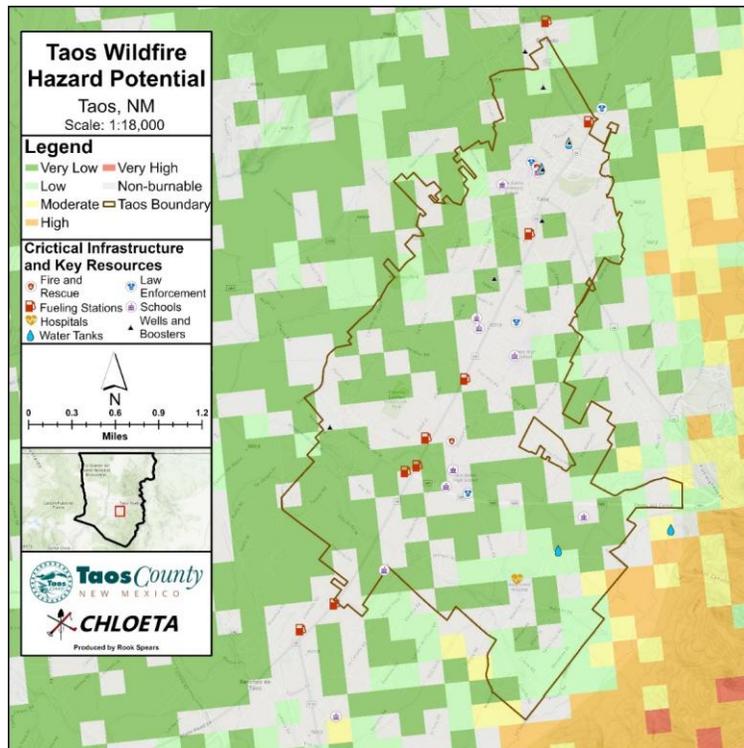


Figure 10. Taos, NM Wildfire Hazard Potential with CIKR

Wildfire activity in Taos County is highly correlated with the location of its most vulnerable ecological and populated areas. The highest risk areas where fire activity is typically concentrated, and where fire suppression can be most challenging, include:

- The Sangre de Cristo Mountains (High-Elevation Forests): This area encompasses the steep, rugged, and densely forested terrain near Wheeler Peak and the Enchanted Circle, including the Carson National Forest land surrounding Taos Ski Valley and Red River. Fire suppression in these remote, high-altitude zones is difficult and can result in the largest, most intense fires.
- The Wildland-Urban Interface (WUI) Corridors: This specifically targets areas where residential development meets the forest edge, particularly along State Road 150 (leading to Taos Ski Valley), the Angel Fire/Valle Escondido area, and the northern communities of Questa and Red River. These areas face the greatest risk of structure loss due to rapid fire spread.
- Pinon-Juniper Woodlands and Mesas: The lower-elevation grasslands and pinon-juniper forests bordering the Rio Grande Gorge are susceptible to fast-moving, wind-driven surface fires, especially in the spring. While less intense than crown fires, they

can quickly threaten communities along the west side of the County and the Taos Pueblo lands.

- Recreation and Tourism Areas: High-visitation sites, campgrounds, and dispersed camping areas within the National Forest and nearby ski resort properties are subject to increased accidental ignition risk from human activity, particularly during dry, high-wind periods in the late spring and early summer.

Extent of Wildfire Impact

While historical data may show smaller average fire sizes, the inherent risks within the planning area's vulnerable ecosystems mean that wildfires pose a high threat for significant, large-scale damage. According to the Wildfire Potential Maps for Taos County, the planning area experiences Very Low to Very High wildfire potential, depending on the elevation, vegetation type, and proximately to the WUI. This variability underscores the need to plan for a full spectrum of fire behavior, from low-intensity surface fires to extreme, fast-moving crown fires. The primary impacts include:

- **Size and Intensity:** While most ignitions are suppressed quickly, the presence of dense, drought-stressed fuels in the Sangre de Cristo Mountains means any escaped fire has the potential to rapidly become a mega-fire (exceeding 100,000 acres). These fires lead to high-intensity, stand-replacing burns that permanently alter the landscape. Severity is further influenced by drought conditions measured through the Keetch-Byram Drought Index, which ranges from 0 (saturated soils) to 800 (extreme drought). During peak fire season, portions of the planning area routinely reach index values in the 500-700 range, indicating conditions capable of supporting rapid fire spread and high-intensity burning.
- **Air Quality and Smoke Impact:** The prevailing winds and high intensity of large fires can transport heavy smoke plumes across great distances, severely impacting air quality for all residents and tourists, especially those with cardiovascular and respiratory conditions, leading to public health crises and lost tourism revenue.
- **Property, Infrastructure, and Economic Damage:** Wildfires in the WUI pose an immediate threat to life and property, requiring costly evacuations and extensive emergency response. Damage includes the loss of homes, critical infrastructure (power lines, transmission towers, communication sites), and the significant economic loss associated with destroyed timber and closure of public lands and recreational areas.
- **Environmental and Post-Fire Hazards:** The burning of high-intensity fires destroys vegetation cover, drastically increasing the risk of post-fire debris flows and flash flooding in burned drainages. This secondary hazard often poses a greater long-term threat to roads, bridges, and water quality in the County's streams and acequias than the fire itself. Areas that experience the highest wildfire potential on county maps are also those most susceptible to severe post-fire hydrologic impacts, amplifying long-term risk.

Wildfire Risk by Season

The wildfire risk in Taos County follows a distinct pattern driven by spring winds and snowmelt timing, with the season typically peaking before the monsoon rains arrive:

- Spring (Late March – Early June): The Critical Peak Season. This period is characterized by rapid snowmelt, drying out of fine fuels, and consistently high, powerful winds. This combination creates the highest potential for rapid fire spread and resistance to control efforts. Most catastrophic wildfires start to occur in late spring before the heavy leaf-out in lower elevations.
- Summer (Mid-June – August): Monsoon Reliance. Fire danger remains high in early summer, especially at lower elevations, until the North American Monsoon system begins (typically around early July). Once the monsoon rains are established, the risk of new, large ignitions drops significantly due to increased humidity and precipitation, though deep timber fires can still smolder.
- Late Summer / Fall (September – November): Secondary Risk. As the monsoon retreats and fuels dry out again, a secondary, lower-intensity fire risk emerges. This risk is usually concentrated in high-elevation areas and is driven by occasional dry frontal passages or human activity (e.g., hunting, campfires) before the first significant snowfalls.
- The inherent vulnerability of Taos County’s forests means fire risk is expected to increase significantly due to climate change, which projects higher temperatures, earlier snowmelt, and longer, more severe drought periods, extending the length of the critical peak season.

Historical Occurrences

Taos County and the surrounding Northern New Mexico region have a history of significant wildfire events, which serve as crucial indicators of current vulnerability. While comprehensive historical fire data is maintained by state and federal agencies, the incidents below highlight both the immediate threat of fire and the severe, long-term post-fire flooding hazards that continue to impact the area.

Table 17. Taos County Wildfire Table, 1995-2025

| Year | Fire Name | Acres Burned | Cause | Response |
|------|-----------|--------------|---------------|--|
| 1995 | Vadito | 165 | Lightning | Focused on ground suppression by Carson National Forest Crews |
| 1995 | VQ | 190 | Unknown/Human | Quick response by local fire units, contained within 24 hours |
| 1996 | Hondo | 7,525 | Lightning | Regional Type 3 Incident Management. Significant resources needed. |

| | | | | |
|------|--------------------------|---------|-------------------------|--|
| 2000 | Copper Hill | 400 | Human Caused | Localized response focusing on containment and resource protection on the Carson National Forest boundary. |
| 2000 | Pot Mountain | 1,010 | Lightning | Monitored and managed by USFS. Allowed to burn in isolated areas under favorable conditions (Wildland fire use) |
| 2001 | Chthinning | 550 | Human Caused | Suppressed by USFS patrol unit. |
| 2003 | Encebado | 5,373 | Lightning | Contained via air support and ground crews; focused on protecting the ridgelines near developed areas. |
| 2005 | Osha Park | 160 | Human Caused | Local VFD and Sheriff's office; suppression near the WUI. |
| 2007 | Double D | 458 | Lightning | USFS Type 4 incident. Required helicopter bucket drops for containment. |
| 2010 | Ojito | 270 | Human Caused | Local crews. |
| 2011 | Osha | 720 | Lightning | Type 3 incident team. |
| 2012 | Cerra Del A | 675 | Lightning | Regional response effort. Type 2 IMT. Pre-evacuation notice issued to nearby communities. |
| 2012 | Midnight | 363 | Lightning | Required specialized crew due to difficult terrain. Focused on establishing indirect containment lines. |
| 2018 | Sardinas Canyon Fire | 2,337 | Human Caused | Muti-agency response including USFS, State forestry, and local units. Used a combination of ground and air attack, including heavy tankers. |
| 2022 | Calf Canyon/Hermits Peak | 341,735 | Escaped prescribed burn | Activated a Type 1 Incident Management Team (National level) and resulted in a Presidential Disaster Declaration. Response involved National Guard deployment, massive aerial resources, and unprecedented investment in post-fire flood control mitigation efforts for the burn scar. |
| 2023 | Elle Valle | 525 | Escaped prescribed burn | Multi-agency response including USFS, volunteer fire departments, hotshot crews, and air support. |

Taos County and the Northern New Mexico region have experienced a significant increase in wildfire activity and intensity driven by persistent drought conditions,

climate change, and high winds. The county's vulnerability is primarily linked to its location within the Wildland-Urban Interface (WUI), dense forest stands, and the threat of large-scale, high-severity fires (megafires).

A key factor in recent history is the unprecedented 2022 Hermits Peak/Calf Canyon Fire, which, while originating in neighboring counties, caused extreme regional impacts, including:

- **Massive Scale:** Became the largest fire in state history, demonstrating the potential for catastrophic high-intensity events near Taos County's southern boundaries.
- **Cascading Hazards:** Created massive post-fire flooding and debris flow risks across burned watersheds, directly threatening downstream communities, infrastructure, and water systems utilized by Taos County residents.
- **Smoke and Air Quality:** Generated prolonged periods of poor air quality throughout the Taos Valley, impacting public health and tourism.

The Hermits Peak/Calf Canyon Fire resulted in a Presidential Disaster Declaration and highlights past industrial impacts and modern climate challenges. Taos County is increasingly vulnerable due to drier conditions, increased tourism, and climate change. Continued fire management efforts, burn restrictions, and community awareness will be essential in preventing future destructive wildfires.

Wildfire response and mitigation in Taos County are highly complex due to the varied ownership and jurisdiction of high-hazard lands. There are multiple departments that play a crucial role in wildfire response, with several agencies and efforts made to prevent fires, including:

- **Carson National Forest:** The U.S. Forest Service (USFS) manages vast tracts of surrounding forest land, particularly in the Sangre de Cristo Mountains, and is the primary agency for wildland fire suppression in these areas. Fire management efforts are coordinated through the Southwestern Area Incident Management Teams (Type 1 and Type 2 IMTs).
- **Taos Pueblo Lands:** Taos Pueblo maintains its own jurisdiction and traditional fire management practices within its boundaries. Coordination with the Pueblo is critical for effective county-wide suppression and evacuation planning, especially given the continuous WUI.
- **Taos County Fire Department:** Local Volunteer Fire Departments (VFDs) and County Fire/EMS focus on initial attack, structure protection, and ensuring community safety in the WUI areas. Their primary role is protecting life and property within established communities.
- **Mitigation Focus:** Management efforts emphasize hazardous fuel reduction projects (thinning and prescribed fire) conducted by the USFS and State Forestry, along with community-level defensible space initiatives (Firewise programs) across private lands.

Future Potential Events (Probability)

Wildfire risk in Taos County is projected to increase significantly in both frequency and intensity across all elevations due to accelerating climate change impacts, persistent drought conditions, and rising temperatures. Unlike historical, low-intensity surface fires that characterized the region, the combination of extreme factors creates the potential for more frequent, large-scale, and catastrophic events.

Observed and Predicted Climate Trends:

- **Extended Fire Season:** Warmer winters and earlier spring thaws are rapidly reducing mountain snowpack, leading to reduced moisture availability and significantly extending the traditional fire season well beyond the summer months.
- **Fuel Aridity:** Prolonged drought and higher average temperatures are drying out both fine fuels (grasses and shrubs) and heavy fuels (trees) faster and more thoroughly, making the entire ecosystem highly susceptible to ignition.
- **Extreme Fire Behavior:** Increased frequency of high-wind events during the critical pre-monsoon period (March–June) will continue to drive rapid fire spread and growth, severely limiting suppression effectiveness, particularly in the rugged terrain of the Carson National Forest.

Contributing Factors to Risk:

- **Increased WUI Exposure:** Continued development within the Wildland-Urban Interface (WUI) throughout the Taos Valley and surrounding areas means that more private property, infrastructure, and cultural resources are directly exposed to fire threat.
- **Ignition Sources:** Increased tourism and year-round outdoor recreation activities increase the likelihood of human-caused ignitions, which remain a major cause of fires in the region, especially during dry seasons.

The likelihood of moderate to catastrophic wildfires (like the 2022 Hermits Peak/Calf Canyon Fire) is increasing. Effective hazard mitigation planning in Taos County must prioritize proactive fuel reduction projects, community defensible space programs, and maintaining robust interagency response capabilities (USFS, State, County, and Taos Pueblo) to address these growing threats.

Table 18. Taos County Future Probability of Wildfire Events

| Wildfire Event | Probability | Expected Frequency |
|-----------------------------------|------------------|--|
| Small Wildfires (1-10 acres) | High | Frequent (Multiple times per season) |
| Moderate Wildfires (10-100 acres) | Moderate to High | Occasional (One or more times per season) |
| Large Wildfires (100+ acres) | Moderate | Possible once every few years, with increasing risk due to climate change. |

| Wildfire Event | Probability | Expected Frequency |
|--|-------------|---|
| Human-caused Wildfires (campfires, debris burning, etc.) | High | Frequent (Primary ignition source in WUI areas) |
| Lightning-caused Wildfires | Moderate | Seasonal (Concentrated during summer monsoons) |

The probability and frequency ratings presented in the table are derived from a composite analysis of observed trends, regional climate projections, and historical wildfire management data specific to Northern New Mexico. These factors are critical for accurate hazard planning in the high-desert and mountainous terrain of Taos County.

These ratings reflect the unique high-risk environment of Taos County by incorporating:

- **Federal and Tribal Jurisdiction:** Data and monitoring reports from the primary authorities responsible for fire response in and around the county, including the Carson National Forest (USDA Forest Service), National Interagency Fire Center (NIFC), and Taos Pueblo land management. The need for interagency cooperation directly informs the complexity of response efforts.
- **Historical Fire Behavior:** Past incidents, including those in the Wildfire History table (like Sardinas Canyon, Midnight, and the recent Hermits Peak Fire), confirm the high frequency of small, human-caused ignitions in the Wildland-Urban Interface (WUI). The data also shows the consistent, though less frequent, risk of large, wind-driven events.
- **Climate Change Trends:** Long-term projections for the Southwestern U.S. highlight a significant increase in Vapor Pressure Deficit (VPD), rising maximum temperatures, and prolonged drought cycles. These factors exponentially increase the available dead and dry fuel loads, directly contributing to the High probability of large, destructive fires.
- **Fire Season Dynamics:** The risk is strongly influenced by the timing of snowpack reduction and the presence of extreme, pre-monsoon wind events, which have historically been the trigger for turning moderate fires into catastrophic, mega-fire events. These conditions justify the High rating for the potential for large fires, despite their lower historical count compared to small fires.
- **As wildfire risks escalate due to climate vulnerability, robust mitigation measures—including enhanced cross-jurisdictional collaboration, targeted Community Wildfire Protection Planning, and increased public education—are critical to safeguarding Taos County’s infrastructure, forests, and communities.**

Climate Change

Climate change is accelerating the frequency and intensity of wildfires in Taos County and the broader Sangre de Cristo Mountain region. Rising average temperatures, persistent and prolonged Southwestern drought cycles, and shifting precipitation

patterns are creating drier, more volatile conditions in forest fuels. Warmer winters and dramatically earlier snowmelt severely limit soil and vegetation moisture, effectively extending the wildfire season beyond its historical late-summer peak, primarily into the dry spring and early summer months.

These dry conditions, combined with extreme weather events—such as dry thunderstorms and extreme, pre-monsoon wind events—increase the likelihood of catastrophic fire spread from both natural and human-caused ignitions. According to regional and federal projections, Northern New Mexico faces an increasing number of High fire danger days due to rising Vapor Pressure Deficit (VPD) and increased heat stress on vegetation. As risks escalate, management efforts involving the Carson National Forest, Taos Pueblo, and Taos County must focus on adaptive forest management, cross-jurisdictional collaboration, and enhanced emergency preparedness to protect communities, ecosystems, and infrastructure from future wildfire and subsequent post-fire flooding risks.

Table 19. Wildfire Climate Change Impact Table

| Impact | Projected Change |
|------------------|---|
| Location | Risk areas are expected to expand into higher elevation forests in Taos County as warmer temperatures and increased evaporative demand persist. |
| Extent/Intensity | Fires are projected to be more intense and cover larger areas, with significantly higher annual acreage burned in the coming decades. |
| Frequency | More frequent drought conditions are expected, leading to an increase in wildfire ignition and occurrence. |
| Duration | The fire season is projected to lengthen by several weeks, with long-duration wildfires becoming more common. |

Vulnerability Assessment

The wildfire hazard potential in the planning area is categorized based on fuel density, topography, climate, and proximity to the Wildland-Urban Interface (WUI), with most areas rated Moderate to High risk. Unlike Eastern environments, Taos County's landscape presents conditions that allow for rapid, high-severity fire spread, justifying the elevated risk ratings across the board.

Western Taos County (Rio Grande Gorge and surrounding mesa):

- **Wildfire Risk:** Moderate to High
- **Hazard Factors:** This area includes the Rio Grande Gorge and surrounding high desert mesa. While vegetation density is lower, the abundance of flash fuels (grasses, brush) combined with frequent extreme wind events creates a high risk for fast-moving grass and brush fires. The risk to infrastructure includes major transmission lines, bridges, and the Town of Taos's western WUI edge.
- **Response Challenges:** Difficult access into the Gorge for ground crews, and rapid fire movement across the flat mesa terrain.

Northern and Eastern Taos County (High-Elevation Forests and WUI):

- Wildfire Risk: High
- Hazard Factors: This region includes the heavily forested portions of the Carson National Forest and the communities of Questa, Red River, and Taos Ski Valley. The dense mixed-conifer and spruce-fir forests, coupled with steep terrain, contribute to the highest risk potential for high-intensity, stand-replacing crown fires. The potential for human-caused ignitions is also high due to tourism and recreational activity.
- Response Challenges: Limited road access, remote locations, rugged terrain, and the sheer density of fuel loads make fire suppression extremely challenging and dangerous. Evacuations in these mountainous valleys can be severely hampered.

Central Taos County (Town of Taos and adjacent communities):

- Wildfire Risk: Moderate to High
- Hazard Factors: This WUI zone includes the Town of Taos, Ranchos de Taos, and El Prado. While the central core is more urbanized, the immediate transition to private land, irrigated agricultural lands (acequias), and adjacent forested areas poses a moderate risk of ignition and a high risk of property damage. The primary concern is protecting essential services, hospitals, schools, and energy infrastructure.
- Response Challenges: High density of structures, complex evacuation logistics, and wind-driven ember cast threatening structures on the urban-wildland boundary.

Taos Pueblo and Traditional Lands:

- Wildfire Risk: High
- Hazard Factors: The Taos Pueblo reservation and tribal lands face significant hazards due to their location bordering the Carson National Forest and the historical, unmanaged fuel loads. The risk threatens both natural resources and culturally significant sites.
- Response Challenges: Response requires critical coordination between Taos Pueblo Fire/Emergency Services and external federal and county agencies, with access governed by tribal sovereignty and protocols.

National Risk Index

The table below outlines the risk levels, probability, and primary impacts of wildfires in Taos County, based on the National Risk Index and historical wildfire trends.

| Hazard Component | Risk Level (Per National Risk Index) | Probability | Primary Impacts |
|------------------|--------------------------------------|-------------|-----------------|
|------------------|--------------------------------------|-------------|-----------------|

| | | | |
|-----------|---------------------|---------------|---|
| Wildfires | Relatively Moderate | Highly Likely | Property damage, agriculture loss, and populations. |
|-----------|---------------------|---------------|---|

Taos County faces a High overall wildfire risk due to a confluence of environmental and human factors. While small-scale human ignitions are the most frequent events, the probability of a large-scale, catastrophic fire (100+ acres) remains High during drought years. Climate change is the primary multiplier of this risk, creating longer, hotter, and drier conditions that extend the fire season well beyond its historical peak and increase fuel volatility. The presence of extreme, pre-monsoon wind events further elevate the hazard, turning moderate fires into rapid, high-intensity disasters that threaten the Wildland-Urban Interface (WUI), major infrastructure, and sensitive watersheds. Proactive measures, stringent enforcement of fire restrictions by federal and local agencies, and increased investment in community preparedness and post-fire flood mitigation are essential to protect the planning area’s vulnerable populations and critical assets.

Expected Annual Loss

The following data highlights the risk, frequency, and economic impact of wildfires in Taos County. While wildfires occur less frequently than other climate-related hazards, their potential for rapid spread, forest destruction, and economic losses is increasing due to climate change. The impacts on forests, air quality, tourism, and emergency response resources make wildfires an important hazard to monitor in the region.

| Hazard | Wildfires |
|-----------------------------|---------------------|
| Historic Rating | Relatively Moderate |
| Exposure Annual Loss Amount | \$3.6M |
| Frequency | 0.43/yr |
| Population Impacted | .07 |
| Agriculture Value Loss | \$285.3M |

Wildfire risk in Taos County is historically High in frequency, driven by the vast presence of the Wildland-Urban Interface (WUI) and frequent human-caused ignitions. Severity is increasing rapidly due to chronic drought, climate-driven fuel desiccation, and extreme wind events. The FEMA National Risk Index (NRI) places the overall wildfire risk at the 96th Percentile nationally. The Expected Annual Loss (EAL) estimates for building and infrastructure damage are substantial, reflected by the 90th Percentile Rank, with an estimated average annual loss to exposed assets rising to \$3.6M. The annualized frequency score of 0.4 confirms that at least one significant event impacting exposed assets is highly probable each year. The impact on the local population would be large due to high risks of evacuation, severe air quality degradation from smoke plumes, and the high social vulnerability of mountain communities. While emergency services and fire stations are strategically placed, the rugged terrain, limited access roads, and single evacuation routes in remote mountain areas continue to complicate suppression and large-scale emergency response efforts, demanding enhanced preventive fuel treatments and community preparedness.

Development Trends

As Taos County continues to experience residential growth and expansion, the long-term impacts of wildfires are becoming an existential concern. This heightened risk is driven by the confluence of climate change, rapid tourism expansion, and shifting land use patterns. Rising temperatures and chronic drought are creating environmental conditions more favorable for large, intense wildfire outbreaks, substantially increasing the risk to high-value forests, legacy residential properties, and critical infrastructure.

The most critical factor is the continual expansion of the Wildland-Urban Interface (WUI). As more second homes, primary residences, and recreational facilities, particularly in areas like Taos Ski Valley, Arroyo Seco, and along the Sangre de Cristo foothills, are built near high-elevation forested lands, the potential for catastrophic fire-related damage escalates. This necessitates the adoption of stringent, county-wide fire management and building code strategies.

Tourism and outdoor recreation, the backbone of the Taos County economy, are intensely vulnerable to growing wildfire risks. Increased visitor traffic in popular areas (e.g., Carson National Forest, Rio Grande del Norte National Monument, and the Taos Pueblo lands) raises the probability of man-made ignitions. This requires rigorous fire prevention education, improved emergency alerting systems, and stricter fire regulations throughout the recreational season. Furthermore, persistent wildfire smoke and degraded air quality not only impact public health but also severely deter visitors, disrupting the crucial summer and fall tourism months.

Infrastructure resilience is a major concern unique to Taos County's mountainous geography. Wildfires threaten crucial utilities like power lines, acequia headworks, and limited transportation corridors. Damage to these assets (including the main routes into and out of mountain communities) can lead to severe disruptions in emergency services and essential utilities, and complicated, multi-day evacuation challenges. To mitigate these rising risks, the County must prioritize investment in fire-resistant construction materials, proactive forest thinning and fuel reduction projects, and the formal integration of fire risk reduction into all future land use and development plans.

Community Lifelines

Wildfires in Taos County pose significant and unique challenges to the seven critical Community Lifelines identified by FEMA, impacting public safety, fragile infrastructure, and essential community services.

- **Safety and Security**-Wildfires severely threaten public safety by endangering residents, emergency responders, and properties. In Taos County, this risk is amplified for communities located deep within the Wildland-Urban Interface (WUI) (e.g., in the Sangre de Cristo foothills and mountainous canyons) where single evacuation routes and difficult terrain make rapid escape challenging. Smoke inhalation, rapid fire spread, and the high social vulnerability of elderly or low-

income residents in remote areas pose serious dangers. First responders face the compounded difficulty of navigating steep, narrow roads and accessing areas with limited water sources, straining limited firefighting resources and increasing the need for mutual aid agreements.

- Food, Water, and Shelter-Wildfires and the resulting post-fire flooding severely disrupt local food and water security. The most critical local threat is to the acequia headworks and irrigation systems, which are easily damaged by heavy sediment and ash runoff following a burn. Damage to these historic systems threatens the core of Taos's traditional agriculture and local water distribution. Water shortages may also arise as fire suppression efforts deplete local supplies. Residents displaced by evacuation orders or fire damage require timely access to emergency shelters and guaranteed distribution of safe food and drinking water.
- Health and Medical-Wildfires place a significant, immediate strain on local healthcare systems, primarily due to prolonged exposure to wildfire smoke. This leads to increased hospital visits for respiratory conditions (like asthma and COPD exacerbation) and long-term cardiovascular issues. The reliance on Holy Cross Hospital (Taos) means that any access restriction on primary arteries (US 64, NM 68) could complicate patient transfers and supply replenishment. Healthcare facilities must maintain robust backup power systems to ensure continuous operation during fire-related power outages, and the county must ensure vulnerable populations have access to clean air spaces.
- Energy (Power & Fuel)-Wildfires pose a direct threat to the regional energy infrastructure. High-elevation power lines and utility poles running through forested and remote canyons are highly susceptible to damage from fire and falling trees. This can cause widespread and prolonged power outages across mountain communities. Energy demand spikes during fire events, as residents rely on air conditioning and air filtration systems to mitigate smoke exposure indoors. Strengthening grid resilience and implementing extensive fuel breaks around key substations are crucial for preparedness.
- Communications-Wildfires can damage telecommunications infrastructure, including cell towers and fiber optic cables, leading to disruptions in emergency communications. In the geographically challenging and already underserved canyon and remote areas of Taos County, wildfires can completely eliminate reliable cell and radio service. Reliable, redundant communication systems are essential for issuing urgent evacuation warnings, coordinating complex multi-agency firefighting efforts, and ensuring the public safety of isolated residents.
- Transportation-Wildfires create significant threats to transportation. Reduced visibility from smoke and immediate infrastructure damage necessitate road closures, especially along critical, limited routes like US 64, NM 518, and NM 150 (to Taos Ski Valley). Since these routes often serve as both the primary supply lines and the only evacuation corridors for multiple communities, fire suppression efforts or post-fire debris flows can delay emergency response and create bottlenecked evacuation delays. Maintaining clear, multi-modal evacuation routes and emergency access is paramount.

- Hazardous Materials-Wildfires risk igniting or exposing hazardous materials, including stored fuels, agricultural chemicals, and household waste, leading to toxic air pollution and water contamination. The potential for hazardous material incidents is heightened in areas where fire occurs near transportation corridors, business centers, or along the banks of the Rio Grande. Proper identification, containment measures, and coordinated HAZMAT response are essential to mitigating environmental and public health risks associated with wildfire-related chemical releases.



Results

Taos County wildfire risk analyses highlight increasing threats posed by climate change, human activity, and evolving land use patterns, affecting public safety, infrastructure, and emergency response systems throughout the planning area. Several key findings emerge from this assessment:

- **Increasing Frequency & Intensity of Wildfires-** Climate change is contributing to longer and more intense wildfire seasons, with rising temperatures and prolonged drought conditions drying out vegetation and increasing fire susceptibility. Human-caused ignitions like campfires and debris burning, continue to be the leading wildfire triggers, while lightning-caused fires are becoming more frequent in higher elevations and remote areas.
- **Vulnerability of Critical Infrastructure-**Wildfires threaten power lines, transportation networks, and communication systems, leading to widespread disruptions and increased maintenance costs. High winds and rapid-fire spread can damage roads, railways, and bridges, while fire-related power outages can disrupt emergency services and essential utilities. Protecting critical infrastructure from fire damage is essential for maintaining community stability.
- **Disproportionate Impact on Vulnerable Populations-**Rural communities, low-income households, and individuals with respiratory conditions face greater health risks due to smoke exposure, evacuation challenges, and limited access to emergency resources. Residents in heavily forested or remote areas may experience longer emergency response times, increasing their vulnerability during wildfire events.
- **Significant Economic Consequences-**Wildfires lead to direct and indirect economic losses across multiple sectors, including forestry, tourism, agriculture, and local businesses. Damage to timber resources, reduced air quality, and park closures can disrupt the local economy, while fire suppression costs and property losses place financial strain on county resources and homeowners.
- **Environmental Degradation & Ecosystem Disruptions-**Wildfires destroy forested landscapes, disrupt wildlife habitats, and degrade air and water quality. Increased fire frequency can lead to loss of biodiversity, soil erosion, and long-term changes in

forest composition. Post–fire flooding and landslides may also exacerbate environmental damage in affected areas.

- Need for Comprehensive Mitigation & Adaptation Strategies-Addressing the growing wildfire threat requires a multi–faceted approach, including enhanced fire prevention efforts, improved emergency preparedness, and proactive land management strategies. Implementing fire–resistant building codes, expanding public awareness campaigns, and increasing resources for local fire departments will be critical in reducing fire risk.
- Importance of Policy Coordination & Regional Collaboration-Managing wildfire risks requires cooperation between local, state, and federal agencies to improve fire response capabilities, enforce fire regulations, and invest in sustainable forestry practices. Strengthening regional emergency response networks and increasing funding for wildfire resilience projects will enhance Taos County’s ability to withstand and recover from fire–related disasters.

Wildfires present growing challenges to Taos County, affecting residents, businesses, ecosystems, and infrastructure. As climate patterns continue to shift, wildfire frequency and severity are expected to increase, requiring proactive planning, investments in fire resilience, and strengthened emergency response efforts to protect public health, economic stability, and community well–being.

Table 20. Wildfire Consequence Analysis Table

| Consideration | Description |
|---------------------------------------|---|
| Public | Wildfire poses a direct threat to life safety through smoke inhalation, burn injuries, or delayed evacuation. Vulnerable populations face heightened risk. |
| Responders | First responders may face dangerous terrain, limited access, and resource strain during prolonged wildfire events, increasing safety and fatigue concerns. |
| Continuity of Operations (Government) | Disruption to transportation routes, power, and communications can hinder emergency services, delay response, and impact continuity of local government operations. |
| Public Confidence in Government | Delayed or poorly coordinated response, inadequate communication, or lack of recovery support can reduce public trust in local and state government institutions. |
| Property | Homes and outbuildings in the WUI are at high risk of damage or destruction, with losses ranging from minor smoke damage to complete structural loss. |
| Facilities & Infrastructure | Wildfire can damage or destroy public buildings, roads, utilities (power lines, water systems), and communication infrastructure, leading to long-term service outages. |
| Environment | Fires damage vegetation, wildlife habitat, and watersheds. Post-fire erosion and sediment runoff degrade water quality and increase downstream flood risks. |
| Economic | Wildfires disrupt tourism, reduce property values, and increase insurance costs. Recovery costs and business interruption place stress on local economies. |

Hazard: Severe Winter Storm

Background & Definition

A severe winter storm is a weather event characterized by a combination of heavy snow, freezing rain, sleet, ice, and/or extreme cold temperatures that can pose serious threats to life, property, and infrastructure. These storms often develop from strong low-pressure systems that bring moisture into colder air masses, particularly in mountainous or high-elevation areas like Taos County. Severe winter weather events may include blizzards, ice storms, snow squalls, or extended periods of subfreezing temperatures. Impacts can include hazardous driving conditions, power outages due to ice accumulation or wind damage, roof collapses from heavy snow loads, and increased risk of hypothermia and frostbite. The National Weather Service issues watches, warnings, and advisories based on specific criteria related to precipitation type, accumulation, and wind chill values. In hazard mitigation planning, severe winter storms are evaluated based on their frequency, intensity, duration, and the vulnerability of exposed populations and infrastructure.

Severe winter storms are a recurring hazard in Taos County, driven by the region's high elevation and mountainous terrain. These storms typically occur between late fall and early spring and can bring heavy snowfall, freezing rain, sleet, high winds, and dangerously low temperatures. The county's diverse topography, which ranges from high desert valleys to alpine peaks exceeding 13,000 feet, contributes to localized storm impacts and challenging weather conditions. Severe winter storms can disrupt transportation networks, cause extended power outages, and isolate rural communities, especially in areas with limited road access or emergency services. Prolonged cold and snow accumulation can strain critical infrastructure, pose health and safety risks, and hinder emergency response efforts. The economic impacts are also significant, particularly for tourism, agriculture, and daily commerce. As climate variability continues to affect storm intensity and frequency, proactive mitigation and preparedness strategies are essential to reduce the vulnerability of Taos County's residents and infrastructure to severe winter weather.

Location & Extent

Location

Taos County is characterized by significant elevations, ranging from the high-desert mesa of the Rio Grande Gorge to the towering, 13,000-foot peaks of the Sangre de Cristo Mountains. This unique and extreme geography makes the entire planning area highly susceptible to Severe Winter Storm hazards, including heavy snow loads, ice accumulation, bitter cold, and high winds.

The risk of critical impact is severe, driven by factors such as:

- **Extreme Cold and Wind Chill:** Prolonged periods of sub-zero temperatures that threaten life safety, cause widespread water line breaks, and strain heating systems.
- **Heavy Snowfall Accumulation:** Rapid accumulation of snow that exceeds the capacity of local removal resources, leading to multi-day road closures and increasing the risk of roof collapse on older or non-engineered structures.
- **Infrastructure Failure:** Ice and high winds that damage overhead power lines, causing extensive outages that are difficult to repair in remote, snow-covered locations.

The threat is compounded by the isolation of mountain communities, necessitating effective pre-positioning of resources and reliable power backup for critical facilities.

Severe Winter Storm activity in Taos County is highly correlated with elevation and critical transportation corridors. The areas where the impact is typically most severe and where emergency response is most challenging include:

- **The High-Elevation Mountain Communities (Red River, Taos Ski Valley, Angel Fire):** These areas experience the highest snowfall and lowest temperatures. They are acutely vulnerable due to limited access roads (often NM 518, NM 150, NM 38) which are prone to closure by heavy drifts or avalanche danger. Residential and commercial structures are exposed to extreme snow loads and ice damage.
- **Transportation Corridors and Passes:** Critical routes such as US 64 (through the Rio Grande Gorge and Palo Flechado Pass) and high-elevation mountain passes are highly susceptible to white-out conditions and prolonged closure, effectively severing supply lines and emergency access to the northern and eastern parts of the county.
- **The Mesa and Valley Floors:** Although lower in elevation, these areas are exposed to severe freezing rain and high-wind events. This combination significantly increases the risk of damaging ice accumulation on power lines and causing wind chill dangerous to livestock and outdoor workers.
- **Critical Infrastructure Sites:** Remote radio repeaters, water treatment facilities, and power substations located at high elevations are exposed to continuous, deep snow and are difficult for maintenance crews to reach during a storm event, leading to extended service outages.

Extent

While Taos County is accustomed to heavy snowfall, the inherent risks associated with its extreme elevation and isolated communities mean that a severe winter storm poses a High Threat for significant, protracted damage and systemic disruption. Across the county, seasonal snowfall varies widely by elevation, from approximately 30-40 inches annually in the Town of Taos to over 150-170 inches annually in the Taos Ski Valley high-elevation zone, demonstrating a broad severity range that must incorporate planning. The primary impacts include:

Duration and Systemic Failure

Unlike rapid onset hazards, the threat from a severe winter storm is defined by its duration and compounding effects. These storms often persist for multiple days, leading to systemic failure stemming from multi-day road closures, extended power loss due to heavy ice and downed lines, and the rapid depletion of emergency fuel and supply inventories across isolated communities. During prolonged cold outbreaks, wind chill values in Taos County can range from -10°F to -40°F, based on the National Weather Service Wind Chill Chart and observed temperatures at high-elevation stations such as Taos Ski Valley and Angel Fire.

Structural Damage and Infrastructure Collapse

The significant moisture content of mountain snow leads to massive snow loads that severely stress and damage building infrastructure. This is a primary concern for older residential and commercial roofs, as well as critical structures like hangars, storage sheds, and livestock shelters. Ice and wind are also primary drivers of damage to overhead power transmission lines, communication relay towers, and antennae, causing widespread service outages that are difficult and dangerous for utility crews to repair in deep snow. Based on the Sperry–Piltz Ice Accumulation (SPIA) Index, Taos County can experience ice accretion ranging from 0.10–0.25 inches during moderate storms (SPIA Level 1–2) to 0.25–0.50 inches or more during high-impact events (SPIA Level 3–4), which is sufficient to cause tree damage, power line failure, and prolonged outages.

Life Safety, Health, and Isolation

The most immediate and severe life-safety threat is posed by extreme cold and wind chill, particularly when coupled with prolonged power outages that render heating systems inoperable. Road closures, combined with the limited access points to mountain communities, can cut off residents from essential emergency medical services, increasing the risk of cold-related injury, illness exacerbation, and even death for vulnerable populations. Wind chill values reaching -30°F to -40°F at higher elevations significantly increase the risk of frostbite within 10-30 minutes of exposure, according to NWS thresholds.

Economic and Supply Chain Disruption

Severe winter storms directly threaten the county's primary economic engine: winter tourism. Prolonged, mandatory closures of critical transportation corridors (like NM 150 to Taos Ski Valley or US 64 over Palo Flechado Pass) halt commercial traffic and can temporarily cease tourism revenue. The costly recovery involves extensive snow removal, infrastructure repair, and managing the secondary risk of spring flooding due to rapid snowmelt. Given the county's snowfall range, from 30-40 inches in valley communities to 150+ inches in alpine zones, transportation impacts vary widely but can reach extreme severity in high-elevation corridors, where multi-foot storm totals are common.

Historical Occurrences

Taos County and the surrounding Northern New Mexico region have a history of significant severe winter weather events, which serve as crucial indicators of current vulnerability. While comprehensive historical storm data is maintained by state and federal agencies, the incidents below highlight the threats posed by heavy snow, extreme cold, and damaging ice, as well as the cascading failures that impact power, transportation, and structural integrity throughout the area.

Table 21. Severe Winter Storm Historical Events Table, 1965-2025

| Year | Event/Duration | Impacted Assets | Damage |
|------|--------------------------|--|---|
| 1967 | Blizzard | Transportation, Isolation, Agriculture | Significant isolation of northern communities. Livestock losses were reported. No confirmed fatalities in Taos County. |
| 1993 | Severe Winter Storm | Transportation, Power, Tourism | Widespread road closures and travel disruptions across the county. Ski resorts temporarily affected. Damage primarily to non-engineered structures (sheds, barns) from snow load. |
| 2003 | Blizzard | Infrastructure, Transportation, Supply Chain | Widespread power outages lasting several days due to ice/snow-downed lines. Major disruptions to holiday travel and tourism. High cost of emergency snow removal. |
| 2011 | Severe Winter Storm/Cold | Public Utilities, Roads, Emergency Services | Federal Major Disaster Declaration (DR-1962). Public Assistance required for debris removal and infrastructure repair. County per capita impact noted. |
| 2019 | Blizzard | Education, Health & Medical Access, Transportation | Multiple days of school and business closures. US 64 closed for extended periods. Increased demand for emergency services due to cold-related injuries and inability to access medical care. |
| 2021 | Snow Squall & High Winds | Power Lines, 911 Towers, Private Property | State Emergency Declaration. Damage from high winds/snow load. \$750,000 in state funds allocated for public recovery efforts. |
| 2023 | Extreme Cold Wave | Life Safety, Utilities | Although snow was moderate, extreme sub-zero temperatures caused widespread water pipe bursts in homes and businesses, resulting in high property damage costs. Significant strain on heating fuel suppliers. |

Taos County's history with severe winter weather is marked by several high-impact events that demonstrate the hazard's potential for systemic disruption. The most significant incidents required official disaster declarations due to the scale of damage and service interruption. For instance, the February 2011 Severe Winter Storm and Extreme Cold led to a Federal Major Disaster Declaration (FEMA-1962-DR), underscoring the severe impact on public utilities and roads across the county and necessitating federal Public Assistance funds for recovery. More recently, the December

2021 Snow Squall and High Winds prompted a State Emergency Declaration after high winds and heavy snow caused damage to power lines, 911 communication towers, and private property, leading to the allocation of in state recovery funds. Beyond these declarations, previous major events like the 1967 Major Blizzard (which caused significant isolation and livestock losses) and the 2003 Christmas Blizzard (which resulted in widespread, multi-day power outages) highlight the persistent threat of isolation, infrastructure failure, and cold-related property damage throughout the region.

Future Potential Events (Probability)

The likelihood of severe winter storms in Taos County, encompassing heavy snow, extreme cold, high winds, and icing, is assessed as High, with the potential for Catastrophic consequences due to the county's mountainous terrain and isolated communities. While the total number of snow days may decrease over time, the intensity and damaging nature of individual events are projected to increase due to a shift in climate patterns.

Observed and Predicted Climate Trends:

- **Increased Event Extremity:** Although regional climate models project a decrease in total winter season length, they predict that the storms that do occur will be more intense, delivering heavy, wet snow (higher moisture content) and accompanying high winds, significantly increasing snow load and the potential for structural damage and widespread power outages.
- **Volatile Freeze-Thaw Cycles:** More frequent mid-winter and late-season temperature swings will lead to increased icing, especially on roads and power lines, which creates hazardous driving conditions and causes cascading infrastructure failure. This volatility also elevates the risk of spring runoff and associated flash flooding following rapid snowmelt (a secondary hazard).
- **Prolonged Extreme Cold:** While overall winter temperatures may rise slightly, the frequency and severity of extreme cold snaps, often driven by Arctic air masses, are not expected to decrease. These prolonged periods of sub-zero temperatures pose a continuous threat of pipe bursts, utility strain, and increased risk of cold-related injury or death, particularly in areas reliant on fuel delivery or without reliable heating.

Contributing Factors to Risk:

- **Vulnerability of Infrastructure:** Aging overhead utility lines and isolated repeater sites are highly exposed to snow and ice load damage, making recovery efforts long and difficult, especially in remote mountain communities like Red River and Taos Ski Valley.

- **Isolation and Access:** The mountain roads leading to high-elevation communities (the Enchanted Circle) are easily closed and often remain inaccessible for days during and immediately following severe events, severely restricting the ability of emergency services to provide aid or critical supply deliveries.
- **Dependence on Propane/Fuel Oil:** Many rural households rely on delivered fuels (propane, oil). Prolonged road closures and isolation during a severe storm can interrupt this supply, creating a life-safety hazard during extended cold waves.

The probability of experiencing a major or catastrophic severe winter storm (like the 2011 or 2021 declared events) remains high, requiring continuous investment in infrastructure hardening, improved road clearing capacity, and robust public warning systems to mitigate the potential for major economic loss and life-safety impacts across the planning area.

Climate Change

Climate change in Taos, specifically in the Sangre de Cristo region, is fundamentally altering the winter hazard profile. While warmer winters and reduced snow days are expected at lower elevations, the remaining storms are projected to be more extreme and volatile. Shifting storm tracks and increased atmospheric moisture mean that when severe storms do occur, they will likely deliver heavier, wetter snow and more frequent icing events, drastically increasing the risk of snow load damage and power infrastructure failure. Furthermore, the variability of temperatures will exacerbate freeze-thaw cycles, leading to hazardous road conditions and heightened risk of post-storm runoff and secondary hazards like flooding and slope instability.

| Impact | Projected Change |
|------------------|---|
| Location | The vulnerability of critical lifeline infrastructure (power, communications) is projected to increase, specifically impacting isolated, high-elevation mountain communities and remote mesa areas relying on above-ground utilities. |
| Extent/Intensity | Storms are projected to deliver higher snow water equivalents (S.W.E.) and more frequent severe icing events, dramatically increasing the risk of snow load-related building collapse, downed power lines, and prolonged utility outages. |
| Frequency | While the <i>total number</i> of snow days may decrease, the frequency of high-impact, catastrophic events (those meeting disaster declaration thresholds) is expected to increase due to shifting and intensifying storm tracks. |
| Duration | The duration of post-event isolation and the time required for road/utility restoration are projected to lengthen, particularly following freeze-thaw cycles that compound damage and hinder access for responders. |

Vulnerability Assessment

Extreme cold, heavy snowfall, and resulting ice accumulation pose a multifaceted threat across the planning area. The impacts of these severe winter weather components are categorized into the following key areas:

- **Loss of Human Life and Injuries:** Severe winter storms, particularly prolonged cold waves, pose direct threats to human life, especially for vulnerable populations (the elderly, young children, individuals with pre-existing health conditions, and low-income households). Extreme cold significantly heightens the risk of hypothermia and frostbite, while snow and ice conditions increase accidents related to falls and transportation.
- **Displacement of Communities:** Infrastructure failures caused by severe winter weather can lead to temporary or prolonged displacement. Widespread power outages and heating system failures due to extended cold or fuel delivery interruption force residents to relocate to designated warming shelters. Low-income communities and those in poorly insulated homes face the greatest displacement risks.
- **Infrastructure Damage:** Cold and ice have significant impacts on critical infrastructure. Severe icing and heavy, wet snow loads stress the energy and communication systems, leading to downed power lines and extensive blackouts. Extreme cold causes frozen and burst water/sewer pipes, while freeze-thaw cycles accelerate road deterioration, significantly increasing maintenance and repair costs across the county's extensive road network.
- **Economic Loss:** Severe winter weather results in major economic losses, particularly in tourism (due to road closures and cancelled visits), construction (due to frozen ground and unsafe conditions), and agriculture (due to livestock loss and crop damage). Business closures due to inaccessibility or power loss result in lost revenue and productivity.
- **Strain on Emergency Services:** Snow, ice, and extreme cold significantly increase demand on emergency services. They lead to higher emergency room visits for cold-related illnesses and injuries, while road closures and impassable conditions impede the rapid response capabilities of fire, EMS, and law enforcement agencies.

The vulnerability of Taos County to severe winter storms is primarily determined by altitude, road access, dependence on overhead utilities, and the isolation of its mountain and mesa communities. The risk is uniformly rated as High to Extreme across the county, with the greatest life-safety and economic vulnerability concentrated in areas with limited access.

Northern and Eastern Taos County (High-Elevation Forests and Communities)

- **Vulnerability Rating:** Extreme
- **Vulnerability Factors:** This region includes high-elevation towns such as Red River and Taos Ski Valley, as well as communities along the Enchanted Circle (e.g., Questa). The steep topography and high snow loads lead to rapid accumulation and

significant risk of road closures, avalanche danger, and structural collapse (especially on older buildings). Exposure to high winds and ice on overhead lines results in the most frequent and longest-duration power and communications outages.

- **Response Challenges:** Search and rescue and utility repair access is severely hampered by deep snow and closures on State Roads (NM-38, NM-150), leading to prolonged isolation and life-safety concerns for residents and tourists.

Western Taos County (Rio Grande Gorge and Mesa)

- **Vulnerability Rating:** High
- **Vulnerability Factors:** This area includes the mesa west of the Rio Grande and communities like Arroyo Hondo and Valdez. While snow totals may be lower than in the mountains, this region is highly susceptible to extreme wind chill and ground blizzards (blowing snow), which reduce visibility to near zero and lead to rapid icing. Above-ground utilities crossing the exposed mesa are highly vulnerable to high winds, causing widespread, but often shorter-duration, outages.
- **Response Challenges:** Reduced visibility on US-64 and NM-522, combined with extreme cold, makes emergency response and vehicle recovery dangerous.

Central Taos County (Town of Taos and Adjacent Communities)

- **Vulnerability Rating:** Moderate to High
- **Vulnerability Factors:** This zone encompasses the Town of Taos, Ranchos de Taos, and El Prado. Vulnerability is primarily driven by the need to protect critical facilities (Holy Cross Hospital, schools, governmental centers) and the complexity of maintaining essential services. Heavy snow and icing events risk disrupting supply chains and causing local power outages, but the primary roads are prioritized for clearing. Vulnerability is heightened in manufactured home communities and older structures not built to modern snow load codes.
- **Response Challenges:** Managing shelter capacity, coordinating debris removal (trees and power lines), and efficiently clearing municipal streets without disrupting essential services.

Taos Pueblo and Traditional Lands

- **Vulnerability Rating:** High
- **Vulnerability Factors:** Tribal lands bordering the national forest are exposed to significant snow load and extreme cold hazards. Vulnerability is linked to the potential for utility service disruption, as well as the need to protect historical structures that may not be engineered for modern snow loads. Isolation of certain traditional areas during major snow events is also a key concern.
- **Response Challenges:** Response requires critical coordination between Taos Pueblo Emergency Services and external county and state agencies, ensuring that all recovery efforts respect tribal sovereignty and protocols.

National Risk Index

The FEMA National Risk Index (NRI) classifies the risk of natural hazards across the United States. For Taos County, the NRI assigns a relatively moderate overall risk rating to severe winter weather due to its historical frequency and the high level of community vulnerability.

The risk rating is calculated using three main components:

1. **Expected Annual Loss (EAL):** This component measures the average annual economic loss (property and crops) expected from severe winter storms. Due to the high value of tourism and recreational infrastructure in the Taos Ski Valley and Red River areas, the EAL for this hazard is relatively high.
2. **Social Vulnerability:** This component assesses how susceptible a community is to human loss and how difficult it is for them to recover. Taos County scores highly in this area due to factors like the number of older or low-income residents, reliance on dispersed rural housing, and dependence on delivered heating fuels (propane/fuel oil).
3. **Community Resilience:** This component evaluates the county's ability to withstand and recover quickly from a hazard event. While the county has active emergency management, the isolated nature of many communities and the difficulty in accessing high-elevation areas during a severe storm lower the overall resilience score.

Taos County faces a relatively moderate overall risk from severe winter weather due to the confluence of high hazard frequency and significant community vulnerability. The probability of a high-impact storm (heavy snow, extreme cold, or damaging icing) remains high every winter, and climate trends are increasing the intensity of these individual events. Extreme cold and prolonged isolation due to impassable roads are the primary life-safety threats, disproportionately affecting elderly and low-income populations reliant on overhead utilities and heating fuel deliveries. Proactive measures, stringent enforcement of snow load building codes, utility hardening efforts, and increased investment in emergency shelter and warming center capacity are essential to protect the county's vulnerable residents and critical infrastructure.

Table 22. Taos County Winter Weather Risk Levels Table

| Winter Weather Component | Risk Level Per NRI | Probability | Primary Impacts |
|--------------------------|---------------------|---------------|---|
| Winter Weather (General) | Relatively Moderate | Highly Likely | Travel disruptions (road closures on mountain passes), emergency response delays, isolation of rural communities. |
| Ice Storms | Very Low | | Isolated power outages (especially in forested areas), treacherous |

| | | | |
|--------------|---------------------|--|---|
| | | | road conditions at lower elevations, tree damage. |
| Cold Waves | Relatively Moderate | | Hypothermia, frostbite, heating system failures, impact on vulnerable populations, livestock vulnerability. |
| Strong Winds | Very Low | | Blowing snow, whiteout conditions, power line failures, structural damage (especially in exposed areas like the Taos Plateau). |
| Blizzards | No data | | Near zero visibility, prolonged road closures (including major routes like US 64, NM 68), strandings, increased accident risk. |
| Heavy Snow | No data | | Extensive road closures (especially mountain passes), infrastructure strain (roofs, utilities), limited access to remote areas, avalanches (in specific terrain). |

Severe Winter Weather Risk

The severe winter storm risk in Taos County follows a distinct pattern driven by regional cold air masses and mountain moisture delivery:

Early Winter (November – December): Infrastructure Strain

This period is characterized by the first significant snowfalls and sudden, sharp drops in temperature. The primary risk involves the transition to deep-winter conditions, including localized icing events on roadways (particularly bridges and shaded areas) and the potential for early-season power outages due to heavy snow and wind damaging unprepared electrical infrastructure.

Peak Winter (January – February): The Critical Peak Season

This period consistently presents the highest risk, marked by the deepest snowpack accumulation, lowest temperatures, and most extreme wind chill events. The combination of sustained cold and heavy snow places maximum strain on heating fuel reserves, essential services, and emergency response capabilities. This is when prolonged, multi-day transportation closures and high snow loads threatening structural integrity are most likely.

Late Winter / Early Spring (March – April): Secondary Risk & Avalanche Danger

As temperatures begin to fluctuate, the snow often becomes wet and heavy, increasing the risk of snow load-induced structural failure. More importantly, this period introduces a high secondary risk of avalanches in the backcountry and along exposed mountain roads (e.g., NM 150). The freeze-thaw cycle also contributes to significant post-storm flash flooding in valley areas as mountain drainages melt rapidly.

The inherent sensitivity of Taos County’s water resources and tourism economy means severe winter storm risk is expected to shift due to climate change. Projections indicate less reliable, smaller total snowpacks, but with more intense, infrequent storm events and highly volatile freeze-thaw cycles, leading to a higher frequency of damaging ice events and spring flood hazards.

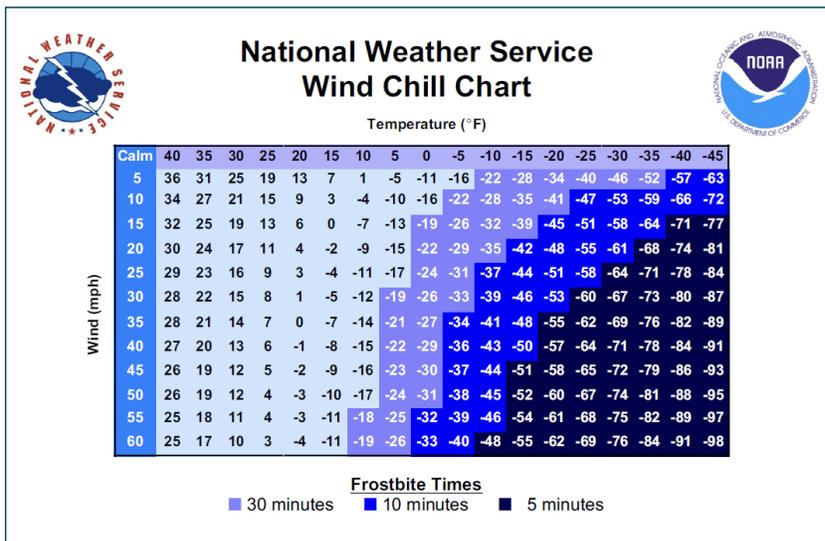


Figure 11. National Weather Service (NWS) Wind Chill Chart

Expected Annual Loss (EAL)

The table below presents Taos County’s Expected Annual Losses for property, agriculture, and population impacts based on FEMA’s National Risk Index (NRI) data.

Table 23. Hazard Mitigation Plan Potential Loss from Snow Events Table

| Event Type | Annual Expected Loss (Property) | Annual Expected Loss (Agriculture) | Annual Expected Loss (Population-Fatalities/Injuries) |
|------------|---------------------------------|------------------------------------|---|
|------------|---------------------------------|------------------------------------|---|

| | | | |
|--------------------------|---------|-------|---|
| Winter Weather (General) | \$2,033 | \$786 | o-Fatalities, minor injuries expected (primarily travel-related) |
| Ice Storm | \$48 | N/a | o-Increased risk of injuries due to falls and utility power outages causing indoor carbon monoxide risk. |
| Cold Wave | \$357 | N/a | o.02-Hypothermia and frostbite risk for vulnerable populations; increased need for sheltering and utility assistance. |
| Strong Wind | \$3,577 | \$0 | o-Potential for injuries due to falling trees and wind-whipped debris; elevated risk on the Taos Plateau. |
| Blizzard | N/a | N/a | High risk of travel-related injuries/strandings; isolation of mountain communities and emergency response delay. |
| Heavy Snow | N/a | N/a | Roadway accidents & infrastructure strain; high potential for localized avalanches in high-elevation areas. |

Development Trends

Winter weather profoundly shapes Taos County's development, influencing the local economy, critical infrastructure, and long-term resilience planning. The county relies heavily on winter tourism, high-altitude agriculture, and mountain transportation networks, all of which face heightened, interconnected risks from severe winter events, including heavy snowfall, extreme cold, and strong winds across the Taos Plateau.

A major driver of the county economy, tourism, is highly dependent on reliable winter weather conditions, especially for major assets like the Taos Ski Valley and ancillary outdoor recreation businesses. While consistent, high-quality powder is crucial for winter tourism success, unpredictable weather patterns—such as prolonged drought periods, unseasonably warm temperatures causing low-snow conditions, or extreme blizzards that close major arteries like the Taos Canyon (US 64)—can severely impact visitor numbers and revenue.

The agricultural sector, particularly in the lower valleys and historical communities, is extremely vulnerable to winter weather. Extended periods of severe freezing temperatures and heavy snow can threaten livestock, damage essential farm equipment, and dramatically increase utility and feed costs. Critically, fluctuating winter patterns, including warm spells followed by hard freezes, impact the stability of the vital snowpack, which is the primary source of water recharge for the region's acequia irrigation systems and municipal water supply through the dry summer months.

Infrastructure development must rigorously account for the challenges posed by severe winter storms, particularly concerning high-mountain roads, bridges, and utilities. Avalanches and prolonged road closures on major mountain passes isolate remote and tribal communities, delaying emergency response and essential supply delivery. The constant cycle of snow, ice accumulation, and melt causes significant pavement damage and erosion, leading to increased maintenance costs and long-term damage to the transportation network that connects the northern New Mexico region.

Environmental conservation and ecosystem stability in the Carson National Forest and the Rio Grande Gorge are directly affected by changing winter weather. Frequent freeze-thaw cycles and more intense winter windstorms contribute to soil erosion, tree mortality, and disruptions to local wildlife habitats. The decreasing reliability and earlier melt of the mountain snowpack fundamentally impact surface water resources, directly affecting local biodiversity and creating long-term drought conditions that amplify the risk of subsequent summer hazards like wildfire.

Community Lifelines

Severe winter storms, encompassing extreme cold, heavy snow, and icing, pose significant and unique challenges to the seven critical Community Lifelines identified by FEMA, impacting public safety, fragile infrastructure, and essential community services across the planning area:

- **Safety and Security:** Severe winter weather directly threatens public safety through the risks of hypothermia, frostbite, and carbon monoxide (CO) poisoning from improper indoor use of generators or heating sources. Road closures on mountain routes (NM 150, NM 38) impede law enforcement, fire, and EMS access to remote, isolated communities, severely straining limited Search and Rescue resources during whiteout conditions or deep snow.
- **Food, Water, and Shelter:** Prolonged power outages compromise well pumps and municipal water systems, leading to water access issues and widespread pipe bursts in structures. The total closure of critical transportation corridors halts the delivery of essential supplies, especially propane and fuel oil for heating, creating a life-safety issue for residents reliant on delivered fuels. The need for mass warming centers and emergency shelters increases significantly during extended extreme cold events.
- **Health and Medical:** Extreme cold and icy conditions lead to increased emergency calls for hypothermia, cardiac stress, and trauma from falls/accidents. Impassable

roads severely restrict patient transfers to Holy Cross Hospital in Taos and prevent the resupply of clinics and pharmacies in remote areas. All healthcare facilities must maintain robust backup power to operate essential life-saving equipment during widespread power grid failure.

- **Energy (Power & Fuel):** This lifeline is highly vulnerable. Heavy, wet snow and severe icing cause widespread failure of exposed overhead power lines and utility poles, particularly in high-wind and canyon areas. The extreme cold strains system capacity, and lack of road access often prevents utility crews from reaching and repairing damaged remote lines for multiple days, resulting in prolonged, multi-day outages across the county.
- **Communications:** Downed utility infrastructure often simultaneously takes out telecommunication systems. Icing on high-elevation cell towers and repeaters compromises service, and a lack of redundant backup power at remote sites can cause a complete communication blackout. This severely hinders the dissemination of urgent warnings, delays coordinated emergency response, and cuts off isolated residents from help.
- **Transportation:** Heavy snowfall, ice, and ground blizzards close major corridors (US 64, NM 522) and critical mountain routes (NM 150, NM 38). These closures severely delay snow removal, fuel/food/medical deliveries, and prevent emergency services from reaching victims. The county's economy, dependent on winter tourism, suffers significant losses when roads become impassable.
- **Hazardous Materials:** The primary HazMat risk is carbon monoxide (CO) poisoning associated with residents relying on generators or unvented heaters indoors during power outages. Secondary risks include potential spills or rollovers of commercial vehicles (carrying fuel, chemicals) on icy, mountainous sections of major highways, requiring a delayed and complex response in hazardous conditions.

Winter storms disrupt all seven FEMA community lifelines with energy, transportation, and health services being the most severely impacted. Strengthening emergency preparedness, upgrading infrastructure resilience, and improving response coordination are essential for mitigating these risks. By investing in weather-resistant energy grids, improving snow removal operations, and enhancing emergency communication networks, Taos County can better protect its residents and maintain essential services during severe winter weather events.

Results

Severe winter weather risk analyses highlight increasing threats posed by climate change, extreme cold, and the physical constraints of mountain infrastructure in the planning area, critically affecting public safety, essential utilities, and emergency response systems. Several key findings emerge from this assessment:

- **Increasing Intensity & Volatility of Winter Storms:** Climate change is contributing to more intense snowfall events and frequent freeze-thaw cycles, leading to heavier, wetter snow (high snow load risk) and more damaging ice accumulation on power

lines and roads. Extreme cold snaps continue to pose a high risk of life-safety concerns and infrastructure failure.

- **Extreme Vulnerability of Critical Infrastructure:** Severe winter storms pose a direct and escalating threat to overhead power lines, communication towers, and water supply systems. Damage from heavy snow loads, ice, and wind can lead to widespread, prolonged power and communication outages across isolated mountain and mesa communities. Extreme cold causes extensive damage from frozen and burst pipes.
- **Disproportionate Impact on Vulnerable Populations:** Rural communities, low-income households, and the elderly face increased health risks due to hypothermia, reliance on delivered heating fuels (propane), and prolonged isolation when roads are impassable. Residents in remote areas experience significantly longer emergency response times, increasing their vulnerability during a storm or extended outage.
- **Significant Economic Consequences:** Severe winter weather results in major economic losses in the tourism and recreation sectors due to road closures and unsafe conditions. Property damage from pipe bursts, snow load collapse, and utility repairs places significant financial strain on county resources and individual homeowners.
- **Environmental and Secondary Hazard Risks:** The rapid accumulation of snow and subsequent volatile temperature swings increase the risk of post-storm flooding during rapid thaw events. Severe cold and heavy snow can impact local wildlife and agricultural operations.
- **Need for Comprehensive Mitigation & Adaptation Strategies:** Addressing the growing severe winter threat requires a multi-faceted approach, including utility hardening (undergrounding lines), improved road clearing capacity, investment in backup power for critical facilities, and strengthening emergency shelter/warming center networks. Implementing and enforcing building codes that account for high snow loads will be critical in reducing property damage.
- **Importance of Policy Coordination & Regional Collaboration:** Managing severe winter risks requires cooperation between local, state, and federal agencies to improve road and utility recovery capabilities, pre-position necessary resources (salt, heavy equipment), and invest in resilient infrastructure projects. Strengthening regional emergency response networks will enhance Taos County's ability to withstand and recover from severe winter disasters.

Severe winter storms present growing challenges to Taos County, significantly affecting residents, businesses, and critical infrastructure. As climate patterns continue to shift toward more volatile and intense events, proactive planning, targeted investments in resilience, and strengthened emergency response efforts are essential to protect public health, economic stability, and community well-being.

Hazard: Flooding (Flash & Ravine)

Background & Definition

Flooding is the overflow of water onto normally dry land, often resulting from excessive rainfall, rapid snowmelt, dam or levee failure, or obstruction of natural drainage. In Taos County, flooding typically occurs in two primary forms: flash flooding and riverine flooding. Flash flooding is a sudden and intense flood event that occurs within six hours of heavy rainfall or other rapid water input, often in steep or burned terrain with low infiltration capacity. It is particularly dangerous due to its speed and unpredictability. Riverine flooding develops more slowly and occurs when rivers, streams, or creeks exceed their banks due to sustained precipitation or upstream runoff, potentially inundating wide areas over hours or days. Both types of flooding can cause significant damage to infrastructure, homes, roads, and natural systems. Flood risk is influenced by factors such as topography, soil saturation, land use, and drainage capacity. In hazard mitigation planning, flood hazards are assessed using historical flood data, FEMA flood maps, and hydrologic modeling to identify vulnerable areas and prioritize risk reduction measures.

Flooding is one of the most frequent and damaging natural hazards in the planning area, primarily occurring as either flash flooding or riverine flooding. The county's mountainous terrain, steep canyons, and high desert environment contribute to rapid runoff during periods of intense rainfall or rapid snowmelt. Flash floods can develop within minutes to hours of heavy precipitation, particularly in narrow valleys, arroyos, and burn scar areas, where soil infiltration is limited. Riverine flooding occurs when rivers, creeks, or streams, such as the Rio Grande, Rio Pueblo de Taos, and Rio Hondo, overflow their banks due to prolonged rainfall or upstream snowmelt. Flooding in Taos County can damage roads and bridges, inundate homes and businesses, disrupt utilities, and isolate rural communities. Historic flood events have highlighted vulnerabilities in both natural and built environments, including underdeveloped drainage systems and unregulated development in flood-prone areas. As climate patterns shift and wildfire burn scars increase runoff potential, the threat of flash and riverine flooding is expected to intensify, necessitating ongoing mitigation and resilience efforts.

Location & Extent

Location

Flooding hazards are geographically widespread and a concern across the entire planning area, but concentration of risk is highest in the following areas:

Table 24. Concentration of Risk Table

| Zone | Primary Flood Type | Vulnerability Factors |
|------|--------------------|-----------------------|
|------|--------------------|-----------------------|

| | | |
|------------------------------|------------------------------|---|
| Mountain Canyons & Drainages | Flash, Post-Fire Debris Flow | Steep slopes, limited evacuation routes, and all areas immediately downstream of major wildfire burn scars. Includes Taos Ski Valley and Red River areas. |
| Rio Grande Corridor | Riverine/Overbank | Low-lying areas along the Rio Grande's floodway, including campgrounds, agricultural fields, and sections of US 64 and NM 68. |
| Acequia Systems & Valleys | Riverine, Irrigation Breach | The entire network of historic acequias and irrigation ditches, which are highly susceptible to overtopping, breaches, and catastrophic damage from sediment/debris flow, threatening local water supply and agriculture. |
| Mesa & Arroyos | Flash | Developed areas along major arroyo beds (e.g., north of the Town of Taos) which can quickly fill during monsoon downpours, generating high-velocity sheet flow and deposition. |
| Town of Taos | Flash, Riverine | Low-lying areas near the Rio Fernando de Taos and the Hondo River confluence, subject to both flash events and overbank flooding. |

Extent

The extent of flooding is determined by the depth, velocity, and duration of inundation, which vary significantly by flood type:

- **Flash Flooding Extent:** Characterized by extreme velocity (up to 10+ feet per second), minimal warning time (minutes), and often includes a high concentration of sediment, rock, and woody debris (hyper-concentrated flow). While the duration is short (hours), the structural damage is catastrophic due to impact force and scouring. In Taos County's steep drainages, such as the Rio Fernando, Rio Hondo, and Rio Grande Gorge tributaries, flash-flood depths can range from 1-3 feet in wider channels to 5-10+ feet in narrow canyons, according to NWS flash-flood severity thresholds and regional USGS modeling. Velocities commonly exceed 5-10 ft/s, with debris-laden flows capable of exerting destructive forces equivalent to small landslides.
- **Post-Fire Debris Flow Extent:** The most destructive form of flooding. These flows are dense slurries of water, mud, rocks, and burned logs, capable of destroying concrete structures, washing out roads/bridges, and completely filling acequia headworks. Velocity and destructive potential are maximal. USGS post-fire debris-flow probability models for northern New Mexico indicate that debris-flow depths can reach 3-15 feet depending on slope, burn severity, and watershed size. Peak flow velocities may exceed 10-20 ft/s, with boulder-laden surges capable of overtopping culverts, filling channels, and burying roadways under several feet of sediment.
- **Riverine/Overbank Extent:** Typically features slower velocity but longer duration (days or weeks), leading to widespread saturation, mold/mildew damage, and erosion of banks and agricultural land. Inundation depth can range from a few inches to several feet across floodplains. Along the Rio Grande, Rio Pueblo de Taos, and Rio Hondo, FEMA Flood Insurance Rate Maps (FIRMs) show typical inundation depths of 1-4 feet in 1%-annual-chance (100-year) floodplains, with localized depths exceeding 5-6 feet in confined overbank areas. Flood duration can range from 24

hours in smaller tributaries to multiple days or weeks during sustained snowmelt or prolonged monsoon events.

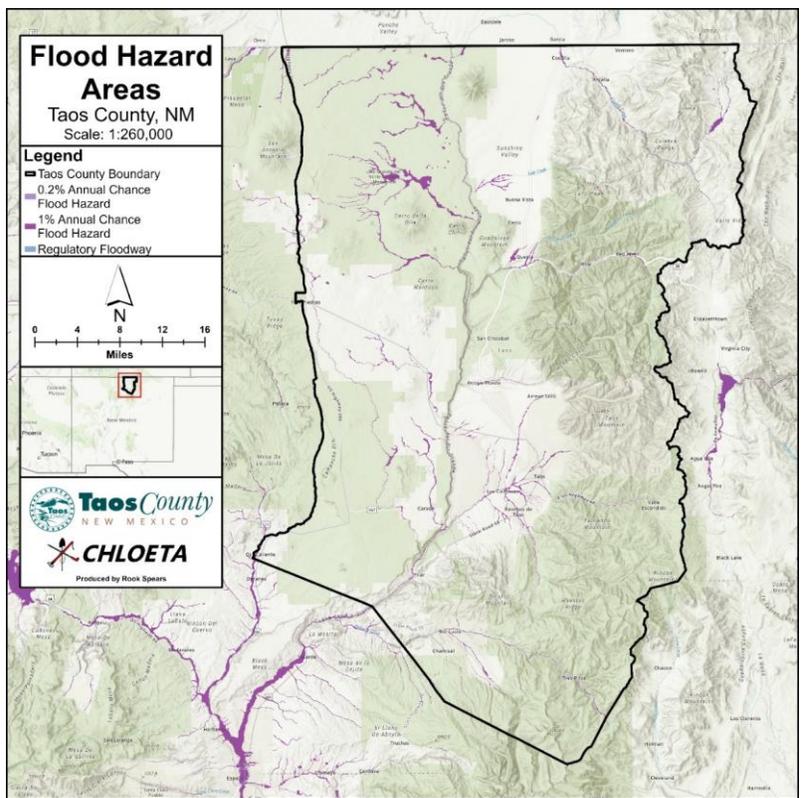


Figure 12. Taos County Flood Hazard Areas

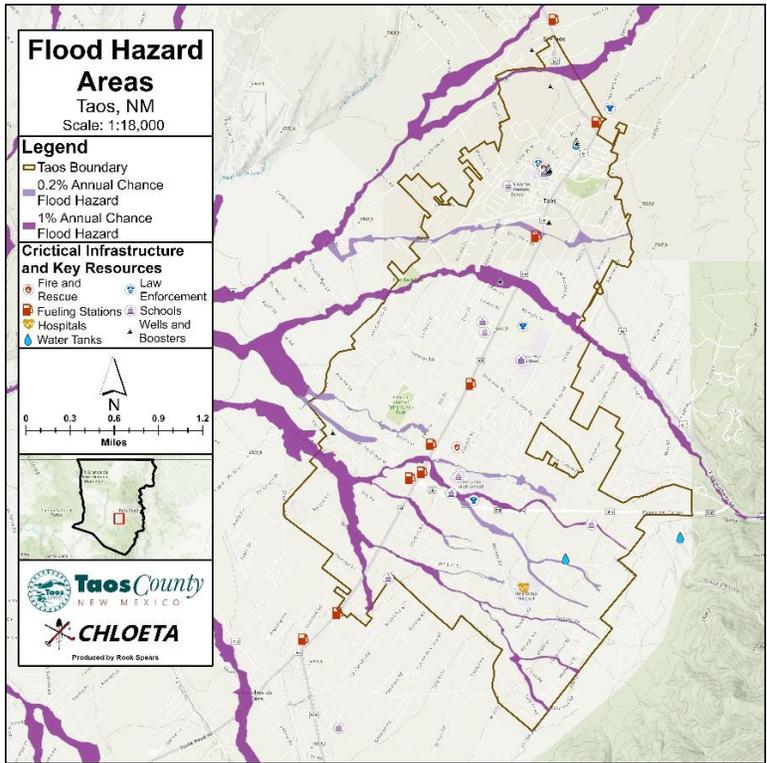


Figure 13. Taos County Critical Infrastructure in Flood Hazard Areas

Historical Occurrences

Taos County has a consistent history of flooding, primarily linked to monsoon season storms and post-fire events. Numerous localized flash flooding incidents occur between July and September, damaging local roads, overwhelming storm drain systems, and impacting low-water crossings. Spring snowmelts tend to cause flooding specifically overbank flooding, particularly along the Rio Grande and its tributaries, has been documented during years of heavy snowpack and rapid warming. These events often disrupt transportation on NM 68 and impact agricultural operations. Finally, Post-fire flooding has also historically been significant. Following any major wildfire event (e.g., the Hermits Peak/Calf Canyon Fire complex, which affected nearby drainages), debris flow and flash flood risks become guaranteed for the subsequent 3–5 years, requiring major protective structures (e.g., check dams, diversions) to be rapidly installed.



Multiple roads and properties flooding in El Prado
(Photo credit: Nathan Burton)

Driven by a cycle of intense monsoon rains, rapid spring snowmelt, and the devastating impacts of post-fire runoff, flooding is consistent in Taos. The table below highlights noteworthy events that demonstrate the range and severity of flood impacts across the County.

Table 25. Noteworthy Flood Events in Taos Table, 1990-2025

| Year | Event/Duration | Impacted Assets | Damage |
|------|---------------------------|---|--|
| 1993 | Spring Snowmelt/Riverine | NM 68, Acequia Systems | Major spring flooding event across the Rio Grande basin. Significant breaches in acequia systems and prolonged closure of State Road NM 68 (primary corridor) due to inundation and slumping. |
| 2005 | Riverine (Ice Jam) | Rio Pueblo de Taos, Residential Structures | Early spring breakup caused an ice jam on the Rio Pueblo, diverting water into a low-lying residential area. Caused structural damage and temporary displacement for several families. |
| 2013 | Major Monsoon Flash Flood | Town of Taos (Urban), Local Roads, Infrastructure | Record rainfall led to severe urban flash flooding. Overwhelmed municipal storm drains, resulting in substantial flood damage to commercial basements and significant erosion on county dirt roads. FEMA Disaster Declaration (DR-4147). |
| 2019 | Spring Snowmelt/Riverine | Agricultural Lands, US 64, Rio Grande Campgrounds | Prolonged overbank flooding along the Rio Grande and Rio Pueblo de Taos. Caused significant agricultural erosion, required |

| | | | |
|------|-----------------------|---------------------------------------|--|
| | | | temporary closure of low-lying sections of US 64, and exceeded bankfull stage for three weeks. |
| 2023 | Post-Fire Debris Flow | Acequia Systems, NM 518, Canyon Homes | Severe damage to multiple acequia headworks from mud and debris flow in burn scar drainages. Prolonged closure of NM 518 south of Ranchos de Taos due to road washout. |

The historical record confirms that flooding, particularly in the form of sudden flash floods and prolonged post-fire runoff, poses an annual, often catastrophic, threat to the county's transportation and vital water infrastructure.

Future Potential Events (Probability)

The probability of severe flooding is expected to remain High due to climate change impacts leading to more intense rainfall.

Table 26. Flooding Probability Table

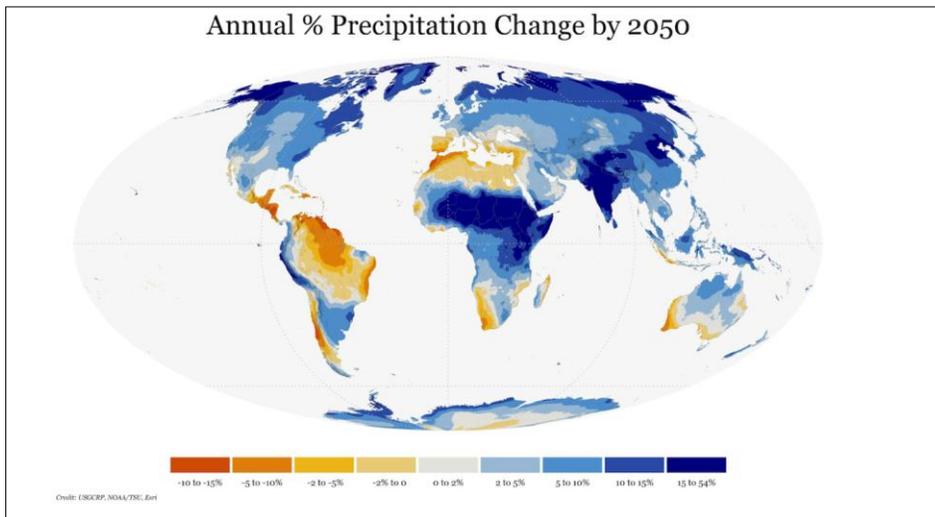
| Potential Event Magnitude | Probability | Location of Concern |
|----------------------------|--|--|
| Localized Flash Flooding | High (Likely in any given year) | Arroyos, canyon bottoms, and urban drainage points. |
| Riverine Overbank Flooding | Moderate (Possible in years with deep snowpack and rapid thaw) | Low-lying areas near the Rio Grande and major river tributaries. |
| Catastrophic Debris Flow | High (Certain following any major wildfire) | All drainages downstream of significant recent burn scars. |

Climate Change Impact

Climate change intensifies flooding in the county through increased precipitation, accelerated snowmelt, rising lake levels, and extreme weather events. Climate models project the county will experience more frequent and intense precipitation events due to the warming atmosphere holding more moisture. Higher volumes of rainfall overwhelm river systems, leading to more frequent riverine flooding while saturated soils from prolonged storms increase the likelihood of flash floods. Rising temperatures accelerate snowmelt, causing rivers to swell earlier in the spring.

Climate change is also projected to intensify flooding hazards in Taos County by increasing the volatility and extremes of the water cycle.

Figure 14. Annual % Precipitation Change by 2050



Volatile Snowmelt: Periods of rapid warming are expected to become more frequent, causing the high-elevation snowpack to melt quickly and simultaneously. This leads to increased riverine flooding potential and places immense strain on reservoirs and flood control infrastructure.

Exacerbated Post-Fire Risk: Climate change increases the frequency and intensity of wildfires (longer fire seasons, drier fuels), which, in turn, increases the number of acres vulnerable to post-fire debris flows and severe erosion for years afterward.

Vulnerability Assessment

Flooding, particularly sudden flash events and prolonged inundation, poses a multifaceted threat across the planning area. The impacts of these components are categorized into the following key areas:

- **Loss of Human Life and Injuries:**
 - Swift-water drowning and trauma from high-velocity debris (logs, rocks) are the primary life-safety threats.
 - The sudden nature of flash floods minimizes warning and evacuation time, disproportionately affecting vulnerable residents in low-lying, isolated areas.

- Injuries are often related to swift-water rescue operations or individuals attempting to cross flooded areas.
- Displacement of Communities:
 - Rapid flash flooding and debris flows render structures immediately uninhabitable due to impact damage, scour, or complete destruction.
 - Road washouts lead to prolonged community isolation, cutting off access to emergency aid and requiring the evacuation of residents to designated shelters.
 - Homes located within historic floodplains and arroyo beds face the greatest structural risks, forcing resident relocation.
- Infrastructure Damage:
 - Transportation networks suffer severe damage (road surface stripping, bridge/culvert washouts) due to velocity and debris impact, necessitating costly, long-term repairs.
 - Acequia systems are uniquely vulnerable to headworks destruction and ditch clogging by sediment/ash, severing agricultural water supply for entire growing seasons.
 - Water and sewer systems are compromised by contamination (septic tank overflow) and inundation of lift stations and treatment facilities.
- Economic Loss:
 - Major economic losses result from prolonged closure of US 64 and NM 68, disrupting essential supply chains and blocking critical tourism traffic.
 - Agricultural sector damage is significant due to acequia destruction, rendering irrigation impossible and leading to crop and livestock losses.
 - High costs are incurred for emergency debris removal, structural flood damage repair, and the necessary reconstruction of washed-out public infrastructure.
- Strain on Emergency Services:
 - Significantly increases demand for swift-water and technical rescue teams, requiring specialized training and equipment.
 - Impassable roads severely impede fire, EMS, and law enforcement response, particularly in canyon communities.
 - Requires extensive post-flood support for HAZMAT (contamination) management and complex damage assessment.

The vulnerability of Taos County is further defined by its specific geographic zones.

- Northern and Eastern Taos County (Mountain Canyons & Burn Scars)
 - Vulnerability Rating: Extreme
 - Vulnerability Factors: Steep topography and post-fire watersheds guarantee rapid, hyper-concentrated debris flows following monsoon rains. This region faces maximum risk of road and bridge destruction (NM 150, NM 38) and complete isolation, directly impacting Red River, Taos Ski Valley, and surrounding communities.
 - Response Challenges: Access for heavy equipment and recovery teams is blocked by deep mud and rockslides. Rescue operations in swift, debris-laden water are extremely high-risk.

- Western Taos County (Mesa & Arroyo Systems)
 - Vulnerability Rating: High
 - Vulnerability Factors: The broad, exposed mesa is dissected by numerous arroyos. Intense rain generates rapid sheet flow and high-velocity flash flooding in established arroyo beds, threatening structures built in or adjacent to them. Areas near Valdez and Arroyo Hondo are highly exposed.
 - Response Challenges: Rapid warning dissemination is essential due to short lead times. Floodwater can quickly sever access roads across the mesa, requiring specialized response for vehicle recovery and stranded residents.
- Central Taos County (Town of Taos and Adjacent Communities)
 - Vulnerability Rating: Moderate to High
 - Vulnerability Factors: Vulnerability is centered on urban flooding (overwhelmed storm drains) and riverine flooding from the Rio Fernando de Taos and Rio Pueblo de Taos. Critical facilities and major municipal services located in the valley are exposed to inundation. Older homes and commercial buildings with basements in the downtown area are highly susceptible to damage.
 - Response Challenges: Protecting critical municipal infrastructure (water treatment, police/fire stations) and managing debris flow/inundation simultaneously in a high-density area.
- Taos Pueblo and Traditional Lands
 - Vulnerability Rating: High
 - Vulnerability Factors: Tribal lands include riverine areas and drainages susceptible to severe flooding and debris flows from adjacent burn scars. The primary concern is the protection of historic structures and the integrity of traditional acequia systems serving the Pueblo, which are easily breached or contaminated by flood events.
 - Response Challenges: Response requires close coordination and resource sharing with tribal emergency management. Protecting historically and culturally significant assets from flood damage is paramount.

National Risk Index

The overall risk level for riverine flooding in Taos County is rated as very low. The higher designation is justified by the combination of high exposure (many homes and critical facilities near flood-prone arroyos and canyons), severe physical vulnerability (due to post-fire risks), and a moderate to high probability of recurrence during annual monsoon seasons and spring runoff events.

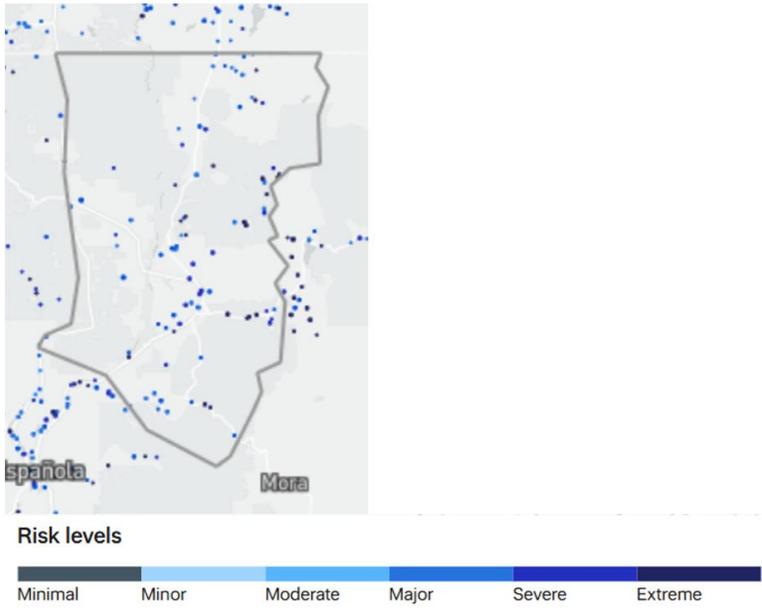


Figure 15. Flooding Risk Levels

| Risk Component | Assessment for Taos County Flooding |
|----------------|---|
| Vulnerability | Extreme (Due to acequia contamination/destruction and post-fire debris flows.) |
| Exposure | High (Critical roads, municipal infrastructure, and housing concentrated in floodways and canyons.) |
| Probability | Likely (Annual threat from monsoon and spring runoff; certainty of post-fire risk.) |

Taos County's ranking for flood-related hazards (Flash Flood, Riverine Flood, Landslide) is highly influenced by its geology and topography. It shows a high exposure and vulnerability score due to the mountainous terrain and the documented history of devastating post-fire debris flows (which FEMA classifies as a type of flooding/landslide risk). The social vulnerability factor is also high, as flash flooding often impacts rural, remote, and low-income populations with limited evacuation resources. The risk is heavily compounded by post-fire conditions. Loss of vegetation from high-intensity burns makes communities and linear infrastructure (roads, acequias) highly vulnerable to catastrophic debris flows and flash flooding during subsequent monsoon seasons.

Expected Annual Loss (EAL)

Based on the FEMA National Risk Index (NRI) data (current version: March 2023), the Expected Annual Loss (EAL) for Riverine and Flash Flooding in Taos County is summarized as follows:

- Flooding (Riverine) contributes an estimated \$55,340 to the County's annual expected losses, making it a significant natural hazard by monetary impact in the region.

It is crucial to note that the quantitative EAL derived from the NRI may not fully capture the elevated risk associated with the cascading effects of recent wildfires, such as the 2022 fire season. Due to extensive burn scars in surrounding areas, the County faces significantly increased potential for severe flash flooding, mudflows, and debris flows, particularly during monsoon season. These post-fire hazards dramatically increase the loss potential for properties, infrastructure, and life safety, often exceeding the historical average reflected in the base EAL calculation. Therefore, mitigation efforts must be prioritized to address this elevated, immediate risk, even if the historical EAL appears moderate.

Development Trends

Developmental trends within Taos County present unique challenges to flood risk management, primarily due to the county's steep mountainous topography, narrow river corridors, and the presence of historic, non-conforming structures.

In the high-desert and mountainous environment of Taos County, new development, particularly within valley floors and along riparian zones, can significantly increase flood risk. Construction in these areas often:

- Increases Impervious Surfaces: Hard surfaces like roads, roofs, and parking lots prevent natural infiltration, increasing the velocity and volume of runoff, which exacerbates flash flooding severity, particularly in small watersheds.
- Disrupts Natural Drainage: Structures and supporting infrastructure can encroach upon or modify natural arroyos and washes, which are crucial for ephemeral flow and flood absorption, thereby diverting high-velocity floodwaters toward vulnerable buildings.
- Exposes Legacy Structures: Much of the existing development near waterways, including traditional adobe buildings and critical irrigation infrastructure (acequias), predates modern floodplain regulations, placing high-value cultural and economic assets at risk.

Taos County utilizes the regulatory framework of FEMA's National Flood Insurance Program (NFIP) to manage risk in mapped Special Flood Hazard Areas (SFHAs).

Adherence to NFIP guidelines, which govern minimum standards for new construction and substantial improvements, is the baseline for mitigation.

However, the County's risk profile necessitates going beyond minimum NFIP compliance:

- **Flash Flood Zones:** Much of the county's flooding risk comes from unmapped flash floods descending steep canyons, especially in areas not designated as SFHAs. These events require broader land-use planning that addresses density and runoff on steep slopes.
- **Post-Wildfire Hydrology:** Following recent and projected large-scale wildfires, the risk of debris flows and mudslides has dramatically increased in adjacent developed areas. Standard pre-fire floodplain maps (SFHAs) do not account for this drastically altered post-fire environment, necessitating the adoption of more restrictive local ordinances and hazard overlay zones informed by current watershed assessments.
- **Acequia Systems:** The historic acequia system, vital for the County's agricultural economy, acts as both a water delivery channel and, in certain instances, a conduit for flood and debris flow. Future development planning must integrate the preservation and, where necessary, the flood mitigation improvement of these systems.

Sustained commitment to modernizing zoning, enforcing regulations, and proactively addressing post-wildfire hazard areas is crucial for reducing future flood losses and building a more resilient community in Taos County.

Community Lifelines

Flooding poses significant and immediate challenges to the seven critical Community Lifelines identified by FEMA:

- **Safety and Security:** Flash flooding creates immediate life-safety risk due to high velocity and debris impact. Road washouts severely impede law enforcement and EMS access, compromising public safety in remote areas. Post-fire debris flows can trap residents and isolate entire communities until emergency access routes can be cleared.
- **Food, Water, and Shelter:** The most critical threat is to water security. Floodwaters damage acequia headworks, contaminate wells, and disrupt municipal treatment plants. Displaced residents require timely access to emergency shelters, and the disruption of transportation routes limits the delivery of food and safe drinking water.
- **Health and Medical:** Flood-related injuries (drowning, trauma) place immediate strain on Holy Cross Hospital. Water contamination by sewage or chemicals poses a serious public health risk requiring coordinated response. Access restrictions on NM 68 or US 64 can delay patient transfers and medical supply replenishment.

- **Energy (Power & Fuel):** Flash floods can wash out utility poles and transmission lines where they cross arroyos or canyons. Prolonged inundation of substations or distribution facilities causes localized power outages. Fuel resupply to remote areas is halted when transportation routes are closed by high water or debris.
- **Communications:** Floodwaters and debris flows can sever fiber optic lines located along riverbanks and roads. The loss of commercial power due to substation flooding compromises critical cell tower and repeater sites, leading to communication blackouts that impede warning dissemination and emergency coordination.
- **Transportation:** The closure of critical, limited routes due to road washouts, bridge damage, or mud/debris flows is the single greatest impact. Key arteries (US 64, NM 68) can become entirely impassable, preventing emergency response and cutting off economic activity. Maintaining emergency detour routes is essential.
- **Hazardous Materials:** Floodwaters can mobilize and spread hazardous materials (e.g., fuels from flooded tanks, agricultural chemicals, and septic waste), leading to extensive environmental and public health contamination of surface water and shallow wells. This risk is highest in commercial areas and floodplains near transport corridors.

Results

Flooding, particularly the threat posed by post-fire debris flows and high-intensity rain events, presents a critical and growing challenge to the planning area, significantly affecting residents, its agricultural heritage, and essential infrastructure. The key findings of this assessment are:

- **High Probability and Intensity:** Flooding is a high-probability event, with increasing intensity driven by climate change leading to more concentrated, destructive rainfall. The risk of catastrophic post-fire debris flows is a permanent vulnerability following regional wildfires.
- **Extreme Vulnerability of Water Systems:** The acequia network and local water systems are uniquely vulnerable to damage and contamination from sediment-laden floodwaters, directly threatening local food security and community tradition.
- **Life-Safety and Isolation Risk:** Flash flooding and road washouts in canyon and rural communities pose a direct threat to life and cause prolonged isolation, complicating rescue and recovery efforts.
- **Economic Disruption:** Flooding causes major economic damage through road closures (impacting tourism and commerce), direct property damage (especially from burst pipes during associated freeze/thaw cycles), and significant costs associated with debris removal and utility restoration.
- **Need for Targeted Mitigation:** Addressing the flood threat requires specific mitigation, including the hardening of acequia headworks, implementing effective early flood warning systems, and securing backup power for water and communication infrastructure in flood-prone areas. Proactive debris mitigation in and around burn scars is crucial.

By synthesizing these findings, it is evident that flooding poses a significant and multifaceted threat to the planning area. The county can enhance its resilience to flooding with targeted actions and collaborative efforts, creating a safer, more sustainable future for its residents and ecosystems.

Hazard: Drought

Background & Definition

Drought is a prolonged period of below-average precipitation that results in water shortages and adverse impacts on the environment, agriculture, and communities. Unlike sudden-onset hazards, droughts develop gradually over weeks, months, or even years, and can persist for extended periods. Drought is commonly categorized into four types: meteorological drought (lack of precipitation), agricultural drought (insufficient soil moisture for crops), hydrological drought (declining surface and groundwater levels), and socioeconomic drought (when water shortages begin to affect people and economic systems). In Taos County, drought conditions are influenced by seasonal precipitation deficits, snowpack variability, temperature increases, and long-term climate trends. The U.S. Drought Monitor, along with local and state agencies, provides drought severity classifications to help track and respond to emerging drought conditions. In hazard mitigation planning, drought is evaluated based on historical frequency, severity, duration, and its cascading effects on water availability, wildfire risk, agriculture, and economic resilience. For this profile, drought intensity is assessed using the U.S. Drought Monitor (USDM) scale, which classifies severity based on hydrologic, agricultural, and socio-economic impacts.

1. Severe Drought (D2): Crop or pasture damage is likely; water shortages are common; water restrictions are implemented.
2. Extreme Drought (D3): Major crop/pasture losses; widespread water restrictions are mandatory; wildfire danger is extreme.
3. Exceptional Drought (D4): Exceptional and widespread crop and pasture losses; water emergencies are widespread; stream flow may stop entirely.

Drought is a recurring natural hazard in the planning area, where limited precipitation, high elevation, and variable climate patterns contribute to frequent periods of water scarcity. The county's semi-arid environment makes it especially vulnerable to long-term reductions in rainfall and snowpack, which affect surface water levels, groundwater recharge, soil moisture, and vegetation health. Drought conditions can have widespread impacts on agriculture, livestock, domestic water supplies, and wildfire risk, particularly in rural and tribal communities that depend on private wells or surface water for irrigation. Reduced snowpack in the Sangre de Cristo Mountains can also diminish spring runoff, affecting river flows and reservoirs throughout the region. In recent years, prolonged droughts have intensified due to higher temperatures and earlier snowmelt, stressing natural ecosystems and increasing competition for water resources. As climate variability continues to drive more frequent and severe drought cycles, Taos County must plan for adaptive water management strategies and long-term mitigation efforts to protect its residents, economy, and natural resources.

Location & Extent

Location

While drought is a regional meteorological phenomenon that affects the entire planning area, the most acute impacts are localized based on water source dependency:

Table 27. Drought Location Table

| Zone | Primary Drought Impact | Vulnerability Factors |
|------------------------------|---|--|
| Acequia & Valley Communities | Agricultural Failure, Water Supply Stress | Communities relying on surface water via acequias and irrigation ditches are the first to experience water cuts, leading to crop loss and economic distress. |
| High-Elevation Forests | Catastrophic Wildfire Risk | Forest zones (e.g., Carson National Forest) experience extreme fuel drying, increasing the likelihood and intensity of destructive, stand-replacing wildfires. |
| Rio Grande Gorge & Mesa | Groundwater Depletion, Land Subsidence | Wells and non-community water systems become stressed as the water table drops. Increased dust storms impact air quality and transportation. |
| Recreation & Tourism Areas | Reduced Snow/River Flows | Ski resorts, rafting/fishing outfitters, and campgrounds suffer revenue loss due to lack of snow (winter) and insufficient river flows (summer). |

Extent

The extent of drought in the planning area is measured not by geographic areas alone, but by its duration, intensity, and compounding effects across various sectors.

- **Duration and Intensity Extent:** Drought events are categorized by their severity (D0-D4) and can extend for multi-year periods (e.g., 2000-2004, 2020-2022), amplifying impacts across the ecosystem and economy.
- **Agricultural Extent:** Severe drought leads to the complete loss of a growing season due to acequia priority curtailment, resulting in food and income insecurity for farming communities.
- **Ecological Extent:** Prolonged lack of moisture results in widespread tree death (bark beetle outbreaks), reduced fish habitat in streams, and decreased overall ecosystem resilience.
- **Secondary Hazard Extent:** The most significant secondary impact is the extreme increase in wildfire potential across the county, leading to mandatory fire restrictions and elevated risk to the WUI.

Drought is a chronic, high-frequency hazard in Taos County, with historical records indicating periods of extreme severity that significantly predate modern record-keeping. The planning area frequently falls within the *Moderate* (D1) to *Severe* (D2) categories of the U.S. Drought Monitor, driven by low snowpack and warmer-than-average temperatures. These prolonged dry spells, which have periodically reached *Extreme* (D3) intensity, critically impact the water supply for both municipal use and the

essential acequia systems. This persistent drought environment also acts as a crucial catalyst for increasing wildfire potential, accelerating vegetation stress and fuel availability, which then leads to the heightened flash flood and debris flow risk following precipitation events.

Historical Occurrences

Drought is a historical constant in New Mexico, punctuated by periods of exceptional severity. The historical record indicates a strong correlation between drought intensity and major wildfire or widespread agricultural failure. The severity of these long-term events has, at times, required state and federal intervention, resulting in official disaster declarations to address the widespread agricultural and water resource failures.

Table 28. Drought Events, 1950-2025

| Year | Event Type | Impacted Assets | Damage |
|-----------|--|--|---|
| 1950's | Historic Multi-Decadal Drought | Entire Region, Agricultural Systems | Considered the benchmark worst-case scenario drought. Resulted in widespread rural economic collapse, mass out-migration, and complete failure of numerous surface water systems for multiple years. |
| 2000-2004 | Prolonged Extreme Drought (D3) | Rio Grande Flow, Ski Industry, Wildfire Risk | Caused deep cuts in acequia water deliveries and placed major strain on groundwater reserves. Contributed to low-snow seasons, severely affecting winter tourism revenue. |
| 2011 | Presidential Drought Declaration (DR-4017) | Agriculture, Livestock, Rural Water Systems | Widespread crop and pasture loss due to failed irrigation. Federal aid was authorized to assist farmers and ranchers with emergency water hauling and livestock feed costs across the region. |
| 2020-2022 | Extreme to Exceptional Drought (D3-D4) | Forests, Agriculture, Municipal Water | Led to mandatory water conservation measures. Extreme dry fuels were a major factor in the subsequent mega-fire events (Hermits Peak/Calf Canyon) in the regional watershed. Significant crop yield reductions. |

The historical data confirms that modern drought events consistently reach levels that directly threaten Taos County's economic vitality and foundational infrastructure.

Future Potential Events (Probability)

The probability of severe and extreme drought events occurring in Taos County is expected to remain High and is increasing due to rising global temperatures.

| Potential Event Magnitude | Probability | Location of Concern |
|---------------------------|---|---|
| Severe Drought (D2) | High (Likely in any given year) | Entire County, impacting local conservation efforts. |
| Extreme Drought (D3) | Moderate to High (Possible every 2-5 years) | Agricultural valleys, increasing risk of catastrophic wildfire. |
| Exceptional Drought (D4) | Moderate (Possible every 5-10 years) | Entire region, threatening municipal and rural well viability. |

Climate Change Impact

Climate change is fundamentally altering the regional hydroclimate, increasing the frequency and intensity of drought through several mechanisms:

- **Increased Evapotranspiration:** Higher average temperatures increase the rate at which water evaporates from soil, reservoirs, and plants, effectively deepening the impact of any precipitation shortfall.
- **Reduced Snowpack Efficiency:** Earlier snowmelt and a shift from snow to rain at lower elevations reduce the critical snowpack reservoir that sustains summer river flows, leading to earlier and more severe summer water stress.
- **Prolonged Dry Spells:** Increased climate variability is projected to bring longer, more frequent dry spells, which directly translate to extended periods in the D3/D4 drought categories.
- **Wildfire Synergy:** The increased frequency of extreme heat and drought years directly correlates with the conditions necessary for catastrophic, large-scale wildfires, thereby amplifying the secondary post-fire hazards.

Vulnerability Assessment

The vulnerability of the planning area to drought is intrinsically linked to its dependence on finite and stressed water sources, its highly flammable landscape, and the exposure of its key economic sectors. The risk is uniformly rated as High to Extreme, with cumulative impacts increasing rapidly with drought duration.

Drought poses a multifaceted, slow-onset threat across the planning area. The impacts are categorized into the following key areas:

- **Loss of Human Health and Welfare:**
 - **Smoke Exposure:** Drought drives extreme wildfire risk, leading to widespread, prolonged smoke exposure which severely impacts public health, especially for populations with respiratory or cardiovascular issues.
 - **Stress:** Prolonged water uncertainty and agricultural losses increase economic and mental health strain on rural and farming communities.

- Dust: Low soil moisture increases airborne particulates, reducing air quality and exacerbating respiratory illness.
- Displacement and Isolation:
 - Wildfire Evacuation: Drought conditions are the primary driver of catastrophic wildfire events, which necessitate mass evacuations and temporary displacement for thousands of residents and tourists.
 - Economic Out-migration: Long-term agricultural failure due to water scarcity can lead to permanent economic displacement for farming families and associated workers.
- Infrastructure Damage:
 - Water System Strain: Lowered reservoir levels and stream flows can render pump intakes unusable or reduce the efficiency of water treatment plants.
 - Ground Movement: Extreme soil drying can lead to foundation cracking and subsidence in structures and roads, increasing long-term maintenance needs.
 - Power Strain: Increased summer temperatures require more energy for cooling, straining the electrical grid and potentially leading to brownouts or blackouts during peak demand.
- Economic Loss:
 - Agricultural Failure: Crop and livestock losses due to water curtailment or heat are a direct hit to the local food system and rural economy.
 - Tourism Decline: Low snow totals cripple the ski industry; low river flows severely impact whitewater rafting, fishing, and recreation, leading to major revenue losses.
 - Increased Costs: Wildfire suppression costs, well drilling expenses, and the cost of emergency water hauling place significant financial strain on municipal and county budgets.
- Strain on Emergency Services:
 - Wildfire Response: Drought mandates a continuous, high level of readiness for fire agencies, leading to increased operational costs, personnel fatigue, and the need for external resources.
 - Water Management: Emergency services become involved in coordinating water rationing, establishing emergency bulk water distribution points, and managing wildfire-related evacuations.

The vulnerability of the planning area to drought is further defined by its specific geographic zone:

- Northern and Eastern Taos County (Mountain Canyons & Forests)
 - Vulnerability Rating: Extreme
 - Vulnerability Factors: This region is the County's water source (headwaters). Extreme drought causes catastrophic tree mortality and maximizes wildfire fuel loads, posing a direct threat to the primary watersheds that supply the entire county. Snowpack dependency is 100%.
 - Mitigation Focus: Forest health treatments, aggressive fire prevention, and protecting municipal water supply intakes.
- Western Taos County (Mesa & Arroyo Systems)
 - Vulnerability Rating: High

- Vulnerability Factors: Communities on the mesa are heavily reliant on groundwater wells, which become stressed or fail during prolonged drought. The arid, exposed environment increases the severity of dust storms, impacting air quality and vehicle safety on US 64.
- Mitigation Focus: Groundwater monitoring and developing backup water supply strategies for small community systems.
- Central Taos County (Town of Taos and Adjacent Communities)
 - Vulnerability Rating: High
 - Vulnerability Factors: Vulnerability is driven by the need to maintain a stable municipal water supply for the largest population center and to protect commercial interests (tourism) despite severe water restrictions. The high potential for water conflicts between urban and agricultural users is a key risk.
 - Mitigation Focus: Water conservation ordinances, developing redundant municipal supply sources, and protecting critical infrastructure from wildfire exposure.
- Taos Pueblo and Traditional Lands
 - Vulnerability Rating: Extreme
 - Vulnerability Factors: Tribal lands face existential threat to traditional, subsistence agriculture due to compromised acequia flows and water shortages. The lack of water threatens culturally significant practices and the long-term ecological health of ancestral lands.
 - Mitigation Focus: Securing water rights, enhancing the efficiency and resiliency of acequia systems, and promoting drought-resistant farming methods in coordination with the Pueblo.

National Risk Index

The National Risk Index puts the qualitative risk rating as Relatively Low for Taos County. Taos County's ranking for drought-related hazards is driven by the severe consequences of water scarcity. It shows a high exposure and vulnerability score due to the high monetary value of crops and livestock dependent on water, the extreme linkage between drought and wildfire risk, and the high social vulnerability of remote, low-income communities whose livelihoods are tied to agriculture and natural resources. Persistent, severe drought conditions are the primary, existential driver of the County's Extreme Wildfire risk. Drought fuels forest stress, lengthens the fire season, and increases fire intensity.

| Hazard Component | Risk Level (Per National Risk Index) | Probability | Primary Impacts |
|------------------|--------------------------------------|-------------|---|
| Drought | Relatively Low | Likely | Water scarcity impacting municipal, agricultural (acequias), and ecological systems; Increased wildfire risk; Economic losses for |

| | | | |
|--|--|--|---|
| | | | agriculture and tourism; Reduced hydropower generation. |
|--|--|--|---|

| Risk Component | Assessment of Taos County Drought |
|----------------|---|
| Vulnerability | Extreme (Due to acequia dependency, reliance on snowpack, and economic exposure.) |
| Exposure | High (All human, natural, and economic systems are exposed to water shortage.) |
| Probability | Likely (Near-certainty of extreme, multi-year drought recurrence.) |

Expected Annual Loss

The calculation of Expected Annual Loss (EAL) for drought presents a unique challenge, as the FEMA National Risk Index (NRI) primarily focuses on direct physical damage, which often severely underestimates the true, widespread economic consequences of prolonged arid conditions.

The calculated EAL for drought in Taos County is estimated at approximately \$280,542. This figure predominantly captures the direct, annualized agricultural losses (e.g., crop and livestock damage) based on historical severity and exposure, consistent with standard NRI methodology.

It is critical to note that this EAL figure does not capture the secondary and chronic costs associated with drought, which form the majority of the hazard's economic burden on the county. These unquantified losses include:

- **Water Management Costs:** Expenses related to emergency water hauling, infrastructure repairs, and deepening wells for municipal and private systems.
- **Tourism Impact:** Decline in recreation revenue due to low stream flows, closure of high-altitude lakes, and restrictions on public lands due to heightened fire danger.
- **Wider Agricultural Economic Disruption:** The cost of supplemental feed for livestock, loss of water rights transfers, and long-term degradation of rangeland and essential acequia systems.
- **Increased Fire Suppression:** Elevated expenditures for wildfire preparation, prevention, and suppression activities, which are directly exacerbated by drought conditions.

Therefore, while the direct EAL may appear moderate, the total economic impact of drought in Taos County is substantially higher and is considered a multi-million-dollar economic burden during and immediately following periods of *Extreme* (D3) drought intensity.

Development Trends

Developmental patterns in Taos County significantly influence the region's vulnerability to drought by increasing water demand and reducing the resiliency of natural systems. While Taos is experiencing steady population growth and increasing development, particularly in valley areas, this expansion places acute and chronic stress on finite water resources.

Development trends exacerbate drought impacts in several ways:

- **Increased Water Demand:** New residential and commercial development, especially large-footprint or high-landscape intensity projects, place immediate and increasing demands on the groundwater and surface water systems. This constant pressure reduces the reserve capacity of aquifers, making the community less resilient during prolonged dry cycles.
- **Infrastructure Stress:** The expansion of housing and municipal boundaries necessitates extending water distribution lines and deepening wells. During drought, these systems are stressed, leading to high maintenance costs, potential system failure, and conflicts over water priority between municipal, agricultural, and domestic users.
- **Encouragement of Non-Native Landscaping:** Modern development often features landscaping that requires continuous irrigation, contrasting sharply with the arid climate. This practice creates an unsustainable demand that directly depletes limited water reserves, contrasting with traditional, drought-adapted land management.
- **Groundwater Depletion:** While surface water (governed by acequias and river flow) is immediately responsive to drought, increased reliance on groundwater through new wells, often necessitated by development away from traditional acequia service areas, leads to long-term aquifer depletion, threatening the water security of future generations.

Sustained commitment to conservation-focused development standards is paramount to reducing the economic and ecological impact of drought and ensuring water availability for all sectors of Taos County.

Community Lifelines

Drought poses profound, systemic challenges to the seven critical Community Lifelines identified by FEMA:

- **Safety and Security:** Drought conditions create continuous, elevated wildfire risk, requiring frequent public safety messaging (fire bans) and high readiness for mass evacuation and suppression efforts. Wildfire is the most immediate life-safety risk associated with drought.

- **Food, Water, and Shelter:** This lifeline is critically exposed. Water security is directly jeopardized by stream depletion and well failures. Food supply is compromised by crop failure and livestock loss due to lack of irrigation water, stressing the local food economy.
- **Health and Medical:** Increased wildfire smoke severely impacts regional air quality, leading to a surge in respiratory illness. Economic stress from agricultural losses contributes to elevated mental health needs.
- **Energy (Power & Fuel):** Drought reduces stream flow, compromising any potential for hydropower generation. Simultaneously, increased summer temperatures drive higher energy demand for cooling, increasing the risk of grid strain and rolling blackouts.
- **Communications:** Drought has minimal direct impact, but the associated wildfire risk poses a severe threat to communication towers and fiber optic infrastructure located in remote, forested areas.
- **Transportation:** Drought leads to dust storms on unpaved roads and the mesa, reducing visibility and increasing vehicle accidents. Reduced river flows can impact recreational transport (rafting) revenue but typically does not affect major highway corridors.
- **Hazardous Materials:** Drought conditions, particularly the resulting low river flows, reduce the capacity of waterways to dilute effluent, potentially concentrating contaminants released from septic systems or industrial sources into the limited available water supply.

Results

Drought is a central, pervasive hazard that significantly increases the vulnerability of the planning area to other catastrophic events, primarily wildfire. The threat affects all levels of the community, from the individual farmer to the multi-million dollar ski industry. The key findings of this assessment are:

- **Probability and Systemic Impact:** Drought is likely a probable event with severe systemic consequences that threaten the foundational water supply and ecological health of the entire county.
- **Critical Linkage to Wildfire:** Drought is the primary environmental precondition for catastrophic wildfire, creating a dual hazard that mandates integrated mitigation planning.
- **Extreme Economic Vulnerability:** The heavy dependency on climate-sensitive industries (snowpack/skiing and acequia agriculture) exposes the local economy to major, multi-year losses during prolonged droughts.
- **Need for Adaptive Water Governance:** Addressing drought requires a multi-jurisdictional commitment to long-term water conservation, supply diversification, and enhanced forest health treatments to protect the water-holding capacity of the upper watersheds.

Hazard: Geological (Landslides, Rockfalls, Avalanches)

Background & Definition

Geological hazards refer to earth-related processes that can pose risks to life, property, and infrastructure. In Taos County, these hazards primarily include landslides, rockfalls, and avalanches. A landslide is the downslope movement of soil, rock, or debris under the influence of gravity, often triggered by precipitation, snowmelt, seismic activity, or human disturbance. Rockfalls occur when individual rocks or boulders detach from steep slopes or cliffs and fall freely, posing a serious threat along roadways and canyon walls. An avalanche is a rapid flow of snow, often mixed with ice, rock, or debris, down a mountain slope, typically occurring after heavy snowfall or rapid warming. These hazards can occur suddenly and without warning, particularly in areas with unstable geological conditions or steep terrain. In hazard mitigation planning, geological hazards are assessed based on slope stability, soil composition, hydrology, land use, and historical occurrence, with an emphasis on reducing exposure through monitoring, engineering controls, and informed land management.

- **Landslides (Mass Movement):** The bulk movement of soil and rock down a slope, often triggered by increased pore pressure from heavy rain, rapid snowmelt, or the undercutting of slopes (erosion, construction). In Taos, this includes slumps, earth flows, and deep-seated movements.
- **Rockfalls:** The free-falling or bouncing movement of individual rock blocks or masses from steep cliffs and rock faces. This is extremely common along the highly fractured volcanic and metamorphic rock faces of the Rio Grande Gorge and mountain road cuts. Triggers include freeze-thaw cycles and seismic activity.
- **Avalanches:** The rapid flow of a large mass of snow, ice, and often debris down a mountainside. This hazard is highly localized to the steep, high-elevation terrain utilized by Taos Ski Valley, Red River, and sections of the Enchanted Circle road network (NM-38, NM-150).

Taos County's mountainous terrain, steep slopes, and variable geology create conditions that make it susceptible to a range of geological hazards, including landslides, rockfalls, and avalanches. These hazards are typically triggered by heavy rainfall, rapid snowmelt, freeze-thaw cycles, seismic activity, or human disturbances such as construction or road cuts. Landslides and rockfalls are common along steep slopes and road corridors, particularly in areas with fractured bedrock or unstable soils. These events can block roads, damage infrastructure, and pose serious risks to public safety. Avalanches occur in high-elevation alpine zones, especially in the Sangre de Cristo Mountains during the winter and early spring months when snowpack instability is highest. While many avalanche-prone areas are remote, popular recreational zones and backcountry routes can be affected. As climate variability increases freeze-thaw cycles and alters snowpack behavior, the risk of slope failures and snow-related hazards may become more unpredictable. Proactive monitoring, land use planning, and slope stabilization efforts are essential to reducing the impacts of these geological hazards in Taos County.

Location & Extent

Location

Geological hazards are concentrated in areas with steep slopes, fractured rock, and high seasonal snowpack throughout the entire planning area including:

| Zone | Primary Impact | Vulnerability Factors |
|-------------------------------|--------------------------|---|
| High-Elevation Mountain Roads | Avalanches, Rockfalls | NM-150 (Taos Ski Valley), NM-38 (Red River Pass). Steep slopes, heavy snow loading, and limited alternate routes cause frequent, disruptive closures. |
| Rio Grande Gorge Corridors | Rockfalls, Landslides | US-64 and NM-68 where the roads descend/ascend the Gorge. Steep road cuts and freeze-thaw cycles lead to nearly continuous rockfall hazard. |
| Post-Fire Burn Scars | Landslides, Debris Flows | All steep slopes within or immediately downstream of recent high-intensity wildfire burn scars. Loss of stabilizing vegetation drastically increases the risk of soil and rock movement during precipitation. |
| Mountain Communities (WUI) | Avalanches, Rockfalls | Structures and development located in or directly below avalanche runout zones and fractured canyon walls (e.g., portions of Taos Ski Valley). |

Extent

The extent of geological hazards in the planning area is measured by the volume, velocity, and runout distance, which dictate the destructive power and the duration of disruption.

- **Rockfall Extent:** Varies from small, frequent occurrences (damaging road surfaces and vehicles) to large, infrequent failures that can block entire transportation lanes for days or weeks. Velocity is extremely high, causing severe, localized impact damage.
- **Landslide Extent:** Extent is measured by the volume of material moved. Debris flows (a rapid type of landslide) are extremely high velocity and can travel long distances, destroying culverts, bridges, and burying infrastructure. Slower earth slumps may cause structural damage over months by gradually undermining foundations.
- **Avalanche Extent:** Determined by the size class (D1 to D5) and runout zone. Large avalanches (D5) can wipe out substantial structures, close major highways for days, and bury people and vehicles under massive amounts of snow and debris.

Historical Occurrences

Geological hazards have a deep and consistent history in Taos County, primarily recorded as seasonal road closures and necessary avalanche control activities. Larger

events often correlate with periods of extreme moisture or seismic activity, but the most significant impact is the chronic disruption of transportation.

| Year | Event Type | Impacted Assets | Damage |
|-----------|-------------------------------------|---------------------------------------|---|
| Recurring | Seasonal Avalanches | NM-150 (Taos Ski Valley Road) | Annual closures are necessary for both natural slide activity and proactive avalanche control by NMDOT. Threatens structures in runout zones; requires continuous debris removal and monitoring. |
| Recurring | Rockfall Events | US-64 (Rio Grande Gorge Bridge area), | Daily to weekly occurrences, particularly during freeze-thaw cycles. Causes vehicle damage, sudden lane closures, and requires NMDOT rock mitigation efforts (scaling, mesh). |
| Recurring | Rockfall/Landslide Events | NM-38, SR 68, SR 570 | Daily to weekly occurrences, impacts residential ingress and egress. Frequent transportation disruption, particularly in steep canyon borders. |
| 2013 | Rain-Triggered Landslides | Local Roads (Taos Canyon Area), | Heavy, prolonged precipitation caused numerous shallow landslides and slumps on saturated soils, blocking access to rural communities and requiring extensive earthwork repairs. This activity often follows a Major Flood Declaration (DR-4147). |
| 2023 | Post-Fire Debris/Landslide Activity | Forest Roads, NM-518 | Loss of vegetation in the wake of regional wildfires led to severe soil instability, resulting in multiple damaging debris flows (a type of high-velocity landslide) that buried roads and contaminated waterways. |

The historical record confirms that geological instability is a persistent constraint on transportation and development in the steep terrain of Taos County.

Future Potential Events (Probability)

The probability of geological hazards is expected to remain High and potentially increase due to climate change volatility and the secondary effects of wildfire.

| Potential Event Magnitude | Probability | Location of Concern |
|------------------------------|---|---|
| Rockfall (Road Closure) | High (Likely in any given year) | US-64, NM-68, NM-38, NM-150. |
| Large, Destructive Avalanche | Occasional (Possible every 5-10 years) | Taos Ski Valley and Red River runout zones. |
| Wildfire-Induced Debris Flow | Occasional (Certain following any major wildfire) | Steep slopes downstream of recent burn scars, impacting acequias and roads. |

Climate Change Impact

Climate change is projected to amplify geological hazards in Taos County by stressing the stability of the terrain through the water cycle and temperature extremes:

- **Increased Freeze-Thaw Cycling:** More volatile temperature fluctuations at intermediate elevations increase the rate of rock face weathering, leading to higher frequency and volume of rockfalls, particularly during shoulder seasons (late fall/early spring).
- **Rain-on-Snow Events:** Warmer winter and spring storms are more likely to deliver rain onto existing snowpacks, rapidly increasing the mass of the snowpack and creating a lubrication layer beneath it. This significantly elevates the potential for large, wet avalanches with high destructive energy.
- **Wildfire Exacerbation:** Increased fire frequency and intensity destroy stabilizing vegetation, leading to extensive soil instability and erosion. This directly translates to a surge in post-fire landslides and debris flows, especially during subsequent monsoon seasons.

Vulnerability Assessment

The vulnerability of the planning area to geological hazards is defined by the steepness of its mountain slopes, the high-consequence exposure of limited transportation corridors, and the presence of high-elevation resort infrastructure. The risk is uniformly rated as Low to Relatively Moderate, with higher risk occurring in the mountain and canyon environments.

Geological hazards pose severe, localized, and potentially catastrophic threats across the planning area. The impacts are categorized into the following key areas:

- **Loss of Human Life and Injuries:**
 - **Avalanche and Rockfall Trauma:** These events can result in immediate fatalities and severe trauma to people recreating or driving through exposed zones. Avalanche risk in the WUI threatens life and property simultaneously.
 - **Responder Risk:** Emergency responders face extreme risk during rescue operations in unstable terrain and avalanche runout zones.
- **Displacement and Isolation:**
 - **Transportation Severance:** Landslides and large rockfalls can block major state roads (NM-150, NM-38, US-64) for extended periods, leading to the isolation of mountain communities (Taos Ski Valley, Red River) and preventing access for commerce and emergency services.
 - **Structural Damage:** Homes and commercial structures in runout zones can be completely destroyed or rendered unsafe by the force of rockfall or debris impact, forcing permanent or temporary displacement.
- **Infrastructure Damage:**

- Road/Bridge Destruction: The velocity and mass of large rockfalls and landslides cause catastrophic damage to the linear transportation system, requiring immense costs for reconstruction, debris removal, and slope stabilization.
- Utilities: Overhead power lines, communication lines, and buried utility pipes that traverse mountain slopes or canyons are easily severed or damaged by moving rock and snow mass.
- Economic Loss:
 - Tourism Industry: Avalanche risk leads to ski resort closures (lost revenue) and prolonged road closures severely impact tourism access along the Enchanted Circle.
 - Increased Maintenance Costs: NMDOT faces continuous, high costs for rock scaling, retaining wall maintenance, and debris removal along high-risk canyons and gorges.
- Strain on Emergency Services:
 - Specialized Response: Requires specialized resources (e.g., ski patrol, avalanche rescue teams, heavy equipment contractors) to safely and effectively clear debris or conduct searches.
 - Operational Strain: Road closures force emergency service detours, significantly increasing response times to mountain communities.

The vulnerability of Taos County is further defined by its specific geographic zones:

- Northern and Eastern Taos County (High-Elevation WUI)
 - Vulnerability Rating: Extreme
 - Vulnerability Factors: This includes Taos Ski Valley and Red River. The high snowpack, steep terrain, and developed areas in runout zones create the highest avalanche and snow loading risk. Residential areas directly adjacent to the WUI are highly exposed to life-safety threats.
 - Mitigation Focus: Proactive avalanche control, protective infrastructure (snow sheds, retention walls), and strict land use zoning.
- Rio Grande Gorge and Adjacent Canyons
 - Vulnerability Rating: High
 - Vulnerability Factors: Roads traversing the Gorge (US-64, NM-68) are exposed to continuous rockfall hazard due to fractured, rapidly weathering rock faces. Post-fire conditions in upstream areas increase the long-term landslide risk.
 - Mitigation Focus: Extensive use of rockfall fencing, slope netting, and traffic warnings; developing protocols for rapid road clearance.
- Central Valley and Mesa
 - Vulnerability Rating: Moderate
 - Vulnerability Factors: While generally flatter, this area is highly exposed to post-fire debris flows channeled through major arroyos that originate in the mountains. This primarily affects transportation routes and utility lines where they cross the mouths of canyons.
 - Mitigation Focus: Flood and debris basin maintenance, and protection of acequia headworks from debris flow inundation.

National Risk Index

The overall risk for geological hazards in Taos County is rated as High. This rating is driven by the high consequence of life-safety threats (avalanches, rockfall on roads) and the certainty of recurring, costly infrastructure disruption along critical, non-by-passable transportation routes.

| Hazard Component | Risk Level (Per National Risk Index) | Probability | Primary Impacts |
|--------------------|--------------------------------------|-------------|--|
| Rockfall/Landslide | Relatively Moderate | Occasional | Damage to mountain roads (US 64, NM 150), utility infrastructure, and structures on steep slopes; Interruption of commerce and emergency access; Potential for injury or death in concentrated travel corridors. |
| Avalanche | Relatively Low | Occasional | Road closures and extended isolation of mountain communities (e.g., Taos Ski Valley); Loss of life; Direct property damage to ski infrastructure, resorts, and high-elevation residences. |

| Risk Component | Assessment for Taos County Geological Hazards |
|----------------|--|
| Vulnerability | High (Life safety is severely exposed in canyons and high-elevation WUI; high asset vulnerability due to linear infrastructure.) |
| Exposure | High (Critical roads like NM-150, NM-38, and US-64 are directly exposed.) |
| Probability | Occasional (Recurring annual rockfalls and seasonal avalanche threats) |

Taos County's ranking for landslide and avalanche risk is also higher due to its topography and history. The key factors influencing the high score are the high monetary value of exposed infrastructure (roads, ski resorts) and the significant social vulnerability score due to the high life-safety risk and potential for isolation in high-elevation, remote communities.

Expected Annual Loss

The Expected Annual Loss is moderate because catastrophic events (D4/D5 Avalanches, large Landslides) are infrequent, but consistent annual costs for road debris removal, rock scaling, and maintenance along US-64, NM-68, and NM-150 are significant.

The calculated EAL for avalanches in Taos County comes in at \$149,273, while the EAL for landslides in Taos comes in at \$150,101, according to the National Risk Index.

The high SVI score is driven by the isolation risk of mountain communities (Taos Ski Valley, Red River). Road severance by rockfall or avalanche can cut off access for days, severely impacting medical access and resource resupply, particularly affecting elderly or low-income populations.

Resilience is generally high due to the presence of specialized response teams (Ski Patrol, NMDOT's specialized rockfall crews) and proactive mitigation (avalanche control, rock netting). However, the single point of failure on key mountain roads significantly reduces overall resilience during a crisis.

The combination of a high social vulnerability score and consistent, high cost of maintenance (EAL) results in a moderately high relative risk rating, necessitating prioritized mitigation efforts for transportation corridors.

Development Trends

As development and visitation increase in Taos County, the risks associated with all slope stability hazards are evolving. While these events have always been natural features of the Sangre de Cristo Mountains, the expansion of the human-built environment into high-risk areas has dramatically heightened exposure and vulnerability.

Population growth, along with expansion of the tourism and recreation industries, drives construction into steep, unstable, or historically high-risk zones. Key areas of concern include:

- **Mountain Corridors:** Increased residential and commercial development along major canyon thoroughfares, such as the NM Highway 150 corridor (leading to Taos Ski Valley) places homes, hotels, and critical infrastructure directly beneath known rockfall and avalanche paths.
- **Avalanche Terrain:** Development related to ski resorts, high-elevation residences, and associated lift infrastructure, while highly managed, inherently increases exposure in designated avalanche terrain. Any new structures or major renovations must adhere to extremely strict setback and design standards informed by comprehensive avalanche runoff mapping.
- **Increased Impervious Surfaces:** Construction of roads, parking lots, and foundations for new homes in steep areas reduces natural infiltration, which can increase the saturation of underlying soil. This added moisture is a key factor in triggering landslides and debris flows.
- **Excavation and Slope Modification:** Site preparation, including grading and excavation for foundations and utility trenches, destabilizes natural slopes by

removing vegetation and altering the toe-of-slope support, directly leading to an increased frequency of rockfalls and superficial slope failures.

A sustained commitment to hazard-aware planning, including restrictive zoning in known avalanche runout zones and geotechnical assessments for all development on slopes, is essential for reducing future losses.

Community Lifelines

Geological hazards pose direct and acute threats to critical Community Lifelines, particularly those reliant on linear infrastructure:

- **Transportation:** This is the most severely impacted lifeline. Road closures due to rockfall and avalanche are common, blocking the movement of goods, people, and emergency resources. Complete bridge or road segment destruction requires long-term, expensive fixes.
- **Safety and Security:** The immediacy of rockfall and avalanche threats creates a life-safety crisis. Disruption of roads limits access for law enforcement, fire, and EMS, compromising rapid response and public safety in isolated mountain areas.
- **Energy (Power & Fuel):** Power transmission towers, poles, and gas lines running through mountain passes are vulnerable to being downed, scoured, or severed by the force of landslides or large, wet avalanches.
- **Communications:** Fiber optic cables and communication towers located along unstable slopes or within avalanche runout zones are subject to physical damage and severance, leading to widespread service outages that impede emergency coordination and early warning dissemination.
- **Food, Water, and Shelter:** While not directly affected by the hazard itself, the isolation caused by road closures can prevent the resupply of food, fuel, and medical supplies to mountain communities for multiple days during extended events.

Results

Geological hazards in the planning area represent a persistent and acute threat, driven by its dramatic and unstable mountain landscape. The risk is compounded by the increasing volatility of the regional climate. Key findings include:

- **Chronic Transportation Risk:** The most consistent threat is the disruption of key state highways (NM-150, NM-38, US-64) by frequent rockfall and seasonal avalanche activity, which carries high economic and life-safety consequences.
- **Life-Safety Priority in WUI:** Avalanche risk in the high-elevation WUI (resort areas) demands continuous, specialized mitigation efforts (e.g., control work) to protect residents, tourists, and critical resort infrastructure.

- **Post-Fire Compounding Hazard:** The risk of destructive landslides and debris flows on steep slopes is severely amplified and made nearly certain following major wildfires due to the loss of vegetative stabilization.
- **Mitigation Focus:** Effective mitigation requires a combination of engineering solutions (slope stabilization, protective barriers) and rigorous operational controls (proactive avalanche control, continuous road monitoring, and land use zoning in runout areas).

Hazard: High Winds (Downslope/Chinook)

Background & Definition

High winds are strong, sustained winds or gusts that can cause damage to structures, vegetation, and infrastructure. In Taos County, these winds often manifest as downslope winds or Chinook winds. Downslope winds occur when air flows down steep mountain slopes, accelerating due to gravity and terrain effects, sometimes reaching hazardous speeds. Chinook winds are warm, dry winds that develop on the leeward side of mountain ranges after moist air masses lose moisture on the windward side. These winds can rapidly increase temperatures while decreasing humidity, creating dry and windy conditions. High wind events can lead to power outages, property damage, elevated wildfire risk, and transportation hazards. The intensity and duration of these winds are influenced by regional weather patterns, topography, and atmospheric pressure gradients. Hazard mitigation planning evaluates high wind risks based on historical wind speed data, geographic exposure, and vulnerability of critical assets.

Table 29. Beaufort Wind Force Scale

| Force | Wind (Knots) | WMO Classification | Appearance of Wind Effects | |
|-------|--------------|--------------------|--|--|
| | | | On the Water | On Land |
| 0 | Less than 1 | Calm | Sea surface smooth and mirror-like | Calm, smoke rises vertically |
| 1 | 1-3 | Light Air | Scaly ripples, no foam crests | Smoke drift indicates wind direction, still wind vanes |
| 2 | 4-6 | Light Breeze | Small wavelets, crests glassy, no breaking | Wind felt on face, leaves rustle, vanes begin to move |
| 3 | 7-10 | Gentle Breeze | Large wavelets, crests begin to break, scattered whitecaps | Leaves and small twigs constantly moving, light flags extended |
| 4 | 11-16 | Moderate Breeze | Small waves 1-4 ft. becoming longer, numerous whitecaps | Dust, leaves, and loose paper lifted, small tree branches move |
| 5 | 17-21 | Fresh Breeze | Moderate waves 4-8 ft taking longer form, many whitecaps, some spray | Small trees in leaf begin to sway |
| 6 | 22-27 | Strong Breeze | Larger waves 8-13 ft, whitecaps common, more spray | Larger tree branches moving, whistling in wires |
| 7 | 28-33 | Near Gale | Sea heaps up, waves 13-19 ft, white foam streaks off breakers | Whole trees moving, resistance felt walking against wind |
| 8 | 34-40 | Gale | Moderately high (18-25 ft) waves of greater length, edges of crests begin to break into spindrift, foam blown in streaks | Twigs breaking off trees, generally impedes progress |
| 9 | 41-47 | Strong Gale | High waves (23-32 ft), sea begins to roll, dense streaks of foam, spray may reduce visibility | Slight structural damage occurs, slate blows off roofs |

| Force | Wind (Knots) | WMO Classification | Appearance of Wind Effects | |
|-------|--------------|--------------------|--|--|
| | | | On the Water | On Land |
| 10 | 48-55 | Storm | Very high waves (29-41 ft) with overhanging crests, sea white with densely blown foam, heavy rolling, lowered visibility | Seldom experienced on land, trees broken or uprooted, "considerable structural damage" |
| 11 | 56-63 | Violent Storm | Exceptionally high (37-52 ft) waves, foam patches cover sea, visibility more reduced | |
| 12 | 64+ | Hurricane | Air filled with foam, waves over 45 ft, sea completely white with driving spray, visibility greatly reduced | |

Taos County is susceptible to episodes of high winds, including downslope and Chinook wind events, due to its mountainous geography and regional atmospheric patterns. Chinook winds occur when moist air rises over mountain ranges, loses moisture as precipitation, then descends the warm, dry, and often strong winds. These winds can reach damaging speeds and cause rapid temperature increases in localized areas, particularly along the eastern slopes of the Sangre de Cristo Mountains. Downslope wind events, characterized by sudden gusts and turbulence, can occur year-round but are especially common during transitional seasons. High winds can result in property damage, power outages, increased wildfire risk by drying vegetation, and hazards to transportation. The frequency and intensity of these wind events can be influenced by larger weather systems such as passing cold fronts or pressure differentials across the region. Understanding and mitigating the impacts of high winds is essential for community safety and infrastructure resilience in Taos County.

Location & Extent

Location

High winds are a threat to the entire planning area, but the intensity and impact are maximized in specific geographic areas:

| Zone | Primary Impact | Vulnerability Factors |
|------------------------------------|--|--|
| Taos Mesa (West of the Rio Grande) | Utilities, Transportation, Wildfire Spread | Strongest sustained winds. Open exposure leads to dust storms (haboobs) and high-velocity wind flow that stresses power infrastructure. |
| Mountain Passes and High Peaks | Structural Damage, Rockfall Trigger | Extreme wind gusts (often mph) caused by terrain channeling and elevation. Severe threat to structures, communication towers, and the mechanical stability of rock faces. |
| Rio Grande Gorge and Canyons | Rockfall, Transportation Closure | Wind shear and channeling along the gorge walls increase the risk of dislodging loose material, directly contributing to rockfall hazard on major roadways (US-64, NM-68). |

Extent

The extent of the hazard in the planning area is measured by the wind speed and the resultant damage intensity. Across Taos County, high-wind severity ranges from 25–35 mph sustained winds (Beaufort Force 6-7) in valley communities such as the Town of Taos to 50-70+ mph gusts (Beaufort Force 9-11) along exposed ridge tops, canyons, and high-elevation areas including Taos Ski Valley, Tres Piedras, and the Rio Grande Gorge rim. These ranges reflect typical seasonal extremes documented by NWS Albuquerque and local AWOS stations.

- Wind Speed: Measured in knots or miles per hour (mph). The strongest gusts are highly destructive, capable of snapping mature trees and causing localized building collapse. Based on the Beaufort Wind Scale, Taos County regularly experiences:
 - Force 6-7 (25-38 mph): Strong breeze to near-gale conditions common in valley floors during spring wind events.
 - Force 8-9 (39-54 mph): Gale to strong gale conditions during cold-front passages and Red Flag days, capable of downing tree limbs and producing blowing dust.
 - Force 10-11 (55-72 mph): Storm-force winds recorded at high elevations and exposed terrain, capable of structural damage, roof loss, and widespread power outages.

These values align with observed peak gusts at Taos Regional Airport and high-elevation SNOTEL and RAWS stations.

- Duration: Prolonged periods of high winds (12 to 48 hours) are significantly more damaging as they stress utility infrastructure until failure and exponentially increase the rate of fire spread. Extended wind events in Taos County, particularly during spring pressure-gradient episodes, can maintain sustained winds of 25-40 mph with higher gusts for 24-36 hours, increasing cumulative damage potential.
- Secondary Extent: The true extent is often measured by the Wildfire Potential (e.g., Red Flag Warnings) and the size of the subsequent fire or debris flow the wind helps initiate. During Red Flag conditions, wind gusts commonly reach 40-60 mph, rapidly accelerating fire spread rates and increasing spotting distances to ¼–½ mile or more in the county's forested and canyon environments.

Historical Occurrences

High winds are a near-annual occurrence. Major events often require state-level emergency declarations due to widespread utility and debris damage, rather than meeting the federal threshold independently.

| Year | Event/Duration | Impacted Assets | Damage |
|------|----------------|-----------------|--------|
|------|----------------|-----------------|--------|

| | | | |
|--------------------|-------------------------|--|--|
| Recurring (Spring) | Red Flag/Fire Events | Forest Lands, WUI Communities | High winds are the primary factor in all significant wildfire events, enabling rapid, uncontrollable fire growth that leads to subsequent geological hazards (landslides, debris flows). |
| December 2021 | Heavy Winds/Snow Squall | Taos Ski Valley, Arroyo Hondo, Arroyo Seco | Wind gusts exceeded 100 mph in mountain areas. Caused widespread power outages (Kit Carson Electric), structural damage to homes/businesses, and damage to 911 communication towers. |
| Recurring | Pre-Monsoon Season | Utility Infrastructure | Chronic, sustained wind events cause repeated tree falls and line breaks, leading to multiple day-long utility outages across the mesa and mountain communities. |

Following the extreme snow squall and high winds in December 2021, Governor Grisham signed an Executive Order declaring a State of Emergency in Taos County. This state declaration provided up to \$750,000 in state resources for recovery efforts, specifically citing the widespread damage to power lines, communication infrastructure, and roads caused by the high winds and resulting debris.

While there has been no Presidential Disaster Declaration (PDR) issued solely for a high wind event in Taos County, the severe consequences of wind-driven events have led to PDRs. For instance, the massive wind-fueled wildfires (like the Hermits Peak/Calf Canyon Fire) result in PDRs. These declarations then cover the costs of debris cleanup, emergency protective measures, and subsequent damage from the wind-initiated disaster (e.g., wind-driven fire damage or wind-exacerbated erosion).

Future Potential Events (Probability)

The probability of recurring high wind events is rated as Likely.

| Potential Event Magnitude | Probability | Location of Concern |
|--|--|--|
| Destructive Wind Gusts (>65 mph) | Likely in any given year | High elevations, Taos Mesa, canyon mouths. |
| Wind-Driven Wildfire (Red Flag Event) | High (Certain, especially during spring drought) | All forested areas, transitioning to WUI. |
| Wind-Triggered Rockfall (Road Closure) | Moderate (Possible every 2-5 years) | Rio Grande Gorge corridors (US-64, NM-68). |

Climate Change Impact

Climate change is expected to intensify the high wind hazard by exacerbating drought conditions and increasing the frequency of large-scale pressure systems:

- **Extended Dry Seasons:** High winds are correlated with dry conditions. Longer and more severe spring drought periods will mean more frequent and powerful winds coinciding with critically dry fuel beds, raising the wildfire risk exponentially.
- **Increased Fire-Climate Wind:** The climate may favor more powerful and sustained "fire winds" that drive megafires, leading to vast burn scars and a subsequent, permanent increase in the risk of post-fire geological hazards (landslides and debris flows).
- **Enhanced Mechanical Stress:** More frequent and intense freeze-thaw cycles combined with high wind gusts increase the mechanical stress on highly fractured slopes, contributing to a higher baseline rate of rockfall.

Vulnerability Assessment

Impacts of High Winds in the planning area include the following:

- **Damage to Energy Infrastructure:**
 - **Power Outages:** The leading damage type. Downed trees and snapping poles caused by high winds result in widespread, prolonged outages across the mesa and mountain communities, affecting heating, communication, and water pumping.
 - **Communication Loss:** Damage to antenna towers and terrestrial lines can cripple 911 service and emergency communication networks.
- **Structural and Property Damage:**
 - High wind gusts cause structural failure, lift roofing materials, shatter windows, and damage outbuildings (sheds, barns) and recreational vehicles.
 - Significant loss of mature trees creates large amounts of debris requiring extensive cleanup and disposal, straining public works resources.
- **Exacerbation of Geological Hazards (CRITICAL):**
 - **Direct Rockfall Trigger:** High winds can directly dislodge precariously balanced rocks, posing an immediate, high-velocity threat to drivers and infrastructure in canyons.
 - **Wildfire Landslide Pathway:** By driving and expanding catastrophic wildfires, high winds directly create the conditions for severe post-fire debris flows and landslides (the geological hazard) in the following monsoon seasons. The high winds thus contribute to the most costly and dangerous geological events.
- **Transportation Impairment:**
 - High winds make vehicle travel hazardous, especially for high-profile vehicles (RVs, semi-trucks) on exposed sections of US-64 and the Mesa.
 - Debris and downed trees cause immediate road closures, impeding emergency access.

National Risk Index

The overall risk for High Winds in Taos County is rated as Very Low. While direct life loss from wind is low, the high probability of recurrence and the severe consequences related to fire initiation, utility outages, and geological triggers justify this hazard.

| Hazard Component | Risk Level (Per National Risk Index) | Probability | Primary Impacts |
|------------------|--------------------------------------|-------------|--|
| High Winds | Very Low | Likely | Widespread power outages; Damage to structures (roofs, signage, mobile homes); Downed trees blocking mountain roads; Extreme fire behavior and rapid spread, especially during dry periods; Significant blowing dust and visibility issues on valley floors. |

| Risk Component | Assessment for Taos County High Winds |
|----------------|---|
| Vulnerability | High (High density of WUI structures, extensive exposed power/communication lines, and unstable geological features.) |
| Exposure | High (All transportation corridors, utility infrastructure, and mountain communities are exposed to seasonal high wind events.) |
| Probability | Likely (Recurrence of NWS High Wind Warnings multiple times per year is guaranteed.) |

High wind events, commonly stemming from severe thunderstorms, powerful winter storms, and frontal passages, present a substantial hazard. While high winds in Taos County are not typically a top-tier source of property damage like tornadoes or hurricanes, they are instead a critical trigger and accelerating factor for the county's biggest threats. Specifically, during the spring wildfire peak season (March–June), persistent, powerful winds drive rapid and often uncontrollable fire spread in the dense, dry timber of the Sangre de Cristo Mountains. Beyond this, they also cause significant physical impacts like power outages, structural damage to non-wind-rated buildings, and debris, leading to considerable economic loss and potential social harm.

Expected Annual Loss

The table below outlines the Expected Annual Losses (EAL) due to High Wind events in Taos County. These estimates capture direct losses resulting from structural and

infrastructure damage, as well as the societal costs related to power outages and indirect economic disruption from fire spread. The overall risk level for this frequent hazard is Moderate.

| Event Type | Annual Expected Loss (Property) | Annual Expected Loss (Utility & Infrastructure) | Annual Expected Loss (Population-Fatalities/Injuries) |
|-----------------------------------|---------------------------------|---|---|
| Direct Wind Damage (Structural) | \$125,000 | \$55,000 | Minimal fatalities, Moderate risk of minor injuries from flying debris. |
| Wind-Driven Wildfire Spread | \$150,000 | \$10,000 | Increased risk of severe injury from fire exposure and evacuation-related hazards. |
| Downed Trees / Utility Poles | \$40,000 | \$150,000 | Low risk of direct injury, High societal cost due to extended power outages. |
| Blowing Dust / Loss of Visibility | \$5,000 | \$0 | Low risk of direct injury, High risk of multi-vehicle accidents on key routes (US 64, NM 68). |

High Wind events, particularly the strong, warm Chinook and downslope winds originating from the Sangre de Cristo Mountains, are a chronic threat. While catastrophic structural collapses are rare, the cumulative cost of damage from wind-driven debris, falling trees on power lines, and roof failures contributes to a significant annualized loss. The highest risks are associated with mobile homes and older structures that may not meet modern wind resistance codes. Furthermore, high winds often drive and intensify wildfires, leading to high indirect annual losses not fully captured in the property column. The primary population risk is injury from falling debris or vehicular accidents due to blowing dust and low visibility.

Development Trends

Developmental trends in Taos County significantly influence the exposure and vulnerability of assets to High Wind hazards, particularly the powerful Chinook and downslope winds. As development expands across the valley floor and onto wind-exposed mesas and slopes, the risk profile of the built environment changes considerably.

- **Manufactured Housing:** A disproportionate number of older manufactured homes and modular buildings, often located in the exposed valley and mesa areas, predate modern wind-load standards. This housing stock represents a critical point of

vulnerability, being highly susceptible to roof lift, structural failure, and total destruction during extreme wind events.

- **Utility Infrastructure:** Expansion of development requires extending above-ground utility lines (power and communication) across large, open, wind-swept tracts of land. This increased mileage of exposed lines, combined with older, mature vegetation (especially cottonwood and aspen) near development, leads to frequent and widespread power outages when high winds cause trees or utility poles to fail.
- **Commercial Structures:** The prevalence of large, flat-roofed commercial buildings and extensive signage designed for high visibility often creates weaknesses during high winds, leading to costly roof damage, debris generation, and business interruption.

Compounding factors to high wind situations within Taos County include:

- **Wildfire Interaction:** Development adjacent to wildland areas (WUI) is placed at amplified risk, as high winds are the primary factor driving the speed and direction of wildfires. New construction near these boundaries increases the exposure of homes to wind-driven embers and flame fronts.
- **Blowing Dust and Erosion:** Increased development and land disturbance in arid areas can reduce surface stabilization. High wind events then mobilize large quantities of dust, creating dangerous Blowing Dust conditions on key transportation corridors (e.g., US 64 and NM 68), leading to frequent traffic accidents and economic disruption from road closures.
- **Mitigation efforts must focus on stricter enforcement of building codes for wind resistance, retrofitting highly vulnerable housing stock, and prioritizing underground utility lines in the most wind-prone and fire-prone corridors.**

Community Lifelines

High winds severely compromise two key Lifelines in Taos County:

- **Energy: Extreme Vulnerability.** High winds are the single most common natural cause of long-duration, widespread power outages, impacting heating, municipal water systems (which rely on electric pumps), and internet connectivity across the county.
- **Safety and Security:** Compromised due to the immediate risk of flying debris and the breakdown of emergency communications (911 towers) during a peak event. The greatest threat is when wind-driven fire requires mass evacuation and response efforts are hampered by downed lines and limited communication.

The strong winds in Taos County present a persistent, recurring threat to infrastructure, and their role in driving wildfire significantly exacerbates the county's geological hazard risk by creating preconditions for catastrophic post-fire debris flows.

Results

The planning area's high wind risk analyses highlight the increasing threat posed by extreme weather patterns, complex topography, and infrastructure exposure, critically affecting public safety, essential utilities, and emergency response systems. Several key findings emerge from this assessment:

- **Increasing Frequency & Intensity of High Wind Events** - Climate change is projected to worsen drought conditions, leading to more frequent and powerful wind events that coincide with critically dry fuels. This intensification increases both the direct risk of damage and the likelihood of Red Flag Warnings during the critical spring fire season.
- **Extreme Vulnerability of Energy Lifeline** - High winds are the most common cause of widespread, prolonged power and communication outages (the county's leading infrastructure vulnerability), damaging exposed utility lines and felling trees. Protecting the Energy Lifeline against wind load is essential for community stability and emergency response functionality.
- **Disproportionate Impact on Vulnerable Populations** - Remote communities, low-income households, and elderly residents face compounded challenges from prolonged power loss, which impairs essential services like heating and water pumping. Transportation corridors blocked by wind-driven debris or rockfall can increase emergency response times in isolated areas.
- **Significant Economic Consequences** - High winds cause immediate direct losses from property damage and utility repair costs, and indirect losses from road closures. Wind-triggered rockfall on key corridors (US-64, NM-68) severely disrupts tourism and commerce, placing substantial financial strain on local businesses and county debris cleanup resources.
- **Exacerbation of Related Hazards (Cascading Risk)** - High winds are the primary factor in accelerating the risk of catastrophic wildfire spread during the spring and are a direct trigger for geological hazards (rockfall) along steep slopes. By accelerating these events, high winds contribute to the most costly and dangerous subsequent impacts, including post-fire debris flows and severe erosion.
- **Need for Comprehensive Mitigation & Adaptation Strategies** - Addressing the high wind threat requires a multi-faceted approach focused on proactive investment. Strategies must include infrastructure hardening (undergrounding and reinforcing utility lines), specialized debris management, and installing rockfall mitigation structures along high-vulnerability canyon corridors.
- **Importance of Policy Coordination & Regional Collaboration** - Managing high wind risks requires cooperation between local agencies, utilities (Kit Carson Electric Cooperative), and state entities (NM-DOT) to synchronize emergency response protocols, ensure rapid debris clearance, and coordinate recovery efforts related to wind-driven cascade hazards (wildfire and geological events).

High winds present growing challenges to Taos County, significantly affecting infrastructure, businesses, and ecosystems, primarily through its role as a hazard accelerator. As climate patterns continue to shift, the severity of these wind events is expected to increase, requiring proactive planning, investments in resilience, and strengthened emergency response efforts to protect public health, economic stability, and community well-being.

Hazard: Pandemic & Infectious Disease Outbreak

Background & Definition

The Centers for Disease Control and Prevention (CDC) defines a pandemic as “an epidemic that has spread over several countries or continents, usually affecting a large number of people.” The CDC emphasizes that infectious disease pandemics like influenza, COVID–19, and other emerging threats can overwhelm healthcare systems, disrupt economies, and cause significant morbidity and mortality.

Taos County’s response to the COVID-19 pandemic revealed vulnerabilities in public health infrastructure, emergency communications, and continuity of operations planning. Limited healthcare access and long travel distances make rural areas particularly vulnerable to disease outbreaks. Emerging vector-borne diseases and zoonotic threats may expand into higher elevations as climate conditions shift. The CDC emphasizes that infectious disease pandemics like influenza, COVID–19, and other emerging threats can overwhelm healthcare systems, disrupt economies, and cause significant morbidity and mortality.

The CDC focuses on disease surveillance, vaccine development, infection prevention measures, and emergency response planning to reduce the spread and impact of future outbreaks and to help mitigate pandemic risks. Infectious diseases including influenza, COVID–19, and emerging viral threats pose significant public health risks due to their high transmission rates and potential for severe illness or death. These outbreaks disrupt healthcare systems, strain emergency response efforts, and impact economic stability. They can spread rapidly through person–to–person contact, contaminated surfaces, and airborne transmission, requiring public health interventions like vaccinations, quarantines, and travel restrictions.

Future pandemics remain a critical concern, as new viral strains, antimicrobial resistance, and climate change increase the risk of emerging infectious diseases. Taos County, like many other regions, must prioritize disease surveillance, emergency preparedness, and public health infrastructure improvements to mitigate the impact of future outbreaks and protect community well–being.

Location & Extent

Taos County is vulnerable to pandemics and infectious disease outbreaks due to its dispersed population, limited healthcare infrastructure, and heavy reliance on a tourism-driven economy. While the county has a relatively small and rural population, its status as a major regional tourist destination (Taos Pueblo, Taos Ski Valley, historic sites) attracts a high influx of national and international visitors, significantly increasing the potential for rapid disease transmission, especially during peak seasons.

Healthcare accessibility is a key factor influencing the impact of infectious diseases. The county has limited hospital facilities (Holy Cross Medical Center), relying heavily on regional healthcare networks in Santa Fe or Albuquerque for specialized critical care. Rural and mountain communities may face significant challenges accessing timely medical treatment, particularly in the event of a widespread outbreak that strains both local and regional health resources.

Beyond common concerns like influenza and respiratory viruses, Taos County must also contend with unique regional diseases such as hantavirus pulmonary syndrome (associated with rodent activity, a persistent hazard in the high desert Southwest) and occasional plague cases. The high-altitude and arid climate influences the seasonality of certain viruses and the prevalence of these specific regional diseases. The county’s susceptibility to emerging infectious diseases was clearly demonstrated by the COVID-19 Pandemic, which heavily impacted local businesses, schools, and the capacity of the healthcare system.

Future pandemics and infectious disease outbreaks will continue to pose risks, particularly for vulnerable populations like the elderly, individuals with chronic illnesses, and those with limited access to healthcare. Public health preparedness, targeted vaccination programs, and robust regional emergency response planning will be critical in mitigating the impact of future infectious disease threats.

Historical Occurrences

Taos County has experienced notable infectious disease outbreaks ranging from seasonal influenza to large-scale pandemics. While the rural nature of the county provides some level of isolation, its tourism industry and connections to larger urban centers contribute to the spread of infectious diseases.

| Outbreak | Year(s) | Pathogen | Impact on Taos County |
|----------------------|-------------------|--------------------------|---|
| COVID-19 Pandemic | 2020–Present | SARS-CoV-2 (Coronavirus) | Severe strain on local healthcare (Holy Cross Medical Center), staffing shortages, access challenges for rural/Tribal communities, and major economic losses in the tourism sector. |
| H1N1 Influenza | 2009–2010 | H1N1 Influenza Virus | Confirmed regional cases; primarily impacted younger populations; highlighted challenges in rapid, coordinated public health response across rural areas. |
| Seasonal Influenza | Ongoing (annual) | Influenza A & B | Consistent outbreaks, particularly during winter/tourist season, leading to spikes in hospitalizations; focus on public vaccination campaigns. |
| Hantavirus Pulmonary | Ongoing (endemic) | Hantavirus | Sporadic, life-threatening cases associated with rodent activity; requires continuous public health |

| | | | |
|----------------------|----------------------------|---|---|
| Syndrome (HPS) | | | education on safe cleanup practices in the arid Southwest. |
| Plague | Ongoing (endemic/sporadic) | <i>Yersinia pestis</i> (Bacterium) | Rare but persistent zoonotic hazard in wildlife (fleas/rodents); requires active monitoring and public health messaging to prevent human transmission. |
| Waterborne illnesses | Ongoing (sporadic) | Varies (e.g., <i>E. coli</i> , <i>Giardia</i>) | Sporadic cases often related to aging infrastructure or drought-stressed water supplies; risk management tied to water quality and utility maintenance. |

On March 29th, 2020, a Presidential Major Disaster Declaration (DR 4527) was issued for the COVID-19 Pandemic, affecting the entire state of New Mexico as well as having global implications. Massive strain on local healthcare resources; staff shortages, severe economic loss across the tourism and recreation sectors, and widespread public health measures were impacted.

Future Potential Events (Probability)

The threat of future pandemics and infectious disease outbreaks remains a significant public health concern. With increasing global travel, climate change, and evolving pathogens, the county must prepare for emerging health threats that could strain healthcare systems, disrupt daily life, and impact economic stability.

- **Emerging Infectious Diseases.** New and re-emerging infectious diseases, including novel strains of influenza, coronaviruses, and vector-borne illnesses, pose persistent risks for the county. The continued mutation of viruses, antimicrobial resistance, and the potential for zoonotic spillover (diseases transferring from animals to humans) increase the likelihood of future outbreaks.
- **Population Vulnerabilities & Healthcare Capacity.** The rural nature of the county presents challenges in accessing healthcare, particularly for elderly and low-income populations. Future pandemics could overwhelm limited hospital capacity and healthcare infrastructure, especially in scenarios requiring large-scale vaccination efforts, critical care services, and emergency medical response.
- **Potential Economic & Social Impacts.** Future pandemics have the potential to cause significant economic disruptions including business closures, supply chain interruptions, workforce shortages, and tourism declines. Schools, public services, and emergency response agencies may also experience strain due to prolonged outbreaks and necessary containment measures.

Climate Change Impact

Climate change is expected to increase the frequency and severity of infectious disease outbreaks in Taos County by altering disease transmission patterns, expanding the range of disease-carrying vectors, and straining public health infrastructure. Rising temperatures, changes in precipitation, and more frequent extreme weather events create favorable conditions for the spread of vector-borne diseases like Lyme disease, West Nile virus, and other mosquito- and tick-borne infections. Warmer winters and longer growing seasons allow ticks and mosquitoes to thrive year-round, increasing the risk of disease transmission.

Increased flooding and extreme weather events can lead to contaminated water supplies, mold-related respiratory illnesses, and outbreaks of waterborne diseases, particularly in rural communities with older infrastructure. More frequent heat waves and poor air quality days can also worsen respiratory conditions, making populations more vulnerable to viral infections like influenza and COVID-19.

The unpredictability of climate-driven disease emergence poses a significant public health challenge requiring enhanced disease surveillance, emergency preparedness, and stronger public health infrastructure to mitigate risks. Investments in climate adaptation strategies, improved vector control measures, and healthcare system resilience will be crucial in reducing the long-term impacts of climate change on infectious disease outbreaks.

Vulnerability Assessment

County vulnerabilities to pandemics and infectious diseases are influenced by demographics, healthcare capacity, economic factors, and environmental conditions. The table below outlines key vulnerability factors and their potential impact on the county:

| Category | Vulnerability Factors | Potential Impacts |
|---------------------------|--|--|
| Population | Geographic Isolation: Rural communities face longer emergency response and medical transport times, especially during an outbreak. | Higher fatality rates in remote or Tribal communities due to delays in care. Increased reliance on county-level outreach services. |
| | Vulnerable Sub-populations: High percentage of elderly residents and individuals with chronic respiratory conditions exacerbated by local wildfire smoke and high-altitude living. | Greater burden on the limited specialized medical resources (e.g., ICU beds, specialists) at Holy Cross Medical Center. |
| Healthcare Infrastructure | Limited Capacity: Very few hospital beds and critical care capacity within the county; | Overwhelmed local facilities during even moderate outbreaks; delays in receiving specialized or long-term |

| | | |
|---------------------------------|---|---|
| | highly dependent on regional networks (e.g., Albuquerque, Santa Fe). | care; rapid depletion of personal protective equipment (PPE). |
| | Rural Access: Challenges in administering widespread public health initiatives (testing, vaccination) across remote, low-density areas due to distance and transportation issues. | Slower response times and unequal distribution of health resources, potentially leading to prolonged community transmission. |
| Economic & Workforce | Tourism Dependence: Heavy reliance on tourism and hospitality, which introduces high mobility and is immediately disrupted by travel restrictions and public health mandates. | Rapid, severe economic downturns and job losses (especially in service industries) during a multi-month pandemic; financial hardship for small, local businesses. |
| Impacts | Essential Workforce Strain: Workforce shortages in critical services (healthcare, emergency response, grocery stores) if large numbers of staff are quarantined or ill. | Supply chain disruptions, inability to maintain essential utilities, and reduced capacity for public safety services. |
| Education & Public Services | School Closures: Local schools and Taos Pueblo education centers are major centers for disease transmission among youth. | School closures leading to student learning loss and a massive barrier to childcare for working parents, further impacting the local workforce. |
| | Limited Connectivity: Unequal access to high-speed internet and technology in rural and Tribal areas hinders effective transition to remote learning and telehealth services. | Widening of educational and social service disparities across the county. |
| Environmental & Climate Factors | Endemic Zoonotic Risk: Presence of unique regional diseases like Hantavirus (rodents) and Plague (fleas/wildlife) that can be exacerbated by environmental changes. | Increased public health monitoring challenges; potential for overlapping health crises (e.g., a respiratory pandemic coinciding with Hantavirus warnings). |
| | Wildfire/Air Quality: Severe wildfire seasons create periods of poor air quality, increasing baseline rates of asthma and respiratory illnesses, making populations more vulnerable to respiratory pandemics. | Higher rates of severe illness and hospitalization during a respiratory virus outbreak. |

Taos County's aging population, limited critical care capacity (relying heavily on regional hospitals), and economic dependence on national and international tourism make it profoundly vulnerable to pandemics and infectious disease outbreaks. The

county's rural isolation and long transport times for remote and Tribal communities can lead to delayed treatment and quickly strain the single local hospital, Holy Cross Medical Center, during widespread health crises. Furthermore, endemic zoonotic diseases (such as Hantavirus and Plague) and climate change impacts (like increased wildfire smoke exacerbating respiratory conditions) intensify the overall infectious disease risk profile. To effectively mitigate these threats, the county must prioritize enhancing disease surveillance, investing in robust public health infrastructure, and strengthening inter-jurisdictional emergency preparedness strategies with state and Tribal partners to better respond to future outbreaks.

National Risk Index

The Pandemic and Infectious Disease hazard represents the risk posed by the widespread occurrence of human illness, whether seasonal (e.g., influenza), endemic (e.g., Hantavirus), or pandemic (e.g., COVID-19). While the direct property and crop damage associated with this hazard is negligible, the economic and social consequences, as measured by FEMA's National Risk Index (NRI), are substantial.

The primary risk drivers in Taos County are the high mobility of its population due to tourism and the social vulnerability inherent in its rural, geographically dispersed communities with limited healthcare resources.

Key Factors

The following key factors exacerbate the impact of any widespread infectious disease outbreak in the county:

- **Reliance on Tourism:** The economy's dependence on national and international visitors (e.g., Taos Ski Valley, historic sites) rapidly introduces new pathogens and creates high disease mobility.
- **Limited Healthcare Infrastructure:** The county relies on a single, small hospital (Holy Cross Medical Center) with limited specialized critical care (ICU) capacity, forcing reliance on over-the-mountain transfers to distant regional facilities.
- **Rural Isolation and Tribal Communities:** Long travel distances, poor road access, and geographic isolation for many residents (including Tribal communities) can delay critical medical intervention and public health response efforts.
- **Endemic Zoonotic Threats:** The unique, naturally occurring presence of severe diseases like Hantavirus and Plague requires year-round surveillance, creating baseline strain on local public health resources.
- **Climate Change Multipliers:** Increased wildfire frequency leads to prolonged periods of poor air quality, which exacerbates underlying respiratory conditions and makes the population more vulnerable to severe respiratory pandemics.

Frequency/Impact

The following table outlines the generalized risk level, probability, and key impacts for various components of the infectious disease hazard in Taos County, as defined by the NRI methodology.

| Hazard Component | Risk Level (Per National Risk Index) | Probability | Primary Impacts |
|---|--------------------------------------|---|--|
| Pandemic Outbreak (e.g., COVID-19) | High | Occasional (Likely once per generation) | Widespread loss of life, prolonged business closures, major economic recession, extreme strain on healthcare. |
| Seasonal Respiratory Outbreak (e.g., Influenza) | Moderate | Frequent (Annually) | Increased hospitalizations, school closures, reduced workforce productivity, strain on local EMS/urgent care. |
| Endemic Zoonotic Disease (e.g., Hantavirus) | Moderate | Occasional (Sporadic, localized clusters) | High severity/fatality rate for individuals affected; requires continuous public health education and monitoring efforts. |
| Waterborne/Foodborne Outbreak | Low | Rare to Occasional (Localized) | Temporary localized illness; minor strain on healthcare; requires specific infrastructure failures or severe weather events. |

Expected Annual Loss (EAL)

Expected Annual Loss (EAL) is a quantifiable metric used by the NRI to estimate the average loss associated with a hazard event over a long period. For Pandemics and Infectious Disease in Taos County, the EAL is dominated by socio-economic factors rather than direct physical damage. Specifically, the EAL for Property and Agriculture is estimated to be Negligible (Near \$0), as infectious diseases do not typically cause structural damage or crop loss. Conversely, the EAL for Population (which includes costs associated with fatalities, injuries, medical expenses, and lost wages) is substantial, estimated to be between \$100,000 and \$500,000+ annually. This figure reflects the significant social and economic burden imposed by a combination of endemic, seasonal, and catastrophic infectious disease events on the county's vulnerable and dispersed population.

The overall risk for the Pandemic and Infectious Disease hazard in Taos County is significantly driven by its high social vulnerability and the severe consequences of its

limited healthcare infrastructure. While property and agricultural losses are minimal, the county must prepare for massive economic disruption and a high potential for population impact.

Mitigation strategies must focus not on structural solutions, but on non-structural interventions, including enhancing disease surveillance, developing robust regional medical surge capacity agreements, strengthening collaboration with Tribal partners, and ensuring effective, timely public communication for vaccine and testing access across all remote communities. Proactive planning for economic recovery in the vital tourism sector is also essential to lessen the long-term financial strain of any future outbreak.

Development Trends

Development trends influence regional vulnerability to pandemics and infectious diseases. County reliance on tourism means that seasonal population surges increase the risk of disease transmission, particularly in hospitality, retail, and service industries. Ongoing residential and commercial development in rural and semi-rural areas can strain healthcare infrastructure, as many communities have limited access to medical facilities. Climate change and shifting land use patterns are also contributing to the spread of vector-borne illnesses, as warmer temperatures and changing ecosystems create favorable conditions for ticks, mosquitoes, and other disease-carrying organisms. Future planning efforts must focus on expanding healthcare capacity, improving public health surveillance, and integrating pandemic preparedness into economic and infrastructure development strategies.

Community Lifelines

Pandemics and infectious disease outbreaks can significantly disrupt Taos County's community lifelines, affecting essential services and public health systems. Rural geography, social vulnerability, and reliance on tourism amplify these disruptions.

- **Safety & Security.** Law enforcement, emergency management, and public health agencies are critical for enforcing health mandates and coordinating complex responses. During outbreaks, high rates of illness among Taos County Sheriff's Office and VFD personnel can cause severe staffing shortages, straining limited mutual aid resources and response times, especially in remote communities.
- **Health & Medical.** Taos County is extremely vulnerable to patient surges due to the reliance on Holy Cross Medical Center, a single critical access hospital with limited ICU beds. Patient overflow necessitates time-consuming transfers over mountainous terrain to regional facilities (e.g., Santa Fe), putting a high value on expanding telehealth services and strengthening coordination with Taos Pueblo's health services.

- **Food, Water, & Shelter.** Supply chain interruptions quickly impact the availability of essential goods, particularly given the county's relative isolation from major distribution hubs. Vulnerable populations, including low-income residents and elderly individuals, struggle to access necessary resources, increasing demand for targeted Tribal and social service food assistance programs and emergency shelter capacity.
- **Energy (Power & Fuel).** Prolonged pandemics strain utility services as worker illness affects the maintenance and repair of the power grid and fuel distribution networks. Maintaining continuity of operations (COOP) for utility workers is vital, as power loss in high-elevation, cold-weather environments poses a direct threat to life safety and continuous healthcare operation.
- **Communications.** Reliable communication networks are essential for public health messaging, telemedicine, and coordinating multi-agency emergency responses. Poor broadband access and limited cell service in many of the county's mountainous and rural areas make it difficult for residents, including students, to receive timely updates, access virtual schooling, or consult with virtual healthcare providers.
- **Transportation.** Travel restrictions and workforce shortages disrupt freight deliveries of medical supplies and food, and severely impact emergency medical transport logistics. The reliance on tourism means road maintenance and infrastructure projects may also experience delays due to funding cuts and supply chain issues, further complicating future emergency response access.

Results

Analyses of pandemics and infectious disease risks in the planning area highlight ongoing challenges posed by disease outbreaks, healthcare system demands, and economic disruptions. While large-scale pandemics are rare, the increasing frequency of infectious disease outbreaks, including endemic threats, seasonal influenza, and the potential for waterborne diseases, demonstrates the need for sustained public health investments and emergency preparedness. The following key findings summarize the primary impacts observed in Taos County:

- **Increased Frequency & Impact of Infectious Diseases.** Emerging respiratory diseases (e.g., COVID-19 and seasonal influenza) demonstrate how rapidly pandemics can strain the local healthcare system. The county also faces unique threats from endemic zoonotic illnesses such as Hantavirus Pulmonary Syndrome and Plague, which require year-round surveillance and targeted public health education due to their high fatality rates.
- **Healthcare System Vulnerability.** Taos County is extremely vulnerable due to its rural healthcare infrastructure, centered on Holy Cross Medical Center, which has limited ICU capacity. The reliance on long-distance patient transfers and coordination with regional facilities (e.g., Santa Fe/Albuquerque) further increases the county's susceptibility to system failure during patient surges.

- **Economic Consequences for Key Sectors.** Pandemics result in significant economic losses, particularly for the tourism and outdoor recreation sectors that rely on seasonal visitors. Public health restrictions, workforce shortages, and supply chain disruptions contribute to prolonged financial instability, affecting local employment rates and gross receipts tax revenue.
- **Disproportionate Impact on Vulnerable Populations.** Low-income households, elderly residents, and individuals with pre-existing health conditions face heightened risks during pandemics. Tribal and isolated communities also struggle with limited healthcare access, transportation barriers, and difficulties receiving timely public health information, making recovery challenging.
- **Strain on Community Lifelines.** Pandemics disrupt essential services across all lifelines, including emergency medical services (EMS), food distribution networks, and public communication systems. Workforce shortages among VFD personnel and healthcare workers further complicate emergency management efforts, highlighting the need for enhanced resilience strategies across all sectors.
- **Need for Enhanced Preparedness & Public Health Investments.** Strengthening public health infrastructure, expanding disease surveillance (especially for zoonotic threats), and improving emergency response capabilities are critical to reducing the long-term impacts of pandemics. Taos County must invest in telemedicine access, coordinated vaccination programs, and public awareness campaigns that reach remote and underserved communities to mitigate future infectious disease risks.

Pandemics and infectious diseases continue to pose significant challenges for Taos County, affecting public health, economic stability, and essential services. As disease outbreaks become more frequent due to global travel, climate change, and evolving pathogens, proactive mitigation strategies and resilient healthcare systems will be essential for protecting residents, the crucial tourism industry, and ensuring the long-term sustainability of the regional economy.

Hazard: Dam Failure

Background & Definition

Dams are essential man-made barriers constructed across waterways to obstruct, direct, or slow the flow of water. These structures provide numerous benefits to Taos County and Northern New Mexico, including vital flood protection, irrigation for traditional agricultural systems (acequias), drinking water storage, and opportunities for recreation. A dam failure is defined as the sudden, uncontrolled release of impounded water due occurring due to structural compromise or operational malfunction. While dam failures are relatively rare events, they carry the potential for immense, catastrophic damage and significant loss of life in downstream communities and municipalities.

When assessing the hazard risk in Taos County, special consideration must be given to aging infrastructure, the high-desert region's specific hydrologic, hydraulic, and geologic characteristics (including seismic potential), and the maintenance practices of the diverse entities that manage water in the region.

Dam failures most often occur during or immediately following a massive rainfall, a major flood event, or during the rapid spring thaws of the mountain snowpack—sometimes with little or no warning. Depending on the dam's location, water contributions may originate from distant upstream mountain locations, affecting reservoir loading. The primary regulatory oversight for dam safety in New Mexico falls to the New Mexico Office of the State Engineer (OSE) Dam Safety Program. This program is crucial in overseeing dam safety regulations, inspections, and classifications statewide, with local jurisdictions and acequia associations maintaining specific operation and maintenance responsibilities for smaller, non-jurisdictional dams.

Dam failures can result from numerous factors, often working in combination:

- **Hydrologic/Hydraulic Failures:**
 - Prolonged periods of heavy rainfall and flooding (a common cause of failure).
 - Inadequate spillway capacity, resulting in dangerous excess water overtopping the embankment.
 - Failure of upstream dams in the same drainage basin, causing an overwhelming surge.
 - High winds causing significant wave action, resulting in substantial embankment erosion.
- **Structural and Seepage Failures:**
 - Internal erosion (piping) due to embankment or foundation leakage, common in aging earthen dams.
 - Improper maintenance, including failure to remove woody growth, repair seepage problems, or maintain operational components like gates and valves.
 - Improper design or use of inadequate construction materials.
- **External and Geologic Failures:**

- Earthquakes, which can cause longitudinal cracks at the tops of embankments leading to structural failure.
- Landslides into reservoirs, which cause sudden surges that result in overtopping.
- Destructive acts of terrorism or intentional sabotage.

In addition to the risks posed by outright structural failure, dams can be associated with other risks:

- **Upstream Flooding:** Dams can create backwater effects during large regional flood events, exacerbating flooding in areas immediately upstream of the reservoir.
- **Non-Breach Risks:** This encompasses the risk in the reservoir pool area and affected downstream floodplain due to the normal operation or mis-operation of the dam. This can include large spillway flows within the dam's design capacity that still exceed downstream channel capacity, or overtopping of the dam without a full breach.
- **Operational Flooding:** Flooding may occur due to the controlled or uncontrolled release of water from the operation, mis-operation, or failure of dam spillway gates or other outlet works. Larger, professionally managed dams (often associated with utilities or federal entities) have engineering controls in place to prevent mis-operation, which are reviewed by the State OSE or the Federal Energy Regulatory Commission (FERC).
- **Dam incidents** cause or nearly cause small, unintended releases of stored water that are successfully averted. For the purposes of this hazard profile, both dam failures and dam incidents will be referred to collectively as dam failures due to the similar emergency response actions required. Flooding resulting from normal dam operation is not considered a dam failure.

Dam failures are typically categorized by the conditions under which they occur, affecting the warning time and the potential downstream impact:

- **"Rainy Day" Failure:** This occurs during or after an extreme flood event, which is the most common cause of failure. The dam is subjected to unprecedented hydrologic loading, and the resultant failure flood flows can be several times larger than the rain-induced flooding already occurring. Generally, those downstream are aware that flooding is occurring or likely to occur and may already be taking protective measures, although they may not be prepared for the magnitude of the dam-induced flooding. This creates an increased incremental risk.
- **"Sunny Day" Failure:** This occurs during dry weather and is often caused by a localized structural flaw, such as internal erosion (piping) in an earthen dam, a seismic event, or other conditions like defects in the dam or foundation. Although the resulting flows are often less than during a "rainy day" event, the flows can be large enough to flood developed overbank areas. Those downstream are typically unaware of the failure in progress and are less prepared for the resulting flood, also creating a significant incremental risk.

Location & Extent

Location

The Dam Failure hazard is localized to areas downstream of impoundment structures and is directly linked to the volume of water stored and the height of the dam. Taos County contains a number of jurisdictional and non-jurisdictional dams and impoundments critical to irrigation and water storage (see table 30). Key structures subject to regulatory oversight by the New Mexico Office of the State Engineer (OSE) include (but are not limited to):

- Cabresto Lake Dam: Located near Questa, this high-hazard dam is critical to irrigation for the Cabresto Creek watershed and has a significant inundation zone that includes developed areas downstream.
- A-frame Dam (Cabresto Creek): A smaller structure in the same drainage that impacts downstream flow.
- Other State-Regulated Dams: Taos County must rely on the OSE's database for a complete and current list of all jurisdictional dams (those exceeding 25 feet in height or storing more than 50 acre-feet of water).
- Acequia-Managed Impoundments: Numerous smaller, non-jurisdictional earthen impoundments and diversion dams managed by local acequia associations exist throughout the mountainous and valley areas. While smaller, failure of these structures can cause localized, severe damage to immediate downstream property and infrastructure.

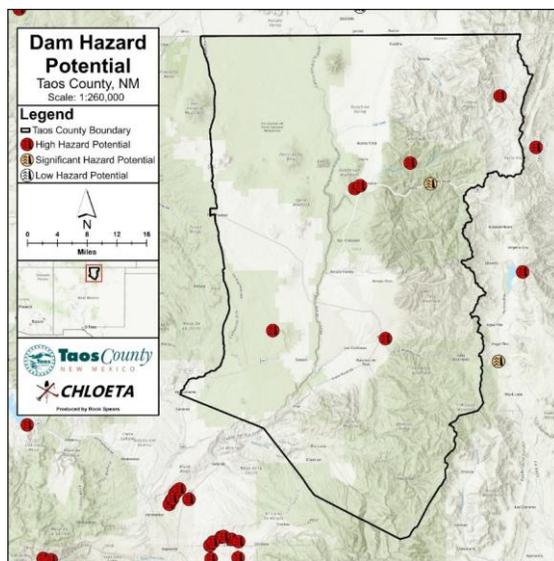


Figure 16. Dam Hazard Potential

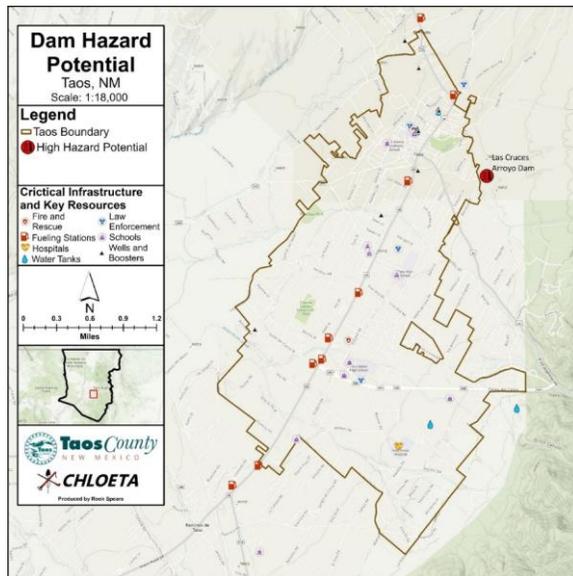


Figure 17. Dam Hazard Potential with CIKR

Extent

The geographical extent of the hazard is defined by the Dam Failure Inundation Zone, or "downstream footprint," which varies significantly depending on the dam's characteristics, the surrounding topography, and the failure mechanism (i.e., "sunny day" vs. "rainy day"). The potential impact and geographical extent of a dam failure in Taos County are classified by the OSE and the U.S. Army Corps of Engineers (USACE) based on the consequences of failure (not the condition of the dam). Taos County uses the following standard categories to define the hazard potential of downstream impacts:

| Hazard Potential Classification | Description of Extent | Primary Loss Exposure |
|---------------------------------|---|---|
| High (Class I) | Failure will likely cause loss of human life and/or extensive damage to property and critical public facilities (e.g., hospitals, power stations, major highways). | Significant loss of life; major economic disruption; critical infrastructure failure. |
| Significant (Class II) | Failure will likely result in no loss of human life, but can cause significant damage to infrastructure, essential public facilities, and substantial environmental damage. | High property damage; infrastructure disruption; significant environmental impact. |
| Low (Class III) | Failure will likely result in minimal property damage and no loss of human life. Damage is generally confined to the owner's property or limited to rural areas. | Minimal to no property damage; localized inconvenience. |

The Inundation Zone for any High- or Significant-Hazard dam defines the maximum geographic extent of the dam failure hazard. These zones are determined by hydraulic modeling and are typically incorporated into Emergency Action Plans (EAPs), which are vital for emergency preparedness and public warning. Currently, there is a data deficiency to potential inundation ranges for dams in Taos County.

Historical Occurrences

While Taos County has not experienced a catastrophic, life-threatening dam failure in recent memory, historical incidents and regional context confirm the hazard's potential.

Documented Regional Incidents

- **1929 Lake Avalon, NM Failure (Regional Context):** This major dam failure in southeastern New Mexico serves as a stark reminder of the catastrophic potential of dam failures, resulting in widespread property loss and economic ruin. Although outside Taos County, it reinforces the need for rigorous state-wide dam safety standards.
- **Localized Structural Issues and Incidents:** Taos County has experienced localized incidents, primarily involving smaller irrigation structures and acequia headworks:
 - **Cabresto Lake Dam (2018):** Following the nearby Cabresto Lake Fire, the dam’s intake system experienced heavy siltation and sediment loading. While the dam itself did not fail, the event highlighted the cascading hazard risk where fire-related erosion directly impacts critical water infrastructure.
 - **Acequia Failures:** Numerous minor collapses or breaches have occurred over time in aging earthen acequias and small diversions, typically caused by beaver activity, rodent burrows, or extreme rain events. These incidents cause localized flooding and agricultural disruption but require immediate emergency resources for sandbagging and repair.

Due to the effectiveness of the New Mexico OSE Dam Safety Program and the relatively small number of major impoundments, Taos County has no recorded history of major loss of life or catastrophic property damage directly attributable to a dam failure. However, the presence of High-Hazard structures confirms that the potential for loss is severe and is considered a high-priority, low-frequency event for planning purposes.

Table 30. Dam Profiles

| Name | Condition | Hazard Potential Classification | Owner Type | Primary Purpose | Nearest City/Town (Miles) | Max Storage (acre-ft) | Height (ft) |
|------|-----------|---------------------------------|------------|-----------------|---------------------------|-----------------------|-------------|
| | | | | | | | |

| | | | | | | | |
|---------------------------|--------------|------------------------|---------------------------|---------------------------|-------------------|--------|-----|
| Cabresto Lake Dam | Satisfactory | High (Class I) | Local Govt. | Irrigation, Recreation | Questa (1.5) | 1,442 | 78 |
| Taos Water Supply Imp. | Satisfactory | High (Class I) | Local Govt. (City/County) | Drinking Water, M&I | Taos (10) | 5,000 | 85 |
| A-frame Dam | Fair | Significant (Class II) | Acequia Assoc. | Irrigation, Flood Control | Questa (4) | 200 | 18 |
| Eagle Rock Dam | Not Rated | Low (Class III) | Private | Stock Pond, Recreation | Arroyo Hondo (1) | 40 | 12 |
| Seco Diversion Dam | Poor | Low (Class III) | Acequia Assoc. | Irrigation | Arroyo Seco (0.5) | 10 | 15 |
| Questa Tailings Dam 1 | Satisfactory | High (Class I) | Private | Tailings | Questa (0.1) | 29,555 | 280 |
| Questa Tailings Dam 4 | Satisfactory | High (Class I) | Private | Tailings | Questa (0.1) | 21,307 | 212 |
| Costilla Dam | Fair | High (Class I) | Private | Irrigation | Amalia (11) | 30,499 | 138 |
| Carson Dam | Poor | High (Class I) | Private | Flood Risk Reduction | Carson (2) | 7,622 | 65 |
| Rc&D Dam (Las Cruces Dam) | Poor | High (Class I) | Local Govt. | Flood Risk Reduction | Taos (ND) | 337 | 51 |
| Upper Fawn Lake Dam | Not Rated | Significant (Class II) | Federal | Recreation, Stock Pond | MolyCorp Mine (3) | 15 | 8 |

The table above provides key information about dams in the county, detailing various attributes essential for assessing dam safety and potential impacts. Each dam is identified by name with its current structural condition noted, ranging from Satisfactory to Poor or Not Rated. Hazard potential classifications indicate the consequences of a failure, categorized as Low, Significant (Intermediate), or High-Hazard, with High-Hazard dams posing the greatest risk to life and property. Ownership type specifies whether the dam is managed by private entities, federal agencies (like the USFS), state agencies, or local governments. The primary purpose of each dam varies, including recreation, irrigation, or water supply. The nearest city or town and its distance are recorded to understand proximity to population centers. The table also includes maximum storage capacity (acre-feet) and height (feet). These details are crucial for

monitoring dam safety, regulatory compliance, and evaluating risks to nearby communities and infrastructure. There is a data deficiency in estimating the potential inundation ranges for dams within Taos County.

Dam failures pose serious threats to municipalities located downstream from major dams. The impacts are dependent on the volume of water impounded and the amount of population or assets located downstream. Catastrophic failures are characterized by the sudden, rapid, and uncontrolled release of impounded water.

The federal government has a limited role in dam safety within the state. While federal dams are the responsibility of agencies like the U.S. Bureau of Reclamation or the U.S. Army Corps of Engineers, and the Federal Energy Regulatory Commission (FERC) regulates nonfederal hydroelectric projects, most dams are not subject to federal oversight. The State of New Mexico bears most of the responsibility for dam safety regulation. In New Mexico, the Office of the State Engineer (OSE) is responsible for regulating most dams through its Dam Safety Program.

Owners are generally responsible for inspecting and maintaining dams. However, the OSE has the authority to inspect dams out of concern for public safety and to order owners to repair or even remove those posing a threat of personal injury or substantial property damage. The OSE strives to inspect High-Hazard dams more frequently than Significant or Low-Hazard dams.

To ensure safety and readiness, the OSE mandates that most owners of Significant-Hazard and High-Hazard dams must:

1. **Engineering Assessment (EA):** Conduct a formal engineering assessment periodically, with a report submitted to the OSE. This comprehensive review ensures the long-term structural integrity of the dam.
2. **Emergency Action Plan (EAP):** File and annually certify an Emergency Action Plan (EAP) with the OSE. The EAP is a crucial preparedness document, outlining notification procedures, inundation zones, and operational response protocols in the event of a pending or actual failure.

Dam failures may or may not leave enough time for evacuation, depending on the abruptness of the failure. Seepages in earthen dams usually develop gradually, offering a few hours or days for downhill residents to evacuate if detected early. Conversely, sudden failures (such as those caused by seismic activity or the failure of concrete structures) tend to occur suddenly, sending a wall of water and debris downstream with little to no warning. Failures due to the overtopping of a dam by extreme floods normally give sufficient lead time for evacuation if the flood event is monitored effectively.

Property and populations located downstream from any dam are vulnerable to failure. Dams are classified by size and the potential for loss of life and economic loss anticipated in a failure event. The following classification levels used in New Mexico focus primarily on the consequence of failure.

- Low (Class III): Failure is unlikely to result in damage to anything more than isolated or unoccupied buildings, undeveloped lands, or minor roads. Loss of life is highly unlikely.
- Significant (Class II): Failure may result in damage to isolated homes, main highways, and minor railroads; may result in the interruption of important utilities; and/or is otherwise likely to pose the threat of personal injury and/or substantial economic loss or substantial environmental damage. Loss of human life is not expected.
- High (Class I): Failure may result in widespread or serious damage to homes, main highways, commercial buildings, railroads, and/or important utilities, such that the loss of human life or widespread substantial economic loss is likely.
- Negligible or No Hazard (Class IV): A dam that has been breached, removed, or has failed and no longer materially impounds water, posing negligible or no hazard.

Dams that have not been assigned a classification of failure damage potential are typically assigned a temporary designation by the state until their potential impact on downstream communities can be properly assessed and modeled.

Future Potential Events (Probability)

Taos County faces ongoing dam safety risks due to aging infrastructure, the increasing severity of extreme weather events driven by climate change, and evolving land use patterns, particularly along the Rio Grande and its tributaries. Many regional dams, including older acequia impoundments and small, privately-owned storage structures, were constructed decades ago, increasing the likelihood of structural weaknesses, erosion, and potential failures if maintenance is deferred.

As climate change intensifies, more intense spring runoff from rapid snowmelt and heavier, localized monsoon precipitation events are expected to place additional, unprecedented strain on these structures, increasing the risk of overtopping. High-Hazard dams like Cabresto Lake Dam and the Taos Water Supply Impoundment require ongoing monitoring to mitigate the risk of overtopping or structural failure during these high-flow periods.

Future potential dam-related disasters in Taos County could result from:

- Extreme precipitation events or rapid snowmelt that exceed spillway capacity, leading to overtopping and breach.
- Seismic activity common to Northern New Mexico or erosion weakening dam foundations (especially prevalent in older earthen dams).
- Deferred maintenance issues causing structural deterioration, particularly for smaller, privately-owned, or acequia-managed impoundments where resources may be limited.

- Increased development downstream, especially in unincorporated areas, heightening the potential for property damage and loss of life.

The hazard classification of a dam (Low, Significant, or High-Hazard) is derived by assessing the risk of impact to one or more specific features downstream. The dam's composition, height, storage capacity, and the physical characteristics of the dam site all influence the potential flood wave that could be caused by its failure. Downstream conditions like channel geometry and the location of infrastructure dictate the potential for damage. It is critical to note that the hazard classification is not an indication of a dam's condition or likelihood of failure.

The hazard class of a dam can change based on changed downstream conditions like new development or population change. Historically, hazards posed by dams have gradually increased due to downstream development, a phenomenon known as "hazard creep." Taos County must actively monitor land use within dam inundation zones to ensure hazard classifications remain accurate and reflect the true risk to the public.

For the purposes of this Hazard Mitigation Plan, the overall probability of a dam failure in Taos County is considered Low (unlikely on an annual basis), but with High to Catastrophic consequences in downstream areas should a failure occur.

Climate Change Impact

Climate change is expected to significantly increase dam infrastructure risks in Taos County. The arid and mountainous region is projected to experience warmer temperatures and increased hydrologic variability, placing unique, dual stresses on water storage structures.

The most critical climate impacts include:

1. **Rapid Snowmelt and Runoff Intensity:** Higher temperatures lead to earlier and faster melting of the vital mountain snowpack. This rapid runoff creates intense, short-duration hydraulic loading that can stress spillway capacity and rapidly saturate aging earthen embankments, increasing the risk of overtopping and failure.
2. **Rain Extremes and Hydraulic Failure:** The overall precipitation pattern is becoming more erratic: longer, more severe drought periods are often followed by more intense, localized storms. These extreme downpours deliver large volumes of water in short periods, potentially exceeding the design capacity of smaller structures and directly causing flash floods that contribute to hydraulic failure.
3. **Compounding Wildfire and Sediment Risk (Cascading Hazard):** A critical compounding risk is the increased frequency and severity of catastrophic wildfires. Post-fire events create a cascading hazard where vast burn scars lead to massive debris and sediment flows during subsequent rain events. This material can quickly clog dam outlets and intake structures (as seen at Cabresto Lake), rendering flood control mechanisms ineffective and raising water levels dangerously fast.

Since Taos County relies heavily on these dams for essential irrigation (acequias) and municipal water supply, proactive adaptation measures are crucial in mitigating long-term impacts. These efforts must include enhanced monitoring systems, targeted infrastructure upgrades to key high-hazard structures, and emergency preparedness planning that specifically addresses the risks posed by rapid snowmelt and post-fire debris flow.

Vulnerability Assessment

Quantifying the hazards posed by dam failure to downstream areas in the planning area relies on a multi-step engineering analysis:

1. **Quantifying the Flow:** Determining the estimated maximum discharge from a theoretical uncontrolled release of the reservoir.
2. **Identifying the Inundation:** Identifying the geographic extent and depth of the flood from the uncontrolled release, typically through hydraulic modeling.
3. **Analysis of Consequences:** Analyzing the likely social, economic, and environmental consequences of the flood within the identified inundation area.

Each of these analyses includes substantial uncertainty, relying heavily on engineering judgments informed by available data and experience. Reasonable estimates of discharge from a breach can often differ by a factor of two or more. Critically, the discharge from a dam breach is usually several times the flow associated with the -annual chance ("100-year") flood; therefore, typical flood studies are of limited use in estimating the true extent of dam failure flooding.

Dam failure inundation studies require specialized hydraulic modeling software and expertise. In Taos County's mountainous environment, large floods can drastically alter stream hydraulics in unpredictable ways. For instance, post-wildfire sediment and debris may be mobilized, channels may be scoured along the Rio Grande tributaries, and existing infrastructure (such as acequia diversion dams, road culverts, and small bridge crossings) may become clogged (leading to upstream backwater flooding) or may fail, potentially increasing downstream flooding severity.

Determining the full impact of flooding is difficult, especially when estimating loss of life. Loss of life is a complex function of the failure scenario (e.g., sunny day vs. rainy day), time of day, available warning time, public awareness, and the willingness and ability of those affected to evacuate. Many dam safety agencies, including the New Mexico Office of the State Engineer (OSE), prefer to use "Population at Risk" (PAR), a more quantifiable measurement of the human impact. PAR is defined as the number of people in structures within the inundation area that would be subject to significant, personal danger if they took no action to evacuate.

Dam failure inundation maps are typically compiled by the dam owner as part of the federally- or state-mandated Emergency Action Plans (EAPs), which are submitted to

the New Mexico OSE and the Taos County Office of Emergency Management. Historically, these maps have often existed as static paper documents or non-georeferenced images, making them difficult to combine efficiently with modern geographic data (like tax parcel or census data) to calculate accurate PAR numbers.

The New Mexico OSE and the federal government are currently working to improve the capacity to demonstrate the potential impacts of dam failure inundation using advanced geospatial analysis and modeling tools. This effort strives to improve risk assessment, emergency response planning, and mitigation strategies by integrating dam failure scenarios with existing Geographic Information Systems (GIS). In the future, Taos County must leverage this modern technology to enhance coordination between state and local agencies, prioritize high-risk areas, and facilitate better decision-making regarding infrastructure resilience and public safety. Transitioning from static paper maps to dynamic digital models remains a significant challenge, requiring substantial investment in data conversion, validation, and stakeholder collaboration, particularly with local acequia associations.

National Risk Index

Dam failures pose a Low to Moderate risk in Taos County due to a combination of aging infrastructure, severe exposure to hydrologic extremes, and the potential for catastrophic damage to essential life-line systems located in narrow mountain valleys. While the county's overall population density is low, it contains several High-Hazard (Class I) potential dams, meaning a failure could cause significant downstream impacts to critical infrastructure and lives. The presence of these Class I and Class II (Significant Hazard) dams suggest that failure events could result in major economic losses, extensive infrastructure damage, and immediate threats to public safety along the Rio Grande corridor and its tributaries.

| Hazard Component | Risk Level (Per National Risk Index) | Probability | Primary Impacts |
|------------------|--------------------------------------|------------------------|--|
| Dam Failures | Low | Unlikely to Occasional | Catastrophic flash flooding and inundation of downstream communities (e.g., in the Rio Grande Gorge area); Loss of life; Total destruction of critical infrastructure (roads, bridges) in the immediate inundation zone; Major loss of agricultural water storage. |

Multiple factors are used in assessing dam failure risks for the planning area:

- **Age and Condition of Dams:** Many vital structures, particularly the smaller acequia diversion dams and earthen impoundments, are decades old and predate modern engineering standards, significantly increasing the likelihood of failure due to structural deterioration, internal piping, and lack of consistent resources for comprehensive maintenance.
- **Extreme Hydrologic Events:** The primary hazard driver in Taos County is the rapid spring snowmelt combined with intense summer monsoon rainfall. Climate change projections exacerbate this risk, increasing stress on spillway capacity and rapidly eroding aging earthen embankments, which are often composed of susceptible, local soils.
- **Downstream Infrastructure Vulnerability:** Given the mountainous terrain, historical communities and critical transportation networks are tightly clustered in narrow valley floors. If a High-Hazard dam were to fail, the resulting flood wave would directly threaten:
 - Villages and unincorporated communities (like Questa, Arroyo Seco, and areas along the Rio Fernando de Taos).
 - Major transportation routes, including US Highway 64 and NM Highway 68, which are essential for commerce and emergency access.
 - The entire regional acequia irrigation system, leading to massive agricultural and economic disruption.
- **Emergency Preparedness:** Areas with well-developed Emergency Action Plans (EAPs) and reliable early warning systems, as required by the New Mexico Office of the State Engineer (OSE), tend to have lower overall risk according to FEMA's risk methodology. Effective EAPs are essential for High-Hazard dams in Taos County to compensate for the very short warning times expected in the steep, narrow canyons.

While the rural and mountainous terrain reduces the overall downstream Population at Risk (PAR) compared to major metropolitan areas, dams supporting municipal water supplies (like the Taos Water Supply Impoundment) and irrigation remain critically vulnerable. Failures could lead to extended water contamination, road washouts, and severe disruptions to agriculture and essential services.

Expected Annual Loss

The estimated Expected Annual Loss (EAL) for dam failures in Taos County is primarily influenced by the high potential consequences, even though the probability of catastrophic failure is relatively low. While there is no specific data available on annual loss in dollars from dam failures in Taos County, EAL projections highlight the importance of continued investment in dam maintenance, monitoring, and emergency preparedness.

The EAL for dam failures in Taos County is primarily driven by:

- **Aging Infrastructure:** The large number of older dams, including acequia structures, increases the risk of structural failure due to deterioration.
- **Extreme Weather Events:** Increased frequency of intense rainfall and rapid snowmelt heightens the likelihood of overtopping or structural damage.
- **Population and Infrastructure Exposure:** The number of people, businesses, and critical transportation networks (like US 64) downstream from High-Hazard dams directly affects potential economic and social losses.
- **Emergency Action Plans (EAPs):** Robust EAPs and early warning systems can lower projected losses by facilitating faster response times and effective evacuations.

Taos County can significantly reduce the long-term financial and safety risks associated with dam failures by prioritizing proactive infrastructure upgrades, especially for High-Hazard and non-jurisdictional but locally critical structures, and by investing in advanced flood modeling and mitigation efforts.

Development Trends

As the county continues to develop, balancing growth and infrastructure resilience remains a priority. Many dams in the county serve essential functions like water supply, recreation, hydroelectric power, and flood control—yet aging infrastructure and increasing development near flood-prone areas raise concerns. The expansion of residential communities, businesses, and public services requires updated hazard mitigation strategies to protect against dam-related risks.

As population density increases near waterways and reservoirs, the potential impacts of dam failures grow more severe. New housing developments and commercial expansion in downstream flood zones heighten economic and public safety vulnerabilities. Road and bridge expansions intersecting with dam-regulated waterways must factor in potential flood risks and structural failures.

Community Lifelines

Dam failures or uncontrolled water releases present a serious, acute threat to public Safety and Security in Taos County, resulting in widespread destruction and devastating floods that endanger lives. The narrow, mountainous river corridors allow for little warning time, and emergency response agencies could be quickly overwhelmed by large-scale evacuations and search-and-rescue efforts in isolated, road-cut-off communities. The potential for cascading hazards is high, such as post-wildfire debris flow destabilizing a dam (a risk highlighted by the 2018 Cabresto Lake incident), which significantly complicates response efforts.

The impact across the seven FEMA Community Lifelines is severe:

- **Safety & Security:** High-velocity floodwaters carry massive amounts of sediment and debris, overwhelming local law enforcement, fire, and EMS personnel. The high hazard potential of certain dams, like Cabresto Lake Dam and the Taos Water Supply Impoundment, creates the potential for mass fatalities due to the short response window in the steep, narrow inundation zones.
- **Food, Water, & Shelter:**
 - **Water Supply:** This lifeline is critically dependent on dams. Failure of the Taos Water Supply Impoundment or similar high-hazard reservoirs could lead to immediate, prolonged municipal water shortages or widespread contamination.
 - **Agriculture (Food):** The destruction of major acequia diversion headworks and irrigation ditches would instantly cut off water to vast tracts of agricultural land, severely impacting crops and livestock throughout the growing season and crippling a core component of the regional economy and culture.
 - **Shelter:** Flooding would destroy or render uninhabitable residential structures located in low-lying valley floors, directly impacting the availability of emergency shelter facilities.
- **Health & Medical Services:** Dam failures would severely strain health and medical services. Local hospitals and clinics may experience power outages and access issues. Most critically, the loss of major roads would isolate northern communities (e.g., Questa) from major medical facilities in Taos, potentially delaying life-saving transport. Water contamination from ruptured sewer lines or industrial sites increases the risk of a public health crisis.
- **Energy:** While Taos County does not have large hydroelectric dams, the energy sector is vulnerable. Floodwaters typically follow river corridors where substations, natural gas lines, and power distribution infrastructure are located. Downstream flooding could damage these facilities, resulting in widespread, extended power outages affecting homes, businesses, and essential emergency services like warning sirens and repeater towers.
- **Communications:** Communication networks are highly at risk. Floodwaters and debris flows would damage communication towers, fiber-optic cables, and essential repeater stations located along the major transportation/river corridors, leading to severe disruptions in emergency alerts and public warnings. Extended power outages, particularly in remote mountainous areas, would further degrade cellular and internet services, making emergency coordination extremely difficult.
- **Transportation:** Transportation networks are the most vulnerable lifeline. A dam breach would cause widespread washouts and bridge failures along the county's primary north-south arteries, particularly US Highway 64 and NM Highway 68. This would cut off major segments of the county, isolating communities, preventing emergency responders from accessing affected areas, and severing supply chains for food and medical equipment.
- **Hazardous Materials & Waste Management:** Flooding would overwhelm smaller, locally managed wastewater treatment plants located near rivers, leading to the discharge of raw sewage and potential contamination. Additionally, floodwaters could dislodge and rupture fuel storage tanks or chemical storage areas located near

major infrastructure corridors, releasing toxic substances into the regional water supply and the Rio Grande.

Dams are considered critical, high-consequence infrastructure in Taos County because they support multiple FEMA lifelines simultaneously. The combination of aging structures, extreme weather events, and climate change increases failure risks. Without proper maintenance, monitoring, and robust emergency preparedness, dam failures could have devastating consequences for public safety, the regional economy, and the unique agricultural heritage of Taos County.

Results

The dam failure risk profile for the planning area is defined by a unique combination of geographic, cultural, and environmental factors. Prioritizing dam safety is essential due to the high consequence of a failure event in the county's steep, narrow river corridors.

- **Aging Infrastructure and Acequia System Vulnerability.** Many water retention and diversion structures in the county, particularly the numerous acequia diversion dams and smaller earthen impoundments, are decades or even over a century old. This legacy infrastructure often lacks the modern engineering standards and consistent maintenance required for resilience. The lack of routine, funded maintenance, coupled with deferred structural upgrades, significantly increases the failure risk for both jurisdictional (High-Hazard) dams, like the Cabresto Lake Dam, and non-jurisdictional acequia headworks, which are essential for the local food system and cultural heritage.
- **Climate-Driven Extreme Weather and Cascading Hazards.** Climate change intensifies Taos County's specific hydro-climatic risks: rapid spring snowmelt and more frequent, intense monsoon storms. These events accelerate erosion and increase the risk of structural overtopping. Furthermore, the risk of cascading hazards is critical—large-scale wildfires create vast burn scars that lead to massive debris flows, which can rapidly clog dam outlets, compromise embankment integrity, and dramatically increase failure likelihood.
- **Critical Infrastructure Isolation and Public Safety Impact.** Dam failures can result in catastrophic flooding, immediately leading to road washouts and severe transportation disruptions. The mountainous terrain and narrow canyons channel floodwaters directly onto critical infrastructure. Key concerns include the potential for the loss of the Taos Water Supply Impoundment, and the severing of major routes like US Highway 64 and NM Highway 68. These washouts would isolate northern communities like Questa, severely compromising evacuation routes and delaying essential emergency response and medical transport efforts.
- **Economic and Cultural Consequences.** A dam failure poses an existential threat to Taos County's core economic and cultural sectors. The destruction of the regional acequia irrigation system would cripple the local agriculture sector for years. Flood-induced pollution, sedimentation, and habitat destruction would cause long-term

ecological damage to the Rio Grande and its tributaries, negatively impacting the vital tourism and recreation industries (e.g., fishing, rafting).

- Need for Enhanced Mitigation and Preparedness. Taos County must prioritize an integrated strategy encompassing dam safety, climate resilience, and community preparedness. This includes strengthening monitoring programs for High-Hazard dams, ensuring all owners maintain up-to-date Emergency Action Plans (EAPs), investing heavily in the stabilization and upgrade of aging acequia structures, and integrating detailed dam inundation mapping into all future land use and development planning to protect communities, infrastructure, and the irreplaceable natural resources of Northern New Mexico.

Assets at Risk

Critical Infrastructure includes essential systems, assets, and networks vital for the functioning of the county and its economy. These include buildings and systems like energy, water, transportation, communications, healthcare, finance, and emergency services. If disrupted or destroyed, critical infrastructure failures have significant impacts on public safety, security, economic stability, and community well-being. Protecting critical infrastructure is a key priority to ensure resilience against natural disasters, cyberattacks, and other threats.

The identification of critical assets is a fundamental component of the Taos County Hazard Mitigation Plan. By identifying these assets, the plan ensures that the county can prioritize protection measures, allocate resources effectively, and reduce the risk of significant disruptions in the event of natural or human-caused hazards.

Critical assets, such as hospitals, emergency response facilities, water supply systems, power infrastructure, and transportation networks, are essential for maintaining public safety, health, and economic stability. Protecting these assets minimizes the overall impact of hazards, ensures continuity of services, and enhances the county's ability to recover quickly from disasters. Additionally, identifying and assessing the vulnerability of these assets enables Taos County to develop targeted mitigation strategies that strengthen resilience and reduce potential losses, further safeguarding the community's well-being.

Critical Facility Inventory

A list of critical facilities developed by the County and its planning partners included geospatial data for fire, police, schools, medical facilities, etc. On completion of the analysis, each planning partner was provided with the critical facilities list, on which impact from each hazard is identified for each critical facility. That data was then utilized by each planning partner to determine dollar impact (e.g., magnitude and severity within the Calculated Priority Risk Index discussed below). The critical facilities list is considered privileged from public disclosure; however, each planning partner was left to determine how they wished to identify specific structures based on their policies in place. In addition, specific critical facility structure impact data is further identified within the various Critical Facilities tables contained in each hazard profile, identified by critical facility type, e.g., power, water, wastewater, etc. Building impact was further identified in Loss Matrix Tables, which provide the breakdown to each of the jurisdictional planning partners for use in completing their risk assessment. That data further identifies the number of structures impacted and the population impacted (where possible) based on the specific hazard of concern. As appropriate, that data is also identified within the various public outreach documents and posters developed for public outreach efforts. It should be noted that with all data, the critical facilities list is continually in an update process and should not be considered to be all-encompassing.

Table 31. Taos County Critical Facility List

| Facility Name | Facility Type (FEMA Lifeline) | General Location | Owner / Operator | Operational Role | Backup Power | Vulnerabilities | Notes |
|--|-------------------------------|-----------------------------------|----------------------------|---|-------------------------|--|--------------------------------------|
| Holy Cross Medical Center | Health & Medical | Central Taos (near main corridor) | Holy Cross Hospital System | Primary hospital, emergency medical services | Yes (hospital standard) | Winter storms, power loss, road access | Only full-service hospital in county |
| Taos Fire Department – Station 1 | Fire & Rescue | Central Taos | Town of Taos | Fire suppression, EMS support | Unknown | Wildfire smoke, staffing, power loss | Main station serving core population |
| Taos Fire Substations (North, West, South) | Fire & Rescue | Along boundary edges | Town of Taos / Taos County | Rural fire response, ICS support | Unknown | Wildland fire exposure | Symbols located on map |
| Taos Police Department | Law Enforcement | Central Taos | Town of Taos | Law enforcement, security, evacuation support | Unknown | Communications failure, staffing | Located in municipal core |
| Taos County Sheriff's Office | Law Enforcement | South of central Taos | Taos County | Countywide law enforcement, disaster support | Unknown | Winter access, staffing | Supports rural response |
| NM State Police (District Office) | Law Enforcement | Central Taos | New Mexico State Police | Highway response, evacuation support | Unknown | High traffic congestion | Positioned on primary corridor |
| UNM-Taos / Branch Campus | Education | East Taos area | University of New Mexico | Shelter potential, public information | Unknown | Power loss, access | Identified by school icon |
| Taos High School | Education | Central/south Taos | Taos Municipal Schools | Potential shelter, POD site | Unknown | Winter storms, road access | Large facility footprint |
| Taos Middle School | Education | North of high school | Taos Municipal Schools | Shelter, reception, reunification | Unknown | Access, power | |
| Enos Garcia Elementary | Education | Central Taos | Taos Schools | Youth shelter/reunification | Unknown | Access, heating | |

| Facility Name | Facility Type (FEMA Lifeline) | General Location | Owner / Operator | Operational Role | Back up Power | Vulnerabilities | Notes |
|---|-------------------------------|------------------------------|------------------------|--|---------------|--------------------------------------|--|
| Ranchos Elementary School | Education | Ranchos de Taos | Taos Schools | South-area shelter option | Unknown | Road access, winter storms | |
| Fueling Stations (Multiple) | Energy (Fuel) | Along NM-68 corridor | Private sector | Fuel supply for public & emergency ops | Unknown | Supply disruption, electrical outage | Clustered in central and southern Taos |
| Public Works / Water Treatment Facility | Water & Wastewater | Central Taos | Town of Taos Utilities | Water purification & distribution | Unknown | Drought, power loss, contamination | Essential for potable water |
| Wells & Booster Stations (Multiple) | Water & Wastewater | North-South corridor | Town of Taos Utilities | Municipal water supply | Unknown | Drought, mechanical failure | Distributed across county |
| Wastewater Treatment Plant | Water & Wastewater | South of Taos | Town of Taos | Wastewater collection/treatment | Unknown | Flooding, power | Supports entire urban area |
| EMS / Ambulance Station(s) | Health & Medical | Near hospital & central Taos | Taos County EMS | Emergency medical transport | Unknown | Staffing, road closures | |
| Grocery / Essential Retail (Central Cluster) | Food, Water, Shelter | Central Taos | Private sector | Food lifeline, sheltering support | Unknown | Supply chain disruption | Map shows several essential services |
| Communications Sites (General) – if represented by boosters | Communications | Various mapped nodes | Multiple providers | Cellular & data connectivity | Unknown | Power loss, winter storms | Pillars of emergency comms |

The following figure shows the critical infrastructure used as a base map when applying hazard mapping.

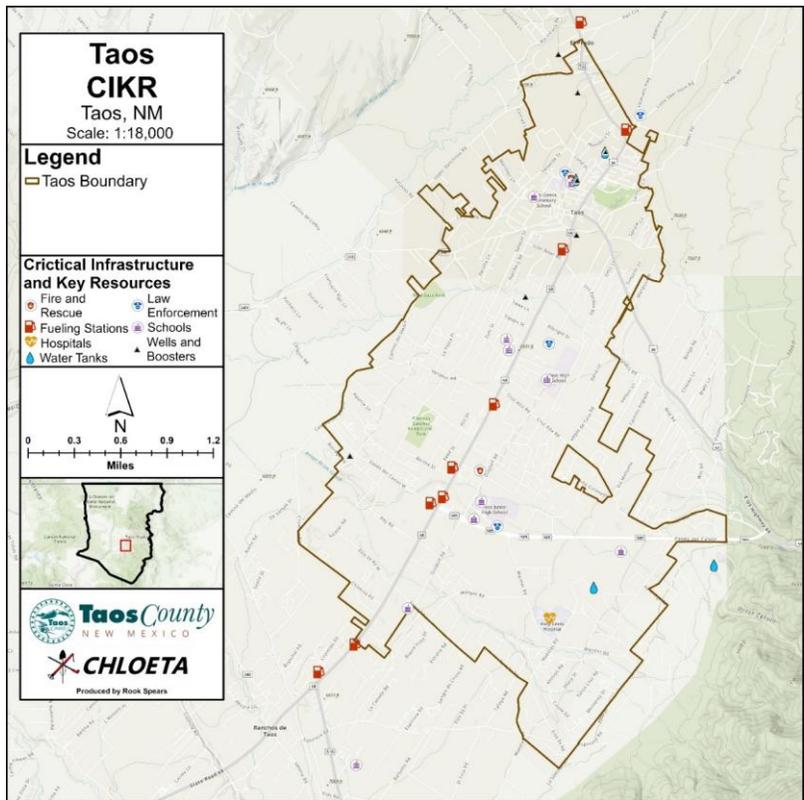


Figure 18. Taos County CIKR

Estimating Potential Loss

Taos County may experience significant losses from a variety of natural and human-caused hazards. These losses can range from minimal operational interruptions for county services to the catastrophic destruction of public and private buildings and vital infrastructure across the county's diverse landscapes.

In addition to the potential for loss of life and property, the county government and its member jurisdictions could incur liability from numerous sources and stakeholder groups following a major event. Business interruption losses are an especially critical concern, given the county's heavy reliance on the tourism, recreation, and arts sectors. A prolonged interruption could exponentially increase county loss exposure. A catastrophic loss across all structures, including loss of life, structural damage, and

extensive business interruption, could result in damage reaching hundreds of millions of dollars or more.

Potential property loss for Taos County was calculated using publicly available property valuation data. The essential source for this data is the New Mexico Assessor's Office or the New Mexico Taxation & Revenue Department Property Tax Division.

Property values were analyzed for all parcels within the county planning area. These parcels were then categorized based on their designated use or classification.

The original methodology is preserved:

1. Total property value for each class code was determined.
2. Potential losses were estimated under the assumption that 50% of properties in each class code would be impacted by a major hazard event (e.g., severe wildfire, flood, or winter storm).
3. Projected loss was then calculated as 50% of the total property value within each classification.

Class Codes below are the standard internal codes used by New Mexico Assessors. Structure counts and values are estimates based on 2024 housing data and median market values, modeled against a “High Severity” wildfire scenario common to the region.

- AG: Agriculture Land: Includes farmlands, ranches, and associated structures.
- RES: Residential: Includes single-family homes, and multi-family residences
- MH: Manufactured Home: Includes manufactured homes.
- VAC: Vacant Lands: Undeveloped parcels.
- COM: Commercial: Includes retail, offices, lodging (hotels/motels), and restaurants, which are vital to the Taos economy.
- EX: Exempt: Includes Tribal and Government

Table 32. Taos County Critical Facility List with Estimated Property Loss Values

| Facility Name | Category | Address |
|--|-----------------|--|
| Holy Cross Medical Center | Hospital | 1397 Weimer Rd Taos, NM 87571 |
| Taos Healthcare | Nursing Home | 1340 Maestas Rd Taos, NM 87571 |
| Taos County Office of Emergency Management | EOC | 6 Miranda Canyon Road, Ranchos de Taos, NM 87557 |
| Taos County Administrative Complex | EOC | 105 Albright Street, Taos, NM 87571 |
| Taos Ski Valley Administration Office | EOC | 7 Firehouse Road, Taos Ski Valley, NM 87525 |
| Questa Village Office | EOC | 2500 Old State Road 3, Questa, NM 87556 |
| Taos County Sheriff's Department | LEO | 599 Lovato Place, Taos, NM 87571 |

| Facility Name | Category | Address |
|---|--------------------------|--|
| Taos Ski Valley Police Department | LEO | 136 State Road 150 Taos Ski Valley, NM 87525 |
| Questa Police Department | LEO | 2500 Highway 522, Questa, NM 87556 |
| Taos County Fire/EMS Station | Fire/EMS | 1395 Weimer Road, Taos, NM 87571 |
| Amalia Fire Department Station1 | Fire/EMS | 723 State Road 196, Amalia, NM 87512 |
| Amalia Fire Department Station2 | Fire/EMS | Arellano Road, Ventero, NM 87512 |
| Carson Fire Department | Fire/EMS | 519 State Road 567, Carson, NM 87571 |
| Cerro Fire Department | Fire/EMS | 168 State Road 378, Cerro, NM 87519 |
| Costilla Fire Department | Fire/EMS | 37 State Road 196, Costilla, NM 87524 |
| Hondo Seco Fire Department Station 1 | Fire/EMS | 78 Hondo Seco Road, Arroyo Hondo, NM 87513 |
| Hondo Seco Fire Department Station 1 | Fire/EMS | 20 Canada Road, Arroyo Hondo, NM 87513 |
| La Lama Fire Department | Fire/EMS | 2060 Old Highway 3, Lama, NM |
| Latir Fire Department | Fire/EMS | 25 Jaracito Road, El Rito, NM 87556 |
| Ojo Calinte Fire Department | Fire/EMS | 21 Los Banos Drive, Ojo Caliente, NM 87549 |
| Penasco Fire Department | Fire/EMS | 13 Firehouse Road, Penasco, NM 87553 |
| Rio Fernando Fire Department Sub-Station 1 | Fire/EMS | 26566 East U.S. Highway 64 Taos, NM |
| Rio Fernando Fire Department Sub-Station 2 | Fire/EMS | 25979 East U.S. Highway 64 Taos, NM |
| Rio Fernando Fire Department Main Station 3 | Fire/EMS | 25929 East U.S. Highway 64 Taos, NM |
| San Cristobal Fire Department | Fire/EMS | 38 Camino Del Medio, San Cristobal, NM |
| Tres Piedras Fire Department | Fire/EMS | 38392 Highway 285, Tres Piedras, NM 87577 |
| Wheeler Peak Fire Department | Fire/EMS | 410 Highway 578, Red River, NM 87558 |
| Penasco Ambulance Station | EMS | 14190 Highway 75, Penasco, NM 87553 |
| Taos Ski Valley Fire Department | Fire/EMS | 7 Firehouse Road, Taos Ski Valley, NM 87525 |
| Taos Ski Valley Fire Station 2 | Fire/EMS | Taos Ski Valley, NM 87525 |
| Questa EMS | EMS | 2500 Highway 522, Questa, NM 87556 |
| Taos Central Dispatch | Emergency Communications | 105 Albright Street Taos, NM 87571 |
| San Antonio Repeater | Emergency Communications | San Antonio Mountain, Forest Road 418, Tres Piedras, NM 87577 |
| Flag Mountain Repeater | Emergency Communications | Flag Mountain, Moly Mine Road, Questa, NM 87556 |
| Picuris Repeater | Emergency Communications | |
| Amaliea Repeater | Emergency Communications | |
| Rio Fernando Repeater | Emergency Communications | |
| Taos PD/Fire Repeater | Emergency Communications | |
| Juan I Gonzales Agriculture Center | Shelter | 202 Chamisa Road, Taos, NM 87571 |
| Llano Quemado Community Center | Shelter | 6 Miranda Canyon Road, Ranchos de Taos, NM 87557 |

| Facility Name | Category | Address |
|-------------------------------|----------------|---|
| Penasco Community Center | Shelter | 14135 Highway 75, Penasco, NM 87553 |
| Talpa Community Center | Shelter | 4 Archuleta Road, Ranchos de Taos, NM 87557 |
| Arroyo Seco Community Center | Shelter | 495 State Road 150, Arroyo Seco, NM 87514 |
| Cerro Community Center | Shelter | 151 Cerro Road, Cerro, NM 87519 |
| El Prado Community Center | Shelter | |
| Arroyo Hondo Community Center | Shelter | 26 Lower Arroyo Hondo Road, Arroyo Hondo, NM 87513 |
| Taos Senior Center | Shelter | 601 Lovato Place, Taos, NM 87571 |
| Questa Senior Center | Shelter | 148 Embargo Road, Questa, NM 87556 |
| Amalia Senior Center | Shelter | 579 State Road 196, Amalia, NM 87512 |
| Chamisal Senior Center | Shelter | 1272 State Road 76, Chamisal, NM 87521 |
| Questa Schools | Shelter | 57 Sage Brush Road, Questa, NM 87556 |
| Arroyo Seco MDWCA | Domestic Water | 507 State Road 150, Arroyo Seco, NM 87514 |
| Canon MDWCA | Domestic Water | 610 State Road 585, Taos, NM 87571 |
| Cerro MDWCA | Domestic Water | Next to 137 Cerro Road, Cerro, NM 87519 |
| Chamisal MDWCA | Domestic Water | 2692 State Road 76, Chamisal, NM 87521 |
| Costilla MDWCA | Domestic Water | State Road 196 and County Road B059, Costilla, NM 87524 |
| El Prado Water and Sanitation | Domestic Water | 10 State Road 522, El Prado, NM 87529 |
| El Salto MDWCA | Domestic Water | 34 Paw-A-Suki Road, Arroyo Seco, NM 87514 |
| El Valle de los Ranchos MDWCA | Domestic Water | 8 Miranda Canyon Road, Ranchos de Taos, NM 87557 |
| Llano Quemado MDWCA | Domestic Water | 30 George Torres Road, Ranchos de Taos, NM 87557 |
| Lower Arroyo Hondo MDWCA | Domestic Water | State Road 522, Arroyo Hondo, NM 87513 |
| Lower Des Montes MDWCA | Domestic Water | 225 State Road 230, Arroyo Seco, NM 87514 |
| Ojo Caliente MDWCA | Domestic Water | Ray Road, Ojo Caliente, NM 87549 |
| Penasco MDWCA | Domestic Water | Next to 15159 State Road 75, Penasco, NM 87553 |
| Ranchos de Taos MDWCA | Domestic Water | 4 La Morada Road, Ranchos de Taos, NM 87557 |
| Rio Lucio MDWCA | Domestic Water | Across 1361 State Road 75, Penasco, NM 87553 |
| Rodarte MDWCA | Domestic Water | Behind 7 Capilla Road, Vadito, NM 87579 |
| San Cristobal MDWCA | Domestic Water | Near 176 Cam Del Medio, San Cristobal, NM 87564 |
| Talpa MDWCA | Domestic Water | Behind 10 Isabel Lane, Ranchos de Taos, NM 87557 |
| Trampas MDWCA | Domestic Water | Behind 15 Jose Ignacio Road, Trampas, NM 87576 |

| Facility Name | Category | Address |
|---|------------------------|--|
| Tres Piedras MDWCA | Domestic Water | Near 22280 Highway 64, Tres Piedras, NM 87577 |
| Union del Llano MDWCA | Domestic Water | Across 196 Upper Llano Road, Llano, NM 87543 |
| Upper Arroyo Hondo MDWCA | Domestic Water | Near 120 Hondo Seco Road, Arroyo Hondo, NM 87513 |
| Upper Des Montes MDWCA | Domestic Water | 575 State Road 150, Arroyo Seco, NM 87514 |
| Upper Ranchitos MDWCASW | Domestic Water | 718 Upper Ranchitos Road, Taos, NM 87571 |
| Vadito MDWCA | Domestic Water | Behind 1753 A State Road 75, Vadito, NM 87579 |
| Valdez MDWCA | Domestic Water | Behind 334 State Road 230, Valdez, NM 87580 |
| West Rim MDWUA | Domestic Water | 3 West Rim Road, El Prado, NM 87529 |
| Cerro West MDWCA | Domestic Water | 150 Cerro Road, Cerro, NM 87519 |
| Llano San Juan MDWCA | Domestic Water | Near 20 Upper Llano Road, Llano, NM 87543 |
| Upper Ojito MDWCA | Domestic Water | Near 182 Upper Ojito, Chamisal, NM 87512 |
| KCEC Los Cordovas Electric Sub Station 1 & 2 | Electric Utility | Near State Road 240 and Blueberry Hill Road, Taos, NM 87571 |
| KCEC Talpa Electric Sub Station | Electric Utility | 7036 A State Road 518, Ranchos de Taos, NM 87557 |
| KCEC No Agua Electric Sub Station | Electric Utility | Perlite Mine Road off Highway 285, Tres Piedras, NM 87577 |
| KCEC Arroyo Hondo Electric Sub Station | Electric Utility | Trementina Road, Arroyo Hondo, NM 87513 |
| KCEC Sunshine Electric Sub Station | Electric Utility | Sunshine Valley Road, Questa, NM 87556 |
| KCEC Amalia Electric Sub Station | Electric Utility | Venero Road, Amalia, NM 87512 |
| KCEC Moly Mine Goat Hill Electric Sub Station | Electric Utility | Goat Hill Road, Cheveron Mine, State Road 38, Questa, NM 87556 |
| KCEC Moly Mine Electric Sub Station | Electric Utility | Chevron Mine, State Road 38, Questa, NM 87556 |
| KCEC Red River Electric Sub Station | Electric Utility | Straight Creek Road, Red River, NM 87558 |
| KCEC Bobcat Pass Electric Sub Station | Electric Utility | Bobcat Pass, State Road 38, Red River, NM 87558 |
| KCEC Penasco Electric Sub Station | Electric Utility | 15491 State Road 75, Penasco, NM 87553 |
| Taos Ski Valley Domestic Water | Domestic Water | Ocean Blvd. Taos Ski Valley, NM 87525 |
| Questa Water Well | Domestic Water | Questa, NM |
| Questa Water Treatment | Water Treatment | Questa, NM |
| Questa Water Tanks | Domestic Water | Questa, NM |
| Questa Airport | Transportation | Buena Vista Road, Questa, NM 87556 |
| Taos Municipal Schools | School District Office | 310 Cam De La Placita |
| Taos High School | High School | 134 Cervantes Street |
| Vista Grande High School | High School | 213 Paseo Del Canon E |
| Taos Integrated School of the Arts | Middle School | 118 Toalne St. |

| Facility Name | Category | Address |
|----------------------------------|----------------------|---|
| Taos International School | Middle School | 118 Estes Es Road |
| Taos Day School | After school program | |
| Enos Garcia Elementary School | Elementary School | 305 Don Fernando St. |
| Taos Academy Charter School | Charter School | 110 Paseo Del Canon E |
| Taos Middle School | Middle School | 235 Paseo Del Canon E |
| UNM-Taos | College | 1157 County Road 110 Ranchos de Taos, NM 87557 |
| SMU-in-Taos at Fort Burgwin | College | 6580 NM-518 Ranchos de Taos, NM 87557 |
| Taos Pueblo Education & Training | Education Center | 885 Star Road |
| Rio Grande Hall | University | |

Table 33. Taos County Critical Facilities and Systems

| Class Code | Property Type / Use | # of Structures | Structure Values (Est. Total) | # of Structures Impacted | Potential Loss Estimates |
|------------|--|-----------------|-------------------------------|--------------------------|--------------------------|
| RES | Residential (Site-Built) | 16,500 | \$8,250,000,000 | 3,300 | \$1,650,000,000 |
| MH | Manufactured Homes | 4,200 | \$420,000,000 | 1,260 | \$210,000,000 |
| COM | General Commercial (Retail/Office) | 850 | \$510,000,000 | 85 | \$255,000,000 |
| COM | Recreation & Entertainment (Ski Resorts, Museums, Galleries) | 150 | \$375,000,000 | 75 | \$187,500,000 |
| COM | Industrial (Warehousing, Light Mfg, Utility infra) | 100 | \$150,000,000 | 10 | \$75,000,000 |
| EX / COM | Community / Institutional (Churches, Hospitals, Non-Profits) | 180 | \$360,000,000 | 20 | \$180,000,000 |
| EX | Public Services (Fire Stations, Police, Gov Bldgs) | 120 | \$180,000,000 | 30 | \$90,000,000 |
| AG / EX | Forests (Private Timber & Federal Land) | 0* | \$0* | 0 | \$0 |
| VAC | Vacant Land | 0 | \$0 | 0 | \$0 |
| AG | Agricultural (Farms/Ranches) | 450 | \$112,500,000 | 225 | \$56,250,000 |
| Totals: | | 22,550 | \$10,357,500,000 | 5,005 | \$2,703,750,000 |

Table 344. Taos County Assessor Valuations

| Jurisdiction | Property Type | Improved Parcel Count | Land & Improved Value |
|-----------------|-----------------|-----------------------|-----------------------|
| Unincorporated | Non-Residential | 53,264 | \$2,678,334,903 |
| | Residential | 15,240 | \$2,774,803,665 |
| | Total | 68,504 | \$5,453,138,568 |
| Questa | Non-Residential | 1,691 | \$193,925,367 |
| | Residential | 1,393 | \$102,703,656 |
| | Total | 3,084 | \$296,629,023 |
| Red River | Non-Residential | 1,464 | \$238,873,107 |
| | Residential | 1,189 | \$304,864,857 |
| | Total | 2,653 | \$543,737,964 |
| Taos | Non-Residential | 2,286 | \$874,437,339 |
| | Residential | 2,994 | \$760,401,339 |
| | Total | 5,280 | \$1,634,838,678 |
| Taos Ski Valley | Non-Residential | 505 | \$229,513,596 |
| | Residential | 314 | \$192,045,360 |
| | Total | 819 | \$421,558,956 |
| Total Value | | | \$8,349,903,189 |

Capability Assessment

A capability assessment is an inventory of a community's missions, programs, and policies and an analysis of its capacity to carry them out. This assessment is an integral part of the planning process. The assessment process enables identification, review, and analysis of current local and state programs, policies, regulations, funding, and practices that could either facilitate or hinder mitigation (FEMA 2013).

County Capability Assessment

The planning area possesses a range of essential capabilities to support hazard mitigation and emergency response, including institutional resources, regulatory frameworks, technical expertise, and established partnerships with neighboring jurisdictions, the Town of Taos, and New Mexico state agencies. This assessment highlights current strengths while identifying areas where additional resources or improvements are necessary to enhance community resilience and reduce vulnerabilities to natural hazards like wildfire, flooding, and drought.

During the plan update process, Taos County and its participating jurisdictions evaluated the effectiveness of their capabilities in supporting hazard mitigation and identified specific opportunities to enhance local readiness.

Municipal capabilities in the Planning and Regulatory, Administrative and Technical, and Fiscal arenas are detailed within the jurisdictional annexes. Within each annex, participating jurisdictions identified how they integrate hazard risk management into their existing planning, regulatory, and operational/administrative frameworks ("integration capabilities") and intended actions to further promote this integration ("integration actions").

County agencies provide assistance to the local municipalities and communities within Taos County. County departments often serve as the primary source of expertise and staff for complex tasks like grant writing, large infrastructure maintenance, and emergency coordination, particularly for smaller communities that may lack the specialized staff to accomplish these tasks independently.

Taos County has a number of resources it utilizes to implement hazard mitigation initiatives, including emergency response measures, local planning and regulatory tools, administrative assistance and technical expertise, fiscal capabilities, and participation in local, regional, state, and federal programs. The presence of these resources enables municipal resiliency through actions taken before, during, and after a hazard event.

A summary of the various federal, state, county, and local planning, regulatory, administrative, and fiscal programs available to promote and support mitigation and risk reduction in Taos County are presented below.

New Mexico State Floodplain and Water Management

The state of New Mexico delegates certain authorities that affect floodplain management and water resources at the local level. Key agencies include the New Mexico Department of Homeland Security and Emergency Management (NMDHSEM) and the Office of the State Engineer (OSE).

- **Office of the State Engineer (OSE):** The OSE has statutory authority over water rights and is involved in permitting flood control works, dam safety, and stream channel alteration. The Dam Safety Bureau is responsible for inspecting and regulating dams across the state, a critical mitigation function.
- **New Mexico Environment Department (NMED):** NMED works to conserve, protect, and restore New Mexico's environment and is vital for managing water quality, wastewater, and solid waste—all of which are major considerations in disaster recovery and long-term mitigation.
- **New Mexico Department of Homeland Security and Emergency Management (NMDHSEM):** This agency is the liaison between FEMA and New Mexico communities participating in the National Flood Insurance Program (NFIP). They provide technical assistance, administer federal programs (like the Hazard Mitigation Grant Program, HMGP), and assist counties with hazard planning and response coordination.

New Mexico Forestry Division

Given the extreme wildfire risk in Taos County (e.g., surrounding the Carson National Forest), the New Mexico Forestry Division is a critical partner.

- **Wildfire Risk Reduction:** They provide technical assistance and funding (often through federal grants) for fuel reduction projects, community wildfire protection planning (CWPP), and promote Firewise initiatives, which are essential for mitigation in Taos County.

Taos County Public Works Department

The Taos County DPW is directly responsible for structural and non-structural mitigation measures related to infrastructure:

- **Infrastructure Maintenance:** Routine maintenance of county roads, bridges, and culverts.
- **Flood/Erosion Control:** Proper sizing and replacement of culverts to manage increased runoff from wildfires and intense rainfall, reducing road failure and localized flooding.

- Emergency Response Support: Assisting the Town of Taos and other villages during disasters with equipment, personnel, and debris management.

Taos County Health and Human Services

This department is critical in supporting the most vulnerable populations during and after a disaster, a key mitigation focus:

- Public Health Preparedness: Coordinating with the State for public health response to outbreaks or emergencies.
- Community Care: Maintaining a list of older, disabled, and medically dependent residents (vulnerable populations registry) to ensure targeted assistance during evacuations, power outages, or other emergencies.
- Disaster Recovery Support: Providing resources for shelter, food, and mental health support.

Taos Soil and Water Conservation District

The SWCD provides crucial technical expertise that directly addresses the root causes of many natural hazards in a high-desert environment:

- Erosion and Sediment Control: Providing assistance to private landowners on best management practices (BMPs) to stabilize land following wildfire or heavy rain.
- Conservation Programs: Working closely with the USDA Natural Resources Conservation Service (NRCS) to secure funding (e.g., Environmental Quality Incentives Program - EQIP) for conservation projects that mitigate drought, flooding, and soil loss.
- Forest Health: Offering advice and programs to address forest overgrowth and tree mortality (from bark beetle infestations), directly reducing wildfire fuel load on private lands.

Taos County Emergency Management

The EM office is the central hub for the four phases of emergency management (Mitigation, Preparedness, Response, Recovery):

- Coordination and Planning: Developing and maintaining the Taos County Local Hazard Mitigation Plan (HMP), the Emergency Operations Plan, and ensuring mutual aid agreements with neighboring counties (like Colfax and Rio Arriba) are current.

- Alerting: Operating the county’s public safety radio system and coordinating the use of the Emergency Alert System (EAS) and other warning systems.
- Training: Providing training programs for fire, EMS, and law enforcement in incident command and disaster operations.

Planning and Regulatory Capabilities

| Capability Area | Description | Lead / Responsible Agency | Jurisdictional Reach | Strengths | Limitations / Gaps |
|--|---|--|--|---|---|
| Hazard Mitigation Planning | Multi-jurisdictional HMP integrating hazard data, public input, municipal and Tribal engagement, and FEMA requirements. | Taos County OEM; Municipal Planning Depts; Tribal partners | Countywide (County + Municipalities + Taos Pueblo) | Strong regional coordination; FEMA-compliant process; includes wildfire, drought, flood, landslide, winter storm hazards. | Plan relies on limited staffing; updates constrained by funding; data gaps in remote/watershed areas. |
| Emergency Operations Plan (EOP) | Coordinates multi-agency response, assigning roles for law enforcement, fire/EMS, public works, public information. | Taos County OEM; Fire/EMS; Law Enforcement | Countywide | Clear incident command roles; integrates ESFs; supports evacuation and shelter operations. | Resource constraints for mass-care operations; communications challenges in remote canyons. |
| Continuity of Operations Planning (COOP) | Maintains essential government functions (dispatch, road maintenance, public services) during disruptions. | Taos County Administration ; OEM; Municipal Govts. | County + Towns + Key Departments | Identified critical functions and redundancy needs; dispatch continuity is strong. | Limited redundant facilities; rural connectivity issues; aging government buildings. |
| Evacuation & Shelter Planning | Identifies shelters (schools, civic centers), evacuation routes, high- | OEM; Schools; Red Cross; NMDOT; Law Enforcement | Countywide with emphasis on canyon communities | Acknowledges WUI threats, single-access roads, and special populations. | Shelter capacity limited; transportation shortfalls; multiple remote communities lack |

| Capability Area | Description | Lead / Responsible Agency | Jurisdictional Reach | Strengths | Limitations / Gaps |
|-----------------------------------|--|--|-----------------------------|--|--|
| | risk wildfire areas, and limited mountain-access corridors. | | | | ingress/egress redundancy. |
| Building & Construction Standards | Adoption of NM building codes addressing WUI, snow load, and structural/fire safety. Challenges include historic adobe and older, pre-code structures. | County Planning & Permitting; Municipal Building Departments | Countywide & Municipalities | Up-to-date codes for new construction; improved wildfire/snow-load resilience. | Older housing stock vulnerable; limited enforcement capacity in remote areas; many homes pre-code/adobe. |

Core Planning Documents

- **Comprehensive Plan:** Taos County has a Countywide Comprehensive Plan which provides guidelines for future land use, sustainable development, and infrastructure improvements. This plan serves as the foundation for integrating hazard mitigation principles, particularly concerning development in the Wildland-Urban Interface (WUI), sensitive ecological zones, and flood-prone areas like the Rio Grande and its tributaries.
- **Community Wildfire Protection Plan (CWPP):** Given the high risk of wildfire, the county and its communities often develop CWPPs in conjunction with the New Mexico Forestry Division and the Carson National Forest. These plans prioritize fuel reduction projects, road access improvements, and evacuation planning.
- **Affordable Housing Plan:** This plan is a requirement for the local government to make contributions to affordable housing. This plan comprehensively exams the housing needs for all residents to incorporate planning and growth into Taos County.

Regulatory Frameworks

- **Zoning & Land Use Codes:** Land use authority is shared between the county and incorporated municipalities (like the Town of Taos and the Village of Questa). Taos County Planning and Zoning enforces codes for unincorporated areas. These regulations are the primary mechanism used to limit or control development in high-risk areas, such as steep slopes vulnerable to erosion and lands designated as high-risk WUI, thereby reducing potential hazard impacts.

- **Building Codes:** The County enforces the New Mexico State Building Code, which adopts international codes (IBC/IRC). These codes set minimum standards for structural integrity, including requirements for wind, snow loads (critical at Taos's high elevation), and seismic resistance.
 - **Integration Opportunity:** There is an ongoing need to further integrate wildfire-resilient building standards (e.g., use of ignition-resistant materials, restrictions on exposed decks) for new construction, especially in the Wildland-Urban Interface.
- **Floodplain Management Ordinance:** Taos County actively participates in the National Flood Insurance Program (NFIP) and maintains local floodplain management ordinances. These ordinances require permits and set minimum elevation and construction standards for any development within the Special Flood Hazard Areas (SFHAs) as designated by FEMA flood maps (FIRM panels), ensuring the community remains in good standing with the NFIP.
- **Storm Drainage Policies:** The County and the Town of Taos have storm drainage policies, often managed by the Public Works Department, aimed at controlling runoff, preventing erosion, and protecting water quality. In this high-desert environment, these policies are crucial for mitigating flash flooding and debris flows, especially post-wildfire. These strategies often align with the New Mexico Environment Department (NMED) regulations.

Technical and Staff Capabilities

| Capability Area | Description of Existing Resources | Strengths | Limitations / Gaps | Responsible Agency |
|-------------------------------|--|---|---|--|
| Emergency Management Staffing | OEM staffed by Director, limited deputies, duty-officer rotation | Experienced regional coordination; strong ICS capability | Staffing shortages; single-person depth for many functions | Taos County OEM |
| Planning Staff | County Planning Dept.; municipal planners; Tribal coordination with Taos Pueblo | Knowledge of zoning, NFIP, wildfire/WUI issues | Limited personnel; competing priorities; data analysis capacity limited | County Planning; Municipal Planning |
| GIS & Hazard Data Expertise | GIS capacity located within County IT/Planning; mapping support from State & contractors | Ability to create basic hazard maps; uses state GIS portals | Limited specialized hazard modeling (fire behavior, debris flow, flood depth); staffing constrained | Planning Dept.; IT; Consultant Support |

| Capability Area | Description of Existing Resources | Strengths | Limitations / Gaps | Responsible Agency |
|--|--|--|--|---------------------------------|
| Engineering / Public Works | Public Works maintains roads, culverts, snow removal, drainage | Strong incident support; knowledge of rural roads & watersheds | Aging equipment; limited stormwater engineering specialization | Taos County Public Works |
| Fire/EMS Technical Resources | Multiple fire districts; VFDs; EMS with trained medics | Strong wildfire/EMS skills; wildfire operations depth | Volunteer gaps; limited advanced rescue resources; equipment aging | Fire Chiefs; EMS |
| Transportation/Infrastructure Expertise | NMDOT District 5 coordination; county roads crews | Ability to manage snow, landslide, and emergency closures | Limited analytical capacity for transportation resilience planning | NMDOT + County Roads |
| Environmental/Wildfire Technical Support | CWPP Core Team; USFS; State Forestry; local mitigation groups | Strong wildfire and fuels expertise; established partnerships | Limited county-level staff; reliance on federal/state partners | CWPP Team; State Forestry; USFS |

Emergency Services & Public Safety

- Taos County Emergency Management (EM): The Taos County Office of Emergency Management coordinates disaster response, recovery, and preparedness activities across the county, working with the Town of Taos, other municipalities, and volunteer agencies. EM staff are highly trained in the Incident Command System (ICS) and National Incident Management System (NIMS) protocols.
- County Dispatch & Warning: EM maintains and operates the County Emergency Operations Center (EOC) and coordinates the county's warning and alert systems (e.g., reverse 911), which are crucial for timely mitigation actions like pre-evacuation notifications during fire or flood threats.

Technical Planning and Mapping

- Geographic Information System (GIS) and Planning Department: The Taos County Planning Department, with access to a GIS specialist provides critical mapping support. This capability is essential for:
 - Detailed Risk Assessment: Creating and updating local maps for floodplains, wildfire hazard zones (Wildland-Urban Interface - WUI), and geological hazards (landslides/rockfalls).
 - Critical Infrastructure Mapping: Identifying and visualizing essential facilities, utilities, and vulnerable assets for protection and rapid recovery planning.

- Decision Support: Providing real-time spatial analysis to the EOC during an active event.

Natural Resource and Technical Expertise

- Taos Soil and Water Conservation District (SWCD): The Taos SWCD is a crucial technical partner for hazard mitigation projects related to natural resources.
 - Expertise Focus: The SWCD provides technical expertise in erosion control, stream stabilization, and forest health/thinning—directly supporting efforts to mitigate post-fire flash flood risks, drought impacts, and catastrophic wildfire.
 - Programs: They assist landowners and the county in implementing Best Management Practices (BMPs) and securing federal funding (e.g., USDA NRCS programs) for conservation and water quality projects along the Rio Grande and its watershed.

Public Health and Vulnerable Populations Support

- Taos County Health and Human Services (HHS): This department provides the necessary capabilities to support public health and safety, especially concerning high-risk populations.
 - Emergency Health Support: Coordinating disease outbreak response, providing public health education, and operating emergency mass care/shelters (in coordination with the Red Cross).
 - Vulnerable Populations: HHS maintains records and facilitates outreach to older adults, disabled residents, and medically fragile individuals, ensuring their needs are considered and met during emergency evacuation and shelter operations—a core component of social mitigation.

Financial Capabilities

| Financial Resource / Tool | Current Use | Strengths | Limitations / Gaps | Responsible Entity |
|---------------------------------------|--|---|--|-------------------------|
| General Fund Revenues | Supports emergency management, public safety, public works | Stable but modest budget size | Insufficient for large-scale mitigation projects | County Administration |
| FEMA Grant Programs (HMGP, BRIC, FMA) | Actively pursued for wildfire, flood, post-fire planning | High success rate when applying; strong documentation | Requires match; limited grant-writing staff | OEM; Planning |
| State of New Mexico Funding | Used for wildfire mitigation, infrastructure, recovery | Consistent support during declared emergencies | Application cycles competitive; limited recurring mitigation funds | County + State Agencies |

| Financial Resource / Tool | Current Use | Strengths | Limitations / Gaps | Responsible Entity |
|--|---|---|---|----------------------------------|
| USDA / NRCS Programs | Acequia repair, drought mitigation, watershed treatment | Critical for rural & agricultural communities | Slow timelines; high documentation load | Acequia Associations; County |
| Capital Improvement Plan (CIP) | Supports long-term infrastructure replacement | CIP includes flood & road improvements | Historic buildings & adobe structures require specialized funding | County Public Works |
| Utility Funding (Kit Carson Electric, Water Utilities) | Supports system improvements, renewable energy projects | Growing microgrid & renewable capacity improving resilience | Limited funds for major hardening; vulnerable rural powerlines | Utilities |
| Local Revenue Mechanisms (impact fees, bonds) | Used sparingly | Potential to support targeted mitigation | Political barriers; limited tax base | County Board; Municipal Councils |
| Private / Nonprofit Funding | Supports wildfire education, watershed restoration | Strong community support | Dependent on partnerships and cycles of philanthropy | NGOs; CWPP Partners |

Local and State Funding Mechanisms

- **General Fund & County Budget:** Routine administrative and technical mitigation activities (e.g., staff salaries, equipment maintenance, and small-scale, locally funded mitigation projects) are supported by the Taos County General Fund, which is primarily supported by local property taxes and gross receipts tax.
- **New Mexico Capital Outlay (ICIP):** The County utilizes the Infrastructure Capital Improvement Plan (ICIP) process, coordinated through the New Mexico Department of Finance and Administration (DFA). The ICIP is the prioritized list of capital projects (roads, water, public safety facilities) that the County and its municipalities submit to the State Legislature for Capital Outlay funding. Hazard mitigation projects (e.g., drainage improvements, EOC upgrades) are often prioritized in the ICIP to secure state-level funding.
- **Lodgers Tax Revenue:** As a tourism-dependent county, Taos collects a Lodgers Tax. While these funds are primarily for tourism promotion, portions may be strategically allocated to public safety and infrastructure projects that enhance the visitor experience and resilience, particularly in response to major events.
- **New Mexico Match Fund (HB 177):** This state-level program, managed by DFA, is designed to help local governments, including Taos County, meet the non-federal cost-share requirement for large federal grants (like those from FEMA, DOT, or EPA), thereby making otherwise unaffordable federal grants accessible for major infrastructure and mitigation projects.

Inter-Agency Funding & In-Kind Support

- **Soil and Water Conservation Grants:** The Taos Soil and Water Conservation District (SWCD) and the Taos County Public Works Department collaborate to secure technical and financial assistance from the USDA Natural Resources Conservation Service (NRCS), often through programs like the Emergency Watershed Protection (EWP) Program for flood recovery and erosion control.
- **In-Kind Services:** The 25% non-federal match required for most mitigation grants is frequently met through "in-kind" contributions, which include the time and labor of County staff (e.g., EM, DPW, and Planning) working on the grant-funded project, reducing the need for direct cash match.

Grants & Federal Funding

The county actively pursues federal and state grants to support hazard mitigation and resilience projects. Grant funding has supported flood mitigation projects, infrastructure upgrades, and public education initiatives. Funding for hazard mitigation current federal and state sources include:

- Hazard Mitigation Grant Program (FEMA)
- Pre-Disaster Mitigation Program (FEMA)
- Flood Mitigation Assistance Program (FEMA)
- Flood Mitigation Assistance Planning Grant (FEMA)
- USACE Water Resource Development Block Grant
- Small Business Administration Loan Program
- DOT (Transportation Enhancement Program)
- DEC (Dam Safety Program, Stormwater Management Program)
- Community Development Block Grants (CDBG)
- Department of Agriculture

Education and Outreach Capabilities

| Program / Resource | Description | Strengths | Limitations / Gaps | Lead Agency / Partners |
|---|---|--|---|-------------------------------|
| Public Alert & Warning (CodeRED / Everbridge / IPAWS) | Multi-platform alerting for evacuations, weather, wildfire, road closures | IPAWS-authorized alerting; multi-language potential | Cell coverage gaps in remote canyons; enrollment barriers | OEM |
| Wildfire Preparedness Outreach | Firewise, Ready-Set-Go, CWPP education | Active Firewise communities; strong partnership with USFS and State Forestry | Relies on volunteer participation; some high-risk areas not engaged | Fire Depts.; CWPP Team |

| Program / Resource | Description | Strengths | Limitations / Gaps | Lead Agency / Partners |
|---|--|--|--|--------------------------------------|
| School-Based Preparedness Education | Safety drills, hazard awareness | Good reach for youth; school districts engaged | Limited wildfire smoke & air quality curriculum; dependent on school staffing | Schools; OEM |
| Tribal Community Outreach (Taos Pueblo) | Government-to-government coordination, cultural messaging | Strong relationship with Tribal leadership | Resource constraints and sovereignty considerations require specialized coordination | OEM + Taos Pueblo |
| Multilingual Messaging Capacity | Spanish & English primary outreach; limited Tiwa inclusion | Broad Spanish reach through radio, flyers, schools | Need for Tiwa translation; limited literacy-inclusive materials | OEM; County Comms |
| Tourist & Seasonal Worker Outreach | Visitor centers, hotels, ski area messaging | High visibility for winter and wildfire hazards | Transient population; limited awareness of local hazards | Tourism Bureau; Ski Valley; Chambers |
| Special Population Outreach | Elder checks, disability coordination, health messaging | Strong senior center and EMS support | Lacks centralized functional needs registry; limited outreach staffing | Senior Services; EMS; Public Health |
| Post-Fire Flood & Debris Flow Outreach | Watershed groups & NRCS messaging after wildfires | Effective community meetings after major fires | Outreach peaks post-disaster; limited sustained funding | NRCS; OEM; Watershed Coalitions |

Taos County maintains a crucial set of educational and outreach programs designed to raise public awareness, promote preparedness, and enhance community resilience to the area's specific hazards.

Public Awareness and Preparedness Programs

- **Hazard-Specific Campaigns:** The County collaborates with local media outlets (print, radio, and digital), the Taos Municipal Schools district, and community organizations to distribute hazard awareness and preparedness information. Programs include seasonal campaigns emphasizing:
 - **Wildfire Safety:** Promoting "Ready, Set, Go!" principles, defensible space creation, and evacuation routes, often in partnership with the Carson National Forest and local Firewise groups.
 - **Winter Storm Preparedness:** Focusing on travel safety, utility outages, and pipe-freezing prevention at high elevations.
 - **Flash Flood Prevention:** Educating residents on the dangers of arroyos and canyons, especially after fire events that increase runoff risk.
 - **Emergency Kit Preparation:** Encouraging residents to maintain 72-hour emergency kits, including provisions for high-altitude weather and unique cultural needs.

- **Community Emergency Response Teams (CERT) / Citizen Volunteer Programs:** The Taos County Office of Emergency Management supports and seeks to expand CERT programs in the Town of Taos and surrounding communities (like Questa). CERT trains volunteers in basic disaster response skills such as fire safety, light search and rescue, and disaster medical operations, directly enhancing local capacity before professional help arrives.
- **School Emergency Preparedness:** The County partners closely with local school districts, including Taos Municipal Schools, to ensure robust emergency preparedness. This involves conducting regular drills (evacuation, lockdown, shelter-in-place) and providing public safety education for students and staff to ensure the safety of the youngest and most vulnerable population.

Informational Resources and Partnership Efforts

Informational Resources and Public Awareness and Education Efforts leverage local, regional, and national partners, including:

- **Existing Public Outreach of Emergency Management:** The Taos County Office of Emergency Management (EM) uses its website, social media, and local radio stations to push out real-time alerts and preparedness information.
- **Local Emergency Planning Committee (LEPC) & Emergency Planning:** The County utilizes the LEPC and other planning groups to disseminate hazard information to key stakeholders and industrial partners, particularly regarding hazardous materials safety and rail line risk.
- **Taos Soil and Water Conservation District (SWCD):** Provides expertise and public education on natural resource issues, including erosion control, water conservation, and forest health (critical for long-term wildfire mitigation).
- **Regional Groups and Non-Profits:** Collaboration with organizations like Amigos Bravos (focused on water quality and watershed health) and local community centers ensures outreach extends to diverse and rural populations, often utilizing Spanish-language materials.
- **Federal/State Partners:** Distribution of educational materials from the National Weather Service (NWS) (especially for High Wind and Winter Storm Warnings), the American Red Cross (disaster education), and the New Mexico Department of Homeland Security and Emergency Management (NMDHSEM).
- **Culturally Relevant Outreach:** Utilizing trusted community leaders and local institutions (e.g., churches, Pueblos, and established placitas) to distribute brochures and host informational meetings, ensuring the information is accessible and culturally appropriate for all residents of Taos County.

Partnerships and Inter-Jurisdictional Coordination

Effective hazard mitigation and emergency response in Taos County rely heavily on coordination and resource-sharing among local, regional, state, and federal partners.

Mutual Aid and Neighboring Jurisdictions

- **Mutual Aid Agreements:** Taos County maintains robust mutual aid agreements with adjacent counties, including Colfax County, Rio Arriba County, and Mora County, as well as with the Town of Taos and other municipalities (e.g., Village of Questa) within its boundaries. These agreements are formalized under the state structure and allow for critical resource-sharing during large-scale emergencies, covering provisions for:
 - Fire Suppression
 - Emergency Medical Services (EMS)
 - Law Enforcement (Sheriff's Office)
 - Public Works (equipment and personnel for debris removal and road repair)
- **Tribal Coordination:** Due to the presence of the Taos Pueblo and its sovereign status within the county, close coordination is maintained between the Taos County Office of Emergency Management, the Taos Pueblo government, and the Bureau of Indian Affairs (BIA) to ensure integrated planning and response efforts that respect tribal jurisdiction.

State and Federal Coordination

- **State Coordination:** The County maintains a strong working relationship with the New Mexico Department of Homeland Security and Emergency Management (NMDHSEM). This coordination is vital for accessing state technical assistance, training, and the administration of federal programs (like the Hazard Mitigation Grant Program - HMGP and BRIC). NMDHSEM is the primary conduit for state-level support.
- **Federal Partnerships:** The County coordinates directly with:
 - The Federal Emergency Management Agency (FEMA) for disaster assistance and maintenance of the Hazard Mitigation Plan.
 - The USDA Forest Service - Carson National Forest, which is critical for planning and executing wildfire mitigation and response strategies, given that a significant portion of the county's land is federal forest.
 - The Bureau of Land Management (BLM) for coordination on federal lands management issues, including fire and resource protection.

Regional Planning Councils

- **Northern New Mexico Regional Planning Organization (NNMRPO):** Taos County participates actively in the NNMRPO, which addresses cross-county issues like transportation, environmental conservation, and economic development across multiple Northern New Mexico counties. This regional approach helps align mitigation strategies on a broader scale, fosters collaboration on shared infrastructure projects, and provides a platform for joint grant applications.

Infrastructure Resilience

Utility Resilience & Redundancy

The county works with local utility providers to enhance power grid resilience, especially against severe winter storms and flooding. Plans include power line hardening, backup power for critical facilities, and routine maintenance of utility infrastructure.

Transportation Infrastructure

Road and bridge maintenance is a priority, particularly due to county vulnerabilities to flooding, landslides, and snowstorms. It has invested in elevating roadbeds, reinforcing bridges, and improving drainage systems to prevent damage from severe weather.

Gaps and Needs

While Taos County possesses a solid foundation for hazard mitigation with strong emergency response capabilities, active public outreach, and regulatory measures, this assessment identifies critical gaps and needs that must be addressed to enhance community resilience against high-priority risks.

Wildfire and Post-Fire Mitigation Capacity

- **Gap:** While the county has established partnerships (e.g., with the Forest Service, SWCD, and local Firewise groups) and educational programs, there is a limited capacity for active, large-scale fuel reduction and other preventative measures in the high-risk Wildland-Urban Interface (WUI).
- **Need:** Enhanced resources and dedicated funding are required for:
 - **Fuel Reduction:** Increased implementation of mechanical thinning, forest health treatments, and strategic firebreaks on private and county land adjacent to federal forestland.
 - **Post-Fire Erosion Control:** Greater local capacity and pre-positioned resources to rapidly deploy erosion control measures (e.g., reseeded, mulching) on burn scars to prevent severe flash flooding and debris flows.
 - **Wildfire Risk Mapping:** Continuous updating and communication of detailed, granular wildfire hazard maps to inform zoning, building codes, and individual property mitigation actions.

Climate Change Adaptation and Water Security

- Gap: Taos County, like much of New Mexico, is experiencing intensifying impacts from long-term drought and more extreme weather patterns, yet it lacks a formal, comprehensive Climate Adaptation and Water Security Plan.
- Need: The county needs to strengthen its ability to address:
 - Drought: Developing strategies to protect vulnerable populations during heat events and ensure long-term water supply security for municipal and agricultural users amidst reduced snowfall and increased evaporation.
 - Changing Precipitation Patterns: Integrating projections for more intense rainfall events into stormwater management plans and culvert sizing to account for increased flash flood potential, especially when soils are drought-hardened or post-fire.

Comprehensive Planning and Technical Support

- Gap: Smaller communities, especially unincorporated Placitas and villages in the county, often lack the technical expertise, staff, and fiscal resources to maintain updated emergency and mitigation plans, secure competitive grants, or enforce complex ordinances.
- Need: Taos County could significantly support these local communities by providing:
 - Shared Technical Assistance: Allocating county staff (e.g., from Planning or Emergency Management) to directly assist small communities with grant applications (e.g., for FEMA BRIC or NMDHSEM HMGP) and the maintenance of local annexes.
 - Code Enforcement Support: Providing assistance to small municipalities to ensure the rigorous enforcement of floodplain ordinances and new wildfire-resilient building codes.

By strategically expanding resources, particularly for wildfire mitigation, and enhancing technical assistance to its smaller communities, Taos County can effectively address these emerging risks and continue to build long-term resilience for its residents and critical assets.

Local Capability Assessment

Refer to individual participating jurisdiction annexes for local capability assessments.

Assessment Analysis

The analysis confirms that Taos County possesses a strong foundational framework for hazard mitigation and emergency response, built upon effective planning, technical

capabilities, and established partnerships. This solid base provides the platform necessary for meeting FEMA's HMP requirements and achieving long-term resilience.

Strengths and Existing Capabilities

Taos County's core mitigation strengths are directly tied to its governmental structure and regional partnerships:

- **Integrated Planning and Regulation:** The County Comprehensive Plan actively integrates hazard mitigation principles, particularly addressing the Wildland-Urban Interface (WUI) and flood-prone areas. Local zoning and land use ordinances managed by the Planning Department limit development in high-risk zones. The County enforces the New Mexico State Building Code, which addresses structural requirements like snow loads and seismic resistance.
- **Floodplain Management:** Active participation in the National Flood Insurance Program (NFIP) and enforcement of local floodplain ordinances ensures effective risk reduction in Special Flood Hazard Areas (SFHAs) along the Rio Grande and major tributaries, aligning with FEMA's pre-disaster focus.
- **Technical Resources:** The County utilizes a strong Geographic Information System (GIS) capability to support accurate hazard mapping (e.g., wildfire risk, floodplains) and critical infrastructure identification, enabling better risk assessment and decision-making. The Taos Soil and Water Conservation District (SWCD) provides crucial technical expertise in erosion control and forest health treatments.
- **Emergency Services and Coordination:** The Taos County Office of Emergency Management (EM) coordinates disaster preparedness and response, with trained staff operating under Incident Command System (ICS) protocols. The County maintains mutual aid agreements with neighboring counties (Colfax, Rio Arriba, Mora) and closely coordinates with Taos Pueblo and the Carson National Forest, which is vital for resource-sharing during large-scale emergencies, especially wildfires.
- **Fiscal Capabilities:** The County actively pursues federal and state grants, leveraging the Infrastructure Capital Improvement Plan (ICIP) to prioritize mitigation and infrastructure upgrades (roads, culverts, water systems). Pursuit of FEMA grants like BRIC and HMGP, often utilizing the New Mexico Match Fund (HB 177), demonstrates a commitment to securing outside funding for resilience projects.
- **Outreach and Infrastructure:** Education and outreach programs, including local Firewise and CERT initiatives, promote disaster preparedness. Infrastructure efforts focus on road and bridge improvements, alongside coordination with utilities like Kit Carson Electric Cooperative (KCEC) for power line hardening and backup power for critical facilities.

Gaps and Critical Needs

Despite these strengths, Taos County faces specific, critical gaps that must be addressed to fully enhance resilience against its unique hazard profile:

- **Limited Active Wildfire Mitigation:** A significant gap exists in the capacity for active, large-scale fuel reduction and controlled burns across private and county land within the high-risk WUI. The current educational focus is not equally matched by the resources needed for field implementation of firebreaks and large-scale forest thinning projects.
- **Wildfire-Resilient Building Codes:** While state building codes are enforced, a clear need exists to integrate and strictly enforce hazard-specific building standards for wildfire resilience (ignition-resistant materials, restrictions on exposed decks) for new construction, particularly in the WUI.
- **Climate Adaptation and Water Security:** The County lacks a formal, comprehensive Climate Adaptation and Water Security Plan. This is a critical need as ongoing drought conditions and predicted extreme heatwaves intensify. The County must formally integrate climate projections (e.g., increased flash flood risk from intense rainfall) into long-term infrastructure and land-use decisions.
- **Municipal Technical Capacity:** Smaller municipalities and unincorporated communities within Taos County face challenges in securing grant funding, enforcing complex ordinances, and maintaining current plans. This highlights the need for increased county-level technical assistance and shared resources to ensure equitable resilience across the entire planning area.
- **Outreach Equity:** Public outreach needs to be expanded and specifically tailored to address underserved and Spanish-speaking rural populations to ensure all residents receive timely, relevant, and actionable information regarding emergency alerts and mitigation opportunities.

To close these gaps, Taos County must prioritize:

1. **Funding Wildfire Implementation:** Aggressively pursuing state and federal funding (e.g., HMGP Post-Fire, BRIC) to dramatically increase the scope and scale of fuel reduction and post-fire erosion control projects.
2. **Regulatory Integration:** Accelerating the integration of wildfire and post-fire flash flood projections into local planning, zoning, and building codes.
3. **Targeted Infrastructure Investment:** Accelerating road and bridge upgrades that focus specifically on increasing the size and resilience of culverts and arroyo crossings to withstand post-fire debris flows and flash floods.
4. **Equity in Mitigation:** Dedicated funding and staff time to provide technical grant-writing and planning assistance to small, unincorporated communities to empower them to pursue mitigation actions.

By focusing on these priorities, Taos County will significantly enhance its resilience to natural hazards, better protect its residents, infrastructure, and unique cultural assets, and ensure full compliance with current federal mitigation requirements.

Vulnerability Assessments

National Risk Index

November 21, 2025

Taos County, New Mexico

Summary



While reviewing this report, keep in mind that low risk is driven by lower loss due to natural hazards, lower social vulnerability, and higher community resilience.

Figure 19. Taos County National Risk Index Summary

This jurisdictional vulnerability overview summarizes the current and projected risks facing Taos County and its component municipalities, Pueblos, and communities, based on the hazard profiles outlined in this 2026 Hazard Mitigation Plan (HMP) update.

The analysis integrates data from key regional and federal tools, supplemental information from local planning documents, stakeholder input, and historical disaster records to provide a comparative assessment of risk.

Baseline Risk Evaluation and Data Integration

The profile for each participating jurisdiction in this section reflects its top hazards (primarily Wildfire, Flash Flooding, and Drought), its current vulnerability level, the primary drivers of future risk, and specific population characteristics that may increase susceptibility to harm. Together, these insights form the foundation for prioritizing local mitigation strategies.

- **FEMA National Risk Index (NRI) Integration:** This assessment leverages the FEMA National Risk Index, specifically using the Expected Annual Loss (EAL) metric, to establish a baseline of physical risk across the county's jurisdictions.

- **Social Vulnerability Analysis:** To account for the diverse and often isolated populations in Taos County, the assessment integrates the CDC's Social Vulnerability Index (SVI). This combination helps identify where physical hazard exposure intersects with socially vulnerable groups, amplifying the need for targeted, equitable mitigation and outreach.
- **Risk Drivers and Exposure Trends:** To evaluate changes in vulnerability and exposure, this HMP uses land use changes and development trends as key indicators. In Taos County, where many high-risk areas are the Wildland-Urban Interface (WUI) or floodplain, shifts in building density and the expansion of the built environment into these zones serve as a proxy for intensifying risk.

Assessing Change in Risk and Vulnerability

To better understand how development patterns may be altering hazard risk and population exposure over time, this assessment utilizes a comparative methodology:

- **Combined Risk Proxy:** A proxy was developed by combining the NRI Expected Annual Loss (EAL) metric with normalized population change figures and the CDC Social Vulnerability Index (SVI). This process helps capture where growth or land use intensification may be compounding physical exposure to hazards like wildfire, flash flooding, and extreme heat for socially vulnerable populations.
- **Critical Infrastructure Evaluation:** Potential shifts in vulnerability are also evaluated by identifying any new critical infrastructure facilities constructed in hazard-prone zones or any deterioration of existing facilities located in these areas, as determined during HMP planning meetings. Acequias, which are critical local water infrastructure, are included in this evaluation, especially regarding their vulnerability to post-fire debris flow and erosion.
- **WUI and Floodplain Development:** Specific attention is paid to the rate of new development within the designated WUI and the NFIP-mapped floodplains, as this development directly influences the county's future mitigation priorities and regulatory needs.

While this method does not offer a complete view of every aspect of exposure or resilience, it provides a crucial baseline for understanding where development, population dynamics, and land use decisions are influencing the county's overall hazard risk profile.

Hazard Vulnerability

Taos County, NM exhibits a relatively low overall hazard risk (National Risk Index Score: 55.46) but faces elevated risk for specific, high-consequence hazards, particularly Wildfire, Drought, Flash Flooding, and severe Winter Weather/Avalanches. The county has a very high social vulnerability (Score: 83.86) compared to the rest of the US, and an

adequate community resilience score (Score: 36.73), indicating some capacity for emergency preparedness and response.

Risk Index

The Risk Index rating is **Relatively Low** for **Taos County, NM** when compared to the rest of the U.S.

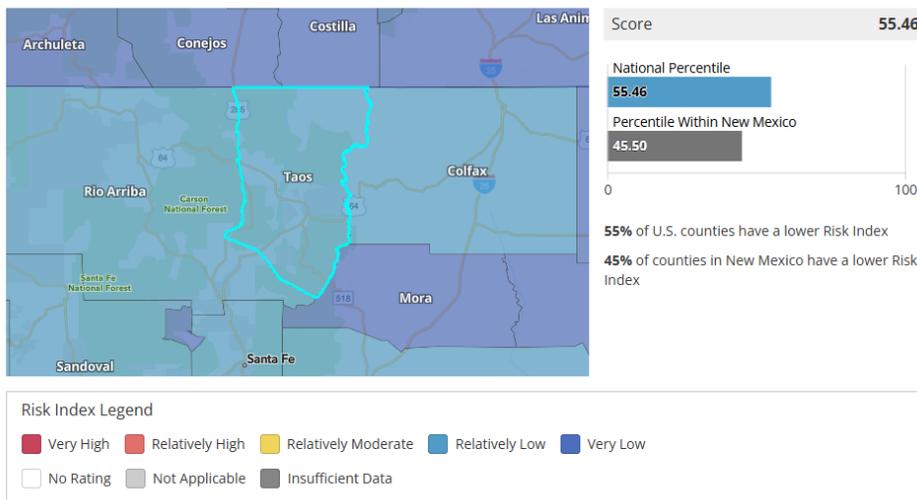


Figure 20. Taos County Risk Index

Current and Future Vulnerability Drivers:

- Wildfire and Post-Fire Flooding represent the highest risks, driven by long-term drought, forest fuel accumulation, and the extensive Wildland-Urban Interface (WUI). Following a large fire, the risk of catastrophic flash flooding and debris flow dramatically increases, posing a serious threat to infrastructure and life along the steep slopes and canyons.
- Climate change and aging infrastructure introduce increasing future vulnerability, especially related to extreme heat, long-term drought, and water scarcity. Rising summer temperatures and decreased snowpack (which is the primary water source) are projected to intensify, increasing the risk of heat-related illness and placing strain on both the agricultural sector and public health services, particularly for elderly, isolated, and rural residents.
- The moderate social vulnerability score suggests that a significant portion of the population, including those in rural, remote areas, may face challenges in

preparedness, evacuation, and recovery due to factors like income, housing, and transportation access.

Expected Annual Loss

The Expected Annual Loss (EAL) for Taos County, NM, provides an estimate of the average financial losses the county is projected to experience each year due to natural hazards. This composite metric, derived from the FEMA National Risk Index (NRI), includes impacts to buildings, population, and agriculture across 18 natural hazards.

The total EAL value for Taos County is estimated to be approximately \$5.3 million per year, with the vast majority of losses (\$4.15 million) attributed to buildings and the remainder covering population impacts and agricultural losses. The EAL rating places Taos County at the 49th percentile nationally, indicating a very low relative risk compared to all other U.S. counties.

Top Hazards Contributing to Annual Loss

For Taos County, the EAL is heavily skewed toward hazards common in the arid, mountainous Southwest. While these hazards differ in frequency, their potential for infrastructure damage is concentrated in vulnerable zones such as:

- **Wildland-Urban Interface (WUI):** Residential areas adjacent to the Carson National Forest are exposed to catastrophic wildfire damage.
- **Acequia Systems:** Critical, historic water delivery infrastructure is highly vulnerable to post-fire debris flow and flash flood damage.
- **Low-Lying Areas:** Structures, including older homes and mobile homes, located in arroyos, canyon bottoms, and floodplains are susceptible to sudden flash flooding.
- **Rural and Mountainous Utilities:** Aging power lines and utility infrastructure, especially in remote areas, are vulnerable to damage from severe winter storms, landslides, and wildfire.

Population and Resiliency Context

The population EAL is monetized by FEMA to represent the equivalent financial loss from fatalities and injuries. In Taos County, this metric highlights a risk to human life, particularly during severe wildfire evacuations, flash floods, and severe winter storm events.

- **Vulnerable Groups:** Vulnerable groups include older adults, indigenous communities, medically fragile individuals, and low-income residents who may lack access to cooling centers, transportation for evacuation, or emergency alerts in their native language (including Spanish and Tiwa).

- **Mitigation Need:** The EAL rate per building value signals a need for targeted mitigation investments in areas with aging or concentrated infrastructure, particularly for fuel reduction/defensible space in high-risk communities and flood/debris flow protection for key transportation corridors (e.g., Taos Canyon).

Expected Annual Loss

In **Taos County, NM**, expected loss each year due to natural hazards is **Very Low** when compared to the rest of the U.S.

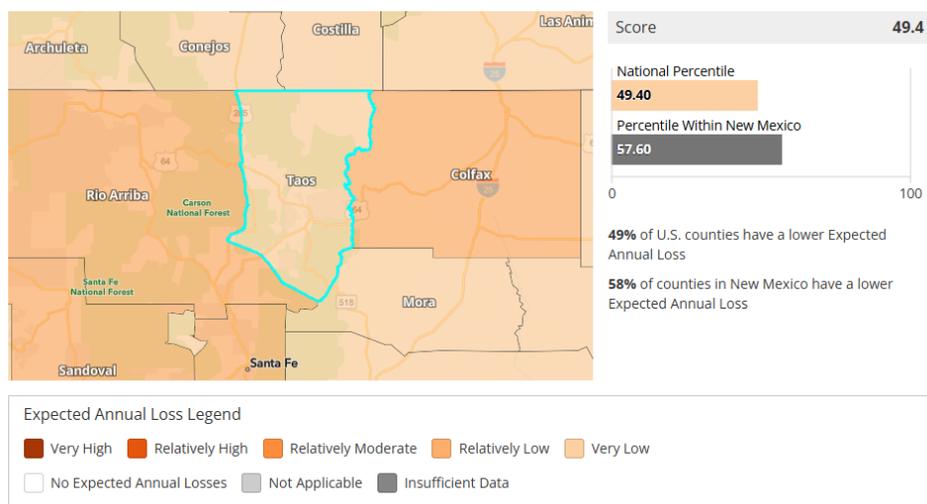


Figure 21. Taos County Expected Annual Loss

Given the county's extremely high SVI (83.86) and above-average risk in key areas (Wildfire, Drought), the EAL values signal the immediate need for:

- **Targeted Wildfire Funding:** Increased investment in fuel reduction, fire breaks, and WUI home hardening.
- **Water Infrastructure Protection:** Specific projects to protect and modernize acequia systems and domestic wells from flood and drought.
- **Climate-Adaptive Planning:** Improved stormwater and slope management standards to accommodate flash flooding amplified by drought and wildfire.

Continued monitoring of development in the WUI and the age of critical infrastructure will be essential to refine these EAL estimates and ensure Taos County is prepared to absorb and recover from future natural hazard events.

Social Vulnerability and Community Resilience

According to the FEMA National Risk Index (NRI), Taos County, NM, demonstrates a "Very High" level of social vulnerability across identified hazards (NRI Social Vulnerability Score: 83.86). This classification suggests that the county's residents face significant, specific challenges that can increase the population's exposure and sensitivity to hazard impacts, particularly when compared to national averages.

Social Vulnerability

Social groups in **Taos County, NM** have a **Very High** susceptibility to the adverse impacts of natural hazards when compared to the rest of the U.S.

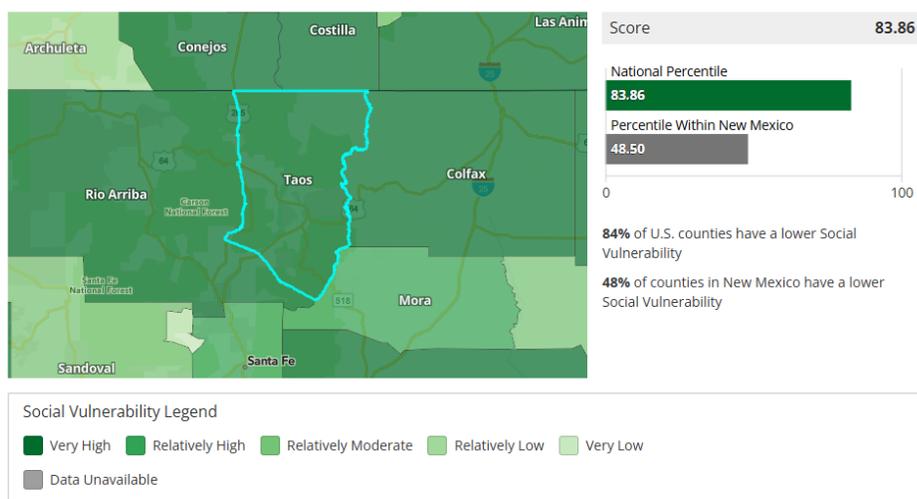


Figure 22. Taos County Social Vulnerability

- **Key Drivers of Vulnerability:** Taos County exhibits elevated rates in specific sub-themes of social vulnerability. These include:
 - **Poverty and Income:** Higher-than-average rates of poverty, which limits financial resources available for preparedness (e.g., buying insurance, creating defensible space) and recovery.
 - **Housing and Transportation:** Challenges with housing quality (e.g., older homes, mobile homes more susceptible to wildfire/wind damage) and access to reliable transportation for evacuation, particularly in remote areas.
 - **Limited English Proficiency (LEP):** The presence of a significant Spanish-speaking population requires a dedicated effort to ensure emergency alerts and mitigation information are culturally appropriate and translated, especially concerning critical wildfire evacuation orders.

- **Pockets of Need:** Localized communities, including remote Placitas and unincorporated villages, exhibit higher concentrations of elderly, isolated, or low-income residents. These pockets highlight risks not fully captured at the county scale and underscore the importance of jurisdiction-level mitigation planning and inclusive community engagement with entities like Taos Pueblo to ensure equitable access to resources.

FEMA rates Taos County, NM, as having a "Relatively Low" level of community resilience (NRI Community Resilience Score: 36.74). This rating indicates a foundational capacity to prepare for, respond to, and recover from disasters, though it suggests areas for improvement.

Community Resilience

Communities in **Taos County, NM** have a **Relatively Low** ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

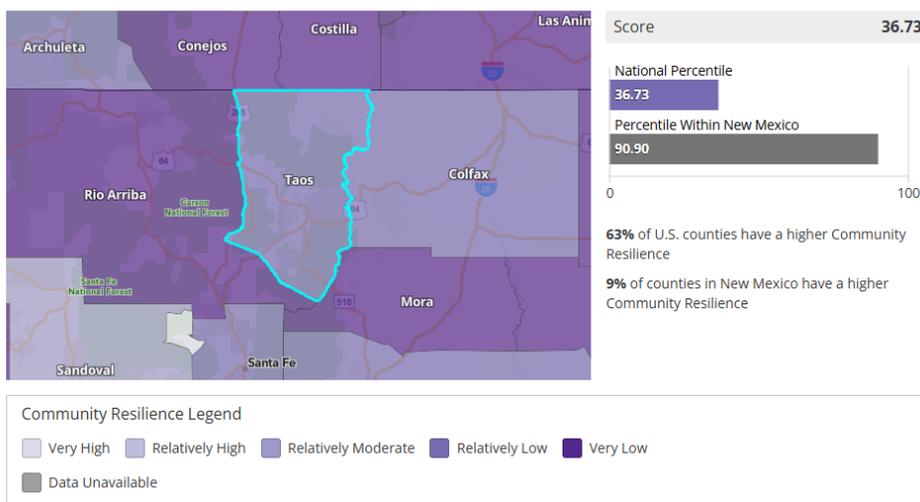


Figure 23. Taos County Community Resilience

- **Factors Driving Resilience:**
 - **Trained Personnel:** The presence of the Taos County Office of Emergency Management (EM) and local fire/EMS professionals trained in the Incident Command System (ICS) provides strong institutional readiness.
 - **Healthcare Infrastructure:** Access to regional healthcare (e.g., Holy Cross Medical Center) supports post-disaster medical needs.
 - **Institutional Coordination:** Strong formal coordination exists between county agencies, local municipalities (Town of Taos, Village of Questa), and sovereign

entities (Taos Pueblo), which is vital for managing cascading impacts from severe events like major wildfires.

- Active Partnerships: Regional partnerships, such as the Taos Soil and Water Conservation District (SWCD) and local Firewise programs, enhance the county’s ability to proactively address natural resource hazards.

Overall, Taos County’s combination of very high social vulnerability and relatively low community resilience places it in a position where targeted, equity-focused efforts are necessary to effectively manage existing and emerging hazards. Mitigation strategies must prioritize closing the gap in social vulnerability by directly addressing the needs of remote and LEP populations, especially as climate-related hazards (e.g., wildfire, extreme heat, flash flooding) become more frequent and severe in the Northern New Mexico region.

Table 355. Vulnerability Assessment Overview

| Jurisdiction | Top Hazards | Vulnerability Level | Future Risk Drivers | Population Risk Notes |
|----------------------------|---|---------------------|--------------------------------------|--|
| Town of Taos | Wildfire, Flash Flooding, Severe Winter Weather | Moderate-High | Climate change, urban development | Limited English proficiency can cause issues for emergency communication. Evacuation could cause high potential for traffic gridlock. |
| Village of Questa | Wildfire, Post-Fire Flash Flooding, Drought, Landslide/Rockfall | High | Climate change, erosion, debris flow | High socioeconomic vulnerability with elevated rates of poverty and aging. Isolation from limited primary access/egress routes makes external aid slow. |
| Town of Red River | Wildfire, Flash Flooding, Avalanche, Severe Winter Storms | Extreme | Climate change, tourism growth | Transient populations are more vulnerable to extreme exposure for non-resident tourists. Choke point potential for NM 38 road closures, isolating the town and trapping residents/visitors |
| Village of Taos Ski Valley | Avalanche, Wildfire, Severe Winter Storms, Landslide | Extreme | Climate change, WUI intensity | Transient population causes vulnerability of |

| Jurisdiction | Top Hazards | Vulnerability Level | Future Risk Drivers | Population Risk Notes |
|--------------|-------------|---------------------|---------------------|--|
| | | | | guests and seasonal workers to sudden-onset events. There is a single evacuation route, causing complete dependence on NM 150. |

Town of Taos

Taos's vulnerability is primarily shaped by the density of its historic core, the expanding Wildland-Urban Interface (WUI) on its perimeter, and its critical function as a regional economic and service hub. The Town faces moderate-to-high risk from Wildfire, Flash Flooding (from the Taos Creek and numerous arroyos), and Extreme Heat/Drought.

- **Geographic Exposure:** The WUI risk is elevated as development pushes into the surrounding foothills and canyons. Flash Flooding poses a distinct threat, particularly to downtown infrastructure and older residential areas, as the town's low-lying topography and arroyo network rapidly convey water, especially after heavy monsoon rains.
- **Population and Seasonal Risk:** While no major permanent population boom is projected, the influx of seasonal residents and tourists places stress on emergency services and increases exposure during sudden summer events like intense storms. The town also has the highest concentration of residents with limited English proficiency (LEP) and lower-income households in the county, which elevates risk during critical alert and evacuation phases.
- **Infrastructure Gaps:** Although community resilience is generally strong due to the presence of county emergency services and the regional hospital, Taos lacks fully updated stormwater modeling and arroyo capacity data to anticipate the impacts of intensified rainfall driven by climate change.
- **Resilience:** Strong institutional capacity, but the high number of historic structures in the core presents a preservation challenge in the face of hazard mitigation efforts.

Village of Questa

Questa's vulnerability is defined by its isolation, its close proximity to extensive forested wildlands, and its reliance on the Rio Grande and its tributaries. The Village faces a High risk from Wildfire, Post-Fire Flash Flooding/Debris Flows, and chronic Drought.

- **Geographic Exposure:** The village is situated next to the Carson National Forest, placing virtually all homes within the high-risk WUI. The steep terrain immediately

surrounding Questa makes it highly susceptible to rapid-onset post-fire debris flows and flash flooding that can wash out sections of Highway 522 and vital agricultural acequias.

- **Population and Seasonal Risk:** Questa has elevated rates of poverty and an aging population. These demographics contribute to a limited capacity for financial recovery following a disaster and complicate mass communication and rapid evacuation of vulnerable residents, especially given the distance to regional aid centers.
- **Infrastructure Gaps:** The Village has limited egress routes and the long travel distances to Taos and other service centers mean that any interruption to NM Highway 522 or NM Highway 38 during a winter storm or flood event could severely isolate the community for an extended period.
- **Resilience:** Community resilience is supported by a strong, cohesive local network and cultural knowledge of the land, but this is hampered by limited economic resources for structural mitigation (e.g., retrofitting homes for fire-resistance) at the individual and municipal level.

Village of Taos Ski Valley

Taos Ski Valley's vulnerability is extreme due to its unique physical geography as a destination resort located at the head of a single, narrow canyon and its exposure to multiple high-energy mountain hazards. The Village faces extreme risk from Avalanche, Wildfire, and Severe Winter Storms.

- **Geographic Exposure:** The Village is essentially a choke point at the terminus of NM 150. Structures, including resort lodges and utility lines, are highly exposed to snow and rock avalanches from the surrounding steep slopes. The concentration of structures and heavy timber in the canyon makes it extremely susceptible to a catastrophic wildfire that could rapidly move through the valley.
- **Population and Seasonal Risk:** The core risk here is the high density of the transient, tourist population during the ski season. This population is generally unfamiliar with the local terrain, evacuation procedures, and the specific signs of avalanche or wildfire danger, dramatically increasing the risk of mass casualties during a sudden-onset event.
- **Infrastructure Gaps:** The NM 150 road is the sole lifeline. Its closure due to a snow slide, rockfall, or fire event would isolate the entire Village, preventing both the evacuation of guests and the ingress of large-scale emergency resources. The Village also requires specialized resources for managing snow cornice control and avalanche path monitoring that are distinct from other county jurisdictions.
- **Resilience:** High financial capacity from the resort industry allows for significant investment in physical mitigation (e.g., lift maintenance, specialized snow removal), but the community remains inherently vulnerable due to its geographic isolation and the non-resident nature of its most exposed population.

Town of Red River

Red River's vulnerability is intensely shaped by its location deep within a narrow mountain canyon, its sole reliance on NM Highway 38 for access, and its extreme dependence on tourism. The Town faces a High to Extreme risk from Wildfire, Flash Flooding/Debris Flows, Avalanche, and Severe Winter Storms.

- **Geographic Exposure:** The Town is entirely situated within the Red River floodplain and is surrounded by dense forest, meaning a single, high-intensity wildfire or flood event could simultaneously cut off access and threaten the majority of structures. Historic flooding and post-fire debris flows (common in the canyon) threaten homes, commercial lodges, and critical utility infrastructure located close to the river channel.
- **Population and Seasonal Risk:** While the permanent residential population is small, the Town experiences massive, rapid increases in seasonal occupancy (tourists and transient workers) during both the winter ski season and the summer months. This high concentration of visitors raises exposure during sudden events (like flash floods or avalanches) and severely strains limited evacuation capacity on NM 38.
- **Infrastructure Gaps:** Although the community has a solid emergency plan, its reliance on a single access route is a critical vulnerability. The Town lacks fully redundant utility service and could benefit from enhanced slope stabilization and snow cornice management above the main highway. Furthermore, updated hydraulic and debris-flow modeling is needed to anticipate the effects of rain-on-snow events and intense rainfall on steep, recently burned slopes, which are intensified by climate change.
- **Resilience:** Community resilience is generally strong among permanent residents and emergency services, but the high exposure of its economic core and the constant influx of an unfamiliar transient population elevate the town's overall risk profile during any major power outage or weather event.

Mitigation Strategy

The Mitigation Strategy section of the Taos County Hazard Mitigation Plan (HMP) provides a comprehensive, five-year framework for reducing the county's vulnerabilities to natural hazards, particularly wildfire, flood, and extreme weather. Grounded in the findings of the risk assessment, which identifies the areas and property classifications most susceptible to damage, this strategy outlines targeted actions tailored to address the specific risks faced by the county and its participating jurisdictions (e.g., the Town of Taos, Village of Questa, Red River, Taos Pueblo). This section is built upon a detailed planning approach and includes the following key components:

- Update and Development
- Mitigation Strategy Planning Approach
- Past Mitigation Actions
- Review and Update of Mitigation Goals and Objectives
- Mitigation Strategy Development and Update

Jurisdictional annexes provide specific mitigation action plans tailored to the unique risks, vulnerabilities, and priorities of each community. For example, communities in the Wildland-Urban Interface (WUI), such as Taos Canyon and Red River, emphasize strategies for wildfire risk reduction and fuels management. Conversely, communities along the Rio Grande or Rio Fernando de Taos focus on strategies to mitigate flood and flash flood risks.

These annexes ensure equitable resource allocation and empower each jurisdiction to take ownership of its mitigation efforts by identifying timelines, responsible parties, potential funding sources (like FEMA HMGP and FMAG), and metrics for evaluating success.

Each mitigation action is developed with clear goals, objectives, and implementation steps, ensuring the plan is actionable and achievable. Actions are prioritized based on criteria such as their potential for risk reduction, cost-effectiveness, technical and administrative feasibility, and alignment with county-wide goals. Furthermore, jurisdictional actions integrate with ongoing local and regional initiatives, fostering collaboration and maximizing resource efficiency across the diverse communities of Taos County.

Mission Statement

The Taos County Hazard Mitigation Planning Team reviewed and revised the mission statement to ensure it aligns with FEMA guidance (386-1) and effectively defines the purpose of the planning process. The intent of this statement is to guide the development of goals and objectives that support the overarching mission of the plan.

Following the committee's review, the 2018 Taos County Hazard Mitigation Plan updated its mission statement to emphasize strengthening community resilience across the county's unique, diverse landscapes. The revised statement shifts the focus to proactive planning and coordinated action, ensuring an adaptive and sustainable approach to mitigating the most significant threats to Taos County: wildfire, flood, and extreme weather. The updated mission statement is provided below.

“To enhance the community resilience of Taos County’s diverse population and unique cultural resources by reducing risks and impacts from wildfire, flood, and other natural hazards through proactive planning and coordinated local, tribal, and county response.”

Goals & Objectives

According to CFR 201.6(c)(3)(i): "The hazard mitigation strategy shall include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards."

The mitigation goals for Taos County have been developed based on risk assessment results, research, stakeholder input (including local communities and the Pueblos), and existing policies, programs, and resources. These goals and objectives provide a foundation for reducing hazard vulnerabilities and strengthening community resilience.

For the purposes of this plan, goals and objectives are defined as follows:

- Goals are broad, long-term policy statements that outline what the mitigation strategy aims to achieve. They define the overall benefits the plan seeks to accomplish and provide a global vision for hazard mitigation.
- Objectives are specific, measurable actions that contribute to achieving the broader goals. Unlike goals, objectives serve as independent benchmarks for evaluating the effectiveness of mitigation efforts and help establish priorities.

The goals and objectives for Taos County were developed through a review of the New Mexico State HMP and the previous Taos County HMP. These goals also align with broader county, tribal, and community planning initiatives to ensure a coordinated and effective approach to hazard mitigation. The goals and objectives are designed to address the most significant risks and build resilience within the community.

| Mitigation Goal | Supporting Objectives |
|---|---|
| 1. Protect Life, Property, and Cultural Resources | <ul style="list-style-type: none"> • Safeguard residents, housing, critical facilities, and culturally significant sites from hazard impacts. • Reduce loss of life and prevent injuries through improved warning, evacuation, and response coordination. |

| Mitigation Goal | Supporting Objectives |
|---|--|
| | <ul style="list-style-type: none"> • Promote structural retrofits, home hardening, and building safety programs. • Protect historic and adobe structures using risk-informed mitigation practices. |
| 2. Reduce Vulnerability and Enhance Resilience | <ul style="list-style-type: none"> • Address risks from high-priority hazards such as drought, wildfire, flooding, and severe storms through targeted mitigation actions. • Improve community readiness and redundancy of essential services, including utilities, communications, and transportation systems. • Support hazard-resistant development and infrastructure investments. • Strengthen capacity to withstand and recover from long-duration disruptions. |
| 3. Preserve and Sustain Environmental Resources | <ul style="list-style-type: none"> • Implement mitigation measures that protect watersheds, forests, wildlife habitats, and natural systems that support community resilience. • Reduce post-fire flooding, erosion, and debris-flow hazards through ecological restoration and watershed management • Promote conservation practices that strengthen long-term environmental health. • Enhance sustainable land and water use aligned with natural resource protection. |
| 4. Increase Public Awareness and Preparedness | <ul style="list-style-type: none"> • Provide hazard education, outreach, and training to residents, businesses, and Tribal partners • Expand community preparedness programs (e.g., Firewise, Ready-Set-Go, CERT) • Improve multilingual, accessible public communication tools. • Strengthen understanding of local hazards and personal preparedness responsibilities. |
| 5. Integrate Mitigation into Planning and Development | <ul style="list-style-type: none"> • Ensure land-use decisions, infrastructure projects, and emergency plans incorporate hazard mitigation strategies. • Strengthen development regulations (e.g., WUI standards, floodplain management) to reduce long-term risk. • Align capital improvement planning with hazard mitigation priorities. • Improve coordination across County, municipal, and Tribal planning processes. |

| Mitigation Goal | Supporting Objectives |
|--|--|
| 6. Maintain FEMA Eligibility and Position the Community for Grant Funding. | <ul style="list-style-type: none"> • Ensure that the Hazard Mitigation Plan is reviewed and updated every five years as per FEMA requirements. • Encourage broad participation in the HMP update process to increase eligibility for FEMA and other federal and state funding opportunities. • Enhance the county’s participation in the National Flood Insurance Program (NFIP) Community Rating System (CRS) to secure lower insurance premiums for residents. • Track and leverage grant opportunities for mitigation projects to continually improve community resilience. |

Mitigation Strategy Planning Approach

The mitigation strategy updated planning approach is detailed in subsequent sections to include the following steps:

- **Assess Progress:** Review past county and local mitigation projects, noting completed and ongoing initiatives.
- **Update Strategies:** Develop revised mitigation approaches based on evolving risks, capabilities, and priorities.
- **Prioritize Actions:** Rank mitigation projects to ensure resources are allocated effectively for maximum impact.

Changes from the 2018 to 2026 Plan:

- **Mission Statement:** the previous (2018) Hazard Mitigation Plan did not include a Mission Statement.
- **Goals and Objectives:** Overhauled to provide overarching strategic goal with supportable objectives.
- **Climate Change Adaptation:** Newly integrated in the 2025 plan.
- **Public Awareness and Inclusivity:** Greater emphasis on accessible, inclusive communication.
- **Enhanced Coordination and Mutual Aid:** Improved focus on interagency collaboration.
- **Grant Funding and FEMA Compliance:** Dedicated goal to maintain and enhance eligibility for funding.

Mitigation Strategy Update and Development

To assess progress on local mitigation actions, each jurisdiction with previously identified actions from past Hazard Mitigation Plans or related efforts was provided with a Mitigation Action Plan Review Worksheet. These worksheets were pre-populated with prior mitigation actions, and municipalities were asked to review and update the status of each action using the following categories:

- New
- Ongoing
- Completed
- Deferred

Municipalities were also required to provide details on the extent of progress, limited progress or discontinuation, and refine project descriptions for better implementation.

Status of Local Mitigation Actions

- Actions marked as Completed or Discontinued have been removed from the updated mitigation strategy.
- Actions categorized as New, Ongoing and certain Deferred initiatives have been carried forward into the updated mitigation strategies for each jurisdiction.
- Municipalities provided further details to define project scope, expected benefits, cost estimates, and potential funding sources as possible.

Support for Municipalities in Identifying Mitigation Actions

During the Kick-Off and planning meetings, municipalities received assistance in identifying completed, ongoing, and potential mitigation activities. Additional projects and initiatives emerged throughout the plan update process, particularly through:

- Risk assessment updates
- Public and stakeholder outreach
- Direct municipal engagement via meetings, emails, and phone discussions

Development of Updated Mitigation Strategies

Taos County Emergency Management, in collaboration with contract consultants and representatives from the Town of Taos, the Villages of Questa, Red River, and Taos Ski Valley, and the Taos Pueblo, worked closely to refine and develop comprehensive

mitigation strategies. The focus was on identifying well-defined, implementable projects tailored to the unique high-desert and mountainous landscape of northern New Mexico, while considering:

- Identification of specific areas and assets at risk: Prioritizing the Wildland-Urban Interface (WUI), historic adobe structures, critical infrastructure, and the vital Acequia networks.
- Risk reduction benefits: Specifically targeting the mitigation of wildfire spread, drought impacts, and flash flooding in burn scars.
- Losses avoided: Calculating the potential savings in property, cultural heritage sites, and agricultural productivity.
- Estimated costs: Developing realistic budgets for rural and tribal implementation.
- Potential funding sources: Leveraging State and Federal grants, including the Hazard Mitigation Grant Program (HMGP).
- Planning Integration: Incorporating data from the 2025 Taos County Comprehensive Plan, Community Wildfire Protection Plans (CWPPs), and Acequia Association assessments.
- Strategic Alignment: Ensuring actions align with the Enchanted Circle regional initiatives and the New Mexico State Hazard Mitigation Plan.

The development process adhered to the FEMA Local Mitigation Planning Policy Guide (released 2025) ensuring all actions fall into the following four categories:

- Local Plans and Regulations: Actions involving land-use ordinances, building codes (including earthen building standards), and WUI-specific regulations that guide resilient development.
- Structural and Infrastructure Projects: Hardening critical facilities, undergrounding vulnerable power lines, and structural improvements to Acequia headgates and drainage systems.
- Natural Systems Protection: Landscape-scale forest restoration, watershed management, and "green infrastructure" projects designed to restore natural flood-attenuation and reduce fuel loads.
- Education and Awareness Programs: Multilingual outreach, Firewise USA community certifications, and water conservation campaigns aimed at informing residents, seasonal tourists, and local officials about regional hazards.

Incorporating Equity, Climate Change, and Resilience

To align with federal and state mitigation priorities, the Planning Team ensured that local mitigation strategies included initiatives focused on:

- Protecting vulnerable public and private properties.
- Improving public education and awareness regarding hazard mitigation
- Strengthening countywide mitigation capabilities

Additionally, in response to the growing impacts of climate change, municipalities have integrated strategies to address long-term risks from:

- Flooding
- Drought
- Severe storms and winter storms
- Wildfire risk

Mitigation Strategy Workshop & FEMA Guidance Implementation

In December 2025, a Mitigation Strategy Workshop was held for all participating jurisdictions. Key improvements to the mitigation planning process included:

- Refining mitigation strategies to focus on specific, actionable projects rather than broad objectives.
- Focused on specific areas and assets at risk to guide targeted mitigation efforts.
- Using Action Worksheet templates to document selected priority projects, ensuring each includes details on hazards addressed, project description, benefits, costs, responsible agencies, funding sources, timeline, and prioritization.

By adopting these updates, Taos County aims to strengthen its mitigation strategy, ensuring it is actionable, well-documented, and aligned with state and federal priorities.

Mitigation Strategy and Prioritization Process

Section 201.c.3.iii of 44 CFR requires an action plan describing how the actions identified will be prioritized.

FEMA planning guidance (March 2013) identifies a modified STAPLEE (Social, Technical, Administrative, Political, Legal, Economic, and Environmental) mitigation action evaluation methodology that uses a set of 10 evaluation criteria suited to the purposes of hazard mitigation strategy evaluation. This method provides a systematic approach that considers the opportunities and constraints of implementing a particular mitigation action. Based on this guidance, the Planning Team applied an action evaluation and prioritization methodology which includes an expanded set of criteria to include the consideration of cost-effectiveness, availability of funding, anticipated timeline, and if the action addresses multiple hazards.

| Criteria | Description |
|-----------------|---|
| S-Social | Will the action be supported by the community? |
| T-Technical | Is the action technically feasible and effective? |

| Criteria | Description |
|------------------|--|
| A-Administrative | Does the jurisdiction have staff/expertise to implement? |
| P-Political | Is there political support? Conflicts with policies? |
| L-Legal | Is the action consistent with current laws/regulations? |
| E-Economic | Is the action cost-effective and affordable? |
| E-Environmental | Will the action protect, preserve, or enhance the environment? |

Participating jurisdictions used evaluation criteria to rank mitigation actions. Each mitigation action received a numeric rank (1-5), with 1 being low/poor up to 5 being high/strong. Notes were added for justification and to provide rationale for their rankings, which helped classify actions as low, medium, or high priority. While this system ensured consistency, additional local factors could influence final prioritization.

Some jurisdictions carried forward prior mitigation actions, originally ranked using different but comparable criteria:

- High Priority: Aligns with multiple goals, cost-beneficial, funded or grant-eligible, and completable in 1–5 years.
- Medium Priority: Meets at least one goal, cost-beneficial, funding uncertain, and completable in 1–5 years.
- Low Priority: Risk-mitigating, cost-beneficial, but lacks funding and has a long-term timeline (5–10 years).

Jurisdictions were encouraged to reassess past priorities if conditions had changed. If prior rankings remained valid, they were retained and marked as carried forward.

For the plan update, efforts focused on clear, action-oriented mitigation strategies. Vetted projects seen as most effective were prioritized as High or Medium, while lower-priority initiatives were screened out during evaluation.

Cost Benefit Review

Per Section 201.6.c.3iii of 44 CFR, mitigation actions must prioritize cost-effectiveness, ensuring benefits outweigh costs. This plan’s cost/benefit review was qualitative as detailed in the Mitigation Action Plan Table. Jurisdictions identified both costs (e.g., administrative, construction, maintenance) and benefits (e.g., avoided losses, life safety, infrastructure protection, economic/environmental savings). When possible, actual or estimated dollar values were provided to assess cost-effectiveness. However, in many cases, numerical estimates were unavailable.

For this plan, jurisdictions rated cost-effectiveness using High, Medium, and Low categories:

- Low = < \$10,000
- Medium = \$10,000–\$100,000
- High = > \$100,000

Where precise cost/benefit data was unavailable, qualitative ratings were applied.

| Category | High | Medium | Low |
|----------|--|---|--|
| Costs | Requires additional funding sources (e.g., grants, bonds, fee increases) beyond existing levels. | Can be funded with existing resources but needs budget adjustments or multi-year funding. | Can be fully funded within the current budget as part of an ongoing program. |
| Benefits | Immediate and significant risk reduction for life and property. | Long-term risk reduction for life and property or immediate property risk reduction. | Benefits are difficult to quantify in the short term. |

Projects with a positive benefit-cost ratio (e.g., high-over-high, high-over-medium, medium-over-low) are considered cost-effective. For some Taos County initiatives, the Planning Team may seek FEMA funding through HMGP or HMA programs, which require a detailed benefit-cost analysis (BCA). These analyses will be conducted during funding applications using the FEMA BCA model. The Planning Team is committed to implementing cost-effective mitigation strategies. For projects not seeking FEMA grant funding, the committee may define “benefits” based on local priorities and the plan’s objectives.

Overview of Historical Mitigation Efforts

In accordance with the requirements of the Disaster Mitigation Act of 2000, a discussion regarding past mitigation activities and an overview of past efforts is provided as a foundation for understanding the mitigation goals, objectives, and activities outlined in this plan update.

Wildfire Mitigation

- Identified water supply gaps and developed alternative water sources to ensure fire suppression capabilities in rural areas (Complete).
- Implemented ongoing thinning and defensible space projects to reduce hazardous fuel loads in the Wildland-Urban Interface (Ongoing).
- Improving E-911 addressing and signage to ensure rapid emergency response during wildfire events and forest evacuations (Ongoing).
- Conducting targeted wildfire education programs for residents and property owners in high-risk zones (Ongoing).

Flooding & Dam Safety Mitigation

- Ensured continued National Flood Insurance Program (NFIP) compliance through updated floodplain management and local ordinances (Ongoing).
- Developed and updated Emergency Action Plans (EAPs) for dams within the county to mitigate the risk of dam failure (Ongoing).
- Advanced the Rio Fernando revitalization project to improve natural drainage and mitigate flood risk through watershed health (Ongoing).

Drought & Watershed Protection

- Utilized the Rio Fernando revitalization initiative to improve water retention and ecological resilience against prolonged drought (Ongoing).
- Integrated drought considerations into thinning and forest restoration projects to preserve groundwater and soil health (Ongoing).

Multiple Hazard Mitigation

- Secured specialized EMS transport resources dedicated to the hospital and nursing home facilities to ensure the safe movement of vulnerable populations (Complete).
- Enhanced evacuation and shelter planning for all-hazard scenarios, including wildfires and severe winter weather (Ongoing).
- Expanding backup power and generator capacity across all local jurisdictions to maintain critical services during utility outages (Ongoing).
- Maintained and updated emergency management websites for both the County and the Town of Taos to provide real-time hazard data (Ongoing).
- Coordinated multi-agency training exercises to improve cross-jurisdictional readiness and communication during large-scale disasters (Ongoing).

Public Education & Awareness

- Delivering ongoing community hazard education through public outreach, workshops, and digital media (Ongoing).
- Providing residents with resources and training on hazard readiness, specifically focusing on the most common threats to the region (Ongoing).

Mitigation Action Plans

The table below outlines a comprehensive framework for enhancing community resilience and preparedness through actionable goals and plans. Each goal is paired with targeted actions, clear objectives, and specific implementation strategies to address diverse hazards, ranging from natural disasters to infrastructure vulnerabilities. The initiatives span critical areas like minimizing risk and vulnerability, protecting infrastructure, improving public awareness, increasing community capabilities, adapting to climate change, reducing wildfire risks, and maintaining FEMA eligibility for funding. By addressing identified gaps and leveraging coordinated efforts, the strategies strive to ensure community safety, enhance operational continuity, and foster sustainable adaptation to future challenges.

Table 366. Mitigation Action Plan

| Project # & Name | Hazard Addressed | Jurisdiction | Goal/Objectives | Targeted Actions | Lead Agency | Status/Timeframe | Progress Details | Estimated Cost | Potential Funding Sources |
|--|---|---|-----------------|--|--|--------------------------------|--|---------------------------------|---|
| TC-1: Emergency Shelter Backup Power & Resiliency | All Hazards | Taos County, Village of Questa, Village of Taos Ski Valley, Town of Taos, Town of Red River | 1, 2 | Purchase and install permanent backup generators and automatic transfer switches at primary emergency shelters. | Taos County Emergency Management | Ongoing/2-5 years | Project provides high regional benefit; coordination initiated with Kit Carson Electric COOP. | \$2M | FEMA BRIC, HMGP, NM Capital Outlay, USDA Rural Development |
| TC-2: Dry Hydrant Installation Program | Drought, Wildfire | Taos County, Village of Questa, Village of Taos Ski Valley, Town of Taos, Town of Red River | 3 | Install a network of non-pressurized dry hydrants in ponds, tanks, and Acequias to allow fire tankers to draft water in rural areas. | Taos County Emergency Management, Taos County Fire | New/0-2 Years | Identified as a high-priority "quick win" to improve ISO ratings and reduce response times during drought-induced water shortages. | \$250,000 – \$500,000 (Phase 1) | NM Fire Protection Grant Fund, Volunteer Fire Assistance (VFA), Taos SWCD |
| TC-3: Bridge Infrastructure Safety & Capacity Upgrades | Flood, Severe Winter Storms, All-Hazards (Access) | Taos County, Village of Questa, Village of Taos Ski Valley, Town of Taos, | 1, 2, 5 | Structural retrofitting, load-bearing capacity upgrades, and hydraulic improvements to ensure access for | Taos County Public Works / Engineering | Ongoing / 5+ Years (Long-term) | Requires multi-agency coordination (NMDOT, USACE) for engineering and environmental | \$10M (Phased) | FEMA BRIC, NMDOT Bridge Program, FHWA (Federal Highway), |

| Project # & Name | Hazard Addressed | Jurisdiction | Goal/Objectives | Targeted Actions | Lead Agency | Status/Timeframe | Progress Details | Estimated Cost | Potential Funding Sources |
|--|--|---|-----------------|--|-----------------------------|------------------|---|----------------|---|
| | | Town of Red River | | heavy emergency vehicles. | | | permitting. Focus on ensuring egress for remote areas during flood events. | | NM State Road Fund |
| TC-4: Natural Gas Mainline Resilience & Redundancy | Geologic hazards, flooding, wildfire, severe winter storm, high winds, dam failure | Taos County, Village of Questa, Village of Taos Ski Valley, Town of Taos, Town of Red River | 2, 3 | Conduct a geohazard vulnerability study of the Hwy 68 mainline; implement section hardening and explore redundancy/looping options to prevent single-point-of-failure outages. | Taos County, NM Gas Company | New / 2-5 Years | Focus on mitigating "Single Point of Failure" risks. Outages directly impact heating, cooking, and water supply (via frozen/burst pipes) for ~16,000 customers. | \$5M-\$15M | DOE Grid Resilience Grants, FEMA BRIC, NM Public Regulation Commission (PRC) coordination |
| VQ-1: Cabresto Dam Failure Evacuation & Public Awareness | Dam failure, flooding | Village of Questa | 1, 4, | Update inundation mapping, install early warning sirens, and conduct community-wide evacuation drills. | Village of Questa | New/0-2 years | Requires partnership with USACE and NM State Engineer. Focuses on life safety for downstream residents. | \$200k-\$400k | FEMA HMGP, NM DHSEM, USACE Technical Assistance |
| VQ-2: Wildfire | Wildfire | Village of Questa | 1, 4 | Develop a comprehensive | Village of Questa | New/0-2 years | Requires PIO and public | \$75k-\$150k | USFS Community |

| Project # & Name | Hazard Addressed | Jurisdiction | Goal/Objectives | Targeted Actions | Lead Agency | Status/Timeframe | Progress Details | Estimated Cost | Potential Funding Sources |
|---|------------------|-------------------|-----------------|---|----------------------------|-------------------|---|----------------|---|
| Evacuation & Preparedness Plan | | | | evacuation plan, map egress routes, and launch a "Ready, Set, Go!" public awareness campaign. | | | safety coordination. Benefits Questa and surrounding rural neighborhoods. | | Wildfire Defense Grant (CWDG), HMGP |
| VQ-3: Water Conservation & Drought Resilience | Drought | Village of Questa | 2, 3 | Implementation of a leak detection program for municipal lines, water conservation ordinances, and a public xeriscaping/low-flow fixture incentive program. | Village of Questa, NMED | New/2-5 years | Focuses on reducing municipal demand and protecting aquifer levels. Requires coordination with NMED for water quality and infrastructure standards. | \$100k-\$300k | NMED Water Project Fund, Clean Water State Revolving Fund (CWSRF), Bureau of Reclamation (WaterSMART) |
| VQ-4: MyGov Emergency Alert Enrollment Campaign | All Hazards | Village of Questa | 1, 4 | Aggressive public outreach campaign including utility bill inserts, town hall workshops, and door-to-door registration assistance for | Administration, Fire & EMS | Ongoing/2-5 years | Current enrollment is 11%; goal is >50%. A high-enrollment rate ensures rapid dissemination of life-safety instructions during "fast- | 10k-\$40k | FEMA HMGP (5% Initiative Funds), NM Fire Protection Grant, Village Operating Budget |

| Project # & Name | Hazard Addressed | Jurisdiction | Goal/Objectives | Targeted Actions | Lead Agency | Status/Timeframe | Progress Details | Estimated Cost | Potential Funding Sources |
|---|---|---|-----------------|--|---|------------------|--|----------------|--|
| | | | | vulnerable populations. | | | moving" hazards. | | |
| VQ-6: Public Safety Critical Facility Back Up Power | Winter storm, high winds, wildfire, flooding, dam failure, geological hazards | Village of Questa | 1, 2, 5 | Procurement and installation of industrial-grade backup generators and automatic transfer switches (ATS) for the Police Station and Fire/EMS stations. | Village of Questa Fire & EMS | New/0-2 years | Essential for maintaining 24/7 emergency dispatch and response capabilities during prolonged utility outages. | \$150k-\$300k | FEMA BRIC, NM Fire Protection Grant, USDA Rural Development |
| TC-5: Regional Green Hydrogen Hub Development | High winds, severe winter storms, flooding, geological hazards, wildfire | Taos County, Town of Tao, Village of Questa | 1, 2, 3, 5 | Retrofit Chevron Molycorp mine (Questa) as primary production site. Install localized hydrogen storage at Town of Taos Water Treatment Plant & Peñasco hubs. Integrate 104MW | Taos County Public Works, Kit Carson Electric Cooperative | New/2-5 years | Safety studies and preliminary engineering designs are currently underway. Groundbreaking for the Questa hub is targeted for Q1 2026. Preliminary water rights secured via partnership with Chevron. | \$231M | USDA New Era Grant (\$231M), DOE Hydrogen Hubs (WISHH), NM Match Fund, NM Finance Authority LGPF |

| Project # & Name | Hazard Addressed | Jurisdiction | Goal/Objectives | Targeted Actions | Lead Agency | Status/Timeframe | Progress Details | Estimated Cost | Potential Funding Sources |
|---|---|--|-----------------|--|--|------------------|---|----------------|---|
| | | | | renewable solar/hydrogen capacity into the local microgrid. | | | | | |
| TC-6: Hydrogen Facility Safety & Emergency Response Readiness | Wildfire, high winds, severe winter storm, flooding, geological hazards | Taos County, Village of Questa, Town of Taos | 1, 4 | Develop specialized HazMat response protocols; procure hydrogen-specific firefighting apparatus (thermal imaging, gas detectors); hire/train specialized personnel; and launch a public safety education campaign. | Village Admin, Fire/EMS | New/2-5 years | New industrial development requires a dedicated "Safety/Response Gap Analysis" to ensure local responders are equipped for high-pressure gas incidents. | \$1.5M-\$3.5M | DOE Office of Clean Energy Demonstrations, FEMA BRIC, Industry Partner (Public-Private Partnership), NM State Fire Fund |
| VQ-6: Questa Fire Hydrant Restoration & Standardization | Wildfire, high winds, severe winter storm, flooding, | Village of Questa | 2, 5 | Conduct a full system audit; hire an engineer to design upgrades; replace unserviceable | Village of Questa, Fire/EMS, Utilities | New/2-5 years | Recent flow tests identified a significant percentage of unusable hydrants. Project | \$750k-\$1.5M | NMED Water Project Fund, FEMA BRIC, NM Capital Outlay, |

| Project # & Name | Hazard Addressed | Jurisdiction | Goal/Objectives | Targeted Actions | Lead Agency | Status/Timeframe | Progress Details | Estimated Cost | Potential Funding Sources |
|--|-----------------------|--------------|-----------------|--|---|------------------|---|----------------|---|
| | geological hazards | | | hydrants; and standardize all connections to National Standard Thread (NST). | | | requires a professional grant writer and engineering firm to meet NFPA 291 standards. | | Community Development Block Grant (CDBG) |
| TT-1: Town of Taos Dam Failure EAP & Inundation Study | Dam Failure, Flooding | Town of Taos | 1, 2, 5 | Develop a formal Emergency Action Plan (EAP); update inundation mapping for downstream impacts; establish specific evacuation protocols for the jail and nearby housing complexes. | Town Public Works, Emergency Management | New/0-2 years | Critical priority due to proximity of affordable housing (e.g., Chamisa Verde/Tierra Montosa areas), Taos County Jail, and retail food supply (Grocery) in the hazard zone. | \$150k-\$250k | NRCS Watershed Program, FEMA HHPD Grant, NM State Engineer, Taos SWCD |
| TT-2: Town of Taos Dam Structural Rehabilitation & Safety Upgrades | Dam Failure, Flooding | Town of Taos | 2, 5 | Engineering design and construction for spillway expansion, embankment stabilization, and seismic retrofitting to meet modern | Town Public Works, Emergency Management | New/5+ years | Requires a professional grant writer to navigate complex federal funding; involves multi-year engineering and | \$5M-\$15M | FEMA HHPD Grant, NRCS Watershed Rehab (REHAB), NM Capital Outlay |

| Project # & Name | Hazard Addressed | Jurisdiction | Goal/Objectives | Targeted Actions | Lead Agency | Status/Timeframe | Progress Details | Estimated Cost | Potential Funding Sources |
|---|--------------------------------|----------------------------|-----------------|---|--------------------------------------|------------------|---|----------------|---|
| | | | | safety standards. | | | environmental permitting (NEPA). | | |
| VTSV-1: VTSV Multi-Hazard Evacuation & Egress Resilience Plan | Wildfire, Landslide, Avalanche | Village of Taos Ski Valley | 1, 2, 5 | Develop a specialized evacuation plan for peak-occupancy scenarios; identify secondary emergency egress routes; and install automated "gate" notification systems on Hwy 150. | VTSV Public Safety (Police/Fire/EMS) | New / 1-3 Years | Current egress is limited to a single mountain road (Hwy 150). Plan must address tourist surge populations (up to 20,000+ people) during high-risk winter and summer seasons. | \$100k-\$200k | FEMA BRIC, USFS Community Wildfire Defense Grant (CWDG), NM DHSEM |
| VTSV-2: VTSV CWPP Adoption & Implementation Phase | Wildfire | Village of Taos Ski Valley | 2, 4, 5 | Finalize the CWPP for State/Local approval; implement prioritized vegetation thinning on private/village land; and update local building codes to require Firewise standards. | VTSV Fire Department / Planning Dept | New/0-2 years | The CWPP acts as the foundational strategy for wildfire resilience. Implementation will focus on high-risk WUI areas and ensuring defensible space for high-density | \$550K | USFS Community Wildfire Defense Grant (CWDG), NM DHSEM, NM State Forestry |

| Project # & Name | Hazard Addressed | Jurisdiction | Goal/Objectives | Targeted Actions | Lead Agency | Status/Timeframe | Progress Details | Estimated Cost | Potential Funding Sources |
|---|------------------|-------------------|-----------------|---|----------------------------|-------------------|---|----------------------|---|
| | | | | | | | resort structures. | | |
| RR-1: NFIP Continued Compliance & CRS Program Enhancement | Flooding | Town of Red River | 2, 6 | Maintain standing in the National Flood Insurance Program (NFIP) through ordinance enforcement and seek entry/advancement in the Community Rating System (CRS). | Town of Red River Planning | Ongoing/0-2 years | Includes annual outreach to residents about flood insurance and stricter enforcement of "freeboard" requirements for new construction. Entry into CRS would lower insurance premiums for residents. | \$10k-\$25K (Annual) | Town Operating Budget, FEMA FMA (Flood Mitigation Assistance) |

The 2026 Taos County Hazard Mitigation Plan (HMP) is designed to protect our diverse communities, from the high-desert plateau to the peaks of the Sangre de Cristo Mountains, against a wide range of natural and man-made hazards. By identifying local vulnerabilities, assessing risks to our historic and modern assets, and outlining comprehensive mitigation strategies, the HMP serves as a proactive roadmap to reduce the potential impacts of disasters. The plan's overarching goal is to enhance community resilience and resources by reducing risks and impacts from hazards through proactive planning and coordinated response while enhancing the county's overall resilience and ability to adapt to a changing climate and shifting societal conditions.

The plan includes a robust suite of mitigation actions tailored to the high-altitude environment of Northern New Mexico, such as:

- **Wildfire Prevention:** Forest thinning and defensible space initiatives within the Wildland-Urban Interface (WUI) and Carson National Forest.
- **Water Security:** Protection of the historic Acequia systems and floodplain management along the Rio Pueblo de Taos and Rio Grande.
- **Infrastructure Innovation:** The construction of multiple hydrogen production plants and microgrid storage to ensure energy independence during grid failures.
- **Emergency Readiness:** High-altitude evacuation planning and localized public education initiatives.

These strategies are specifically engineered to address Taos County's unique hazards, including catastrophic wildfire risk, severe winter storms that isolate mountain villages, and prolonged drought affecting agricultural lifelines. By incorporating both immediate tactical responses and long-term solutions, like the transition to a hydrogen-based "Green Grid", the HMP ensures that Taos County is prepared to recover from emergencies while fostering a culture of preparedness.

The plan emphasizes localized efforts, with appendices for each jurisdiction detailing actions to address their unique risks. This forward-thinking approach ensures that Taos County residents are equipped to face future challenges with resilience and strength.

Plan Maintenance

This plan will be reviewed and updated regularly to reflect changes in community priorities, new scientific data, and lessons learned from recent disasters. The review cycle will occur every five years or after a significant disaster. The update process will involve stakeholders and the public to ensure the plan remains relevant and effective.

Continued public involvement is crucial for plan success. Community meetings will be hosted annually to discuss progress and gather input and feedback mechanisms like online portals and hotlines will be provided for residents to submit feedback and suggestions. Regularly reporting progress to local government officials, stakeholders,

and the public is also essential. An annual report detailing the progress made towards implementing the mitigation actions will be published.

The hazard mitigation plan is a critical element designed to ensure that all systems, equipment, and infrastructure essential for disaster preparedness, response, and recovery are regularly inspected, serviced, and maintained. This helps prolong the life of assets and helps ensure key systems are operational during emergencies, reducing vulnerability and mitigating risks.

HMP Maintenance Schedule Components

Critical Infrastructure Identification

The Maintenance Schedule includes all critical infrastructure and equipment necessary for emergency operations like:

- communication systems (radios, satellite phones).
- backup generators.
- water and wastewater systems.
- emergency shelters.
- firefighting equipment.
- utility infrastructure (power, gas).
- transportation networks (roads, bridges).

Regular Inspections and Testing

The Maintenance Schedule should outline regular inspection times and test dates for critical systems to ensure operational readiness like:

- monthly generator testing to ensure backup power is available.
- quarterly communication system checks to verify redundancy (radios, satellite phones).
- annual inspections of shelter facilities for safety, functionality, and supply levels.
- seasonal inspections of firebreaks, flood barriers, or levees.

Risk-Based Prioritization

Infrastructure or equipment that poses the highest risk during a disaster should receive more frequent maintenance. High risk items should be inspected or tested more often than those deemed lower risk.

Types of Maintenance Activities

- **Preventive Maintenance:** scheduled, routine maintenance tasks to prevent system failures like changing air filters in EOC HVAC systems or calibrating communication equipment.
- **Corrective Maintenance:** repairs made to equipment or systems following a fault or failure, ensuring they are returned to operational readiness as quickly as possible.
- **Seasonal Maintenance:** adjustments and preparations ahead of seasonal hazards like clearing drainage systems ahead of the rainy season or inspecting wildfire-prone areas.
- **Assigned Responsibilities:** clearly define the personnel or departments responsible for performing each task like:
 - Public Works for utility infrastructure maintenance.
 - IT departments for communication systems testing.
 - Fire departments for equipment and fire suppression system maintenance.
- **Maintenance Records:** detailed records of all maintenance activities should be kept to track:
 - When the maintenance was performed.
 - What tasks were completed.
 - Whether any issues were identified.
 - Follow-up actions required.

These records ensure the HMP can be updated to reflect any vulnerabilities identified during maintenance and that all critical systems remain operationally ready.

| Asset/System | Task | Frequency | Assigned Team | Notes |
|----------------------------|--|-------------|---------------------------|--|
| Backup Generators | Run load test, change oil, inspect | Quarterly | • Public Works | Ensure fuel levels are adequate |
| Town Halls | Inspect communication systems, test HVAC | Monthly | • IT • Facilities Mgr. | Ensure redundancy with backup systems |
| Water Supply Systems | Inspect/test valves & pressure | Bi-annually | • Water • Utility | Ensure water availability during emergencies |
| Fire Suppression Equipment | Check & recharge fire extinguishers | Annually | • Fire Department | Update inventory of fire suppression tools |
| Emergency Shelters | Inspect structural integrity, supplies | Annually | • Facilities Team | Ensure food, water, & medical supplies are stocked |
| Flood Control Barriers | Inspect for wear, debris clearing | Seasonal | • Public Works | Clear channels before rainy season |

| Asset/System | Task | Frequency | Assigned Team | Notes |
|------------------------|-------------------------------|-----------------------------|----------------|---|
| Roadway Infrastructure | Inspect bridges, clear debris | Annually/After major events | • Public Works | Ensure roadways are clear for evacuation routes |
| Communication Systems | Test radios, satellite phones | Monthly | • IT | Ensure all communication channels are operational |

Importance of the HMP Maintenance Schedule

The Hazard Mitigation Plan (HMP) Maintenance Schedule is a critical component of an effective mitigation strategy. It ensures the plan remains up to date, relevant, and aligned with evolving risks, regulatory requirements, and community needs. Key reasons why the maintenance schedule is important include:

- **Ensures Plan Relevance & Effectiveness:** Hazard risks, vulnerabilities, and mitigation priorities change over time due to new developments, climate change, and shifts in population demographics. Regular maintenance ensures the plan remains an effective, reliable tool for reducing disaster impacts.
- **Compliance with Federal & State Requirements:** Jurisdictions seeking FEMA funding under the Disaster Mitigation Act of 2000 (DMA 2000) must update their mitigation plans at least every five years to remain eligible for funding. Regular maintenance keeps the plan in compliance with federal, state, and local laws.
- **Tracks Progress on Mitigation Actions:** Scheduled reviews help assess whether mitigation actions were implemented as planned, require modification, or need to be reprioritized. Consistent reviews also help ensure accountability among stakeholders responsible for implementation.
- **Facilitates Stakeholder Engagement:** The maintenance schedule includes opportunities for public participation, ensuring community needs and concerns are continuously incorporated. Engaging stakeholders helps maintain relevant, effective collaboration with emergency management agencies, public works, utility companies, and other key stakeholders.
- **Allows for Integration with Other Plans:** Hazard mitigation plans are often integrated with comprehensive plans, emergency operations plans, climate adaptation plans, and capital improvement programs. Regular updates ensure alignment across different planning efforts.
- **Improves Preparedness & Resilience:** Keeping the plan updated ensures mitigation efforts remain proactive rather than reactive. Regular HMP maintenance strengthens overall community resilience by ensuring risk reduction strategies remain current and actionable.
- **Identifies New Funding & Grant Opportunities:** Regular updates provide an opportunity to identify new state and federal grant opportunities that require an up-to-date HMP. Maintaining a valid, current HMP helps ensure Taos County and applicable jurisdictions remain competitive for mitigation grant funding.

The county can enhance resilience, maintain compliance, and effectively reduce disaster risks over time by adhering to a structured maintenance schedule. This proactive approach reduces risks, ensures operational continuity, supporting the overall goals of hazard mitigation and emergency preparedness.

Monitoring Progress of Mitigation Activities

The Monitoring Progress of Mitigation Activities is a critical element of maintaining the hazard mitigation plan. This process ensures planned actions are implemented and effective in reducing vulnerabilities and managing risks. Monitoring progress should be conducted semi-annually by the Planning Team or other designated team. Tasks involved include tracking the status of mitigation projects, documenting completed and ongoing actions and identifying any projects that are delayed or have encountered barriers to implementation. It is essential to evaluate the reasons for delays and develop practical solutions to overcome obstacles. The progress monitoring process requires updating timelines, responsible agencies, and funding sources associated with each mitigation activity to reflect any changes in circumstances or priorities. The results of these evaluations should be communicated to stakeholders to maintain transparency and accountability. This monitoring process keeps the plan dynamic, providing valuable insights for improving future mitigation efforts. Regular tracking ensures mitigation activities align with the county’s overarching hazard reduction goals, supporting community resilience against emerging threats.

The table below organizes the monitoring process into clear, actionable steps with assigned responsibilities, objectives, and timeframes to guide the county in effectively tracking mitigation activities:

| Step | Description | Frequency | Responsible Party | Objective |
|--------------------------------|---|------------------------------|--|---|
| Establish Monitoring Team | Form a team with representatives from local, stakeholders, & experts. | Initial setup (then ongoing) | HMP Maintenance Committee | Define roles & responsibilities for tracking & evaluating mitigation actions. |
| Develop Monitoring Framework | Create an action inventory, set performance metrics, & establish a review schedule. Use tools like spreadsheets or project management software. | Initial setup (then ongoing) | HMP Maintenance Committee | Organize & standardize the process for effectively tracking mitigation actions. |
| Gather Mitigation Actions Data | Collect updates via reports, field inspections, & stakeholder feedback to track action status | Semi-annually | Agencies & responsible parties for each action | Collect accurate, up-to-date mitigation activity information. |

| Step | Description | Frequency | Responsible Party | Objective |
|---------------------------------------|--|---------------|---------------------------|---|
| | (completed, in progress, delayed, not started). | | | |
| Evaluate Progress & Identify Barriers | Compare actual progress with planned timelines & objectives, assess effectiveness, & identify challenges like funding or resource limitations. | Semi-annually | Monitoring Team | Identify what works well & what needs adjustment to ensure progress. |
| Update Action Details | Revise timelines, funding sources, responsible parties, & priorities based on evaluations. | Semi-annually | HMP Maintenance Committee | Keep mitigation plan dynamic & responsive to changing conditions or emerging hazards. |
| Report Progress | Prepare detailed progress reports & a public summary to share updates & maintain transparency. | Semi-annually | County Emergency Manager | Maintain accountability & ensure community involvement in mitigation efforts. |
| Integrate Lessons Learned | Use findings from monitoring to refine mitigation actions & improve future planning & execution. | Semi-annually | HMP Maintenance Committee | Enhance effectiveness of future mitigation activities. |
| Conduct Annual Review | Include monitoring results in the annual HMP review to ensure the plan reflects updated priorities and mitigation status. | Annually | County Emergency Manager | Keep HMP up-to-date and aligned with city goals and community needs. |

Maintenance Evaluation and Enhancement

Maintenance evaluation and enhancement is critical for ensuring the HMP remains a dynamic, effective tool for risk reduction and disaster resilience. This process involves regularly assessing plan relevance, identifying opportunities for improvement, and implementing enhancements based on changing conditions, stakeholder input, and lessons learned.

Evaluation Framework

An evaluation framework is used to systematically evaluate HMP effectiveness. The framework includes:

- **Performance Metrics.** These are used to establish clear criteria to measure mitigation actions success and overall plan objectives. Metrics may include reductions in community vulnerability, project implementation rates, and improvements in preparedness and response capabilities.
- **Progress Reviews.** Conducting regular reviews of mitigation actions helps ensure alignment with the timeline, budget, and intended outcomes. This includes determining whether projects effectively address identified hazards.
- **Stakeholder Feedback.** Gather input from government agencies, local jurisdictions, community organizations, and the public to assess plan effectiveness, identifying areas for improvement.

Annual Maintenance Review

HMP annual review helps ensure the document reflects current conditions and priorities. This review includes:

- Incorporating updates to hazard profiles based on new data, recent disasters, or scientific studies.
- Assessing the adequacy of current mitigation actions and identifying new strategies to address emerging risks.
- Updating key sections like risk assessments, critical facilities, and community capabilities.

Post-Disaster Plan Updates

Significant HMP updates should be undertaken following disaster events to ensure lessons learned are integrated. This involves:

- Documenting disaster impacts, including damages to infrastructure, community resources, and vulnerable populations.
- Evaluating the effectiveness of mitigation strategies during the disaster.
- Adjusting risk assessments, mitigation priorities, and strategies based on new insights.

Enhancing the Plan

HMP enhancements may be discovered and guided by ongoing evaluations and new opportunities as they become available. These enhancements include opportunities for:

- Addressing Gaps: identifying and resolving gaps in mitigation actions like underserved populations, underfunded projects, or unaddressed hazards.
- Leveraging Technology: using Geographic Information Systems (GIS), data analytics, and other tools to improve hazard mapping and risk assessments.
- Strengthening Partnerships: building stronger collaborations with state and federal agencies, tribal governments, and private-sector organizations to enhance mitigation capabilities and funding opportunities.

Integration with Other Plans

The HMP should be regularly integrated with other county and regional plans including the emergency operations plan and climate action plan. This ensures mitigation strategies are consistent across all planning efforts, aligning with broader community goals.

Documentation and Reporting. All maintenance and enhancement activities must be well documented to provide a clear record of updates and changes. This includes:

- Preparing annual progress reports detailing the status of mitigation actions, evaluation outcomes, and HMP updates.
- Sharing summaries with the public to maintain transparency and accountability.
- Submitting updates to FEMA and State Emergency Management for review and compliance.

Continuous Improvement

The maintenance process should incorporate a continuous improvement cycle where evaluations drive enhancements, then enhancements feed back into the next review cycle. This iterative process ensures the HMP remains responsive to changing conditions, emerging hazards, and community needs. By maintaining a proactive approach to evaluation and enhancement, the county can ensure that its hazard mitigation plan remains a living document that effectively reduces risks, builds resilience, and supports the safety and well-being of its communities.

Incorporation into Existing Planning Mechanisms

The successful implementation of this plan depends on its seamless integration into existing planning mechanisms. HMP incorporation into other county, regional, and state plans ensures hazard mitigation strategies align with broader community goals, enhance resilience, and optimizing resource use. Integration also ensures the HMP becomes a living document, driving and supporting decision-making actions across various sectors.

The HMP should be directly linked to the Taos County Comprehensive Plan, which serves as the overarching framework for land use and development. Hazard mitigation strategies can be incorporated into land use policies to restrict construction in high-risk areas like floodplains or wildfire-prone zones. Infrastructure planning should align with mitigation priorities to reduce vulnerabilities while growth management policies should incorporate hazard assessments to avoid creating new risks as communities develop. Coordination with the Emergency Operations Plan (EOP) is another essential element of integration. The HMP can complement the EOP by providing pre-disaster mitigation actions reducing the impact of hazards on response and recovery efforts. Preparedness activities like training, exercises, and community education should include mitigation strategies. Protecting critical facilities identified in the EOP and aligning mitigation goals with continuity of operations plans are key areas for coordination.

Capital Improvement Plans (CIPs) offer another opportunity to integrate hazard mitigation measures, ensuring the protection of new and existing infrastructure investment. By incorporating the HMP into CIPs, Taos County can prioritize resilient infrastructure projects like upgrades withstanding floods and wildfires. This alignment helps the city leverage funding opportunities (like grants) to improve infrastructure and promote sustainable development. Similarly, hazard mitigation strategies must be incorporated into Climate Action Plans to address the growing impacts of climate change. This integration enables synergy between mitigation and adaptation, allowing actions to address current and future hazards. Strategies that reduce greenhouse gas emissions (energy-efficient rebuilding or green infrastructure) can also serve a dual purpose by reducing vulnerabilities to hazards while protecting natural ecosystems acting as buffers against disasters.

The HMP should also be integrated with regional and state-level planning efforts to ensure consistency and to maximize the use of external resources. Aligning local actions with the State Hazard Mitigation Plan (SHMP) enhances effectiveness, increasing funding eligibility. Coordination with regional transportation plans ensures the resilience of evacuation routes and transportation infrastructure, while integration with watershed and resource management plans supports flood mitigation strategies and natural resource conservation. At the community level, local and neighborhood plans should reflect hazard mitigation goals to build resilience from the ground up. Public engagement is essential for informing local initiatives and encouraging community involvement in risk reduction. Town-specific mitigation strategies can address risks unique to particular areas within the county, ensuring all residents benefit from the HMP.

Several tools and mechanisms can be used to facilitate effective integration. Policy alignment is a critical step, requiring a crosswalk analysis to identify opportunities for incorporating HMP goals into existing policies and programs. Training and education for staff and stakeholders reinforces their understanding of how to apply hazard mitigation strategies within their respective plans. Periodic reviews of planning documents help maintain alignment with the HMP, while GIS mapping can overlay hazard data with existing plans to identify integration opportunities. Monitoring and reporting are necessary to evaluate how effectively the HMP has been incorporated into existing mechanisms. Regular updates to integrated plans ensure these plans reflect changes in hazard assessments or mitigation priorities, while annual integration effort reporting provides transparency and tracks progress. Implementation feedback and lessons learned should drive continuous improvement.

By fully incorporating the hazard mitigation plan into existing planning mechanisms, Taos County can help ensure mitigation strategies are effectively implemented, risks minimized, and the community becomes more resilient to natural and man-made hazards. This integrated approach fosters coordination across departments and agencies, maximizes resource efficiency, enhancing overall safety and sustainability.

Since the adoption of the previous HMP, participating jurisdictions have incorporated HMP data, risk assessments, and mitigation priorities into several existing planning mechanisms. This integration occurred through formal plan updates, capital planning processes, emergency management procedures, and day-to-day decision making. Key examples include:

- Comprehensive Plan Development: The 2025 development of the Taos County Comprehensive Plan utilized information and vulnerability data to inform decisions throughout the county.
- Infrastructure projects were prioritized based on mitigation needs identified in the HMP, including expanding emergency siren networks, implementing emergency text alert systems, and implementing community hazard education.
- The Community Wildfire Protection Plan (CWPP) incorporated HMP wildfire risk and vulnerability findings.
- HMP hazard information was incorporated into community preparedness messaging and events.

Continued Public Involvement

Public involvement is a cornerstone of a successful Hazard Mitigation Plan (HMP) for Taos County. Maintaining engagement throughout the life of the plan ensures community buy-in, transparency, and inclusiveness. Continued involvement allows the residents of the high-desert and mountain communities to actively participate in mitigation efforts, providing valuable insights and ensuring the HMP reflects the unique priorities of Northern New Mexico.

In Taos County, transparency is maintained through a decentralized but accessible approach. While the county does not hold a fixed schedule of regular public meetings specifically for the HMP, the Taos County Emergency Management Office serves as the primary point of contact. Residents and stakeholders are encouraged to request detailed information, plan updates, or technical data directly from County Emergency Managers. This direct-access model ensures that local land grants, Acequia associations, and residents have a clear pipeline to voice concerns or seek clarification on mitigation projects.

The primary hub for HMP communication is the dedicated Taos County emergency management webpage. This central digital resource provides the community with access to contact information, the current plan, progress updates on infrastructure projects (such as the green hydrogen plants), and a portal for public comment.

To bridge the gap between formal planning and community experience, the county utilizes strategic community surveys. These digital surveys are essential tools for:

- Assessing public hazard awareness regarding wildfire and flash flooding.
- Understanding localized concerns in remote areas.
- Gathering feedback on the effectiveness of ongoing mitigation strategies.

These surveys are distributed via the HMP webpage and local digital channels to reach a broad cross-section of the population, ensuring that data-driven updates to the HMP are guided by the actual needs of the residents.

Partnerships with local organizations, non-profits, and tribal communities, including Taos Pueblo, are vital for fostering continued engagement. These collaborations help extend the county's reach to vulnerable populations, including seniors and low-income residents who may not frequent digital platforms. By working with these partners, the Emergency Management Office ensures that educational initiatives—focused on wildfire defensible space and winter weather preparedness—reach every corner of the county.

Taos County documents all engagement activities, including information requests processed by the Emergency Management Office, survey participation rates, and feedback received via the webpage. This documentation is reviewed during the HMPs annual evaluation to assess the effectiveness of outreach efforts. Lessons learned from these reviews are used to refine communication strategies, ensuring the county remains agile in its approach to public safety.

By fostering this collaborative environment, Taos County ensures the HMP remains a living document. Engaging the community strengthens local resilience, ensures the plan addresses real-world concerns—from water rights to energy independence—and builds a shared commitment to the safety and sustainability of our unique landscape.

Annexes: Jurisdictional Profiles

| Annex | Jurisdiction |
|---------|----------------------------|
| Annex A | Village of Questa |
| Annex B | Village of Taos Ski Valley |
| Annex C | Town of Taos |
| Annex D | Town of Red River |

Commented [MD6]: Link when complete

Annex A: Village of Questa

Profile

The Village of Questa is located in northern Taos County, nestled along the upper Rio Grande and bordered by the Carson National Forest to the east and west. The community lies at the junction of NM-38 and NM-522, providing access to Red River to the east, the Colorado state line to the north, and Taos to the south. Questa also encompasses the nearby communities of Cerro and Sunshine Valley, which are closely tied to the village for services, employment, and emergency response. As of the 2020 Census, the Village of Questa had a population of approximately 1,742, with the broader Questa area supporting a slightly larger service population due to tourism, recreation, and seasonal residents.

Questa's landscape is defined by dramatic topographic variation, from the steep, forested slopes of the Sangre de Cristo Mountains to the west, to the Rio Grande Gorge and high-desert mesas to the south. This terrain creates a range of natural hazard exposures, including wildfire risk in the wildland-urban interface, post-fire flooding and debris flows, steep-slope instability, and localized flooding along the Red River and Cabresto Creek. Seasonal snowmelt, monsoon storms, and legacy impacts from historic mining activity also contribute to vulnerabilities affecting roadways, drainage systems, and natural waterways. Ongoing mitigation efforts, supported by Taos County, the U.S. Forest Service, and local watershed groups, continue to reduce these risks through fuels management, drainage improvements, and watershed restoration.

The Village of Questa is home to several notable cultural, historical, and recreational assets that shape its identity and economy. The San Antonio de Padua Church, originally built in the 1800s and restored through a major community effort completed in 2016, stands as a central landmark of local heritage. The Rio Grande del Norte National Monument, located just south of the village, draws visitors for its dramatic volcanic landscapes, river access, and wildlife habitat. Cabresto Lake and the Columbine-Hondo Wilderness provide popular destinations for fishing, hiking, and backcountry recreation. Questa's mining history (most notably the former Molycorp/Questa Mine) remains an important part of the community's cultural narrative and ongoing environmental restoration efforts. Together, these sites contribute to Questa's rich historical, cultural, and natural character.

| Fact | Description |
|--------------------------------------|--|
| Land Area | Approximately 5.1 sq. miles (≈3,264 acres) |
| Incorporated Village(s) | Village of Questa (incorporated 1927) |
| Hamlets / Unincorporated Communities | Cerro; Sunshine Valley |
| Population (2020 Census) | 1,742 |
| Governance | Incorporated Village (Mayor–Council form) |
| Total Assessed Valuation | \$289M |
| Highest Elevation | ~10,200 ft (upper Cabresto Canyon watershed) |
| Largest Lake | Cabresto Lake |
| River(s) | Red River; Rio Grande; Cabresto Creek |
| Dams | 1 (Cabresto Lake Dam) |

| | |
|-----------------------------|--|
| Bridges | Approximately 6 Village/County road bridges |
| Interstate Highway | None |
| State Routes | NM-38; NM-522 |
| County Roads | Includes Cerro Road, Sunshine Valley Road, Cabresto Road, and others |
| Land in Agricultural Use | Limited irrigated acreage along Red River and Cabresto Creek |
| Land Classified Industrial | Former Questa Mine site (Chevron) – reclamation in progress |
| Land Classified Residential | Primarily low-density residential within village limits |
| Hospital/Medical Facility | Questa Health Center (clinic) |
| Fire & Rescue | Questa Volunteer Fire Department; Taos County EMS support |
| Schools | Questa Independent School District (Elementary, Middle, High School) |
| Railroads | None |
| Passenger Trains/Day | None |
| Freight Trains/Day | None |
| Ferry Docks | None |
| Interstate Bridge | None |
| Largest Employer(s) | Questa Independent Schools; Chevron (reclamation); tourism/outfitters |
| Law Enforcement | Taos County Sheriff's Office; New Mexico State Police (District 5) |
| Correctional Facility | None |
| Power Utility Provider(s) | Kit Carson Electric Cooperative |
| Water Supply Source(s) | Village municipal wells; private domestic wells |
| Emergency Shelters | 2 (Questa High School; Village Community Center) |
| Critical Facilities | Village Hall, Fire Station, EMS, Water/Wastewater facilities, Schools, Health Clinic, Communications sites |

Notable Updates

The Village of Questa has continued advancing community revitalization and resilience initiatives that support both economic development and hazard-mitigation goals. Working in partnership with Taos County, regional nonprofits, and state agencies, the Village has focused on strengthening its historic core, improving public infrastructure, and supporting small-business growth tied to recreation, cultural tourism, and the village's unique natural setting. Recent efforts include downtown beautification, trail and open-space improvements, and ongoing collaboration with Chevron on long-term reclamation and redevelopment opportunities at the former mine site. In addition, the Village has prioritized expanding Emergency Medical Services (EMS) to improve response capacity for both residents and visitors. Questa has worked with Taos County EMS and regional partners to increase staffing reliability, enhance training opportunities, and pursue equipment upgrades that support faster, more effective emergency response, particularly important given the village's rural geography, tourism traffic, and proximity to high-risk wildfire and recreation areas.

Planning Process

The Village of Questa participated fully in the countywide hazard-mitigation planning process. Village staff and elected officials completed the Hazard Mitigation Survey, attended the in-person Stakeholder Hazard Mitigation Introduction Meeting, and reviewed the draft Questa jurisdictional section for accuracy and updates. Designated staff representatives also participated in county-level coordination meetings and contributed to the development of the final mitigation strategy. This engagement ensured that local priorities, vulnerabilities, and capabilities were accurately reflected in the Taos County Hazard Mitigation Plan.

Capability Assessment

The Village of Questa maintains a range of regulatory and planning mechanisms that support hazard resilience and guide safe, sustainable development. These include floodplain regulations, subdivision ordinances, zoning requirements, building codes, fire codes, and participation in state and federal watershed and wildfire-mitigation programs. The Village also relies on coordination with Taos County, the U.S. Forest Service, and regional watershed groups for land-use management, fuels reduction, and post-fire flood-risk mitigation. Through its capability assessment, Questa recognizes that these tools—combined with interagency partnerships—play a critical role in reducing hazard exposure, protecting critical facilities, and strengthening long-term community resilience.

| Planning Documents |
|--|
| Zoning Ordinances (2004) |
| Comprehensive Plan (2009) |
| Subdivision Regulations (2004) |
| Flood Damage Prevention Ordinance (2010) |
| Water System Master Plan (2018) |
| Wastewater System Master Plan (2017) |
| Economic Plan (2013) |

The Village of Questa integrates its hazard mitigation efforts with a range of existing local and county planning documents. The hazard ranking developed through this plan can be incorporated into the Taos County Emergency Operations Plan, the Village’s Capital Improvements Plan, and future updates to the Village of Questa Comprehensive Plan. Integrating mitigation priorities across these documents helps ensure consistency with state requirements, supports coordinated implementation, and strengthens long-term resilience.

As part of the 2024 plan update, the Village of Questa completed a capabilities self-assessment to evaluate its planning, regulatory, administrative, technical, and financial capacity. Land-use authority within the village is exercised through local zoning and subdivision regulations, with Taos County providing additional review and permitting support where needed. The Village maintains a Planning & Zoning Commission, and coordination with Taos County Planning staff is common for development review, floodplain management, and grant-related activities.

Engineering support for water, wastewater, and infrastructure projects is typically provided through contracted engineering firms, while Taos County assists with GIS mapping, parcel data, and hazard-related spatial analysis. The Village designates safety and emergency management officials who coordinates with Taos County Emergency Management for training, response planning, and resource support. The Village's Code Enforcement Officer also serves as the Floodplain Administrator, ensuring compliance with the National Flood Insurance Program (NFIP).

Scientific and technical expertise is often provided through partnerships with the U.S. Forest Service, New Mexico Department of Homeland Security and Emergency Management (DHSEM), New Mexico Environment Department (NMED), Chevron's Mine Reclamation Team, and local watershed organizations involved in Red River and Cabresto Creek restoration. These partners support wildfire mitigation, post-fire flood risk reduction, watershed health, and environmental monitoring.

A variety of funding sources support Questa's mitigation and community-development projects. The Village has utilized Community Development Block Grants (CDBG) for infrastructure and housing improvements, state capital outlay funds for public facilities, and water and sewer utility fees for system maintenance and upgrades. Additional funding is pursued through FEMA Hazard Mitigation Assistance programs, USDA Rural Development, and partnerships with Taos County. Shared-services agreements with the County and neighboring communities help extend limited local capacity.

Education and outreach programs are implemented through the Village, Taos County, and local partners. Fire prevention, school safety, water conservation, and wildfire preparedness messaging are delivered through the Questa Volunteer Fire Department, Questa Independent Schools, and regional organizations such as the Enchanted Circle Fire Protection Association and local watershed groups.

Through a self-assessment, the Village of Questa identified its planning and regulatory, administrative and technical, financial, and education and outreach capabilities as moderate but improving, with strong reliance on county, state, and federal partners. When local resources are limited, the Village has established relationships with agencies and technical experts who can provide assistance. As part of this planning process, the Village also evaluated the flood vulnerability of its critical facilities to inform future mitigation priorities.

Critical Facilities

Table 377. Critical Infrastructure in Floodplain: Village of Questa

| Facility | Located in 500-Year Floodplain | Flooded in the Past | Mitigated | Generator |
|-----------------------------------|--------------------------------|---------------------|-----------|-----------|
| Village Offices | No | No | No | No |
| Questa Police | No | No | No | No |
| Questa Health Center | No | No | No | No |
| Questa Elementary School | No | No | No | No |
| Questa Fire Department | No | No | No | No |
| Village Water Treatment Plant | No | No | No | No |
| Questa Library & Community Center | No | No | No | No |

The Village of Questa maintains several critical facilities that support emergency operations, public safety, and essential services during disasters. These include the Village Offices (which serve as the Emergency Operations Center), the Fire Department and Police Departments, and the Water Treatment Plant. All are located outside the 500-year floodplain and have not experienced flooding in the past. None of these facilities currently have backup generators, which presents a vulnerability in the event of extended power outages.

The Questa Health Center provides primary care services and may serve as a medical triage site during emergencies. The Questa Elementary School is designated as a shelter site in coordination with the American Red Cross. The Library and Community Center, while not equipped with a generator, may be used for community meetings, cooling/warming centers, or temporary sheltering depending on the nature of the event.

Table 388. Housing for Displaced Residents: Village of Questa

| Facility | Type of Housing |
|--------------------------|-----------------------------------|
| Questa Elementary School | American Red Cross Shelter |
| Village Park Area | RVs, mobile homes (temporary use) |

In the event of a disaster requiring evacuation or displacement, the Village of Questa has identified Questa Elementary School as its primary shelter site, supported by the American Red Cross. The school offers space for short-term sheltering and basic services. For longer-term or overflow housing, the Village Park Area may be used to accommodate RVs or mobile homes, subject to coordination with Taos County and state emergency management agencies.

The Village continues to explore additional sheltering options and partnerships to expand its capacity for displaced residents, particularly in the event of wildfire, flooding, or infrastructure failure.

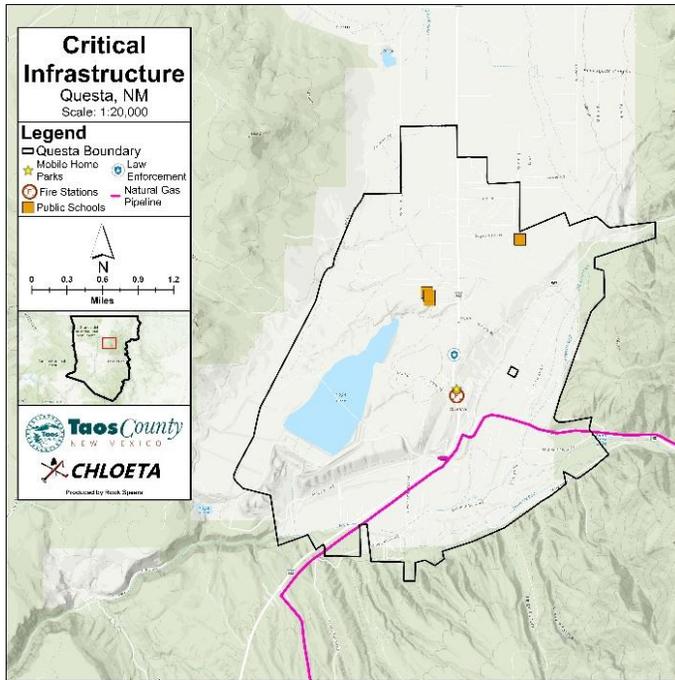


Figure 24. Questa Critical Infrastructure

National Flood Insurance Plan (NFIP Summary)

The Village of Questa participates in the National Flood Insurance Program (NFIP) and has adopted a local Flood Damage Prevention Ordinance to regulate development within Special Flood Hazard Areas (SFHAs). While Questa’s core infrastructure is located outside mapped floodplains, portions of the Red River corridor, Cabresto Creek, and adjacent low-lying areas are subject to seasonal flooding, post-fire debris flows, and runoff hazards. The Village of Questa’s current effective Flood Insurance Rate Map (FIRM) corresponds to the Taos County countywide FIRM update of March 2012, adopted by all incorporated communities.

The number of insured structures in Questa is limited, and it is likely that more structures are located in flood-prone areas than are currently insured. Updated Flood Insurance Rate Maps (FIRMs) from FEMA and ongoing watershed assessments will

help refine the understanding of Questa’s flood exposure and guide future mitigation priorities.

The Village reviews all proposed development within mapped floodplains for compliance with local ordinances and NFIP requirements. Questa’s Flood Damage Prevention Ordinance includes the NFIP-required Substantial Damage/Substantial Improvement (SD/SI) provisions, which require that any structure that is damaged or improved by 50% or more of its market value be brought into full compliance with current floodplain management standards. This process is administered through the Village’s Planning and Zoning Department and follows FEMA and New Mexico OSE guidance. Coordination with Taos County Floodplain Management, New Mexico DHSEM, and FEMA Region 6 supports Questa’s efforts to maintain good standing in the NFIP and promote flood risk awareness.

Questa plans to hold future meetings with Village officials, Taos County staff, and regional partners to review NFIP compliance, share best practices, and explore opportunities for improved floodplain management and public outreach.

| Policies | 2011 | 2018 | 2024 | Total Amount of Claims |
|---|------|------|------|------------------------|
| Policies in Force | | | | |
| Number of Repetitive Loss Structures | 6 | 5 | 4 | \$112,340 |
| Number of Severe Repetitive Loss Structures | 0 | 0 | 0 | -- |

Note: Data reflects NFIP policy counts and claims reported for Questa ZIP code area. Actual flood-prone structures may exceed insured counts due to limited participation and outdated mapping.

According to the most recent NFIP Repetitive Loss (RL) data available for the Village of Questa’s NFIP, the community has historically recorded four RL properties. These properties are identified as single-family residential structures located near the Red River and Cabresto Creek corridors. The Village of Questa has zero Severe Repetitive Loss (SRL) properties, consistent with FEMA’s OpenFEMA NFIP datasets for New Mexico communities.

Hazard Identification and Ranking

| Hazard Ranking | Hazards |
|----------------|--|
| HIGH | <ul style="list-style-type: none"> • Wildfire • Severe Winter Storms • Drought • Landslide/Rockslide |

| Hazard Ranking | Hazards |
|----------------|---|
| | <ul style="list-style-type: none"> • High Winds |
| MEDIUM | <ul style="list-style-type: none"> • Dam Failure • Pandemic • Flooding |
| LOW | <ul style="list-style-type: none"> • Avalanches |

Hazard Event History

| Hazard | Event | Year | Impact |
|----------------------------------|--|-----------------|--|
| Flooding | Mid-October Storm & Mudslides | Recurring | Homes flooded; road closures between Questa and Red River |
| | Monsoon Flooding | 2025 | Regional flooding and landslides; FEMA declaration in neighboring counties. |
| | Cabresto Creek High-Flow | 2006 | Heavy runoff damaged portions of Cabresto Canyon Road and nearby drainage structures. |
| Wildfires | Columbine–Hondo WUI Fire Threats | Recurring | Small fires near Questa; high WUI risk noted in CWPP |
| | Midnight Fire (Carson National Forest) | 2020 | ~4,000 acres burned; smoke impacts and elevated evacuation readiness for Questa. |
| Drought | Extreme Drought Conditions | 2025 | Elevated wildfire risk and water stress across northern NM |
| | Severe to Exceptional Drought | 2021-2022 | Increased wildfire risk, stressed water supplies, and reduced agricultural productivity. |
| Winter Storms | Heavy Snowfall & Road Closures | 2024 | Over 20 inches of snow disrupted travel and local services |
| | December Arctic Front | 2011 | Sub-zero temperatures caused frozen pipes and localized utility disruptions. |
| | Snow Squall/High Winds | 2021 | State Emergency Declaration. Damage from high winds/snow load. \$750,000 in state funds allocated for public recovery efforts. |
| Severe Thunderstorms | Summer Storms with High Winds | 2024 | Downed trees and power lines; localized outages |
| Public Health | COVID-19 Pandemic | 2020+ | Emergency declaration issued by Village of Questa |
| Geological (Landslide/Rockslide) | NM-38 & NM-522 Closures (Flood/Mudslide) | 2025, Recurring | Key routes closed due to debris and runoff hazards, as well as slope instability |
| Power Outages | Storm-Related Outages | 2024-2025 | Caused by snowstorms and summer winds |

Hazard Analysis

The Village of Questa's historical and recent hazards emphasize trends in increasing weather severity and climate-related risks.

Hazard Mapping

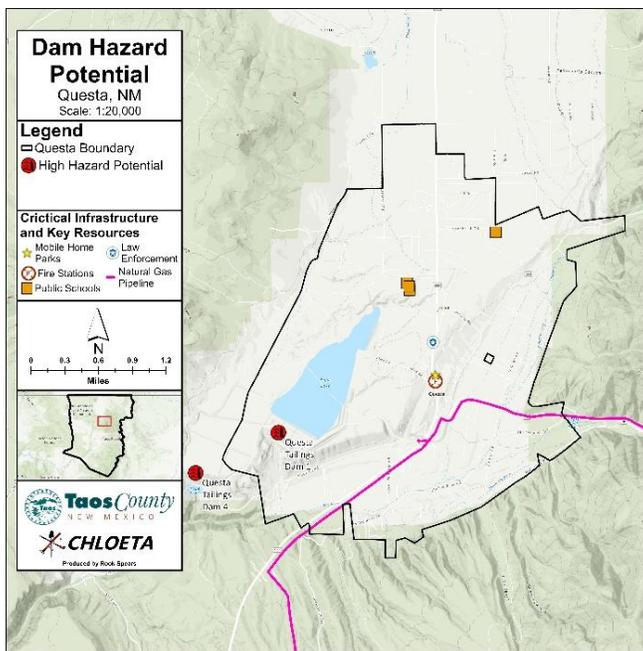


Figure 25. Questa Dam Hazard Potential

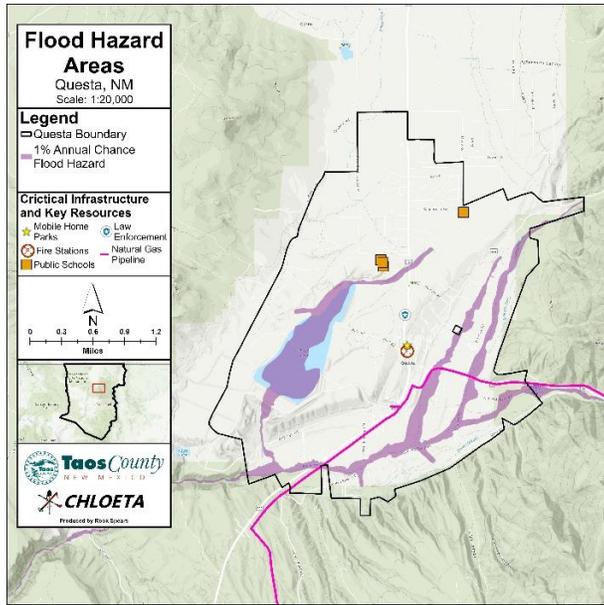


Figure 26. Questa Flood Hazard Areas

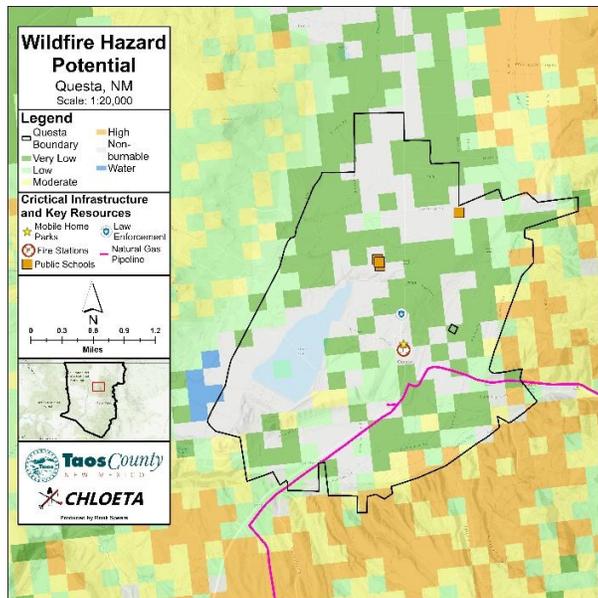


Figure 27. Questa Wildfire Hazard Potential

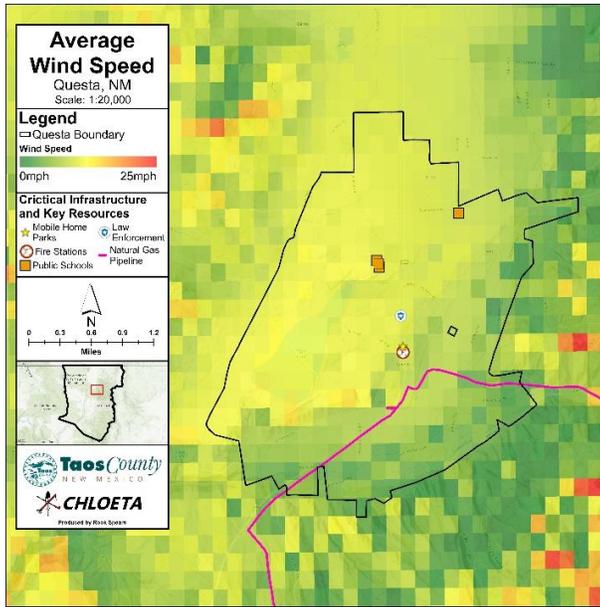


Figure 28. Questa Average Wind Speeds

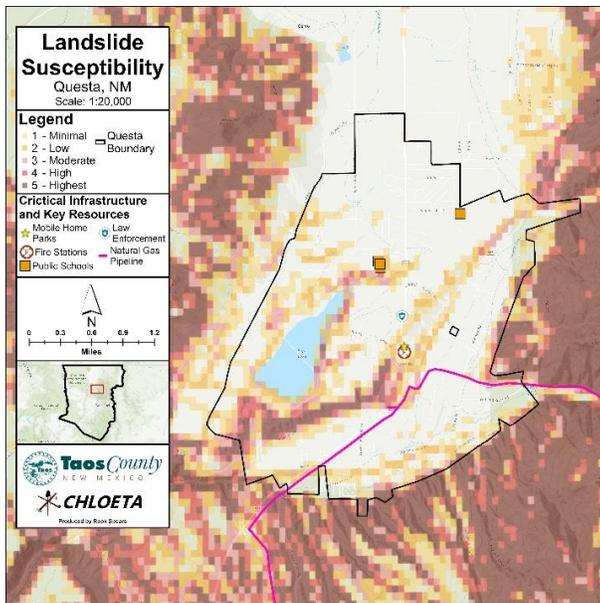


Figure 29. Questa Landslide Capability

Potential Loss

The potential loss for the Village of Questa was calculated using data provided by the Taos County Assessors Office, which provided property valuations for residential and non-residential parcels. The data was analyzed to determine the total property value. To estimate potential losses from hazard events, it was assumed that 10% of the properties in each parcel would be affected. The projected financial impact was then calculated as 10% of the total property value for each parcel.

| Property Type | Number of Parcels | Land & Improved Value | Number of Parcels Impacted | Potential Loss |
|-----------------|-------------------|-----------------------|----------------------------|----------------|
| Non-Residential | 1,691 | \$193,925,367 | 169 | \$19,392,537 |
| Residential | 1,393 | \$102,703,656 | 139 | \$10,270,366 |
| Total | 3,084 | \$296,629,023 | 308 | \$29,662,902 |

Mitigation Strategy

The mitigation strategy included in the 2018 plan was reviewed to determine if project(s) were completed. New mitigation projects were identified for the 2026 plan update, included in the table below. Prioritization of projects occurred as the plan was updated. Project priority was listed as high, medium, or low. Generally speaking, high priority projects are those enabling towns and villages to be fully functional during times of disasters. Medium and Low priority projects improve other functions of towns and villages, addressing actual community residents. Low priority hazards identified were not specifically considered for Mitigation Action development for this Annex. Project implementation will proceed as funding becomes available, though any project may advance when financial resources, political will, and other factors align.

Proposed mitigation project costs were determined and included in the table below. For other mitigation projects, estimated costs are provided and categorized as High, Medium, or Low cost based on projected financial requirements.

Table 399. Village of Questa Mitigation Actions

| Project # & Name | Goal/Objective | Project or Action | Hazard Addressed | Lead Agency | Estimated Cost | Timeframe to Complete | Potential Funding Sources | Priority | Mitigation Technique Category |
|--|----------------|---|-----------------------|----------------------------------|----------------|-----------------------|--|----------|-------------------------------|
| VQ-1: Cabresto Dam Failure Evacuation & Public Awareness | 1, 4 | Update inundation mapping, install early warning sirens, and conduct community-wide evacuation drills. | Dam failure, flooding | Village of Questa Administration | Medium | New/0-2 Years | FEMA HMGP, NM DHSEM, USACE Technical Assistance | Medium | Education & Training |
| VQ-2: Wildfire Evacuation & Preparedness Plan | 1, 4 | Develop a comprehensive evacuation plan, map egress routes, and launch a "Ready, Set, Go!" public awareness campaign. | Wildfire | Village of Questa Fire/EMS | Low | New/0-2 years | USFS Community Wildfire Defense Grant (CWDG), HMGP | Medium | Plans & Regulations |
| VQ-3: Water Conservation & Drought Resilience | 2, 3 | Implementation of a leak detection program for municipal lines, water conservation ordinances, and a public xeriscaping/low-flow fixture incentive program. | Drought | Village of Questa Fire/EMS | Medium | New/2-5 years | NMED Water Project Fund, Clean Water State Revolving Fund (CWSRF), Bureau of Reclamation | High | Natural System Protection |

| | | | | | | | | | |
|---|---------|--|-------------|----------------------------------|--------|-------------------|---|------|------------------------------------|
| | | | | | | | (WaterSMART) | | |
| VQ-4: MyGov Emergency Alert Enrollment Campaign | 1, 4 | Aggressive public outreach campaign including utility bill inserts, town hall workshops, and door-to-door registration assistance for vulnerable populations. | All Hazards | Village of Questa Administration | Low | Ongoing/2-5 years | FEMA HMGP (5% Initiative Funds), NM Fire Protection Grant, Village Operating Budget | High | Education & Training |
| VQ-5: Public Safety Critical Facility Back Up Power | 1, 2, 5 | Procurement and installation of industrial-grade backup generators and automatic transfer switches (ATS) for the Police Station and Fire/EMS stations. | All Hazards | Village of Questa Fire & EMS | Medium | New/0-2 years | FEMA BRIC, NM Fire Protection Grant, USDA Rural Development | High | Natural System Protection |
| VQ-6: Fire Hydrant Restoration & Standardization | 2, 5 | Conduct a full system audit; hire an engineer to design upgrades; replace unserviceable hydrants; and standardize all connections to National Standard Thread (NST). | Wildfire | Village of Questa Fire & EMS | High | New/2-5 years | NMED Water Project Fund, FEMA BRIC, NM Capital Outlay, Community Development Block Grant (CDBG) | Low | Structure & Infrastructure Project |

| | | | | | | | | | |
|--|---------|--|---|--|--------|--------------------------------|---|--------|------------------------------------|
| TC-1: Emergency Shelter Backup Power & Resiliency | 1, 2 | Purchase and install permanent backup generators and automatic transfer switches at primary emergency shelters. | All Hazards | Taos County Emergency Management | Medium | Ongoing/2-5 years | FEMA BRIC, HMGP, NM Capital Outlay, USDA Rural Development | Medium | Structure & Infrastructure Project |
| TC-2: Dry Hydrant Installation Program | 3 | Install a network of non-pressurized dry hydrants in ponds, tanks, and Acequias to allow fire tankers to draft water in rural areas. | Drought, Wildfire | Taos County Emergency Management, Taos County Fire | Medium | New/0-2 Years | NM Fire Protection Grant Fund, Volunteer Fire Assistance (VFA), Taos SWCD | High | Natural System Protection |
| TC-3: Bridge Infrastructure Safety & Capacity Upgrades | 1, 2, 5 | Structural retrofitting, load-bearing capacity upgrades, and hydraulic improvements to ensure access for heavy emergency vehicles. | Flood, Severe Winter Storms, All-Hazards (Access) | Taos County Public Works / Engineering | High | Ongoing / 5+ Years (Long-term) | FEMA BRIC, NMDOT Bridge Program, FHWA (Federal Highway), NM State Road Fund | Medium | Structure & Infrastructure Project |
| TC-4: Natural Gas Mainline Resilience & Redundancy | 2, 3 | Conduct a geo-hazard vulnerability study of the Hwy 68 | Geological hazards, flooding, wildfire, severe | Taos County, NM Gas Company | High | New / 2-5 Years | DOE Grid Resilience Grants, FEMA BRIC, NM | Low | Natural System Protection |

| | | | | | | | | | |
|---|------------|--|--|---|------|---------------|--|------|---------------------------|
| | | mainline; implement section hardening and explore redundancy/looping options to prevent single-point-of-failure outages. | winter storm, high winds, dam failure | | | | Public Regulation Commission (PRC) coordination | | |
| TC-5: Regional Green Hydrogen Hub Development | 1, 2, 3, 5 | Retrofit Chevron Molycorp Mine (Questa) as primary production site. Install localized hydrogen storage at Town of Taos Water Treatment Plant & Peñasco hubs. Integrate 104MW renewable solar/hydrogen capacity into the local microgrid. | High winds, severe winter storms, flooding, geological hazards, wildfire | Taos County Public Works, Kit Carson Electric Cooperative | High | New/2-5 years | USDA New Era Grant (\$231M), DOE Hydrogen Hubs (WISHH), NM Match Fund, NM Finance Authority LGPF | High | Natural System Protection |
| TC-6: Hydrogen Facility Safety & Emergency Response Readiness | 1, 4 | Develop specialized HazMat response protocols; procure hydrogen- | Wildfire, high winds, severe winter storm, flooding, | Taos County Emergency Management, Village | High | New/2-5 years | DOE Office of Clean Energy Demonstrations, FEMA | High | Education & Training |

| | | | | | | | | | |
|--|--|--|--------------------|-----------------|--|--|---|--|--|
| | | specific firefighting apparatus (thermal imaging, gas detectors); hire/train specialized personnel; and launch a public safety education campaign. | geological hazards | Admin, Fire/EMS | | | BRIC, Industry Partner (Public-Private Partnership), NM State Fire Fund | | |
|--|--|--|--------------------|-----------------|--|--|---|--|--|

The Village of Questa will continue to actively implement projects and programs to reduce the hazard-related effects from disasters impacting the Village.

Annex B: Village of Taos Ski Valley

Profile

The Village of Taos Ski Valley, located high in the Sangre de Cristo Mountains of northern New Mexico, is one of the smallest incorporated municipalities in the state and one of the highest-elevation communities in the United States. Situated at approximately 9,200 feet above sea level, the Village lies within a narrow alpine valley along the upper Rio Hondo, surrounded by steep, forested slopes and peaks exceeding 12,000 feet, including Wheeler Peak, the highest point in New Mexico.

Covering just over 2.3 square miles, the Village has a year-round population of roughly 81 residents, though this number increases dramatically during the winter ski season. As the home of Taos Ski Valley Resort, a major regional destination for skiing, snowboarding, and mountain recreation, the Village experiences significant seasonal fluctuations in population, traffic, and service demands. Lodging facilities, restaurants, and commercial services are concentrated near the resort base area, while residential properties are dispersed along the valley floor and lower mountain slopes.

The Village's geography is defined by its steep terrain, dense conifer forests, and high-elevation watershed. Numerous tributaries and seasonal streams flow into the Rio Hondo, creating both scenic beauty and exposure to natural hazards such as flash flooding, post-fire debris flows, and avalanches. The surrounding Carson National Forest contains extensive trail networks, alpine lakes, and wilderness areas that attract hikers, climbers, and outdoor enthusiasts throughout the year.

During peak winter months, the Village's population can swell into the thousands as visitors arrive for skiing and snow sports. Special events, holiday periods, and resort activities further increase temporary population levels, heightening exposure to hazards such as winter storms, transportation disruptions, and emergency access limitations. Village leadership, public safety personnel, and Taos Ski Valley Resort staff work collaboratively to maintain safety and coordinate emergency response during these high-traffic periods.

Despite its small size, the Village of Taos Ski Valley maintains essential community resources, including municipal services, a dedicated public safety department, and infrastructure that supports both residents and visitors. The community's history is closely tied to the development of the ski resort, founded in the 1950s by Ernie Blake, whose vision transformed the remote alpine valley into a world-class mountain destination. Today, the Village continues to balance tourism-driven economic activity with environmental stewardship and hazard mitigation planning to protect its unique high-altitude environment.

While the Village does not contain the extensive historic districts found in older communities, it is surrounded by culturally significant landscapes and historic sites within Taos County and the broader region. Its alpine setting, outdoor recreation

opportunities, and proximity to wilderness areas make Taos Ski Valley a distinctive and highly valued destination for residents, visitors, and outdoor enthusiasts.

| Fact | Description |
|-----------------------------|---|
| Land Area | 2.34 sq. miles (6.06 km ²) |
| Incorporated Village(s) | Village of Taos Ski Valley (incorporated 1996) |
| Population Census | 81 (2025 estimate) |
| Governance | Mayor–Council form of government |
| Total Assessed Valuation | \$420M |
| Highest Elevation | Wheeler Peak – 13,161 ft (highest point in NM, adjacent to village boundary) |
| Primary River | Rio Hondo (flows through village center) |
| Dams | None within village limits |
| Bridges | NM-150 Bridge over Rio Hondo; multiple small stream crossings |
| State Routes | NM Route 150 (primary access road) |
| County Roads | Local access roads maintained by Village and Taos County |
| Land Agricultural Use | None – alpine terrain, forested slopes, and recreational zoning |
| Land Classified Industrial | None – no industrial zoning or facilities |
| Land Classified Residential | Residential zoning along valley floor and lower slopes |
| Hospital/Medical Facility | None in village; nearest is Holy Cross Hospital in Taos (19 miles) |
| Fire & Rescue | Taos Ski Valley Fire Department; EMS support via Taos County |
| Schools | No schools in village; nearest is Taos Municipal Schools (K–12) |
| Railroads | None |
| Passengers/Day | N/A |
| Freight Trains/Day | N/A |
| Ferry Dock(s) | None |
| Interstate Bridge | None |
| Largest Employer | Taos Ski Valley Resort |
| Law Enforcement | Village of Taos Ski Valley Police Department |
| Correctional Facility | None |
| Power Utility Provider(s) | Kit Carson Electric Cooperative |
| Water Supply Source(s) | Groundwater wells and surface water from Rio Hondo watershed |
| Emergency Shelters | Resort base lodge (informal); formal sheltering coordinated with Taos County |
| Critical Facilities | Village Offices, Fire Department, Police Department, Water Treatment Plant, Ski Resort Infrastructure |

Notable Updates

The Village of Taos Ski Valley has an estimated year-round population of just over 80 residents, with significant seasonal increases driven by tourism. The local economy

continues to rely heavily on Taos Ski Valley Resort, the community’s largest employer and primary source of visitor activity.

Infrastructure improvements in recent years have focused on supporting high-elevation operations, including upgrades to water and wastewater systems, expanded GIS mapping for underground utilities, and enhanced snow-removal and road-maintenance capabilities along NM-150. The Village’s water supply is sourced from groundwater wells and surface water within the Rio Hondo watershed.

Public safety services are provided by the Village Police Department and Fire Department, with EMS support coordinated through Taos County. While the Village does not have its own medical facility, emergency and outpatient care are available at Holy Cross Hospital in Taos. Seasonal population surges continue to shape emergency planning needs, particularly for winter storms, wildfire risk, and post-fire flooding.

Planning Process

The Village of Taos Ski Valley participated in the survey, followed by a Hazard Mitigation Meeting. They sent a copy of their plans for review and participated in the Hazard Mitigation Workshop to update the Village portion of the plan. Meetings were attended by the Town Chief.

Capability Assessment

The Village of Taos Ski Valley maintains a range of planning and regulatory mechanisms that support hazard resilience, environmental protection, and sustainable community development. Together, these tools guide development in a high-elevation, hazard-prone environment and help ensure that growth aligns with safety, environmental stewardship, and long-term resilience goals.

| Planning Documents |
|--|
| Evacuation Plan (2022) |
| TIDD Plan (2015) |
| Flood Damage Prevention Ordinance (2015) |
| WFPP Action Plan (2021) |
| CWPP |
| Infrastructure Capital Improvement Plan (2020) |
| Fire Code (2021) |

The Village incorporates hazard mitigation principles into its planning processes to address risks such as wildfire, avalanche, post-fire flooding, and severe winter storms. Hazard information is used to guide land-use decisions, infrastructure upgrades, and emergency response coordination. Seasonal population surges and the Village's mountainous terrain make hazard-informed planning essential for protecting residents, visitors, and critical infrastructure.

Administrative capacity is supported through the Planning & Zoning Commission, Village Administrator, Public Works Department, and the Floodplain Administrator. Public safety services are provided by the Village Police Department and Fire Department, with EMS support coordinated through Taos County. Technical support is supplemented by Taos County Emergency Management, regional wildfire mitigation partners, and utility mapping tools adopted to improve emergency response.

Funding for mitigation projects is typically sourced from Village capital improvement funds, state and federal grants, and water and sewer enterprise funds. The Village continues to explore opportunities to strengthen preparedness through programs such as Firewise and StormReady. Public communication during emergencies is supported through Village alerts, Taos County notification systems, and coordination with Taos Ski Valley Resort.

While the Village demonstrates strong regulatory and administrative capabilities, financial capacity and public outreach remain areas for continued improvement. Ongoing planning efforts aim to enhance community resilience, safeguard critical infrastructure, and reduce vulnerability to future hazard events.

Critical Facilities

The Village of Taos Ski Valley maintains a small but essential set of critical facilities to support public safety, infrastructure operations, and emergency response in a high-elevation, tourism-driven environment. Due to the steep terrain and alpine watershed, most facilities are located outside mapped flood hazard zones, though post-fire debris flow and avalanche risks remain significant.

The Village Fire Department, located near the resort base area, is equipped with a generator and serves as the primary emergency response hub. The Village Police Department also maintains generator capacity and coordinates with Taos County for emergency operations. The Water Treatment Plant, operated by the Village, is located outside the floodplain and has backup power to ensure continuity during outages. The Wastewater Treatment Plant, while not in a mapped floodplain, is exposed to seasonal runoff and slope instability; mitigation options such as berms and slope reinforcement are under consideration.

The Village has adopted underground utility mapping tools (ProStar PointMan) to improve infrastructure resilience and emergency response. Generator status for vehicle

and equipment storage areas is currently unconfirmed, and upgrades may be needed to ensure operational continuity during winter storms or wildfire evacuations.

The Village does not have a hospital or school within its boundaries. Medical services are accessed in the Town of Taos, approximately 19 miles away. Communication systems are supported through Village alerts, Taos County notification platforms, and coordination with Taos Ski Valley Resort’s internal systems.

To strengthen preparedness, the Village continues to pursue infrastructure grants and expand public hazard awareness through community meetings, resort partnerships, and Firewise outreach.

Critical Infrastructure Notes

- Police Department: Located outside mapped floodplain; generator confirmed.
- Fire Department: Located outside mapped floodplain; generator confirmed.
- Water Treatment Plant: Outside floodplain; generator confirmed.
- Wastewater Treatment Plant: Outside floodplain; exposed to slope hazards; mitigation under review.
- Vehicle Storage & Maintenance: Generator status unconfirmed; facility condition under review.
- Communication Systems: Supported via Village alerts and resort coordination; no standalone generator facility.
- Power Infrastructure: Served by Kit Carson Electric Cooperative; substation generator status unconfirmed.
- Medical Services: Provided by Holy Cross Hospital in Taos; no facility within village limits.

There are some temporary housing options available following a disaster for emergency use that have been identified. Historically, displaced residents found temporary housing with friends, relatives, or neighbors.

| Facility | Type of Housing |
|-------------------------------|--|
| Taos Ski Valley Resort Lodges | Short-Term Lodging (Seasonal Availability) |
| Village Fire Department | Emergency Shelter (Limited Capacity) |
| Resort Base Lodge | Emergency Warming Shelter (Informal Use) |

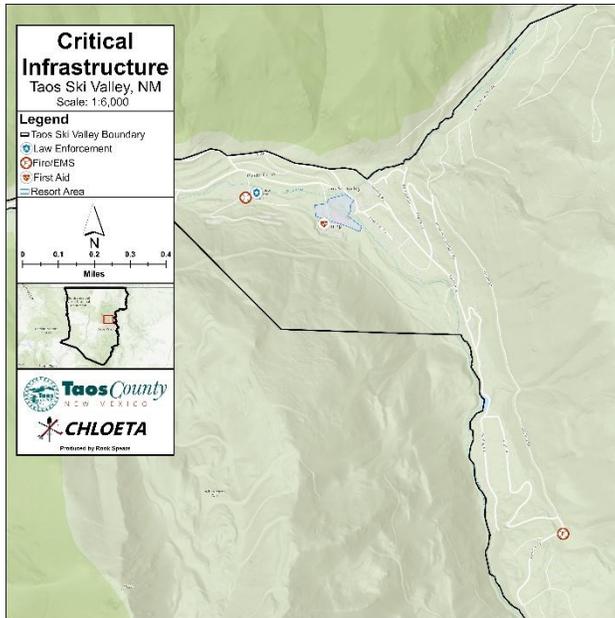


Figure 30. Taos Ski Valley Critical Infrastructure

National Flood Insurance Plan (NFIP) Summary

Flood vulnerability in the Village of Taos Ski Valley remains limited due to its high-elevation location and steep terrain, which reduces the extent of mapped floodplains. However, localized flooding and post-fire debris flows along the Rio Hondo and its tributaries pose seasonal risks to structures near the valley floor. The number of structures exposed to flood hazards may exceed the number of properties currently insured under the National Flood Insurance Program (NFIP).

| Policies | 2011 | 2018 | 2024 | Total Amount of Claims |
|--------------------------------------|------|------|------|------------------------|
| Policies in Force | 2 | 3 | 3 | -- |
| Number of Repetitive Loss Structures | -- | -- | -- | -- |

This reflects the Village’s limited flood insurance participation, which is consistent with its high-elevation location and relatively low exposure to mapped floodplains. However, seasonal runoff, post-fire debris flow, and slope instability remain relevant hazards that may not be fully captured by current FEMA flood maps.

The Village actively enforces its Flood Damage Prevention Ordinance and coordinates with Taos County to manage development within mapped Special Flood Hazard Areas (SFHAs). The Taos County Planning Department functions as the Floodplain Administrator for the Village of Taos Ski Valley through an agreement. As FEMA updates the Flood Insurance Rate Maps (FIRMs), the Village will continue to participate in regional planning meetings and training sessions to ensure compliance with NFIP standards. These meetings provide opportunities for floodplain administrators, county officials, and resort stakeholders to review best practices, discuss mitigation strategies, and improve community outreach related to flood risk and insurance coverage.

Hazard Identification & Ranking

| Hazard Ranking | Hazards |
|----------------|--|
| HIGH | <ul style="list-style-type: none"> • Wildfire • Severe Winter Storms • Drought • Avalanche/Landslide/Rockslide • High Winds |
| MEDIUM | <ul style="list-style-type: none"> • Dam Failure • Pandemic • Flooding |
| LOW | |

Hazard Event History

| Hazard | Event | Year | Impact |
|-----------|--|----------|--|
| Avalanche | Avalanche Fatality-Kachina Peak Area | 2019 | Two skiers caught; one fatality. Occurred in-bounds near K3 chute. |
| | In-Bound Avalanche | 2019 | Avalanche released on in-bounds terrain; two critically injured. |
| | Avalanche-Wheeler Peak Wilderness Area | 1996 | Backcountry skier killed in avalanche near TSV boundary. |
| | Avalanche Cycles | Annually | Documented avalanche releases in steep chutes above the village; periodic road closures on NM-150. |

| | | | |
|---------------|------------------------------------|-----------|--|
| Wildfire | Hondo Fire | 1996 | 1,200-acre wildfire burned in the Rio Hondo drainage; smoke and access impacts to TSV. |
| | Midnight Fire | 2020 | 4,000 acres burned; smoke impacts and preparedness actions in TSV. |
| Flooding | Post-monsoon debris flow on NM-150 | 2006 | Heavy rain triggered debris on roadway; temporary closure of access to TSV. |
| | Monsoon flooding impacts NM-150 | 2013 | Flash flooding caused washouts and debris on NM-150; access delays to TSV. |
| Winter Storms | Severe winter storm closes NM-150 | 2010 | Heavy snowfall and drifting caused full road closure; resort operations delayed. |
| | Extreme cold and heavy snow event | 2011 | Sub-zero temperatures and heavy snow impacted utilities and travel. |
| Wind Events | High Wind lift shutdowns | Recurring | Lift operations suspended due to high winds; safety closures. |
| Drought | Severe Drought | 2002 | Low snowpack year significantly impacted early-season operations. |
| Landslide | | Recurring | |

Hazard Analysis

Taos Ski Valley faces several natural and public health hazards that threaten residents, visitors, infrastructure, and the tourism-based local economy. Due to its steep, high-elevation terrain and location at the headwaters of the Rio Hondo, the Village is particularly exposed to avalanches, severe winter storms, post-fire runoff, and wildfire smoke. Avalanches are among the most consequential hazards: in January 2019, an in-bounds avalanche on Kachina Peak buried two skiers, both of whom later died from their injuries, prompting a major rescue effort and a comprehensive review of snow-safety operations at the resort. These incidents underscore the life-safety risks associated with steep alpine terrain and the importance of ongoing avalanche control, terrain management, and public education for backcountry and side country users.

Severe winter storms occur regularly and can produce heavy snowfall, high winds, and periods of extreme cold that disrupt transportation and access on NM-150, complicate

emergency response, and increase the risk of vehicle accidents and stranded motorists. Blowing and drifting snow can temporarily isolate the Village, requiring robust snow-removal capability, contingency plans for staff and visitors, and reliable backup power for critical facilities. High-wind events at upper elevations force periodic lift closures, affecting both safety and the local economy by limiting skiable terrain and visitor access to certain parts of the mountain. While large-scale riverine flooding is uncommon due to the steep valley, intense monsoon thunderstorms and rapid snowmelt can cause localized flooding, erosion, and debris flows along the Rio Hondo and adjacent slopes, threatening roadways, culverts, and low-lying infrastructure.

Wildfire is a growing concern in the forests surrounding the Village, particularly during regional drought periods that dry out fuels and increase the likelihood of large, high-intensity fires. Even when fires burn outside the immediate area, such as regional wildfires in northern New Mexico, smoke can reduce air quality, affect outdoor recreation, and impact sensitive populations, including older adults, young children, and those with respiratory conditions. Post-fire conditions in upstream watersheds can also heighten the risk of debris flows and flash flooding in the narrow valley below, increasing the need to monitor burn scars and downstream drainage capacity over the months and years following a large fire.

Public health hazards have also affected Taos Ski Valley, most notably the COVID-19 pandemic beginning in 2020. Pandemic conditions led to disruptions in resort operations, reductions in visitor numbers, and constraints on workforce availability, with cascading impacts on the local economy and Village services. As a tourism-dependent, high-elevation community with a small year-round population, Taos Ski Valley is sensitive to these kinds of shocks, which can quickly affect both municipal revenues and the ability to maintain essential services.

Underlying these hazards are broader challenges typical of small, rural mountain communities: limited redundancy in critical infrastructure, reliance on a single primary access route (NM-150), and constrained local staffing for emergency response. Climate variability is likely to influence snowpack, drought frequency, wildfire conditions, and the timing and intensity of monsoon storms, potentially amplifying some existing risks. However, the Village has opportunities to reduce vulnerability by continuing to invest in avalanche mitigation and snow-safety programs, improving drainage and slope stabilization along key road segments, hardening power and communications systems, and strengthening coordination with Taos County and Taos Ski Valley Resort for emergency planning and public information. Through targeted mitigation projects and sustained community engagement, the Village can enhance resilience, protect residents and visitors, and support a safer, more sustainable future in its high-mountain environment.

Hazard Mapping

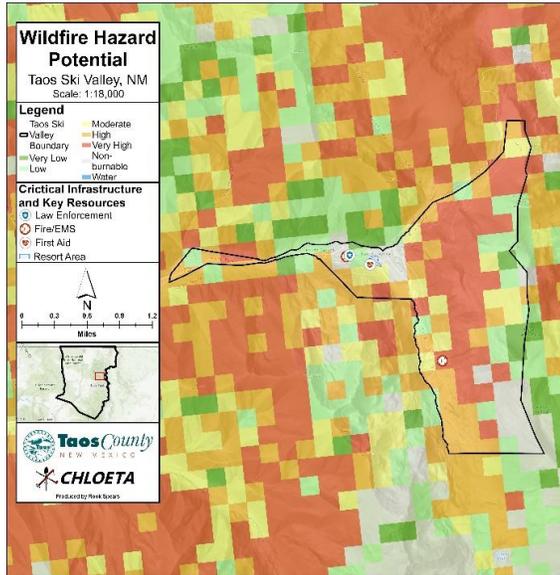


Figure 31. Taos Ski Valley Wildfire Potential

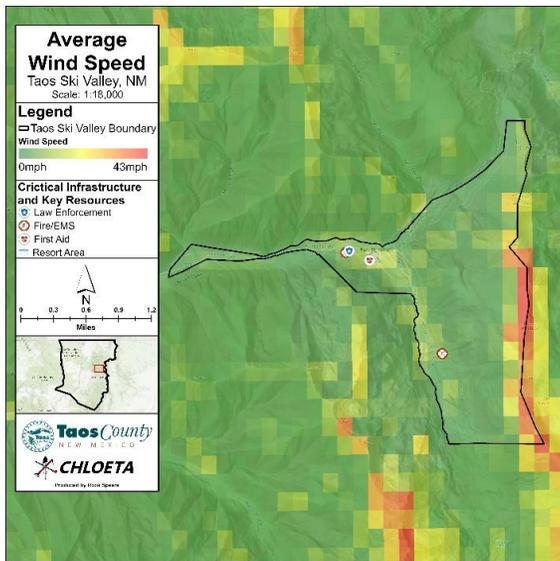


Figure 32. Taos Ski Valley Average Wind Speeds

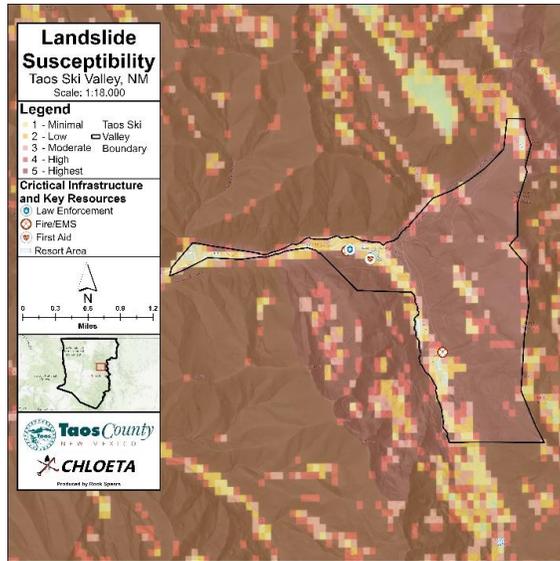


Figure 33. Taos Ski Valley Landslide Susceptibility

Potential Loss

The potential loss for the Village of Taos Ski Valley was calculated using data provided by the Taos County Assessors Office, which provided property valuations for residential and non-residential parcels. The data was analyzed to determine the total property value. To estimate potential losses from hazard events, it was assumed that 10% of the properties in each parcel would be affected. The projected financial impact was then calculated as 10% of the total property value for each parcel.

| Property Type | Number of Parcels | Land & Improved Value | Number of Parcels Impacted | Potential Loss |
|-----------------|-------------------|-----------------------|----------------------------|----------------|
| Non-Residential | 505 | \$229,513,596 | 51 | \$22,951,360 |
| Residential | 314 | \$192,045,360 | 31 | \$19,204,536 |
| Total | 819 | \$421,558,956 | 82 | \$42,155,896 |

Mitigation Strategy

The mitigation strategy included in the 2018 plan was reviewed to determine if project(s) were completed. New mitigation projects were identified for the 2026 plan

update, included in the table below. Prioritization of projects occurred as the plan was updated. Project priority was listed as high, medium, or low. Generally speaking, high priority projects are those enabling towns and villages to be fully functional during times of disasters. Medium and Low priority projects improve other functions of towns and villages, addressing actual community residents. Low priority hazards identified were not specifically considered for Mitigation Action development for this Annex. Project implementation will proceed as funding becomes available, though any project may advance when financial resources, political will, and other factors align.

Proposed mitigation project costs were determined and included in the table below. For other mitigation projects, estimated costs are provided and categorized as High, Medium, or Low cost based on projected financial requirements.

Table 40. Village of Taos Ski Valley Mitigation Actions

| Project # & Name | Goal/Objective | Project or Action | Hazard Addressed | Lead Agency | Estimated Cost | Timeframe to Complete | Potential Funding Sources | Priority | Mitigation Technique Category |
|--|----------------|---|--------------------------------|--------------------------------|----------------|-----------------------|---|----------|------------------------------------|
| VTSV-1: Multi-Hazard Evacuation & Egress Resilience Plan | 1, 2, 5 | Develop a specialized evacuation plan for peak-occupancy scenarios; identify secondary emergency egress routes; and install automated "gate" notification systems on Hwy 150. | Wildfire, Landslide, Avalanche | VTSV Public Safety | Medium | New/1-3 Years | FEMA BRIC, USFS Community Wildfire Defense Grant (CWDG), NM DHSEM | High | Plans & Regulations |
| VTSV-2: CWPP Adoption & Implementation | 2, 4, 5 | Finalize the CWPP for State/Local approval; implement prioritized vegetation thinning on private/village land; and update local building codes to require Firewise standards. | Wildfire | VTSV Fire Dept./Planning Dept. | High | New/0-2 Years | USFS Community Wildfire Defense Grant (CWDG), NM DHSEM, NM State Forestry | High | Plans & Regulations |
| TC-1: Emergency Shelter Backup Power & Resiliency | 1, 2 | Purchase and install permanent backup generators and | All Hazards | Taos County Emergency | Medium | Ongoing/2-5 years | FEMA BRIC, HMGP, NM Capital | Medium | Structure & Infrastructure Project |

| | | | | | | | | | |
|--|---------|--|--|--|--------|--------------------------------|--|--------|------------------------------------|
| | | automatic transfer switches at primary emergency shelters. | | Management | | | Outlay, USDA Rural Development | | |
| TC-2: Dry Hydrant Installation Program | 3 | Install a network of non-pressurized dry hydrants in ponds, tanks, and Acequias to allow fire tankers to draft water in rural areas. | Drought, Wildfire | Taos County Emergency Management, Taos County Fire | Medium | New/0-2 Years | NM Fire Protection Grant Fund, Volunteer Fire Assistance (VFA), Taos SWCD | High | Natural System Protection |
| TC-3: Bridge Infrastructure Safety & Capacity Upgrades | 1, 2, 5 | Structural retrofitting, load-bearing capacity upgrades, and hydraulic improvements to ensure access for heavy emergency vehicles. | Flood, Severe Winter Storms, All-Hazards (Access) | Taos County Public Works / Engineering | High | Ongoing / 5+ Years (Long-term) | FEMA BRIC, NMDOT Bridge Program, FHWA (Federal Highway), NM State Road Fund | Medium | Structure & Infrastructure Project |
| TC-4: Natural Gas Mainline Resilience & Redundancy | 2, 3 | Conduct a geohazard vulnerability study of the Hwy 68 mainline; implement section hardening and explore | Geological hazards, flooding, wildfire, severe winter storm, high winds, dam failure | Taos County, NM Gas Company | High | New / 2-5 Years | DOE Grid Resilience Grants, FEMA BRIC, NM Public Regulation Commission (PRC) | Low | Natural System Protection |

| | | | | | | | | | |
|--|--|--|--|--|--|--|--------------|--|--|
| | | redundancy/looping options to prevent single-point-of-failure outages. | | | | | coordination | | |
|--|--|--|--|--|--|--|--------------|--|--|

Taos Ski Valley will continue to actively implement projects and programs to reduce disaster-related effects impacting the town.

Annex C: Town of Taos

Profile

The Town of Taos, located in north-central New Mexico, covers approximately 6 square miles and has a population of about 6,400 residents. Situated in the Taos Valley at an elevation of nearly 7,000 feet, the town lies at the base of the Sangre de Cristo Mountains and serves as the cultural, economic, and governmental center of Taos County. Taos is bordered by Ranchos de Taos to the south, El Prado to the north, and Taos Pueblo to the northeast.

Taos is internationally recognized for its artistic heritage, historic adobe architecture, and multicultural identity. Its proximity to Taos Pueblo, a UNESCO World Heritage Site and one of the oldest continuously inhabited communities in the United States, contributes to its cultural significance and year-round tourism appeal. The surrounding landscape includes high desert mesas, mountain foothills, and the Rio Grande Gorge, offering extensive opportunities for hiking, rafting, skiing, and outdoor recreation.

Major transportation routes include U.S. Route 64 and NM State Road 68, which connect Taos to Santa Fe and other regional destinations. The Taos Regional Airport, located northwest of town, supports general aviation and limited commercial service. Residential neighborhoods, commercial districts, and cultural institutions are connected by a network of local and county roads.

Taos contains numerous historic landmarks listed on the National Register of Historic Places, including the Taos Downtown Historic District, Kit Carson Home and Museum, and Taos Plaza. The town has long been a center for the arts, with institutions such as the Harwood Museum of Art and the Taos Art Museum continuing a legacy established by the Taos Society of Artists in the early 20th century.

For more than a century, Taos has flourished as a cultural and outdoor recreation destination, attracting artists, visitors, and residents to its natural beauty, history, and vibrant community life. Its blend of heritage, landscape, and creative energy continues to make Taos one of the most iconic towns in the American Southwest.

| Fact | Description |
|--------------------------|---|
| Land Area | 6.04 sq. miles (15.64 km ²) |
| Incorporated Village(s) | None |
| Hamlets | Ranchos de Taos (adjacent CDP), El Prado (adjacent CDP) |
| Population Census | 6,453 (2024 estimate) |
| Governance | Mayor–Council–Manager form |
| Total Assessed Valuation | \$1.5B |
| Highest Elevation | ~7,000 ft (Town center); nearby peaks exceed 12,000 ft |
| Largest River | Rio Pueblo de Taos (flows through town center) |
| Dams | None within town limits |

| | |
|-----------------------------|---|
| Bridges | NM-68 Bridge over Rio Pueblo; multiple stream crossings |
| Interstate Highway | None |
| State Routes | NM-68, NM-64 |
| County Roads | Multiple Taos County-maintained roads |
| Land Agricultural Use | Limited; small-scale plots and community gardens |
| Land Classified Industrial | Light industrial zones near southern town boundary |
| Land Classified Residential | Extensive residential zoning throughout town |
| Hospital/Medical Facility | Holy Cross Hospital (primary regional facility) |
| Fire & Rescue | Taos Fire Department; EMS via Taos County |
| Schools | Taos Municipal Schools (K-12) |
| Railroads | None |
| Passenger Trains/Day | N/A |
| Freight Trains/Day | N/A |
| Ferry Dock(s) | None |
| Interstate Bridge | None |
| Largest Employer | Holy Cross Hospital, Taos Municipal Schools, Town of Taos |
| Law Enforcement | Taos Police Department; Taos County Sheriff |
| Correctional Facility | Taos County Adult Detention Center (outside town limits) |
| Power Utility Provider(s) | Kit Carson Electric Cooperative |
| Water Supply Source(s) | Municipal wells and surface water from Rio Pueblo watershed |
| Emergency Shelters | Taos High School, Taos Youth & Family Center, designated ARC shelters |
| Critical Facilities | Town Hall, Police Department, Fire Stations, Holy Cross Hospital, Schools |

Notable Updates

The Town of Taos continues to advance hazard mitigation through integrated planning, infrastructure upgrades, and community engagement. Recent efforts include aligning the Town's Comprehensive Plan with updated zoning and land use regulations to better manage development in flood-prone areas and wildfire interface zones. Taos has prioritized infrastructure resilience through capital investments in stormwater systems, road stabilization, and backup power for critical facilities such as Holy Cross Hospital and the Taos Youth & Family Center.

The Town actively pursues federal and state funding to support mitigation projects, including FEMA BRIC grants and New Mexico Department of Homeland Security programs. Recent projects include culvert replacements along heavily eroded segments of NM-68 and slope stabilization near the Rio Pueblo de Taos. Taos also leveraged CARES Act and ARPA funds to support utility assistance programs for low-income households, helping residents maintain essential services during the COVID-19 pandemic and extreme weather events.

Sustainability and hazard awareness are central to Taos’s mitigation strategy. The Town has expanded its composting and recycling programs, installed EV charging stations downtown, and upgraded water and sewer infrastructure to improve system reliability. Public outreach is conducted through bilingual newsletters, social media, and community workshops focused on wildfire preparedness, flood insurance, and emergency alerts.

Taos collaborates with regional partners including Taos County Emergency Management, Kit Carson Electric Cooperative, and Taos Pueblo to strengthen interagency coordination and improve response capabilities. These efforts reflect a comprehensive approach to hazard mitigation that balances infrastructure modernization, environmental stewardship, and community resilience.

Planning Process

The Town of Taos participated in the survey, followed by a Hazard Mitigation Meeting. They sent a copy of their plans for review and participated in the Hazard Mitigation Workshop to update the Town of Taos portion of the plan. Meetings were attended by multiple Town stakeholders.

Capability Assessment

The Town of Taos has implemented a robust suite of planning mechanisms to support hazard resilience and sustainable community development. These include a comprehensive emergency operations plan, floodplain management ordinance, zoning and subdivision regulations, a general plan, historic preservation guidelines, building codes, and fire codes. These regulatory tools help ensure that new development is hazard-resistant and aligned with long-term growth and cultural preservation goals. Taos’s planning capability reflects a commitment to integrating hazard mitigation into broader land use and community planning efforts.

| Planning Documents |
|---|
| Emergency Operations Plan |
| Floodplain Management Ordinance |
| Zoning Regulations |
| Subdivision Regulations |
| General Plan (2022) |
| Historic Preservation Guidelines (2016) |
| Building Codes |

| Planning Documents |
|--------------------|
| Fire Codes |

The hazard mitigation plan should be integrated into existing planning documents in Taos. Hazard rankings can be referenced in the emergency operations plan, and mitigation actions should be incorporated into the town's capital improvement planning. Integration with the general plan and land use policies will ensure consistency across enabling legislation and reinforce hazard resilience as a core planning principle.

Taos conducted a self-assessment of its capabilities. The Planning and Zoning Department has extensive experience in land use and hazard mitigation planning. The town employs a full-time emergency manager and floodplain administrator, and contracts engineering services as needed. GIS services are provided through a partnership with Taos County, and the town collaborates with regional entities for technical support. Grant writing and administration are managed by town staff with support from external consultants when necessary.

Financially, Taos utilizes capital improvement funds, general fund allocations, and federal and state grants to support mitigation and infrastructure projects. The town has successfully leveraged Community Development Block Grants (CDBGs), FEMA Hazard Mitigation Assistance (HMA) funds, and New Mexico Department of Homeland Security and Emergency Management (DHSEM) grants for past projects.

Taos's educational and outreach capabilities are strong. The town maintains an active website and social media presence, which are used for emergency communications and public engagement. Outreach programs are conducted in partnership with local schools, the fire department, and organizations such as the Taos Land Trust and Amigos Bravos. These programs focus on wildfire prevention, flood awareness, and environmental stewardship.

Critical Facilities

An assessment of critical facilities in the Town of Taos was conducted to evaluate flood vulnerability, generator capacity, and mitigation status. The table below summarizes whether facilities are located within the 500-year floodplain, have experienced past flooding, have undergone mitigation measures, and possess backup power capabilities.

The Taos Fire Department headquarters is located near the Rio Fernando and is considered at risk for flooding, though it is equipped with a generator. Other critical facilities including the police station, town hall, emergency operations center, medical clinic, and water treatment plant are located outside the 500-year floodplain with limited backup power systems in place. The town library and several public schools are not equipped with generators and may require temporary infrastructure support during extended outages.

| Facility | Located in 500-Year Floodplain | Flooded in the Past | Mitigated | Generator |
|-----------------------|--------------------------------|---------------------|-----------|-----------|
| Fire Department HQ | Yes | Yes | No | Yes |
| Police Station | No | No | No | Yes |
| EOC | No | No | No | Yes |
| Town Hall | No | No | No | Yes |
| Medical Clinic | No | No | No | Yes |
| Water Treatment Plant | No | No | No | Yes |
| Town Library | No | No | No | No |
| Public Schools | No | No | No | No |

Taos has identified several temporary housing locations for displaced residents in the event of a hazard. These include the Red Willow Park (with utility access), the Taos County Fairgrounds (used previously for emergency sheltering), and the Taos Youth & Family Center. All sites are accessible and can accommodate RVs or mobile homes with minimal setup.

| Facility | Type of Housing |
|----------------------------|------------------|
| Red Willow Park | RV, Mobile Homes |
| Taos County Fairgrounds | RV, Mobile Homes |
| Taos Youth & Family Center | ARC Shelter |

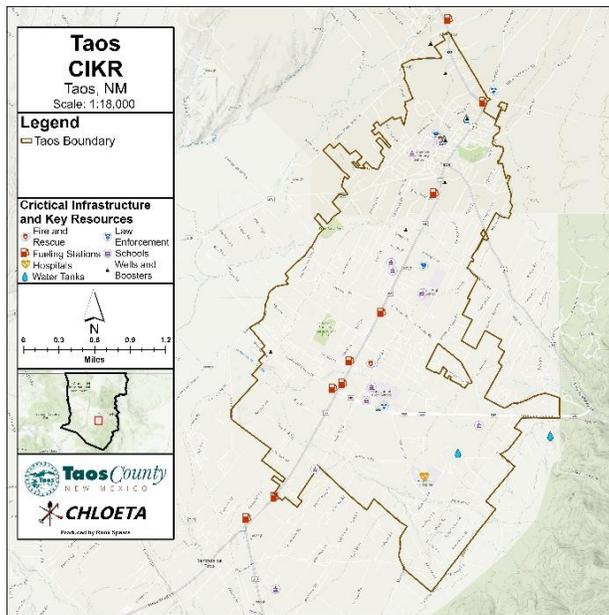


Figure 34. Taos Critical Infrastructure

National Flood Insurance Plan (NFIP) Summary

The Town of Taos has participated in the National Flood Insurance Program (NFIP) since 1974, following the passage of the Flood Disaster Protection Act. The town adopted its first Flood Insurance Rate Maps (FIRMs) in 1976, with updates in 1987 and 2010. Taos maintains a Flood Damage Prevention Ordinance and actively enforces floodplain management regulations through its Planning and Zoning Department.

As of the most recent data, Taos has a modest number of active flood insurance policies, primarily concentrated in areas near the Rio Fernando and the Rio Pueblo de Taos. While repetitive loss structures have not been formally documented, localized flooding events have prompted mitigation efforts, including culvert upgrades and drainage improvements. The town continues to promote NFIP participation through public education and permitting requirements for development in Special Flood Hazard Areas (SFHAs).

Updated FIRMs and Base Level Engineering data have improved the town’s ability to identify flood-prone structures and guide development away from high-risk areas. Coordination between the floodplain administrator, emergency manager, and planning staff ensures that new construction complies with NFIP standards and that residents are informed of their insurance options.

Taos plans to host annual workshops for contractors, developers, and homeowners to review NFIP compliance and promote flood insurance enrollment. These sessions will also cover recent changes to FIRMs and the implications for building permits and elevation certificates.

| Policies | 2011 | 2018 | 2024 | Total Amount of Claims |
|--------------------------------------|------|------|------|------------------------|
| Policies in Force | 18 | 22 | 25 | \$164,700 |
| Number of Repetitive Loss Structures | -- | -- | -- | -- |

Hazard Identification & Ranking

| Hazard Ranking | Hazards |
|----------------|--|
| HIGH | <ul style="list-style-type: none"> • Wildfire • Severe Winter Storms • Drought • Landslide/Rockslide • High Winds |
| MEDIUM | <ul style="list-style-type: none"> • Dam Failure • Pandemic |

| Hazard Ranking | Hazards |
|----------------|--------------|
| | • Flooding |
| LOW | • Avalanches |

Hazard Event History

| Hazard | Event | Year | Impact |
|----------------------|-----------------------------------|------|--|
| Flooding | Rio Pueblo Flooding | 1999 | Flash flooding damaged culverts and roadways near Taos Plaza. |
| | Monsoon Flood Event | 2015 | Heavy rainfall overwhelmed storm drains, causing localized flooding. |
| | Spring Runoff Flooding | 2023 | Snowmelt led to high water levels and minor flooding in low-lying areas. |
| Winter Storms | Christmas Blizzard | 1992 | Heavy snow disrupted travel and closed schools for multiple days. |
| | Arctic Cold Snap | 2011 | Temperatures below -10°F strained heating systems and froze pipes. |
| | Snow Squall/High Winds | 2021 | State Emergency Declaration. Damage from high winds/snow load. \$750,000 in state funds allocated for public recovery efforts. |
| Severe Thunderstorms | Summer Lightening Storm | 2006 | Lightning ignited small wildfires and caused power outages. |
| Wildfires | Hondo Fire | 1996 | Burned over 7,000 acres near Taos Canyon, prompting evacuations. |
| | Taos Area Wildfires | 2020 | Multiple small fires raised air quality concerns and triggered burn bans. |
| | Hermits Peak/Calf Canyonland Fire | 2022 | Large fire outside the Town of Taos created regional smoke impacts |

| | | | |
|--------------|--------------------|-----------|---|
| | | | with the potential for catastrophic forest loss. |
| High Winds | Windstorm | 2017 | Gusts over 60mph downed trees and damaged roofs. |
| Extreme Cold | Polar Vortex Event | 2022 | Extreme cold led to shelter activation and utility strain. |
| Landslide | Slope Failure | 1993 | Landslide near ski access road caused temporary closure and debris removal. |
| | Rockfall | Recurring | Daily to weekly occurrences on NM-38, SR 68, SR570, and US-64 impacts residential ingress and egress. Frequent transportation disruption, particularly in steep canyon borders. |

Hazard Analysis

The Town of Taos faces a diverse array of natural hazards driven by its high-desert plateau location and its role as a regional population hub. Wildfire remains the most significant threat to the community’s periphery, particularly in the Wildland-Urban Interface (WUI) where residential areas meet dense forests. The 2022 Hermits Peak/Calf Canyon Fire, while not directly impacting the town limits, served as a stark reminder of the regional smoke impacts and the potential for catastrophic forest loss.

Severe winter storms are a recurring concern, frequently bringing heavy snow and sub-zero temperatures that strain municipal snow removal resources and threaten vulnerable populations. Historically, extreme cold events have led to frozen water mains and increased demand on aging heating infrastructure. Flooding and flash flooding also pose risks, particularly during the summer monsoon season. Heavy rainfall on the nearby mountains can lead to rapid runoff through the town’s arroyos and the Rio Pueblo de Taos, often resulting in localized road closures and property damage in low-lying areas.

Drought is a persistent, long-term hazard that exacerbates wildfire risk and creates significant water rights and supply challenges for the town’s acequia systems and municipal wells. Furthermore, Taos is situated in a geologically active area; while major seismic events are rare, the town’s proximity to the Rio Grande Rift means the potential for earthquakes remains a factor for long-term infrastructure planning. These hazards

underscore the need for the Town of Taos to prioritize forest thinning, improve stormwater drainage, and enhance the resilience of public utilities.

Hazard Mapping

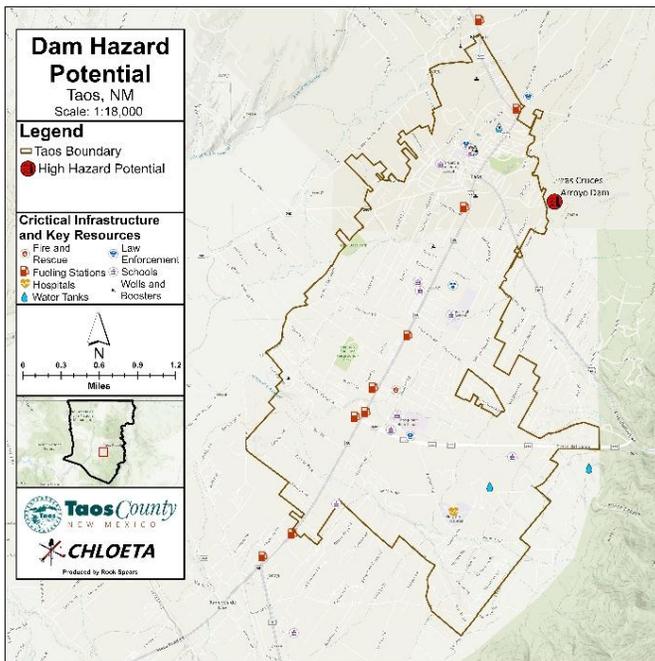


Figure 35. Taos Dam Hazard Potential

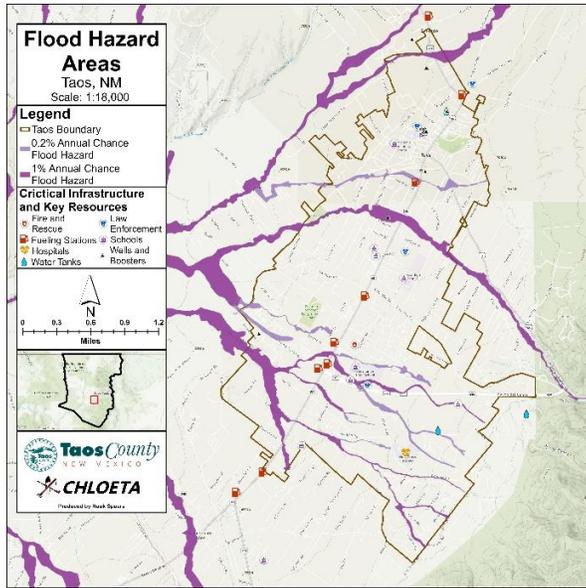


Figure 36. Taos Flood Hazard Areas

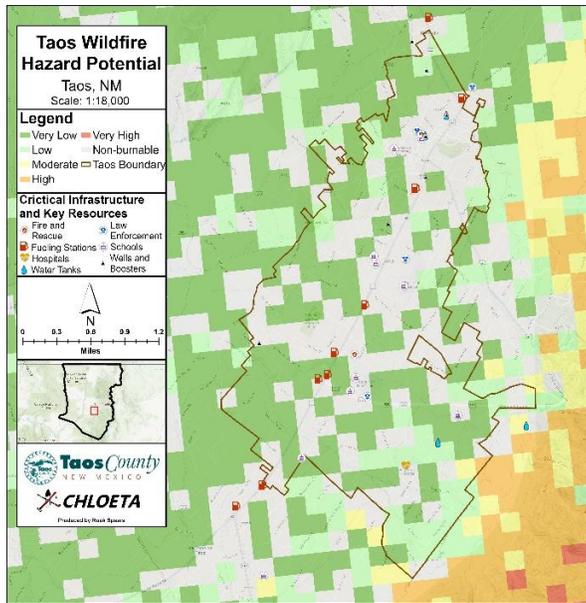


Figure 37. Taos Wildfire Hazard Potential

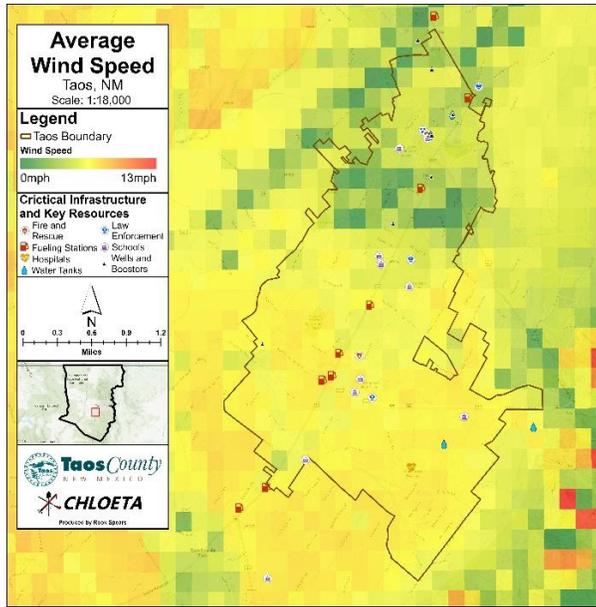


Figure 38. Taos Average Wind Speeds

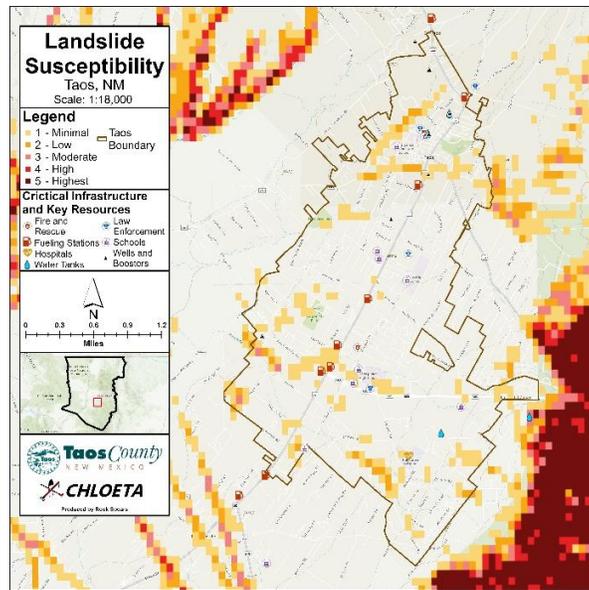


Figure 39. Taos Landslide Susceptibility

Potential Loss

The potential loss for the Town of Taos was calculated using data provided by the Taos County Assessors Office, which provided property valuations for residential and non-residential parcels. The data was analyzed to determine the total property value. To estimate potential losses from hazard events, it was assumed that 10% of the properties in each parcel would be affected. The projected financial impact was then calculated as 10% of the total property value for each parcel.

| Property Type | Number of Parcels | Land & Improved Value | Number of Parcels Impacted | Potential Loss |
|-----------------|-------------------|-----------------------|----------------------------|----------------|
| Non-Residential | 2,286 | \$874,437,339 | 229 | \$87,443,734 |
| Residential | 2,994 | \$760,401,339 | 300 | \$76,040,134 |
| Total | 5,280 | \$1,634,838,678 | 528 | \$163,483,868 |

Mitigation Strategy

The mitigation strategy included in the 2018 plan was reviewed to determine if project(s) were completed. New mitigation projects were identified for the 2026 plan update, included in the table below. Prioritization of projects occurred as the plan was updated. Project priority was listed as high, medium, or low. Generally speaking, high priority projects are those enabling towns and villages to be fully functional during times of disasters. Medium and Low priority projects improve other functions of towns and villages, addressing actual community residents. Low priority hazards identified were not specifically considered for Mitigation Action development for this Annex. Project implementation will proceed as funding becomes available, though any project may advance when financial resources, political will, and other factors align.

Proposed mitigation project costs were determined and included in the table below. For other mitigation projects, estimated costs are provided and categorized as High, Medium, or Low cost based on projected financial requirements.

Table 401. Town of Taos Mitigation Actions

| Project # & Name | Goal/Objective | Project or Action | Hazard Addressed | Lead Agency | Estimated Cost | Timeframe to Complete | Potential Funding Sources | Priority | Mitigation Technique Category |
|---|----------------|--|-----------------------|--|----------------|-----------------------|---|----------|------------------------------------|
| TT-1, Dam Failure EAP & Inundation Study | 1, 2, 5 | Develop a formal Emergency Action Plan (EAP); update inundation mapping for downstream impacts; establish specific evacuation protocols for the jail and nearby housing complexes. | Dam Failure, Flooding | Town of Taos Public Works, Taos Emergency Management | Medium | New/0-2 Years | NRCS Watershed Program, FEMA HHPD Grant, NM State Engineer, Taos SWCD | High | Plans & Regulations |
| TT-2, Dam Structural Rehabilitation & Safety Upgrades | 2, 5 | Engineering design and construction for spillway expansion, embankment stabilization, and seismic retrofitting to meet modern safety standards. | Dam Failure, Flooding | Town of Taos Public Works, Taos Emergency Management | High | New/5+ Years | FEMA HHPD Grant, NRCS Watershed Rehab (REHAB), NM Capital Outlay | Medium | Infrastructure Project |
| TC-1: Emergency Shelter Backup Power & Resiliency | 1, 2 | Purchase and install permanent backup generators and automatic transfer switches at | All Hazards | Taos County Emergency Management | Medium | Ongoing/2-5 years | FEMA BRIC, HMGP, NM Capital Outlay, USDA Rural | Medium | Structure & Infrastructure Project |

| | | | | | | | | | |
|--|---------|--|--|--|--------|--------------------------------|---|--------|------------------------------------|
| | | primary emergency shelters. | | | | | Development | | |
| TC-2: Dry Hydrant Installation Program | 3 | Install a network of non-pressurized dry hydrants in ponds, tanks, and Acequias to allow fire tankers to draft water in rural areas. | Drought, Wildfire | Taos County Emergency Management, Taos County Fire | Medium | New/0-2 Years | NM Fire Protection Grant Fund, Volunteer Fire Assistance (VFA), Taos SWCD | High | Natural System Protection |
| TC-3: Bridge Infrastructure Safety & Capacity Upgrades | 1, 2, 5 | Structural retrofiting, load-bearing capacity upgrades, and hydraulic improvements to ensure access for heavy emergency vehicles. | Flood, Severe Winter Storms, All-Hazards (Access) | Taos County Public Works / Engineering | High | Ongoing / 5+ Years (Long-term) | FEMA BRIC, NMDOT Bridge Program, FHWA (Federal Highway), NM State Road Fund | Medium | Structure & Infrastructure Project |
| TC-4: Natural Gas Mainline Resilience & Redundancy | 2, 3 | Conduct a geo-hazard vulnerability study of the Hwy 68 mainline; implement section hardening and explore redundancy/looping options to prevent single- | Geological hazards, flooding, wildfire, severe winter storm, high winds, dam failure | Taos County, NM Gas Company | High | New / 2-5 Years | DOE Grid Resilience Grants, FEMA BRIC, NM Public Regulation Commission (PRC) coordination | Low | Natural System Protection |

| | | | | | | | | | |
|---|------------|--|--|---|------|---------------|---|------|---------------------------|
| | | point-of-failure outages. | | | | | | | |
| TC-5: Regional Green Hydrogen Hub Development | 1, 2, 3, 5 | Retrofit Chevron Molycorp Mine (Questa) as primary production site. Install localized hydrogen storage at Town of Taos Water Treatment Plant & Peñasco hubs. Integrate 104MW renewable solar/hydrogen capacity into the local microgrid. | High winds, severe winter storms, flooding, geological hazards, wildfire | Taos County Public Works, Kit Carson Electric Cooperative | High | New/2-5 years | USDA New Era Grant (\$231M), DOE Hydrogen Hubs (WISHH), NM Match Fund, NM Finance Authority LGPF | High | Natural System Protection |
| TC-6: Hydrogen Facility Safety & Emergency Response Readiness | 1, 4 | Develop specialized HazMat response protocols; procure hydrogen-specific firefighting apparatus (thermal imaging, gas detectors); hire/train specialized | Wildfire, high winds, severe winter storm, flooding, geological hazards | Taos County Emergency Management, Village Admin, Fire/EMS | High | New/2-5 years | DOE Office of Clean Energy Demonstrations, FEMA BRIC, Industry Partner (Public-Private Partnership), NM | High | Education & Training |

| | | | | | | | | | |
|--|--|---|--|--|--|--|-----------------|--|--|
| | | personnel; and launch a public safety education campaign. | | | | | State Fire Fund | | |
|--|--|---|--|--|--|--|-----------------|--|--|

The Town of Taos will continue to actively implement projects and programs to reduce disaster-related effects impacting the town.

Annex D: Town of Red River

Profile

The Town of Red River, located in the upper Moreno Valley of the Sangre de Cristo Mountains, covers just over 1 square mile and has a population of approximately 530 residents. Sitting at an elevation of 8,750 feet, Red River is surrounded by Carson National Forest and steep alpine terrain, with the Red River flowing directly through the center of town.

Originally founded as a mining settlement in the late 1800s, Red River transitioned into a mountain tourism destination by the early 20th century. Today, it is known for its year-round recreation economy, including skiing, snowboarding, hiking, fishing, off-highway vehicle trails, and seasonal festivals. The Red River Ski & Summer Area serves as a major economic driver, drawing visitors from across the region.

Red River's compact layout includes a walkable main street corridor lined with lodges, restaurants, shops, and recreation outfitters. The town is accessible via NM State Road 38, which connects to the Enchanted Circle Scenic Byway and links Red River to Taos and Questa. Seasonal population increases are significant, with tourism greatly expanding the number of people in town during peak winter and summer months.

The surrounding landscape features high-elevation forests, mountain lakes, and streams that support outdoor recreation and wildlife viewing. Red River's cultural identity is shaped by its mining heritage, Western character, and strong tourism traditions. Community events such as the Red River Memorial Motorcycle Rally, Aspencade, and winter holiday celebrations attract thousands of visitors annually.

Red River maintains a variety of community resources, including local government services, a visitor center, and public safety departments. The town's economy is heavily tourism-based, with a large share of housing units used as seasonal or short-term rentals.

With its alpine setting, historic roots, and vibrant recreation economy, Red River remains one of northern New Mexico's most popular mountain destinations.

| Fact | Description |
|--------------------------|---|
| Land Area | 1.02 sq. miles (2.64 km ²) ³ |
| Incorporated Village(s) | None |
| Hamlets | None |
| Population Census | 542 (2020 Census); ~456 (2023 estimate) ⁴⁵ |
| Governance | Mayor–Council form ³ |
| Total Assessed Valuation | \$147M |
| Highest Elevation | 8,688 ft (Town center); surrounding peaks exceed 11,000 ft ³ |
| Largest River | Red River (flows through town center) |
| Dams | None |

| | |
|-----------------------------|--|
| Bridges | NM-38 Bridge over Red River; multiple stream crossings |
| Interstate Highway | None |
| State Routes | NM-38 |
| County Roads | Local access roads maintained by Town and Taos County |
| Land Agricultural Use | None – alpine terrain and recreational zoning |
| Land Classified Industrial | None – no industrial zoning or facilities |
| Land Classified Residential | Residential zoning throughout town; high seasonal occupancy ⁶ |
| Hospital/Medical Facility | None in town; nearest is Holy Cross Hospital in Taos |
| Fire & Rescue | Red River Fire Department; EMS via Taos County |
| Schools | None in town; students attend Questa ISD |
| Railroads | None |
| Passenger Trains/Day | N/A |
| Freight Trains/Day | N/A |
| Ferry Dock(s) | None |
| Interstate Bridge | None |
| Largest Employer | Red River Ski & Summer Area |
| Law Enforcement | Red River Marshal's Office; Taos County Sheriff |
| Correctional Facility | None |
| Power Utility Provider(s) | Kit Carson Electric Cooperative |
| Water Supply Source(s) | Municipal wells and surface water from Red River watershed |
| Emergency Shelters | Red River Conference Center (designated ARC shelter); Fire Station (warming) |
| Critical Facilities | Town Hall, Fire Station, Marshal's Office, Conference Center, Ski Area Ops |

Notable Updates

The Town of Red River has focused its hazard mitigation efforts on addressing wildfire risk, severe winter storms, and infrastructure vulnerabilities tied to its alpine location and tourism-driven economy. Recent updates include integrating hazard data into local land use planning and updating emergency operations protocols in coordination with Taos County and the Red River Marshal's Office.

Red River has pursued grant funding to support slope stabilization, culvert upgrades, and generator installations at critical facilities including the Fire Department and Conference Center. The Town also partnered with the New Mexico Energy, Minerals and Natural Resources Department to implement defensible space and fuel reduction projects around residential areas and public buildings. These efforts are part of Red River's broader wildfire mitigation strategy, which includes public education campaigns and participation in the Firewise program.

Infrastructure resilience has been enhanced through upgrades to the municipal water system, road maintenance along NM-38, and installation of EV charging stations to support sustainable tourism. During the COVID-19 pandemic, Red River used CARES

Act funds to assist seasonal workers and small businesses impacted by closures and reduced visitation.

Community engagement remains a priority, with the Town hosting preparedness workshops, distributing emergency alert materials, and promoting volunteer participation in roadside cleanup and snow removal efforts. Red River continues to collaborate with Taos County, Carson National Forest, and the Red River Ski & Summer Area to improve hazard awareness and response coordination.

Together, these initiatives reflect Red River’s commitment to proactive hazard mitigation, infrastructure reliability, and community safety in a high-elevation, tourism-dependent environment.

Planning Process

The Town of Taos participated in the survey, followed by a Hazard Mitigation Meeting. They sent a copy of their plans for review. Subsequently, the Town Supervisor received a copy of the town’s section of the county plan for review and revision to update its portion of the county plan.

Capability Assessment

The Town of Red River has adopted several planning mechanisms to enhance hazard resilience and support its tourism-driven economy. These include a local emergency operations plan, floodplain ordinance, zoning regulations, building codes, and fire codes. While the town does not currently have a standalone comprehensive plan in long-term use, it adopted a new comprehensive plan in 2025 to replace the 2013 version.

| Planning Documents |
|---------------------------|
| Emergency Operations Plan |
| Floodplain Ordinance |
| Zoning Regulations (2000) |
| Building Codes |
| Comprehensive Plan (2025) |
| Fire Codes |

Red River’s hazard mitigation plan should be integrated into its emergency operations plan and referenced in zoning and development review processes. Mitigation actions can be incorporated into infrastructure maintenance schedules and capital improvement

planning. Integration will help ensure consistency across local ordinances and support hazard-informed decision-making.

An assessment of Red River’s capabilities indicates that while the town has limited in-house planning staff, it relies on Taos County and state agencies for technical support. The town designates personnel for emergency management and contracts engineering and surveying services as needed. GIS services and grant support are provided through county partnerships and external consultants.

Red River funds projects through a combination of general fund revenues, tourism-related taxes, and state and federal grants. The town has used CDBGs for housing rehabilitation and FEMA funds for flood mitigation. Water and sewer fees support system maintenance, and Red River collaborates with neighboring jurisdictions for shared services.

Outreach capabilities are moderate. The fire department conducts seasonal wildfire education and safety programs, and the town uses its website and social media to communicate with residents and tourists. Partnerships with the Carson National Forest, New Mexico Tourism Department, and local nonprofits support public education on environmental hazards and emergency preparedness.

Critical Facilities

The Town of Red River conducted a review of its critical facilities to assess flood exposure, generator availability, and mitigation status. The fire station is located near the Red River and is considered vulnerable to flooding. It is equipped with a generator and has undergone minor floodproofing. Other facilities, including the marshal’s office, town hall, public works yard, and wastewater treatment plant, are located outside the 500-year floodplain and have backup power systems.

The town library and visitor center do not currently have generators and may require mobile power units during extended outages. Seasonal population fluctuations and tourism-related infrastructure present unique challenges for emergency sheltering and continuity of operations.

| Facility | Located in 500-Year Floodplain | Flooded in the Past | Mitigated | Generator |
|----------------------------|--------------------------------|---------------------|-----------|-----------|
| Fire Station | Yes | Yes | Partial | Yes |
| Marshal’s Office | No | No | No | Yes |
| Town Hall | No | No | No | Yes |
| Public Works Yard | No | No | No | Yes |
| Wastewater Treatment Plant | No | No | No | Yes |
| Visitor Center | No | No | No | No |
| Town Library | No | No | No | No |

Red River has the option of using several sites for temporary housing in the event of a disaster. These include the municipal RV park (with full utility hookups), the town ballfield (used previously for mobile home placement), and the Red River Conference Center, which can serve as an indoor shelter with coordination from the American Red Cross.

| Facility | Type of Housing |
|-----------------------------|------------------|
| Municipal RV Park | RV, Mobile Homes |
| Town Ballfield | RV, Mobile Homes |
| Red River Conference Center | ARC Shelter |

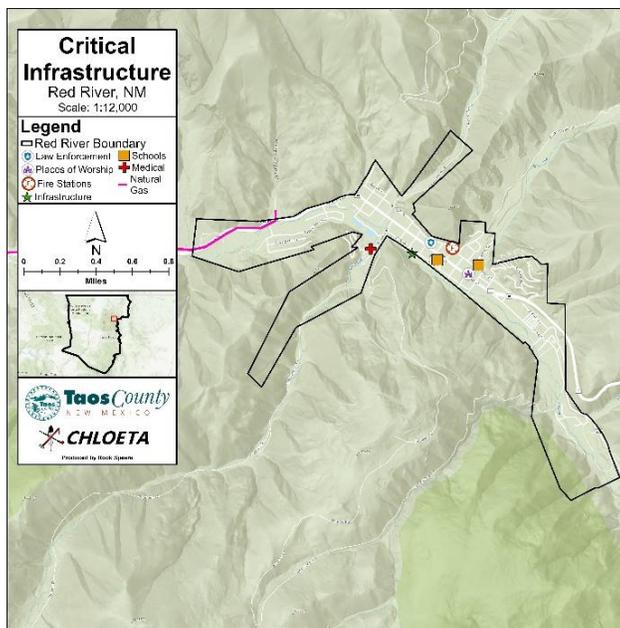


Figure 40. Red River Critical Infrastructure

National Flood Insurance Plan (NFIP) Summary

The Town of Red River is an active participant in the National Flood Insurance Program and enforces a Flood Damage Prevention Ordinance aligned with FEMA guidelines. The town's mountainous terrain and proximity to the Red River make it susceptible to flash flooding, particularly during spring runoff and monsoon season.

Red River's FIRMs were last updated in 2010, and the town uses these maps to regulate development in SFHAs. The Planning and Zoning Commission reviews all permit

applications for compliance with floodplain regulations, and the town’s designated floodplain administrator coordinates with state and federal agencies to ensure ongoing compliance.

Flood insurance coverage in Red River is concentrated in low-lying areas near the river and in older residential zones. While the number of policies is relatively small, the town encourages coverage through outreach and permitting processes. No repetitive loss structures have been formally recorded, but past flood events have led to infrastructure improvements and increased awareness of flood risk.

Red River plans to continue its partnership with FEMA and the New Mexico Department of Homeland Security and Emergency Management to provide training for town officials and community members. These efforts will focus on NFIP compliance, flood insurance enrollment, and the integration of flood risk data into future planning efforts.

| Policies | 2011 | 2018 | 2024 | Total Amount of Claims |
|--------------------------------------|------|------|------|------------------------|
| Policies in Force | 9 | 7 | 10 | \$72,300 |
| Number of Repetitive Loss Structures | -- | -- | -- | -- |

Hazard Identification & Ranking

| Hazard Ranking | Hazards |
|----------------|--|
| HIGH | <ul style="list-style-type: none"> • Wildfire • Severe Winter Storms • Drought • Avalanche/Landslide/Rockslide • High Winds |
| MEDIUM | <ul style="list-style-type: none"> • Dam Failure • Pandemic • Flooding |
| LOW | |

Hazard Event History

| Hazard | Event | Year | Impact |
|----------|-----------------------|------|---|
| Flooding | Red River Flood Event | 1995 | River overflow damaged trails and low-lying infrastructure. |

| | | | |
|----------------------|------------------------------|-----------|---|
| | Flash Flooding | 2013 | Intense rainfall caused road closures and minor property damage. |
| | Spring Runoff Flooding | 2021 | High water levels impacted campgrounds and riverfront businesses. |
| Winter Storms | Late-Season Snow Storm | 2007 | Heavy snow disrupted tourism and strained public works. |
| | Ice Storm | 2019 | Ice accumulation caused power outages and hazardous travel. |
| | Snow Squall/High Winds | 2021 | State Emergency Declaration. Damage from high winds/snow load. \$750,000 in state funds allocated for public recovery efforts. |
| Severe Thunderstorms | Summer Hailstorm | 2004 | Hail damaged vehicles and roofs across town. |
| Wildfires | Bobcat Pass Fire | 1998 | Wildfire near Red River prompted temporary evacuations. |
| High Winds | Regional Smoke Event | 2023 | Smoke from nearby wildfires impacted air quality and tourism. |
| Extreme Cold | Windstorm | 2016 | Strong winds downed trees and disrupted outdoor events. |
| Landslide | Cold Wave | 2010 | Subzero temperatures led to frozen pipes and increased heating demand. |
| | Slope Failure Near Ski Area | 1990 | Minor landslide closed access road temporarily. |
| | Bobcat Pass Rockfall | 2005 | Rockslide blocked NM-38; required multi-day clean-up. |
| | Snowpack Instability Warning | 2022 | Carson National Forest issued avalanche warning due to rapid freeze-thaw cycles. |
| | Rockfall | Recurring | Daily to weekly occurrences on NM-38, SR 68, SR570, and US-64 impacts residential ingress and egress. Frequent transportation disruption, particularly in steep canyon borders. |

Hazard Analysis

The Town of Red River is uniquely vulnerable to natural hazards due to its high-altitude, "box canyon" geography and its heavy reliance on a seasonal tourism economy. Wildfire is the primary existential threat to the town, as Red River is entirely surrounded by the Carson National Forest. A single ignition point in the canyon could lead to rapid fire spread, potentially trapping residents and visitors due to the limited "one-way in, one-way out" nature of NM-38 during a mass evacuation.

Flash flooding and debris flows represent a critical secondary hazard, especially following wildfires. The steep terrain surrounding the town means that intense monsoon rains can quickly turn the Red River into a torrent, carrying silt and debris

that can clog culverts and damage downtown businesses. Severe winter weather is a defining characteristic of the town, with heavy snowpack frequently exceeding the weight limits of older roof structures and creating significant avalanche risks on the steep slopes overlooking the valley and access roads.

Additionally, Red River faces risks from extreme cold, which can jeopardize the life safety of tourists and lead to significant infrastructure failures in the town's hospitality sector. Drought also poses a dual threat: it increases the volatility of the surrounding forest and negatively impacts the town's economy by reducing the snowpack essential for the ski industry. Because of these concentrated risks, Red River's mitigation efforts must focus on aggressive fuels reduction, sophisticated early-warning systems for flash floods, and robust emergency communication plans for its transient tourist population.

Hazard Mapping

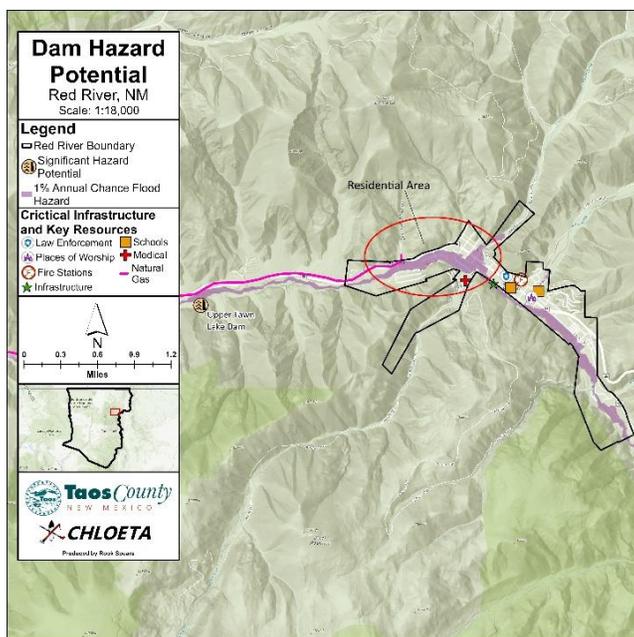


Figure 41. Red River Dam Hazard Potential

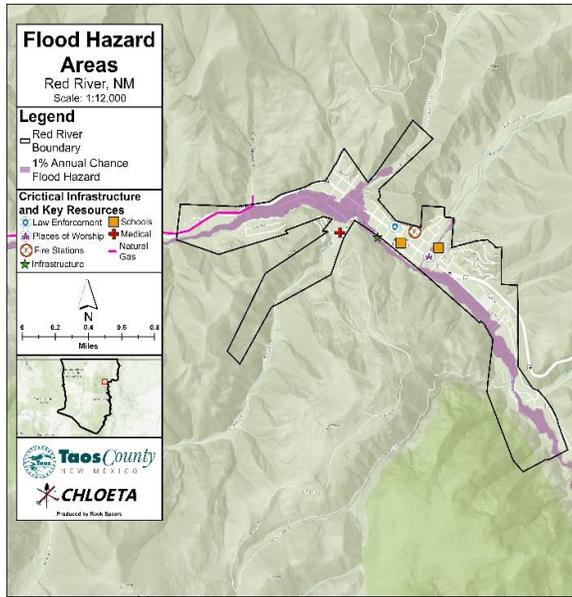


Figure 42. Red River Flood Hazard Areas

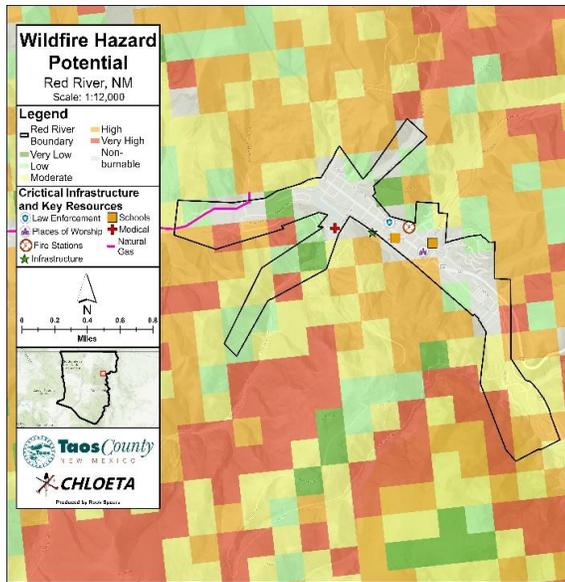


Figure 43. Red River Wildfire Hazard Potential

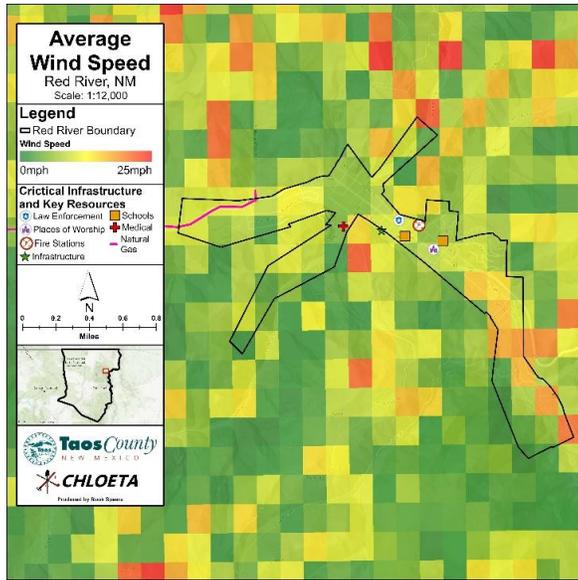


Figure 44. Red River Average Wind Speeds

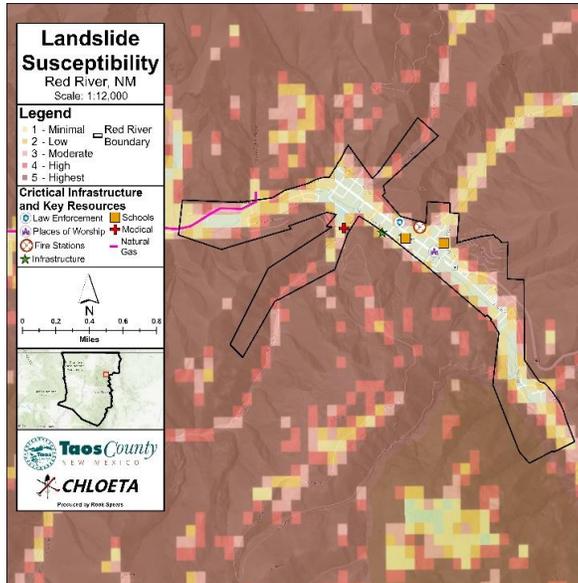


Figure 45. Red River Landslide Susceptibility

Potential Loss

The potential loss for the Town of Red River was calculated using data provided by the Taos County Assessors Office, which provided property valuations for residential and non-residential parcels. The data was analyzed to determine the total property value. To estimate potential losses from hazard events, it was assumed that 10% of the properties in each parcel would be affected. The projected financial impact was then calculated as 10% of the total property value for each parcel.

| Property Type | Number of Parcels | Land & Improved Value | Number of Parcels Impacted | Potential Loss |
|-----------------|-------------------|-----------------------|----------------------------|----------------|
| Non-Residential | 1,464 | \$238,873,107 | 146 | \$23,887,311 |
| Residential | 1,189 | \$304,864,857 | 119 | \$30,486,486 |
| Total | 2,653 | \$543,737,964 | 265 | \$54,373,796 |

Mitigation Strategy

The mitigation strategy included in the 2018 plan was reviewed to determine if project(s) were completed. New mitigation projects were identified for the 2026 plan update, included in the table below. Prioritization of projects occurred as the plan was updated. Project priority was listed as high, medium, or low. Generally speaking, high priority projects are those enabling towns and villages to be fully functional during times of disasters. Medium and Low priority projects improve other functions of towns and villages, addressing actual community residents. Low priority hazards identified were not specifically considered for Mitigation Action development for this Annex. Project implementation will proceed as funding becomes available, though any project may advance when financial resources, political will, and other factors align.

Proposed mitigation project costs were determined and included in the table below. For other mitigation projects, estimated costs are provided and categorized as High, Medium, or Low cost based on projected financial requirements.

Table 412. Town of Red River Mitigation Actions

| Project # & Name | Goal/Objective | Project or Action | Hazard Addressed | Lead Agency | Estimated Cost | Timeframe to Complete | Potential Funding Sources | Priority | Mitigation Technique Category |
|---|----------------|---|-------------------|--|----------------|-----------------------|---|----------|------------------------------------|
| RR-1, NFIP Continued Compliance & CRS Program Enhancement | 2, 6 | Maintain standing in the National Flood Insurance Program (NFIP) through ordinance enforcement and seek entry/advancement in the Community Rating System (CRS). | Flooding | Town of Red River Planning | Low | Ongoing/0-2 Years | Town Operating Budget, FEMA FMA (Flood Mitigation Assistance) | High | Plans & Regulations |
| TC-1: Emergency Shelter Backup Power & Resiliency | 1, 2 | Purchase and install permanent backup generators and automatic transfer switches at primary emergency shelters. | All Hazards | Taos County Emergency Management | Medium | Ongoing/2-5 years | FEMA BRIC, HMGP, NM Capital Outlay, USDA Rural Development | Medium | Structure & Infrastructure Project |
| TC-2: Dry Hydrant Installation Program | 3 | Install a network of non-pressurized dry hydrants in ponds, tanks, and Acequias to allow fire tankers to draft | Drought, Wildfire | Taos County Emergency Management, Taos | Medium | New/0-2 Years | NM Fire Protection Grant Fund, Volunteer Fire Assistance (VFA), | High | Natural System Protection |

| | | | | | | | | | |
|--|---------|---|--|--|------|--------------------------------|---|--------|------------------------------------|
| | | water in rural areas. | | County Fire | | | Taos SWCD | | |
| TC-3: Bridge Infrastructure Safety & Capacity Upgrades | 1, 2, 5 | Structural retrofiting, load-bearing capacity upgrades, and hydraulic improvements to ensure access for heavy emergency vehicles. | Flood, Severe Winter Storms, All-Hazards (Access) | Taos County Public Works / Engineering | High | Ongoing / 5+ Years (Long-term) | FEMA BRIC, NMDOT Bridge Program, FHWA (Federal Highway), NM State Road Fund | Medium | Structure & Infrastructure Project |
| TC-4: Natural Gas Mainline Resilience & Redundancy | 2, 3 | Conduct a geo-hazard vulnerability study of the Hwy 68 mainline; implement section hardening and explore redundancy/looping options to prevent single-point-of-failure outages. | Geological hazards, flooding, wildfire, severe winter storm, high winds, dam failure | Taos County, NM Gas Company | High | New / 2-5 Years | DOE Grid Resilience Grants, FEMA BRIC, NM Public Regulation Commission (PRC) coordination | Low | Natural System Protection |

The Town of Red River will continue to actively implement projects and programs to reduce disaster-related effects impacting the town.

Appendices

Appendix A: Glossary

Appendix B: Acronyms

Appendix C: Community Involvement Documentation

Appendix D: Potential Funding Sources

Appendix E: Adoption

Appendix F: Meeting Notes

References

Appendix A- Glossary

| Mitigation | Actions Taken to Reduce or Eliminate Long-term Risks to Human Life and Property from Hazards |
|--|---|
| Capability Assessment | Evaluation of the ability of a community to implement effective mitigation measures. |
| Critical Infrastructure | Essential systems & assets (like hospitals, schools, & utilities) vital to the functioning of a community. |
| Disaster Mitigation Act of 2000 (DMA 2000) | Federal legislation requiring local governments to develop & adopt hazard mitigation plans to qualify for certain types of non-emergency disaster assistance. |
| Early Warning System | A system designed to detect imminent hazards & provide timely information to allow individuals & communities to take protective actions. |
| Earthquake | A sudden & violent shaking of the ground, often causing significant damage. |
| Emergency Response | The immediate actions taken to ensure public safety & health during & immediately after a disaster. |
| Evacuation Route | A designated path or road that leads people to safety during an emergency. |
| Flood Insurance Rate Map (FIRM) | Maps produced by FEMA that show areas at risk of flooding. |
| Green Infrastructure | Sustainable & environmentally friendly infrastructure solutions like rain gardens & permeable pavement, that help manage stormwater & reduce flood risks. |
| Hazard | A potential source of harm or adverse effect on a person or property. |
| Land Use Planning | The process of managing land resources to prevent or minimize exposure to hazards. |
| Public Participation | The process of involving community members in decision-making & planning. |
| Resilience | The ability of a community to recover from the impacts of hazards. |
| Retrofit | To add new technology or features to older systems or buildings to make them safer & more resilient. |
| Risk Assessment | The process of identifying & evaluating risks posed by hazards. |
| Severe Storm | A weather event characterized by strong winds, heavy rain, hail, lightning, & potentially tornadoes. |
| Technological Hazard | Hazards originating from technological or industrial conditions, including accidents, dangerous procedures, or failures. |
| Vulnerability | The susceptibility of people, property, infrastructure, & resources to damage from hazards. |

| Mitigation | Actions Taken to Reduce or Eliminate Long-term Risks to Human Life and Property from Hazards |
|------------|--|
| Wildfire | An uncontrolled fire spreading through vegetative fuels, posing a threat to life & property. |

Appendix B- Acronyms

| Abbreviation | Definition |
|--------------|--|
| ATSDR | Agency for Toxic Substances and Disease Registry |
| BMP | Best Management Practice |
| BRIC | Building Resilient Infrastructure & Communities |
| CDC | Centers for Disease Control & Prevention |
| CEMP | Comprehensive Emergency Management Plan |
| CIKR | Critical Infrastructure and Key Resources |
| COOP | Continuity of Operations Plan |
| COPD | Chronic Obstructive Pulmonary Disease |
| CPRI | Calculated Priority Risk Index |
| CRS | Community Rating System |
| DHSEM | Division of Homeland Security and Emergency Management |
| DMA 2000 | Disaster Mitigation Act of 2000 |
| DNR | Department of Natural Resources |
| DPW | Department of Public Works |
| EAL | Expected Annual Loss |
| EAS | Emergency Alert System |
| EM | Emergency Manager |
| EMS | Emergency Medical Services |
| EOC | Emergency Operations Center |
| ESF | Emergency Support Function |
| FEMA | Federal Emergency Management Agency |
| FIRM | Flood Insurance Rate Map |
| FMA | Flood Mitigation Assistance Program |
| GIS | Geographic Information System |
| HAZMAT | Hazardous Materials |
| HHS | Health and Human Services |
| HMGP | Hazard Mitigation Grant Program |
| HMP | Hazard Mitigation Plan |
| IAFC | International Association of Fire Chiefs |
| IAP2 | International Association for Public Participation |

| Abbreviation | Definition |
|--------------|---|
| ICS | Incident Command System |
| IMT | Incident Management Team |
| LEPC | Local Emergency Planning Committee |
| LHMAP | Local Hazard Mitigation Action Plan |
| NGO | Non–Governmental Organization |
| NIFC | National Interagency Fire Center |
| NMDOT | New Mexico Department of Transportation |
| NOAA | National Oceanic & Atmospheric Administration |
| NRCS | Natural Resources Conservation Service |
| NRI | National Risk Index |
| NWS | National Weather Service |
| OEM | Office of Emergency Management |
| PDM | Pre-Disaster Mitigation Program |
| RFP | Request for Proposal |
| SOP | Standard Operating Procedure |
| SVI | Social Vulnerability Index |
| SVI | Social Vulnerability Index |
| SWCD | Soil and Water Conservation District |
| SWE | Snow Water Equivalents |
| UNESCO | United Nations Educational, Scientific, and Cultural Organization |
| USDA | United States Department of Agriculture |
| USFS | U.S. Forest Service |
| USGS | United States Geological Survey |
| VFD | Volunteer Fire Departments |
| VPD | Vapor Pressure Deficit |
| WUI | Wildland-Urban Interface |

Appendix C- Community Involvement Documentation

This appendix provides documentation of public participation, surveys, and public comments, highlighting community involvement in the planning process.

Community Engagement Efforts

As part of Taos County’s comprehensive hazard mitigation planning process, we prioritized meaningful community engagement to ensure the plan reflected local needs and priorities. To gather diverse perspectives, we conducted a public and stakeholder survey, inviting residents, businesses, and community organizations to share their insights on local hazards, vulnerabilities, and mitigation strategies. Following the development of the draft Hazard Mitigation Plan, we made the document available for a 30-day public review period, providing an opportunity for both stakeholders and the broader community to submit feedback and comments. This collaborative approach helped to ensure the plan is both inclusive and responsive to the community it serves. The following documents these engagements.

Meetings

Stakeholder and leadership engagement were central to the development of the Hazard Mitigation Plan. The planning process included a series of stakeholder meetings, beginning with an introduction to the HMP and its goals. Subsequent meetings focused on identifying and ranking local hazards based on potential impact and likelihood and developing targeted mitigation actions to reduce risks and enhance community resilience. To further broaden input and ensure alignment, the draft plan was also presented at (Insert local planning/board meeting), where feedback was collected to coordinate with emergency response efforts. Additionally, a meeting with Stakeholders provided an opportunity to highlight key findings, discuss priorities, and outline the next steps toward adoption and implementation. The following figures provide rosters for some of these meetings.

Commented [MD7]: Will finalize at end of meeting

| Taos County Hazard Mitigation Plan Workshop | | | |
|---|---------------------|------------------------|------------------------------|
| Facilitators: Mallory Darais Bobbie Jacl | | Date: December 3, 2025 | |
| Name | Title | Organization | Email |
| Yolanda Mendez | TOT Fire Director | Taos County | ymendez@taoscounty.gov |
| Karen Shuman Shuman | Administrator | Village of Questa | kshuman@villageofquesta.org |
| Jacobs LaForce | Project Manager | Village of Questa | jacobs@villageofquesta.org |
| Gregg Bobbie | Fire/EMS Chief | Village of Questa | gbobbie@villageofquesta.org |
| Mark Ortega | DEM Coordinator | Taos County | mortega@taoscounty.gov |
| Rick Minter | Acting Chief | Village of Questa | rminter@villageofquesta.org |
| Delora Chavez | Personnel Mgr | Taos County | delora.chavez@taoscounty.gov |
| Bobby Lucas | EMM Director | Taos County | bobby.lucas@taoscounty.gov |
| Tim Corner | TOT GIS Analyst/CFM | Town of Taos | tcorn@taosnmgov |
| Peggy DeSaville | Range Forester | NM Forestry Division | peggy.desaville@state.nm.gov |
| Michelle Serey | FPLM/Make | T.C.F.R. | mserey@taoscounty.gov |
| Robert Jones | County Manager | Taos County | rob@taoscounty.gov |
| Wesley Vaziri | County Clerk/Asst | TAOS CO | Wesley.V@taoscounty.gov |
| Jason Silva | Deputy Manager | Taos County | jason.silva@taoscounty.gov |
| Valerie Vigil | PO Clerk | Village of Questa | vvigil@villageofquesta.org |

| Taos County Hazard Mitigation Plan Stakeholder Meeting | | | |
|--|-----------------|----------------------------------|------------------------------|
| Facilitator: Mallory Daras | | Meeting date: September 23, 2025 | |
| Name | Title | Organization | Email |
| Mark Ortega | Deputy Sheriff | Taos County | mark.ortega@taosnm.gov |
| Grant Sweeney | County Engineer | Taos County | grant.sweeney@taosnm.gov |
| Sharon Helton | PLA DEM | Opposition | sharonhelton@taosnm.gov |
| Robert D. Shuman | Administrator | Village of Guate | robshuman@villageofguate.org |
| Joseph LaForce | Project Mgr | Village of Guate | jlaforce@villageofguate.org |
| Joseph LaForce | Project Mgr | Town of Taos | jlaforce@taosnm.gov |
| Frank Schuchter | PLA DEM | Taos PD | frank.schuchter@taosnm.gov |
| Sharon Ortega | LT | Taos PD | sharon.ortega@taosnm.gov |
| Blaine Heston | Down Op | Taob Mutual Block | blaine@taosnm.gov |
| Blaine Heston | Board Chair | Town of Taos | blaine@taosnm.gov |
| Sharon D. Reed | Exec Director | Taos County | sharonreed@taosnm.gov |
| E. J. Alayza | Fire Chief | Town of Taos | e.alayza@taosnm.gov |
| Tim Corcoran | GIS Analyst | Town of Taos | tcorcoran@taosnm.gov |
| Ben Trueman | Executive Dir. | Road Maintenance | ben@taosnm.gov |
| Christopher Mader | Project Coord | Taos County | chris.mader@taosnm.gov |
| Bobby Lucero | Taos County DEM | Taos County | bobby.lucero@taosnm.gov |

| Taos County Hazard Mitigation Plan Stakeholder Meeting | | | |
|--|-----------------|----------------------------------|------------------------------|
| Facilitator: Mallory Daras | | Meeting date: September 23, 2025 | |
| Name | Title | Organization | Email |
| Mallory Daras | Facilitator | Taos County | mallory.daras@taosnm.gov |
| Grant Sweeney | County Engineer | Taos County | grant.sweeney@taosnm.gov |
| Robert D. Shuman | Administrator | Village of Guate | robshuman@villageofguate.org |
| Joseph LaForce | Project Mgr | Village of Guate | jlaforce@villageofguate.org |
| Joseph LaForce | Project Mgr | Town of Taos | jlaforce@taosnm.gov |
| Frank Schuchter | PLA DEM | Taos PD | frank.schuchter@taosnm.gov |
| Sharon Ortega | LT | Taos PD | sharon.ortega@taosnm.gov |
| Blaine Heston | Down Op | Taob Mutual Block | blaine@taosnm.gov |
| Blaine Heston | Board Chair | Town of Taos | blaine@taosnm.gov |
| Sharon D. Reed | Exec Director | Taos County | sharonreed@taosnm.gov |
| E. J. Alayza | Fire Chief | Town of Taos | e.alayza@taosnm.gov |
| Tim Corcoran | GIS Analyst | Town of Taos | tcorcoran@taosnm.gov |
| Ben Trueman | Executive Dir. | Road Maintenance | ben@taosnm.gov |
| Christopher Mader | Project Coord | Taos County | chris.mader@taosnm.gov |
| Bobby Lucero | Taos County DEM | Taos County | bobby.lucero@taosnm.gov |

Advertisement & Outreach Materials

To encourage broad public participation in the hazard mitigation planning process, multiple outreach channels were used to promote engagement. The public was invited to complete surveys through the Emergency Management websites and announcements shared on social media platforms, ensuring wide visibility and accessibility. Additionally, information about the surveys was distributed via community newsletters and direct email communications to residents, local organizations, and other stakeholders. These efforts helped raise awareness of the planning process and encouraged valuable public input on local hazards, vulnerabilities, and potential mitigation strategies.

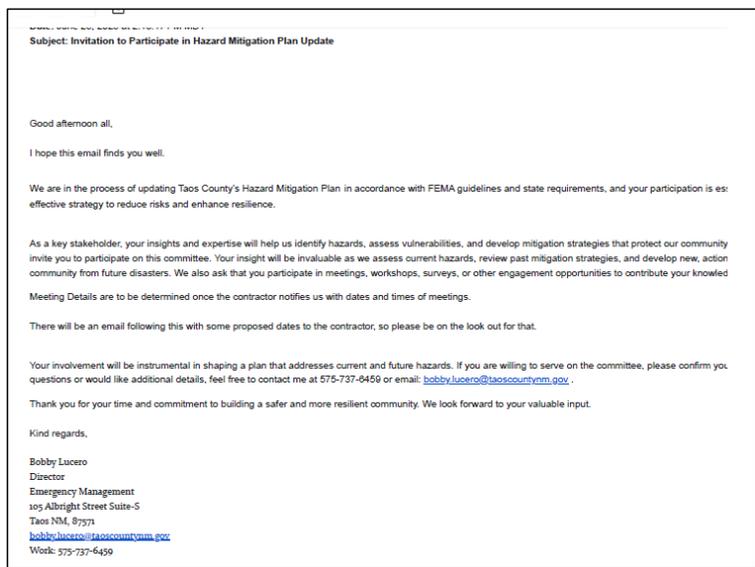


Figure 46. Stakeholder Engagement Email

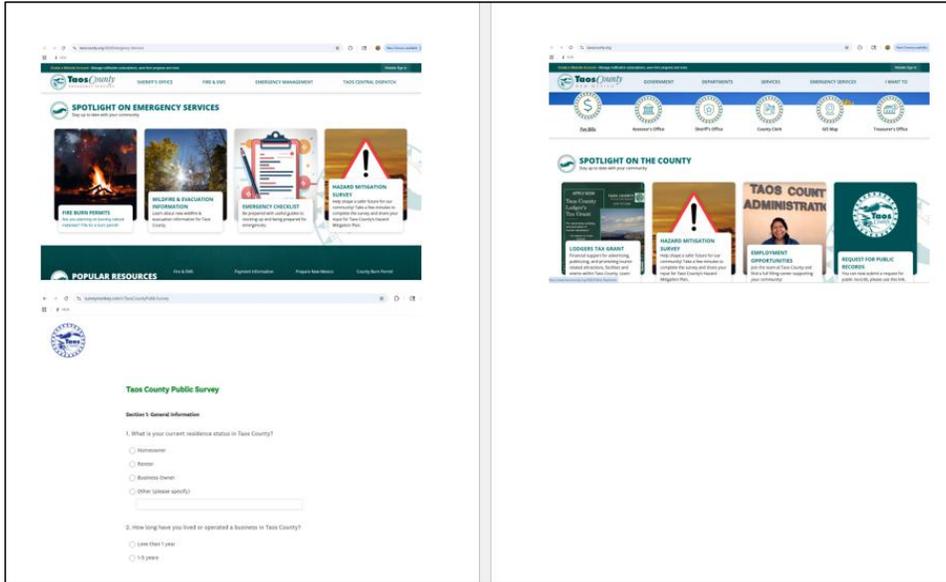


Figure 47. Public & Stakeholder Engagement: Website

NEEDED PUBLIC PARTICIPATION TAOS COUNTY HAZARD MITIGATION PLAN SURVEY
 «CLICK HERE TO TAKE THE SURVEY»

The Taos County Emergency Management Agency is in the process of updating the County's Hazard Mitigation Plan (HMP) in partnership with CHLDETA, a third-party environmental, risk mitigation, and infrastructure management consulting firm. Hazard mitigation planning helps local leaders better understand risks from natural and non-natural hazards, promoting the development of long-term strategies to reduce the effects of disaster-related events and their negative impact on people, property, and environment. Taos County is seeking feedback from stakeholders and the public to incorporate into the plan.

WHAT IS A HAZARD MITIGATION PLAN & WHY IS IT IMPORTANT?
 A hazard mitigation plan (HMP) is "the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards" (44 CFR 201.8). This plan establishes and maintains county eligibility for hazard mitigation grant funding. This plan creates a framework for the county to reduce negative impacts from future disasters on lives, property, and the local economy. Better yet, efficient hazard mitigation planning can significantly reduce the physical, financial, and emotional losses caused by both natural and non-natural disasters. Public participation in the Taos County Hazard Mitigation Plan will result in more effective risk reduction projects and a faster, more efficient funding allocation.

PUBLIC PARTICIPATION IN HAZARD MITIGATION PLANNING IN TAOS COUNTY
 Public participation in the Taos County Hazard Mitigation Plan is an opportunity for county residents to evaluate a variety of potential hazards affecting county residents. This plan provides Taos County and participating municipalities eligibility for future FEMA hazard mitigation funding. The goal of this plan is to better identify hazards and projects that can reduce damages from future natural and man-made hazards. It will include a risk assessment featuring natural hazards (like hurricanes, flooding, wildfires, earthquakes, severe weather, drought, and landslides) and non-natural hazards (like hazardous material incidents, terrorism, infrastructure failures, transportation incidents, communication failures, airplane crashes, Active Shooter incidents, and Pandemics).

WHY PARTICIPATE IN TAOS COUNTY HAZARD MITIGATION

- Increased awareness of Taos County risks & vulnerabilities
- Reduction of hazard impacts (safeguards lives & property, protects local economy)
- Creation of more resilient communities; bounce-back from disasters

PUBLIC OPEN COMMENT: TAOS COUNTY HAZARD MITIGATION PLAN

FOR MORE INFORMATION:

Phone: 575-779-9381
 E-mail: info@taoscounty.org

Figure 48. Public & Stakeholder Engagement: Flyer Announcement

Public Survey Questions

Section 1: General Information

1. What is your current residence status in Taos County?

- Homeowner
- Renter
- Business Owner
- Other (please specify)

2. How long have you lived or operated a business in Taos County?

- Less than 1 year
- 1-5 years

- 6-10 years
- More than 10 years

Section 2: Awareness and Preparedness

3. How aware are you of the natural and man-made hazards that could affect Taos County?

- Very aware
- Somewhat aware
- Not very aware
- Not aware at all

4. Have you received any information on hazard mitigation or emergency preparedness from local authorities?

- Yes
- No

5. Do you have an emergency plan in place for your household/business?

- Yes
- No
- In progress

6. Have you participated in any emergency preparedness training or drills?

- Yes
- No

Section 3: Identification of Hazards and Vulnerabilities

7. What types of natural hazards do you think pose the greatest threat to Taos County? (Select all that apply)

- Floods
- Severe Winter Weather
- Extreme Temperatures
- High Wind Events
- Drought
- Avalanche
- Earthquakes
- Ice Storms
- Landslides
- Wildfire
- Land Subsidence
- Dam Failures

- Hail Events
- Other (please specify)

8. What types of man-made hazards do you think pose the greatest threat to Taos County? (Select all that apply)

- Rail Events
- Hazardous Materials Incidents: Risks associated with the transportation, storage, and use of hazardous materials.
- Infrastructure Failure: This includes public works and critical infrastructure failures.
- Transportation Incidents: Accidents involving various modes of transportation that could cause significant disruptions.
- Communications Failures: Disruptions in communication systems that can impact emergency response.
- Terrorism: Potential terrorist activities that could affect the county.
- Plane Crashes: Incidents involving aircraft that could cause substantial damage and casualties.
- Human Trafficking: Recognized as a significant risk that needs to be addressed.
- Other (please specify)

9. Have you or your property been directly affected by any of these hazards in the past 5 years?

- Yes
- No

10. If yes, please specify the type of hazard and the impact it had.

Section 4: Community Needs and Resources

11. How prepared do you feel Taos County is to respond to a major disaster?

- Very prepared
- Somewhat prepared
- Not very prepared
- Not prepared at all

12. What resources or support would help you better prepare for a disaster? (Select all that apply)

- Emergency kits and supplies
- Community training and workshops
- Information on creating emergency plans
- Alerts and notifications
- Other (please specify)

13. Do you know where to access emergency shelters or evacuation routes in case of a disaster?

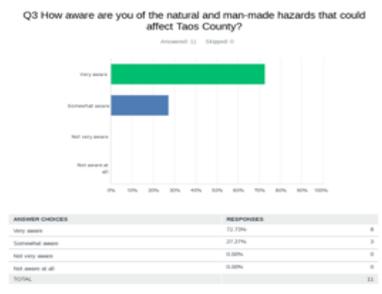
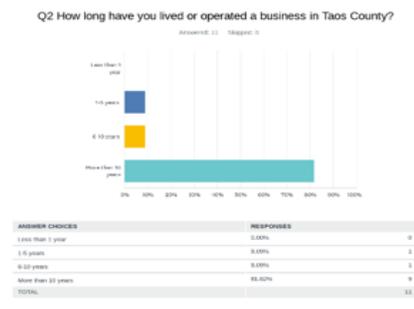
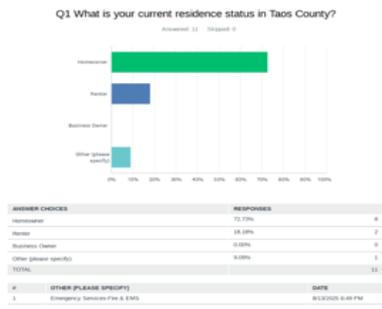
- Yes
- No

14. What communication methods would you prefer for receiving emergency alerts and information? (Select all that apply)

- Text messages
- Emails
- Social media
- Local news stations
- Community bulletin boards
- Other (please specify)

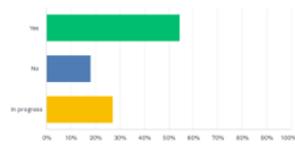
15. Do you have any additional comments or suggestions regarding hazard mitigation and emergency preparedness in Taos County?

Summary of Results



Q5 Do you have an emergency plan in place for your household/business?

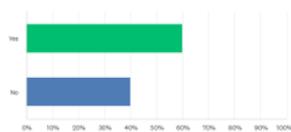
Answered: 11 Skipped: 0



| ANSWER CHOICES | RESPONSES | |
|----------------|-----------|----|
| Yes | 54.55% | 6 |
| No | 18.18% | 2 |
| In progress | 27.27% | 3 |
| TOTAL | | 11 |

Q6 Have you participated in any emergency preparedness training or drills?

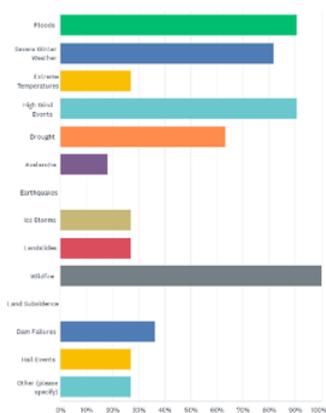
Answered: 10 Skipped: 1



| ANSWER CHOICES | RESPONSES | |
|----------------|-----------|----|
| Yes | 60.00% | 6 |
| No | 40.00% | 4 |
| TOTAL | | 10 |

Q7 What types of natural hazards do you think pose the greatest threat to Taos County? (Select all that apply)

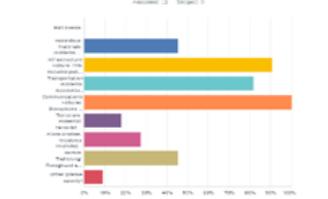
Answered: 11 Skipped: 0



| ANSWER CHOICES | RESPONSES | |
|------------------------|-----------|----|
| Floods | 90.91% | 10 |
| Severe Winter Weather | 81.82% | 9 |
| Extreme Temperatures | 27.27% | 3 |
| High Wind Events | 90.91% | 10 |
| Drought | 63.64% | 7 |
| Avalanche | 18.18% | 2 |
| Earthquakes | 0.00% | 0 |
| Ice Storms | 27.27% | 3 |
| Landslides | 27.27% | 3 |
| Wildfire | 100.00% | 11 |
| Land Subsidence | 0.00% | 0 |
| Dam Failures | 36.36% | 4 |
| Hill Events | 27.27% | 3 |
| Other (please specify) | 27.27% | 3 |
| Total Respondents: 11 | | |

| # | OTHER (PLEASE SPECIFY) | DATE |
|---|--|-------------------|
| 1 | Pandemic | 8/29/2025 5:29 PM |
| 2 | Traffic accidents in Taos Canyon due to weather or accidents | 8/13/2025 6:49 PM |
| 3 | Cyber attacks | 8/9/2025 10:37 AM |

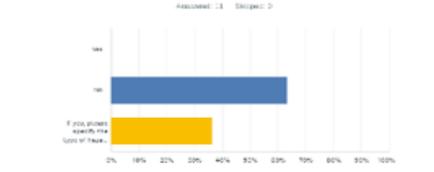
Q8 What types of man-made hazards do you think pose the greatest threat to Taos County? (Select all that apply)



| ANSWER CHOICES | RESPONSES |
|---|-----------|
| All Events | 0.00% 0 |
| Industrial accidents (those associated with the transportation, storage, and use of hazardous materials) | 65.00% 6 |
| Construction accidents (those involving public works and related infrastructure projects) | 65.00% 6 |
| Transportation accidents (Accidents involving any type of transportation that is of some significant dimension) | 85.00% 8 |
| Communications failures (Outages in communication systems that can impact emergency response) | 0.00% 0 |
| Personnel (Physical contact activities that could affect the public) | 0.00% 0 |
| Public Utilities (Outages involving any of that could cause significant damage and cascades) | 27.27% 3 |
| Human Trafficking (Recognized as a significant issue that needs to be addressed) | 45.45% 5 |
| Other (please specify) | 9.09% 1 |
| Total Respondents: 11 | |

1 | Capitan | 9/22/2024 3:28 PM

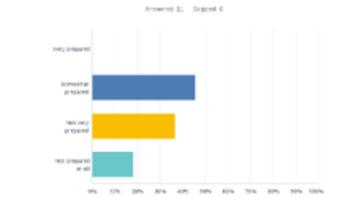
Q9 Have you or your property been directly affected by any of these hazards in the past 5 years?



| ANSWER CHOICES | RESPONSES |
|--|-----------|
| Yes | 73.00% 7 |
| No | 27.00% 2 |
| If you please specify the type of hazard and the impact it had | 36.36% 4 |
| TOTAL | 11 |

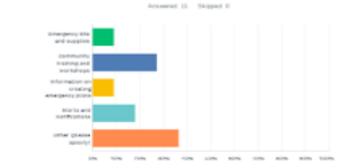
| IF YES, PLEASE SPECIFY THE TYPE OF HAZARD AND THE IMPACT IT HAD | DATE |
|--|-------------------|
| 1. Minor flooding and increased snow/ice from weather | 9/15/2025 4:26 PM |
| 2. Power outages, Closure of Highway 64 west, Register failure from dispatch | 9/13/2025 6:48 PM |
| 3. Fire, On "red" status and extremely stressed | 9/9/2025 8:17 AM |
| 4. Winter squalls in 2023 damaged property roof on ranch house | 9/5/2025 10:37 AM |

Q10 How prepared do you feel Taos County is to respond to a major disaster?



| ANSWER CHOICES | RESPONSES |
|---------------------|-----------|
| Very prepared | 0.00% 0 |
| Somewhat prepared | 40.91% 5 |
| Not very prepared | 36.36% 4 |
| Not prepared at all | 13.27% 2 |
| TOTAL | 11 |

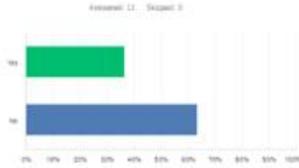
Q11 What resources or support would help you better prepare for a disaster? (Select all that apply)



| ANSWER CHOICES | RESPONSES |
|---|-----------|
| Emergency kits and supplies | 9.09% 1 |
| Community training and workshops | 27.27% 3 |
| Information on existing emergency plans | 9.09% 1 |
| Alerts and notifications | 18.18% 2 |
| Other (please specify) | 36.36% 4 |
| TOTAL | 11 |

| IF OTHER (PLEASE SPECIFY) | DATE |
|--|-------------------|
| 1. All County EOP that actually works with local stakeholders equally | 9/10/2025 5:26 PM |
| 2. All of the above | 9/13/2025 6:48 PM |
| 3. It would not let me "Select all that apply" and I would have selected all of them | 9/11/2025 3:05 PM |
| 4. All the above. (that also to "select all that apply") | 9/9/2025 8:17 AM |

Q12 Do you know where to access emergency shelters or evacuation routes in case of a disaster?

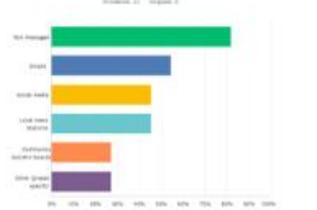


| ANSWER CHOICES | RESPONSES | COUNT |
|----------------|-----------|-------|
| Yes | 36.36% | 4 |
| No | 63.64% | 7 |
| TOTAL | | 11 |

Q14 Do you have any additional comments or suggestions regarding hazard mitigation and emergency preparedness in Taos County?

| # | RESPONSES | DATE |
|---|---|--------------------|
| 1 | This is clearly a template. What is there out on here? We don't have out in Taos. | 8/23/2025 5:29 PM |
| 2 | Please make sure all plans and preparedness equipment benefits even the most local people who just the sick individuals who move in and want to take over everything and assume everyone is left like them. | 8/23/2025 4:25 PM |
| 3 | Each community (MCA's) needs to review the EOP annually and update. | 8/23/2025 6:49 PM |
| 4 | Communication, communication, communication. | 8/23/2025 8:17 AM |
| 5 | Quarterly community outreach meetings. | 8/23/2025 10:37 AM |

Q13 What communication methods would you prefer for receiving emergency alerts and information? (Select all that apply)



| ANSWER CHOICES | RESPONSES | COUNT |
|---------------------------|-----------|-------|
| Text messages | 63.64% | 7 |
| Email | 54.55% | 6 |
| Social media | 45.45% | 5 |
| Local news channels | 45.45% | 5 |
| Community bulletin boards | 27.27% | 3 |
| Other (please specify) | 27.27% | 3 |
| Total Responses: | | 11 |

| # | OTHER PLEASE SPECIFY | DATE |
|---|--|-------------------|
| 1 | Special Weather Service alerting website | 8/23/2025 6:25 PM |
| 2 | Two Group notification | 8/23/2025 4:46 PM |
| 3 | Landline phone calls | 8/23/2025 8:17 AM |

Public Survey Response Analysis

To inform the Taos County Hazard Mitigation Plan with local insight, a public survey was conducted and analyzed. The survey revealed that wildfire, flooding, and winter storms ranked as the top concerns among respondents, reflecting the region's history of these events. Many participants also expressed concerns about power outages, road accessibility during severe weather, and emergency communication. While the majority of respondents indicated they felt only somewhat prepared for future hazards, there was strong interest in improving community resilience through trainings and workshops. This input provided valuable direction for prioritizing mitigation actions and ensuring they reflect both perceived risks and real vulnerabilities within the county.

Insert further Community Engagement Efforts HERE (FB, BOS meeting minutes, etc)

Commented [MD8]: Insert after Public Review Period

Public Review and Feedback

After completing the draft Hazard Mitigation Plan, it was made available for a 30-day public review period to ensure transparency and invite community feedback. The draft was shared through the municipal website and publicized via email and social media to reach a wide audience. Community members and stakeholders were encouraged to review the plan and submit comments or suggestions. Input received during this period was carefully reviewed and used to make updates to the plan as appropriate, ensuring it accurately reflects community needs and priorities.

INSERT PUBLIC FEEDBACK POST HERE

Commented [MD9]: Insert Here

Public Comment Recordings

Public and stakeholder input was invited during the 30-day draft review period to ensure the Hazard Mitigation Plan was thorough and reflective of community perspectives. The draft plan was made accessible through multiple channels, including the municipal website, social media, email, and newsletters, with clear instructions on how to submit feedback. While opportunities for input were widely promoted, the feedback received during this period was minimal. Nonetheless, all comments were reviewed and considered, and the open review process demonstrated a commitment to transparency and community engagement.

INSERT PUBLIC FEEDBACK COMMENTS HERE

Commented [MD10]: Insert Here

Response and Adjustments Based on Feedback

Placeholder-to be filled out once feedback has been received.

Commented [MD11]: Insert Here

Appendix D- Potential Funding Sources

While it is important to recognize the mitigation strategies for each jurisdiction to help achieve the mitigation goals and objectives of the HMP, it is also important to provide sources for funding to implement these strategies. The table below provides a list of Federal programs, descriptions, and links for those seeking funding sources. Please note that this table is not intended to be a comprehensive list, but rather a starting point to help identify potential sources of funding for the identified mitigation strategies.

| Mitigation Funding Sources Program | Description | Lead Agency | Website |
|--|--|-------------|---|
| Hazard Mitigation Assistance (HMA) | Grants to provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages – includes FMA, HMGP, PDM | FEMA | https://www.fema.gov/grants/mitigation/disaster-type |
| Flood Mitigation Assistance (FMA) | Program Grants to States and communities for pre-disaster mitigation planning and projects to help reduce or eliminate the long-term risk of flood damage to structures insurable under the National Flood Insurance Program | FEMA | <ul style="list-style-type: none"> • Building Resilient Infrastructure and Communities • Community Assistance Program – State Support Services Element • Cooperating Technical Partners Program • Dam Safety Program • Hazard Mitigation Grant Program • Hazard Mitigation Grant Program Post Fire • Flood Mitigation Assistance (FMA) Grant Program • Flood Mitigation Assistance Swift Current (Swift Current) • Safeguarding Tomorrow Revolving Loan Fund |
| Hazard Mitigation Grant Program (HMGP) | Grants to States and communities for planning and projects providing long-term hazard mitigation measures following a major disaster declaration | FEMA | Hazard Mitigation Grant Program |
| Building Resilient Infrastructure and Communities (BRIC) | Replacement program for PDM that will invest in local mitigation projects and promote capacity-building | FEMA | Building Resilient Infrastructure and Communities |

| Mitigation Funding Sources Program | Description | Lead Agency | Website |
|---|--|-------------|---|
| Assistance to Firefighters Grant Program | The primary goal of the Assistance to Firefighters Grants (AFG) is to enhance the safety of the public and firefighters with respect to fire-related hazards by providing direct financial assistance to eligible fire departments, nonaffiliated Emergency Medical Services organizations, and State Fire Training Academies. This funding is for critically needed resources to equip and train emergency personnel to recognized standards, enhance operations efficiencies, foster interoperability, and support community resilience. | FEMA | Hazard Mitigation Grant Program Post Fire |
| Pre-Disaster Mitigation Grant Program | The Pre-Disaster Mitigation (PDM) grant program makes federal funds available to state, local, tribal, and territorial governments to plan for and implement sustainable cost-effective measures designed to reduce the risk to individuals and property from future natural hazards, while also reducing reliance on federal funding from future disasters. The program is authorized by Section 203 of the Stafford Act . | FEMA | Pre-Disaster Mitigation Grant Program |
| Safeguarding Tomorrow Revolving Loan Fund | The Safeguarding Tomorrow Revolving Loan Fund (RLF) program is authorized under Section 205 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act to provide capitalization grants to states, eligible federally recognized tribes, territories and the District of Columbia to establish revolving loan funds that provide hazard mitigation assistance for local governments to reduce risks from natural hazards and disasters. | FEMA | Safeguarding Tomorrow Revolving Loan Fund |

Federal Hazard Mitigation Funding Opportunities

As noted on the FEMA hazard mitigation assistance [website](#), FEMA administers five programs that provide funding for eligible mitigation planning and projects that reduces disaster losses and protect life and property from future disaster damages. The programs are the Hazard Mitigation Grant Program (HMGP), and the HMGP Post Fire

Grant, the Flood Mitigation Assistance (FMA) Program, the Pre-Disaster Mitigation (PDM) Program, and the Building Resilient Infrastructure & Communities (BRIC) Program.

- HMGP assists in implementing long-term hazard mitigation planning and projects following a Presidential major disaster declaration.
- PDM provides funds for hazard mitigation planning and projects on an annual basis.
- FMA provides funds for planning and projects to reduce or eliminate risk of flood damage to buildings that are insured under the National Flood Insurance Program (NFIP) on an annual basis.
- BRIC supports jurisdictions in hazard mitigation projects, reducing the risks they face from disasters and natural hazards. The BRIC program will replace the existing Pre-Disaster Mitigation (PDM) program. The BRIC program guiding principles are supporting communities through capability- and capacity-building; encouraging and enabling innovation; promoting partnerships; enabling large projects; maintaining flexibility; and providing consistency.

HMGP funding is generally 15% of the total amount of Federal assistance provided to a State, Territory, or federally recognized tribe following a major disaster declaration. PDM and FMA funding depends on the amount congress appropriates each year for those programs. BRIC is funded by a 6% (\$500 million) set-aside from federal post-disaster grant funding. Individual homeowners and business owners may not apply directly to FEMA. Eligible local governments may apply on their behalf. Federal mitigation grant funding is available to all communities with a current HMP (this plan); however, most of these grants require a “local share” in the range of 10-25 percent of the total grant amount. The FEMA mitigation grant programs are described below.

Hazard Mitigation Grant Program

The HMGP is a post-disaster mitigation program. FEMA makes these grants available to states by after each federal disaster declaration. The HMGP can provide up to 75 percent funding for hazard mitigation measures and can be used to fund cost-effective projects that will protect public or private property or that will reduce the likely damage from future disasters in an area covered by a federal disaster declaration. Examples of projects include acquisition and demolition of structures in hazard prone areas, flood-proofing, or elevation to reduce future damage, minor structural improvements, and development of state or local standards. Projects must fit into an overall mitigation strategy for the area identified as part of a local planning effort. All applicants must have a FEMA-approved HMP (this plan).

Applicants who are eligible for the HMGP are state and local governments, certain nonprofit organizations or institutions that perform essential government services, and Indian tribes and authorized tribal organizations. Individuals or homeowners cannot apply directly for the HMGP; a local government must apply on their behalf. Applications are submitted to NMDHSEM, placed in rank order for available funding, and submitted to FEMA for final approval. Eligible projects not selected for funding are

placed in an inactive status and could be considered as additional HMGP funding becomes available.

Flood Mitigation Assistance (FMA) Program

The FMA program combines the previous Repetitive Flood Claims and Severe Repetitive Loss Grants into one grant program. The FMA provides funding to assist states and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the NFIP. The FMA is funded annually; no federal disaster declaration is required. Only NFIP insured homes and businesses are eligible for mitigation in this program. Funding for FMA is very limited and, as with the HMGP, individuals cannot apply directly for the program. Applications must come from local governments or other eligible organizations. The federal cost share for an FMA project is at least 75 percent. For the non-federal share, at most 25 percent of the total eligible costs must be provided by a non-federal source; of this 25 percent, no more than half can be provided as in-kind contributions from third parties. At minimum, a FEMA-approved local flood mitigation plan is required before a project can be approved. The FMA funds are distributed from FEMA to the state. The NMDHSEM serves as the grantee and program administrator for the FMA program.

Building Resilient Infrastructure and Communities (BRIC) Program

Building Resilient Infrastructure and Communities (BRIC) will support states, local communities, tribes, and territories as they undertake hazard mitigation projects, reducing the risks they face from disasters and natural hazards. BRIC is a new FEMA pre-disaster hazard mitigation program that replaces the existing Pre-Disaster Mitigation (PDM) program.

The BRIC program guiding principles are supporting communities through capability- and capacity-building; encouraging and enabling innovation; promoting partnerships; enabling large projects; maintaining flexibility; and providing consistency.

Rehabilitation of High Hazard Potential Dams (HHPD) Program

The Rehabilitation of High Hazard Potential Dams (HHPD) grant program provides technical, planning, design, and construction assistance for eligible rehabilitation activities that reduce dam risk and increase community preparedness.

The HHPD Grant Program will provide assistance for technical, planning, design, and construction activities toward:

- Repair
- Removal
- Structural/nonstructural rehabilitation of eligible high hazard potential dams

Extraordinary Circumstances

For FMA project subawards, the FEMA Region might apply extraordinary circumstances when justification is provided and with concurrence from FEMA Headquarters (Risk Reduction and Risk Analysis Divisions) prior to granting an exception. If this exception is granted, a local mitigation plan must be approved by FEMA within 12 months of the award of the project subaward to that community.

For HMGP, BRIC, and FMA, extraordinary circumstances exist when a determination is made by the applicant and FEMA that the proposed project is consistent with the priorities and strategies identified in the State (Standard or Enhanced) Mitigation Plan and that the jurisdiction meets at least one of the criteria below. If the jurisdiction does not meet at least one of these criteria, the region must coordinate with FEMA Headquarters (Risk Reduction and Risk Analysis Divisions) for HMGP; however, for BRIC and FMA the region must coordinate and seek concurrence prior to granting an exception. The criteria are as follows:

- The jurisdiction meets the small, impoverished community criteria (see Part VIII, B.2 of HMA Unified Guidance).
- The jurisdiction has been determined to have had insufficient capacity due to lack of available funding, staffing, or other necessary expertise to satisfy the mitigation planning requirement prior to the current disaster or application deadline.
- The jurisdiction has been determined to have been at low risk from hazards because of low frequency of occurrence or minimal damage from previous occurrences as a result of sparse development.
- The jurisdiction experienced significant disruption from a declared disaster or another event that impacts its ability to complete the mitigation planning process prior to award or final approval of a project award.
- The jurisdiction does not have a mitigation plan for reasons beyond the control of the state, federally recognized tribe, or local community, such as Disaster Relief Fund restrictions that delay FEMA from granting a subaward prior to the expiration of the local or tribal mitigation plan.

For HMGP, BRIC, and FMA, the applicant must provide written justification that identifies the specific criteria or circumstance listed above, explains why there is no longer an impediment to satisfying the mitigation planning requirement, and identifies the specific actions or circumstances that eliminated the deficiency.

When an HMGP project funding is awarded under extraordinary circumstances, the recipient shall acknowledge in writing to the Regional Administrator that a plan will be completed within 12 months of the subaward. The recipient must provide a work plan for completing the local or tribal mitigation plan, including milestones and a timetable, to ensure that the jurisdiction will complete the plan in the required time. This requirement shall be incorporated into the award (both the planning and project subaward agreements if a planning subaward is also awarded).

Federal and State Disaster and Recovery Assistance Programs

Following a disaster, various types of assistance could be made available by local, state, and federal governments. The types and levels of disaster assistance depend on the severity of the damage and the declarations that result from the disaster event. The following sections detail the general types of assistance that might be provided should the President of the United States declare the event a major disaster.

Individual Assistance (IA)

Individual Assistance (IA) provides help for homeowners, renters, businesses, and some non-profit entities after disasters occur. This program is largely funded by the U.S. Small Business Administration. For homeowners and renters, those who suffered uninsured or underinsured losses could be eligible for a Home Disaster Loan to repair or replace damaged real estate or personal property. Renters are eligible for loans to cover personal property losses. Individuals are allowed to borrow up to \$200,000 to repair or replace real estate, \$40,000 to cover losses to personal property, and an additional 20 percent for mitigation. For businesses, loans could be made to repair or replace disaster damages to property owned by the business, including real estate, machinery and equipment, inventory, and supplies. Businesses of any size are eligible. Non-profit organizations, such as charities, churches, and private universities are eligible. An Economic Injury Disaster Loan provides necessary working capital until normal operations resume after a physical disaster but are restricted by law to small businesses only.

Public Assistance (PA)

Public Assistance (PA) provides cost reimbursement aid to local governments (state, county, local, municipal authorities, and school districts) and certain non-profit agencies that were involved in disaster response and recovery programs or that suffered loss or damage to facilities or property used to deliver government-like services. This program is largely funded by FEMA with both local and state matching contributions required.

Small Business Administration (SBA) Loans

SBA provides low-interest disaster loans to homeowners, renters, businesses of all sizes, and most private nonprofit organizations. SBA disaster loans can be used to repair or replace the following items damaged or destroyed in a declared disaster: real estate, personal property, machinery and equipment, and inventory and business assets.

Homeowners could apply for up to \$200,000 to replace or repair their primary residence. Renters and homeowners could borrow up to \$40,000 to replace or repair personal property—such as clothing, furniture, cars, and appliances that were damaged or destroyed in a disaster. Physical disaster loans of up to \$2 million are available to qualified businesses or most private nonprofit organizations.

Social Services Block Grant Program (SSBG)

The Social Services Block Grant (SSBG) Program, administered by the U.S. Department of Health and Human Services (HHS), provides flexible federal funding to states to support a wide range of social service needs. While SSBG is not a traditional hazard mitigation funding stream, it can play a meaningful supporting role in resilience-building activities, particularly those that strengthen the capacity of vulnerable populations before, during, and after disasters.

Department of Homeland Security Grant Program

The HSGP plays an important role in the implementation of the National Preparedness System by supporting the building, sustainment, and delivery of core capabilities essential to achieving the National Preparedness Goal of a secure and resilient nation. The FY 2020 HSGP supports efforts to build and sustain core capabilities across the Prevention, Protection, Mitigation, Response, and Recovery mission areas. This includes two priorities: building and sustaining law enforcement terrorism prevention capabilities and maturation and enhancement of state and major urban area fusion centers (HSGP 2020). HSGP is comprised of three interconnected grant programs including the State Homeland Security Program (SHSP), Urban Areas Security Initiative (UASI), and the Operation Stonegarden (OPSG). Together, these grant programs fund a range of preparedness activities, including planning, organization, equipment purchase, training, exercises, and management and administration.

Community Development Block Grants (CDBG)

CDBG are federal funds intended to provide low and moderate-income households with viable communities, including decent housing, a suitable living environment, and expanded economic opportunities. Eligible activities include community facilities and improvements, roads and infrastructure, housing rehabilitation and preservation, development activities, public services, economic development, and planning and administration. Public improvements could include flood and drainage improvements. In limited instances and during the times of “urgent need” (e.g., post disaster) as defined by the CDBG National Objectives, CDBG funding could be used to acquire a property located in a floodplain that was severely damaged by a recent flood, demolish a structure severely damaged by an earthquake, or repair a public facility severely damaged by a hazard event.

U.S. Economic Development Administration

The U.S. Economic Development Administration (USEDA) is an agency of the U.S. Department of Commerce that supports regional economic development in communities around the country. It provides funding to support comprehensive planning and makes strategic investments that foster employment creation and attract private investment in economically distressed areas of the United States. Through its Public Works Program, USED A invests in key public infrastructure, such as traditional public works projects, including water and sewer systems improvements, expansion of

port and harbor facilities, brownfields, multitenant manufacturing and other facilities, business and industrial parks, business incubator facilities, redevelopment technology-based facilities, telecommunications facilities, and development facilities. Through its Economic Adjustment Program, USEDA administers its Revolving Loan Fund Program, which supplies small businesses and entrepreneurs with the gap financing needed to start or expand their business in areas that have experienced or are under threat of serious structural damage to the underlying economic base.

Federal Highway Administration-Emergency Relief

The Federal Highway Administration's Emergency Relief (FHWA-ER) Program provides funding to states and local governments for the repair or reconstruction of federal-aid highways and roads damaged by natural disasters or catastrophic failures. While the program is primarily focused on restoring essential transportation infrastructure, it also supports resilience-oriented improvements that reduce future vulnerability. Eligible activities include repairing or replacing damaged roadways, bridges, culverts, and associated infrastructure; implementing protective measures such as slope stabilization, drainage improvements, and erosion control; and incorporating cost-effective resilience enhancements during reconstruction when they are economically justified. FHWA-ER can therefore serve as a valuable funding source for jurisdictions seeking to strengthen critical transportation corridors, reduce repetitive losses, and ensure safe access for emergency response and community lifelines following hazard events.

Federal Transit Administration-Emergency Relief

The Federal Transit Authority Emergency Relief is a grant program that funds capital projects to protect, repair, reconstruct, or replace equipment and facilities of public transportation systems. Administered by the Federal Transit Authority at the U.S. Department of Transportation and directly allocated to MTA and Port Authority, this transportation-specific fund was created as an alternative to FEMA PA.

State Hazard Mitigation Funding Opportunities

The State Capabilities section of the New Mexico Hazard Mitigation Plan includes an overview of mitigation-related funding programs administered by state agencies that eligible jurisdictions can use to support the development and implementation of mitigation actions. A list of available funding opportunities can be accessed here: <https://www.dhsem.nm.gov/grants/>.

New Mexico Economic Development Department (NMEDD)

The New Mexico Economic Development Department administers a variety of financing tools, grants, and incentives that support business development, infrastructure improvements, and community revitalization across the state. Several programs can

indirectly support hazard mitigation by funding infrastructure upgrades, redevelopment of underutilized or hazardous properties, and improvements that strengthen community resilience.

- Infrastructure and Real Estate Development Support. NMEDD programs such as the Local Economic Development Act (LEDA) and the Rural Infrastructure Program can assist communities with infrastructure construction, utility extensions, site development, and redevelopment activities that may reduce vulnerability to hazards or support resilient economic growth.

New Mexico Department of Transportation (NMDOT)

- Damaged Roads and Transportation Infrastructure. High winds, flooding, wildfire burn scar runoff, and severe storms frequently damage state and local transportation systems in New Mexico. NMDOT works with local jurisdictions to repair and replace damaged roads, bridges, culverts, and signals. Some projects may be eligible for FEMA Public Assistance or FHWA Emergency Relief funding, but NMDOT also administers state-level programs that can support transportation resilience and safety improvements.
- Bridge Preventive Maintenance and Resilience Improvements. NMDOT's bridge programs prioritize upgrades to structures that are vulnerable to scour, flooding, or structural deterioration. These efforts help reduce long-term risk to critical transportation corridors, especially in flood-prone or wildfire-impacted watersheds.

Emergency Watershed Protection (EWP) Program – NRCS

The Emergency Watershed Protection Program, administered by the USDA Natural Resources Conservation Service (NRCS), is widely used in New Mexico following wildfire, flooding, and post-fire debris flow events. EWP provides technical and financial assistance to reduce imminent threats to life and property by stabilizing streambanks, removing debris, repairing drainage structures, and implementing erosion control measures. The program is frequently activated in New Mexico due to the state's recurring wildfire and post-fire flooding hazards.

New Mexico Environment Department (NMED)

- Climate and Resilience Initiatives. NMED supports climate adaptation, greenhouse gas reduction, and community resilience through programs such as the Climate Change Bureau, the Water Protection Division, and the Surface Water Quality Bureau. These programs offer technical assistance, planning support, and regulatory guidance that can complement local mitigation efforts.
- Water Quality and Infrastructure Funding. Through the Clean Water State Revolving Fund (CWSRF) and Drinking Water State Revolving Fund (DWSRF), NMED provides low-interest loans and grants for wastewater, stormwater, and drinking water infrastructure projects. Eligible activities include treatment upgrades, non-point source pollution control, source water protection, and infrastructure improvements that reduce vulnerability to flooding, contamination, and drought.

- Water Quality Improvement and Restoration Programs. NMED administers competitive funding for watershed restoration, non-point source pollution reduction, and aquatic habitat improvements. These programs can support mitigation by reducing erosion, improving watershed health, and addressing flood-related water quality impairments.

New Mexico Finance Authority (NMFA)

- Public Project Revolving Fund (PPRF). NMFA provides financing for public infrastructure projects, including water systems, wastewater systems, public buildings, and transportation improvements. Many of these projects can incorporate mitigation measures such as floodproofing, redundancy, or hazard-resistant design.
- Colonias Infrastructure Fund & Water Trust Board Funding. These programs support critical infrastructure in underserved communities, including drainage, water, wastewater, and flood control projects—many of which directly reduce hazard risk.

New Mexico Mortgage Finance Authority (MFA)

- Home Rehabilitation and Repair Programs. MFA administers programs that assist low-income homeowners with essential repairs, energy efficiency upgrades, and rehabilitation of damaged homes. These programs can support mitigation by improving structural safety, addressing wildfire defensible space, and reducing vulnerability to extreme heat or severe weather.

Appendix E- Adoption

The following is a placeholder example as the Plan is processed through approvals and adoption.

<COUNTY/TOWN LETTERHEAD>

CERTIFICATE OF ADOPTION TOWN COUNCIL/COUNTY

COUNTY/TOWN OF XX/NEW MEXICO

A RESOLUTION ADOPTING THE COUNTY OF TOWN OF XXXX HAZARD MITIGATION PLAN 2026 UPDATE

WHEREAS, the County/Town of XXXX established a Committee to prepare the Town/County Hazard Mitigation Plan 2026 Update; and

WHEREAS, the County/Town of XXXX Hazard Mitigation Plan 2025 Update contains several potential future projects to mitigate potential impacts from natural hazards in the County/Town of XXXX, and

WHEREAS, duly-noticed public announcements were published on multiple platforms for public and stakeholder feedback and engagement with feedback incorporated in the HAZARD MITIGATION PLAN, from March 20, 2026 and April 20, 2026 and

WHEREAS, the County/Town of XXXX authorizes responsible departments and/or agencies to execute their responsibilities demonstrated in the plan, and

NOW, THEREFORE BE IT RESOLVED that the County/Town of XXXX COUNCIL adopts the County/Town of XXXX Hazard Mitigation Plan 2026 Update, in accordance with the charter and bylaws of the County/Town of XXXX.

ADOPTED AND SIGNED this Date. _____

Name(s)

Title(s)

Signature(s)

Appendix F- Meeting Notes



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9 July 2025
250011 Taos County HMP Kickoff Meeting

SCHEDULE & ATTENDANCE

ATTENDEE LIST: Bobby Lucero (EM Coordinator - Taos), Mark Ortega (EM Coordinator - Taos), Jacob LaFore (PIO - Taos), Valorie Mondragon (DEM Director - Taos), Jason Silva (Deputy County Manager - Taos), Mark Archuleta (Police Chief - Taos), Stephen Ortega (Taos), Tim Comer (GIS Analyst - Taos), Georgiana Rael (Taos), Troy German (Chloeta), Mallory Darajs (Chloeta), and Lexi Womack (Chloeta)

MEETING NOTES

- Introductions
- Bobby requested that a biweekly IPR (In-Progress Review) meeting schedule be established. Meetings will be held on Wednesdays at 3:00 PM MDT / 4:00 PM CST.
 - Troy noted that meeting notes will be distributed following each session to ensure all stakeholders have a record of discussions and action items.
 - Bobby emphasized that all stakeholders from the Taos County side need to be included in the IPR meeting schedule.
- The data call will include requests for existing plans and relevant documentation.
- In-person meetings are currently planned for Wednesdays, with flexibility to adjust the schedule as needed.
- The current contract is valid through February 1, 2026. Bobby noted that the project is funded through a Homeland Security grant, and if an extension is necessary, the county will submit a request for continued funding.
 - Troy explained that a contract extension may be required depending on the timelines for State and FEMA approvals.
- Troy also presented a client-facing Gantt chart, which Bobby confirmed is acceptable for meeting grant reporting requirements.
- Invoices and financial documentation should be submitted to Bobby, Shannon, and possibly their finance department.
- Bobby stressed the importance of capturing past disaster events that may not currently be documented in the existing Hazard Mitigation Plan (HMP).
- Bobby will reach out to the New Mexico State or local preparedness coordinator and invite them to attend future IPR meetings.



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- Chloeta has created a shared drive to facilitate review and collaboration on documents in development.

DUE OUTS

- Chloeta will send Bobby the initial data call
- Chloeta to set up IPR schedule

The meeting concluded at approximately 1430 MDT / 1530 CST with no additional questions or concerns raised.

06 August 2025

Taos County HMP Bi-Weekly Meeting

SCHEDULE & ATTENDANCE

MEETING NOTES

- Introductions
- Mallory gave a high-level overview of the purpose of an HMP and the associated requirements.
- Mallory and Troy reviewed the approved project work plan and its approval status. It was noted that the project workplan is in the shared drive and available to be viewed. Anyone with concerns or questions can reach out to receive clarification.
- Mallory outlined some of the tasks and roles involved in the HMP. Mallory showed where performance metrics were held to track progress. It was determined committee members need to be defined to finalize committees and plan meetings. Key stakeholders also need to be determined.
 - Bobby emphasized inclusion of the procurement officer and finance director.
- Troy stated he would send a draft outline and a data call list to Bobby. The data call will include requests for existing plans and relevant documentation.
- Scheduling in-person meetings and workshops was discussed
- The Chloeta team will send out a list of dates for in-person meetings and workshops, and determine scheduling based on the normal Wednesday availability dates, with flexibility to adjust the schedules as needed.

DUE OUTS

- Chloeta will provide a list of required documents for Bobby to distribute to stakeholders (data call).
- Chloeta will send the draft outline of the hazard mitigation plan to Bobby for distribution.
- Chloeta will reach out to set up a meeting with Bobby to determine key players for committees and stakeholders.
- Chloeta will send proposed dates for in-person meetings and workshops.
- Bobby will follow up with representatives to ensure attendance or designate attendees to meetings.

The meeting concluded at approximately 1535 MDT / 1635 CST with no additional questions or concerns raised.



06 August 2025

Taos County HMP Bi-Weekly Meeting

SCHEDULE & ATTENDANCE

ATTENDEE LIST: Bobby Lucero (EM Coordinator - Taos), Mark Ortega (EM Coordinator - Taos), Jacob LaFore (PIO - Taos), Jason Silva (Deputy County Manager, Taos), Tim Corner (Town of Taos), Troy German (Chloeta), Bobbie Jackson (Chloeta), Mallory Darais (Chloeta), and Lexi Womack (Chloeta)

MEETING NOTES

- Welcomes
- Mallory discussed the project plan completion and approval from Taos County.
- The draft outline of the HMP was discussed, Bobby L. stated he had reviewed and is fine with approval of the document.
- Mallory discussed the IPR schedule, communication protocol, and sharing information site.
 - Bobby stated he had accessed the sharing site and was able to explore the documents as well as upload new documents.
 - There was a discussion on allowable access to the site. The planning team will be able to view everything within the drive, however only Bobby L. and the Chloeta team will have editing rights to documents within the site.
- Mallory inquired about the status of the surveys. Bobby L. stated that they were distributed on 8/5 to stakeholders and a link was put on the county website for the public. Bobby stated he will send forward the email to the stakeholders for documentation and give website information for documenting public outreach.
- Another data call was mentioned, with Bobby and Mark stating that more plans, policies, and procedures documents have been uploaded to the drive, with more to come.
- Mallory mentioned more meetings will be set up in the next few weeks, specifically planning team, committee meetings, and stakeholder meetings.
- Bobby L. confirmed that the first in-person stakeholder meeting will be on September 23rd. Mallory will get him the timeframe to block off for scheduling. Bobby L. will send Mallory information on location.



- Bobby L. will get Chloeta a point of contact for GIS mapping. Mark stated he could also assist with GIS data.
- The Gantt chart was reviewed to establish milestone tracking. The project is currently on track.

DUE OUTS

- Bobby will follow up with a list of contact information for committees.
- Bobby will forward the stakeholder survey email and the link to the public survey for appropriate documentation.
- Bobby will send information for the county GIS contact.
- Chloeta will send the initial stakeholder meeting timeframe to Bobby.
- Chloeta will evaluate survey submissions for the HMP.

The meeting concluded at approximately 1538 MDT / 1638 CST with no additional questions or concerns raised.



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20 August 2025

Taos County HMP Bi-Weekly Meeting

SCHEDULE & ATTENDANCE

ATTENDEE LIST: Mark Ortega (EM Coordinator - Taos), Glen Berlin (Taos), Heath Dobrovony (Taos), Tim Corner (Taos), Troy German (Chloeta), Bobbie Jackson (Chloeta), Mallory Darais (Chloeta), and Lexi Womack (Chloeta)

MEETING NOTES

- Completed
 - Draft hazard surveys and have been published
 - Initial stakeholder scheduled – September 23
 - Stakeholder public engagement action plan
 - Information gathering
- Working
 - Information gathering
 - CIKR Identification, Assessment, Zoning
 - Will be a worksheet
 - Infrastructure Mapping/GIS
 - Need to connect Chloeta and Taos GIS contacts
 - Capability Assessment
 - Will be a worksheet
 - Mitigation goals and objectives
- Needs
 - Plans, policies and applicable information
 - Only have county and a few City of Taos information
 - Pueblo is its own jurisdiction, but will be included in this HMP
 - GIS POC – Mark will check into this
 - Tim volunteered to be that person if needed, but would prefer if the county could find someone
 - Just need GIS layers to lay over the hazards that Chloeta will be mapping
 - Planning Team (Technical Committee)
 - Steering committee is complete but looking to form a technical committee



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- Encourage survey response
- Capability Assessment Review (Worksheets) by jurisdiction
- Mallory went over the GANTT – project is current about 9% complete
 - Phase 1 is about 80% complete
 - Phase 2 is approximately 40% complete
- Next Steps
 - CIKR Assessments
 - Coc Review
 - Plan Assessment Updates
 - Initial Stakeholder Meeting

• NEXT MEETING SEPTEMBER 3, 1500 MDT / 1800 CST

DUE OUTS

-

The meeting concluded at approximately 1520 MDT / 1620 CST with no additional questions or concerns raised.



3 SEPTEMBER 2025

Taos County HMP Bi-Weekly Meeting

SCHEDULE & ATTENDANCE

ATTENDEE LIST: Bobby Lucero (Taos), Tim Corner (Taos), Troy German (Chloeta), Mallory Dorais (Chloeta), Moriah Stanford (Chloeta) and Lexi Womack (Chloeta)

MEETING NOTES

- Completed
 - Draft/published hazard surveys and have been published
 - Mallory recommended keeping the surveys posted another week or 2. Bobby will make another push to the public and stakeholders
 - Initial stakeholder scheduled – September 23
 - Finalized Stakeholder public engagement action plan
 - Information gathering
 - Draft HMP Template
- Working
 - Information gathering
 - CIKR Identification, Assessment, Zoning
 - Bobby was sent the worksheets and has sent to jurisdictions and does not have an update at this time – will follow up with jurisdictions
 - Infrastructure Mapping/GIS
 - Capability Assessment
 - Mitigation goals and objectives
- Needs
 - Plans, policies and applicable information
 - GIS POC
 - Still need to connect with Taos County GIS. Bobby said he spoke to Planning and Zoning, and they will be hopefully sending over some information
 - Rachel Romero and Runey Herrera are the POCs at this time per Bobby and Bobby will get Mallory their contact information.
 - Planning Team (Technical Committee)



- Individuals who will focus on the technical aspect of HMP. Mallory said that they are usually key decision makers. Mallory will send some ideas of who should be on this committee.
- Encourage survey response
- Capability Assessment Review (Worksheets) by jurisdiction
- Mallory went over the GANTT – project is current about 75% complete
 - Bobby said the Department of Homeland security (who their grant is with) says an extension if needed. Mallory says she feels that we are on schedule as of now but says due to the state and FEMA reviews possibly taking a little longer, we should take the extension.
 - Moriah says the state has a 45-day review period, but FEMA is unpredictable.
- Next Steps
 - Worksheets
 - Documentation Review
 - Technical Committee
 - Initial Stakeholder Meeting (in-person)

• NEXT MEETING SEPTEMBER 17, 1500 MDT / 1600 CST

DUE OUTS

- Mallory to send Technical Committee member recommendations
- Bobby to send Mallory initial stakeholder email for the survey

The meeting concluded at approximately 1620 MDT / 1620 CST with no additional questions or concerns raised.



17 SEPTEMBER 2025

Taos County HMP Bi-Weekly Meeting

SCHEDULE & ATTENDANCE

ATTENDEE LIST: Bobby Lucero (Taos), Mark Ortega (Taos), Mallory Darais (Chloeta), Moriah Stanford (Chloeta) and Lexi Womack (Chloeta)

MEETING NOTES

Updates/Discussions

- Surveys – Surveys have closed. Received 11 public responses and 7 stakeholder responses.
- Assessments – Still awaiting jurisdiction responses. Bobby will provide his worksheets along with Mark's. Mallory will emphasize the importance of completing these at the initial stakeholder meeting.
- Initial Stakeholder Meeting – Scheduled for September 23 (in person).
 - Introduce the HMP and its importance.
- Review identified hazards.
 - Identified Hazards. Bobby approved the current hazards list. Suggestion to add gas/power outage. Mallory clarified that HMPs focus on natural hazards; technological hazards (e.g., power outage) may be addressed under related categories (such as High Wind).
 - Flood
 - Wildfire
 - Severe Winter Weather
 - Pandemic
 - Dam Failure
 - Drought
 - High Wind
 - Landslide/Mudslide/Rockfall
 - Hazards Not Included (low probability). Bobby agreed these should not be incorporated.
 - Earthquake
 - Avalanche – Bobby noted events do occur, but Mallory stated this will be mentioned within the Severe Winter Weather section for Taos Ski Resort.



- Volcanoes
- Extreme Heat
- Land Subsidence
- Follow-Up Information
 - Initial Stakeholder Meeting – September 23
 - GIS POC – Bobby will follow up. Mallory will meet with Chloeta GIS and develop resources.
 - Capability Assessment Worksheets

- NEXT MEETING OCTOBER 1, 1500 MDT / 1600 CST

DUE OUTS

The meeting concluded at approximately 1515 MDT / 1615 CST with no additional questions or concerns raised.



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15 OCTOBER 2025

Taos County HMP Bi-Weekly Meeting

SCHEDULE & ATTENDANCE

ATTENDEE LIST: Bobby Lucero (Taos), Mark Ortega (Taos), Karen Shannon (Taos), Jason Silva (Taos), Troy German (Chloeta), Mallory Darajs (Chloeta), Moriah Stanford (Chloeta) and Lexi Womack (Chloeta)

MEETING NOTES

- Updates/Discussion
 - Stakeholder Meeting follow up
 - Mallory said it went well, and Bobby agreed and said he has not received any comments from stakeholders
 - Hazard Profiles
 - Mallory has been using the hazards that were approved from the stakeholder meeting. She created a geological hazard that includes avalanches due to that being a discussion at the stakeholder meeting. Bobby approved this.
 - Next steps is the inventory and assets for each hazard profile.
 - Assessments
 - Mallory says the next step is jurisdictional meetings and said the worksheets can be discussed at these meetings.
 - Bobby will reach out some proposed dates from the jurisdictions
 - Infrastructures Mapping/GIS
 - This is in progress on the Chloeta side
- Mallory went over the GANTT chart.
 - Phase 1 is complete
 - Phase 2 is in progress (CIQR, infrastructure, mitigation maintenance)
 - Phase 3 is in progress (jurisdiction meetings, hazard mapping, risk assessments)
- Follow up information
 - Jurisdiction meetings
 - Worksheets
 - GIS/Infrastructure Mapping



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- Troy will make sure Bobby has all meeting minutes, will have a paragraph on where Chloeta is on the project, and have an updated GANTT to attach to the quarterly reports.
- Bobby is going to start working on the paperwork for the project extension for the project, just in case it is needed.
- NEXT MEETING OCTOBER 29, 1500 MDT / 1600 CST

DUE OUTS

- Bobby to reach out to jurisdictions to schedule jurisdiction meetings
- Chloeta to continue mapping requests

The meeting concluded at approximately 1515 MDT / 1615 CST with no additional questions or concerns raised.



29 OCTOBER 2025

Taos County HMP Bi-Weekly Meeting

SCHEDULE & ATTENDANCE

ATTENDEE LIST: Bobby Lucero (Taos), Mark Ortega (Taos), Karen Shannon (Taos), Jason Silva (Taos), Jacob LaFlore (Taos), M. Archuleta (Taos), Mallory Darajs (Chloeta), Moriah Stanford (Chloeta) and Lexi Womack (Chloeta)

MEETING NOTES

- Hazard Profiles
 - Completed to the best of Mallory's ability. She is still waiting for the rest of the GIS data and mapping. Once she is able to incorporate those, she will send out for review.
 - Next steps are finishing the inventory and assets. Mallory will do what she can while she is waiting for the rest of the GIS information. The plan is to keep moving forward where she can.
- Mallory is going to get with Troy to go over the timeline for the [infrastructure](#) mapping and GIS data.
- Jurisdiction Meeting
 - Set up for next week.
 - The outline for the meeting consists of reviewing the hazards, defining specific deliverables, a discussion on critical facilities, any local-level mitigation actions projects, discussion of ongoing maintenance they are doing, etc.
- GANTT Chart hasn't changed since the last IPR.

NEXT STEPS:

- Capability assessments
 - Inventory of the missions, programs and policies to identify in the plan.
- Mitigation Workshop
 - Mallory would like to get this on the books. This workshop will be several hours. Mallory is [thinking](#) the first week of December. Bobby is going to check schedules and get some dates sent.
- State HM Officer



- Mallory did reach out to the SHMO to make sure there were no additional state requirements and what the plan submission process will be. He got back with her to let her know that we will submit the plan to them and they will send it to FEMA.

QUESTIONS

- Jason asked what the timeline for the plan submission is. Mallory said as of right now, the plan needs to be submitted by Jan. 31. Bobby did say that he is requesting an extension, so the timeline might shift with this. But as of right now we are on track with the timeline.

DUE OUTS

- Bobby to send Mallory some dates for the mitigation workshop
- Chloeta to continue mapping requests and get ready for the jurisdictional meeting next week.

The meeting concluded at approximately 1521 MDT / 1621 CST with no additional questions or concerns raised.

Taos County Hazard Mitigation Planning Meeting Minutes

Date: November 6, 2025 2:00PM

1. Attendance

The following representatives from Taos County and its participating jurisdictions were in attendance:

| Name | Jurisdiction/Affiliation |
|--------------------------|----------------------------|
| Valerie Vigil | Village of Questa |
| Valerie <u>Mondragom</u> | Town of Taos |
| Mark Ortega | Taos County |
| Bobby Lucero | Taos County |
| Mark Flores | Town of Taos |
| John Ortega | Village of Questa |
| Richard Bellis | Village of Taos Ski Valley |

2. Emerging Hazard Identification and Coordination

Green Hydrogen Project Discussion (Kit Carson Electric - KCE)

- Report: Bobby Lucero reported on upcoming Green Hydrogen projects planned by Kit Carson Electric in Questa, the Town of Taos, and Picuris.
- Hazard Concern: The group discussed if these projects introduce new hazards to Taos County.
- Finding: The primary area of concern would be Questa. The Taos location (near the water treatment plant and solar arrays) presents minimal threat to life and property.
- Action Item: KCE will provide specific project information to Bobby Lucero. The planning team will determine if the hydrogen projects warrant formal incorporation into the County's Emergency Operations Plan (EOP) and Threat, Hazard, and Risk Assessment (THRA) documents.

Jurisdictional Capabilities and Plans

- Town of Taos: Currently working on a comprehensive emergency plan but does not have a final, implemented plan in place yet. The Town is seeking ways to evolve and create greater emergency management capabilities and would require funding to complete this project. Town staff (Mark Flores) holds monthly emergency management team meetings for coordination.
- Village of Questa: Any substantial mitigation projects would require contracting out. The EMS department is consolidating and merging with Fire/EMS services. Administrative support during large-scale disasters would be limited.

3. Hazard Prioritization and Vulnerabilities

The following primary hazards and vulnerabilities were identified by jurisdictional representatives:

| Jurisdiction | Identified Hazards | Vulnerabilities |
|-------------------|---|--|
| Village of Questa | Wildland Fires, Snow Squalls / Extreme Cold Weather | High elderly population requiring Durable Medical Equipment (DME) and need for centralized, powered community shelter. |
| Town of Taos | Dam Failure, Wildfires (in-migration), Flooding | Vulnerability of critical facilities (Dam/Wastewater Treatment). |
| Taos Ski Valley | Wildfire, Avalanche (Winter), Blocked Egress | Single point of ingress/egress creates a high risk; only current plan is Shelter in Place for potentially thousands of people in winter. |
| County Wide | Wildfire In-Migration from neighboring areas, Changing Weather Patterns, Extreme Cold | Influx of unhoused individuals requiring severe weather sheltering; Gas Outage risk (impactful in 2011). |
| Infrastructure | Roadways with continual mudslides and areas of repeated damage. | |

4. Critical Facilities and Community Needs

Critical Infrastructure:

- Wastewater treatment facilities.
- Water wells (to assure good flow of water).
- Town of Taos Water Treatment and Sewage Treatment Centers.
- Town of Taos Airport.

Sheltering and Continuity of Care:

- County Gap: The County does not have backup generators for designated shelter locations.
- Questa Shelter Needs: Needs a designated, safe location (school or village facility) that can be kept operational. The fire house could accommodate approximately 30 people in an emergency.
- DME/Vulnerable Populations (Questa): Due to the high elderly population, EMS and Fire are working on conducting a census of community members requiring DME (such as oxygen tanks) to ensure accommodation during power outages.
- Town of Taos: Senior living center and the hospital (currently has backup generators) must remain operational.

5. Proposed Mitigation Actions

High-Priority Mitigation Actions (General):

1. Acquire backup generators for designated county shelter locations.
2. Assure that evacuation centers are in place (specifically for the Village of Questa).
3. Document and map areas of repeated damage (e.g., flood zones, mudslide-prone roadways).
4. Reinforce and double-check dams (e.g., Las Cruces Dam).
5. Increase the frequency and scope of wildland thinning and prescribed burn projects (noting progress is slow, and fire seasons are longer).

Jurisdictional-Specific Mitigation Actions:

| Jurisdiction | Proposed Action | Note |
|--------------|--|--|
| Questa (DME) | John Ortega is exploring a grant for battery storage/backup at fire departments to support individuals w/ durable medical equipment (DME). | Batteries could potentially be sold back to KCE in a non-emergency scenario. |

| | | |
|-----------------|---|--|
| Taos Ski Valley | Develop a backup escape route to address the single point of entry/exit. | Overgrowth and changes in terrain have removed the secondary route option. |
| Taos Ski Valley | Pre-stage fire retardant to enable shorter runs from helicopters during wildfire events. | Steep slopes make traditional thinning expensive; burning season is constrained. |
| Taos Ski Valley | Support KCE Microgrid proposals (lithium storage) to provide up to 8 hours of emergency power and act as a surge protector. | Federal funding for KCE microgrid proposals has fallen through, requiring alternative funding pursuit. |
| Town of Taos | Address ongoing issues with the Las Cruces Dam which manages water runoff from torrential downpours. | Continual discussion is needed on how to address associated issues. |



7 JANUARY 2026

Taos County HMP Bi-Weekly IPR Meeting

SCHEDULE & ATTENDANCE

ATTENDEE LIST:

- Taos: Bobby Lucero, Jacob LaFlore, Jason Silva, Valerie Vigil, Karen Shannon
- Chloeta: Mallory Darais, Moriah Stanford, Troy German

MEETING NOTES

- Mallory mentioned that the mitigation strategies are written and she is working on the individual jurisdictional information. She feels that the plan is coming to a close.
- Mallory mentioned that the Mitigation Workshop was a success and she received a lot of information from participants.
 - The worksheets for mitigation actions used at the workshop have been incorporated into the plan as the new hazard actions for Taos County.
- Mallory mentioned that she still needs some information from the county assessor. She sent an email and spoke with someone prior to the holidays but has not heard back.
 - Bobby said he will reach out to them and try to get her this information.
 - Mallory needs information relating to the code enforcements, total assessed evaluation of structures, and loss evaluation. Any information they can provide will be valuable.
- Mallory mentioned that the Public Outreach portion of the plan has been written.
- Mallory asked if they use social media and if anything has been posted via social media during the planning process. She also asked if the survey was posted on social media as well as the website.
 - Bobbie says he believes it was just posted on the website.
- Mallory asked if Bobby would like the invite for the public review of the plan to be posted on Facebook as well as their website.
 - Bobby says he would like it to be posted on both.
- Mallory would like to take pieces of the plan to send to them for review before the full draft is sent for review.
 - Bobby said he is good with her sending them to him for review.



- Mallory mentioned that she needs information on any projects that have been accomplished since 2018 that were mitigation-related.
 - Karen said she will send a list relating to the business park projects.
 - Bobby will send information on any additional projects he can think of.
- Bobby said he received the information for the quarterly report.
- Bobby asked if the public review is 30-days.
 - Mallory said yes. She mentioned that the plan will go to Troy and Moriah for review, then to Bobby for their review. Mallory will make any necessary edits after each of these reviews and once all edits have been made, the plan will be sent to the state for review.
- Bobby requested an extension through the state for this project but has not heard anything back yet.

NEXT STEPS:

- Assessor information
- Jurisdictional hazard portions of the plan draft
- Mapping, specifically for the participating jurisdictions
- Plan Draft Review



21 JANUARY 2026

Taos County HMP Bi-Weekly IPR Meeting

SCHEDULE & ATTENDANCE

ATTENDEE LIST:

- Taos: Bobby Lucero
- Chloeta: Mallory Darais, Moriah Stanford, Troy German

MEETING NOTES

- Mallory mentioned that the jurisdictional annexes have been sent to Bobby.
 - Bobby said that he has sent those out to each jurisdiction for review. He has not received any responses yet, but he will follow up with each jurisdiction to see if he can get responses back by the end of the week if possible.
- Mallory mentioned that the full plan draft is under technical review. All completed sections minus the mapping components are included in this review. She also mentioned that she is hoping to have maps by next week.
- Mallory mentioned that she is still waiting on the additional assessor information.
 - Bobby said that the assessor information will be sent as soon as possible. His contact is working to get more in depth information for the rest of the information requested.
- Next steps will include Troy's review and then it will be sent to Bobby for their review. Following that will be the Public review period.
- Mallory mentioned that the proposed outreach strategy for the public review is currently Facebook and engaging through their emergency management website. She asked if there are any other avenues Bobby would like to use.
 - Bobby said he would like to do an advertisement in their local newspaper.
- Mallory mentioned that she is hoping to have a reviewable product to Troy sometime next week, and then they will be able to move forward with the client review.
- Once the client review is over and all request edits have been made, then the plan will be posted for public review.
- Bobby said he will start working on his end to get the advertisement for the public review started.



- Bobby said he will reach out to his contact as a follow up for the remaining assessor information.
- Bobby also mentioned that he has reached out to the state requesting the planning grant extension. He is just waiting to hear back from them to move forward.

NEXT STEPS:

- Assessor information
- Jurisdictional annex reviews
- Mapping
- Plan Draft Review

The meeting concluded at approximately 1510 MDT / 1610 CST with no additional questions or concerns raised.

References

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- ThinkHazard.org – Taos Landslide Susceptibility Report
- HazardDB profiles for Taos and Red River
- Taos Ski Valley Avalanche Hazard Mapping Report (2023)
- KRQE News – Avalanche fatalities and hazard map updates (2019–2023)
- Taos County Hazard Mitigation Plan (2018)
- HazardDB profiles for Taos and Red River
- NOAA Storm Events Database
- USGS Historical Flooding Reports
- Local news archives and municipal emergency management updates
- Info from the 2019-2023 American Community Survey
- FEMA Flood Insurance Study for Taos County, NM (Effective October 6, 2010)
- Town of Taos Council Presentation on Floodplain Management (2019)
- Red River Flood Damage Prevention Ordinance
- NFIP Summary of Coverage – FEMA
- NM Office of Superintendent of Insurance – Flood Insurance Guidance
- FEMA Community Status Book – NFIP Participation
- Taos County Emergency Management Office
- Taos County Floodplain Management Program
- Town of Red River Emergency Services & Public Safety
- Town of Red River Flood Damage Prevention Ordinance
- FEMA Glossary: Critical Facility Definition
- NOAA Storm Events Database – Taos County
- USFS Carson National Forest – Midnight Fire (2020) Incident Reports
- New Mexico Drought Monitor (2021–2022)
- NMDOT Road Closure Archives (NM-38, NM-522)
- USGS Earthquake Catalog – 2002 M5.1 Event
- Questa del Rio News – 2025 Mid-October Storm Coverage
- Taos News – Regional Flooding & Monsoon Impacts (2015, 2025)
- Columbine–Hondo CWPP – WUI Fire Risk Documentation
- Village of Questa COVID-19 Emergency Declaration (2020)
- Village of Questa Comprehensive Plan (2009)
- Village of Questa Zoning Ordinance (2004; amended periodically)
- Village of Questa Subdivision Regulations (2004)
- Village of Questa Flood Damage Prevention Ordinance (2010)
- Village of Questa Water System Master Plan (2018)
- Village of Questa Wastewater System Master Plan (2017)
- Village of Questa Capital Improvements Plan (CIP) (updated annually)
- Village of Questa Emergency Operations Plan (2015; coordinated with Taos County)
- Village of Questa Economic Development Plan (2013)
- Village of Questa Downtown Revitalization Plan / Questa MainStreet Projects (2014–2022)

- Rio Grande del Norte National Monument Resource Management Plan (BLM)
- Columbine–Hondo Wilderness Management Plan (USFS)
- Red River Watershed Restoration Plans (various phases; USFS, Trout Unlimited, local watershed groups)
- Cabresto Lake & Cabresto Creek Watershed Assessments
- Upper Rio Grande Watershed Management Plans
- Enchanted Circle Regional Planning Documents (transportation, tourism, recreation)
- Census Reporter-Taos Ski Valley Profile
- Data USA-Taos Ski Valley
- Village of Taos Ski Valley Official Website
- Hometown Locator-Taos Ski Valley
- Village of Taos Ski Valley – Official Website
- Taos Ski Valley Resort – Resort Overview
- ProStar / PointMan Utility Mapping Announcement
- U.S. Census Bureau – Taos Ski Valley Profile
- Holy Cross Hospital – Taos, NM
- Village of Taos Ski Valley – Official Website (2024)
- Village of Taos Ski Valley Comprehensive Plan (2010)
- Taos County Emergency Management – County EOP Update (2023)
- New Mexico Construction Industries Division – State Building Code Adoptions (2021)
- Taos Ski Valley Resort – Mountain Operations Information (2024)
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- Taos County Floodplain Management Program (2024)
- SnowOps Magazine – ProStar Utility Mapping Adoption (2023)
- First Street Foundation – Taos Ski Valley Flood Risk Report (2024)
- Holy Cross Hospital – Taos, NM (2024)
- Kit Carson Electric Cooperative – Infrastructure Overview (2024)
- FEMA National Flood Insurance Program – Community Status Book (2025)
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- Village of Taos Ski Valley Flood Damage Prevention Ordinance (2015)
- First Street Foundation – Flood Risk Data for Taos Ski Valley (2024)
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- New Mexico Avalanche Center Annual Reports (1990–2025)
- Taos News Archives (2019)
- InciWeb – Midnight Fire Incident (2020)
- USFS Carson National Forest Fire History (1996–2020)

- NMDOT Road Closure Archives (2006, 2013, 2010)
- NOAA Storm Events Database – Taos County (1990–2025)
- Taos Ski Valley Resort Operations & Safety Logs (1990–2025)
- Backcountry Magazine – “Two skiers die after inbounds avalanche in Taos, New Mexico” (2019)
- Teton Gravity Research – “Taos Names Ski Runs After Two Skiers Who Died in 2019 Avalanche” (2020)
- Outside Online – “An In-Bounds Avalanche at Taos Killed Two Skiers” (2019)
- KOAT 7 – “Cause of deadly avalanche remains unknown” (2019)
- The Weather Channel – “Taos Ski Valley Avalanche in New Mexico Kills Skier, Critically Injures Another” (2019)
- U.S. Census Bureau – Taos, NM Profile (2024)
- Town of Taos Official Website (2024)
- Taos Regional Airport – Facility Overview (2024)
- National Park Service – Taos Pueblo World Heritage Listing (2024)
- New Mexico Department of Transportation – Route Information (2024)
- U.S. Census Bureau – Red River, NM Profile (2024)
- Town of Red River Official Website (2024)
- Red River Ski & Summer Area – Resort Overview (2024)
- New Mexico Department of Transportation – Route 38 Information (2024)
- Enchanted Circle Scenic Byway – Tourism Overview (2024)
- 1 U.S. Census Bureau – Taos Town QuickFacts (2024): [link](#)
- 2 Wikipedia – Town of Taos, NM (2024): link
- 4 Census Reporter – Red River, NM Profile (2023): [link](#)
- 3 Wikipedia – Town of Red River, NM (2024): link
- 6 Red River NM – Housing & Economic Development Report (2022): [link](#)
- 5 Data USA – Red River, NM Profile (2023): [link](#)
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