Town of Mammoth Lakes Jurisdictional Annex Date | Draft One





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Town of Mammoth Lakes

The Town of Mammoth Lakes has demonstrated its commitment to a comprehensive mitigation program by developing a separate jurisdiction-specific annex for inclusion in this plan. This annex is intended to be read in conjunction with the base plan, where more general information such as hazard descriptions, extent, and location can be found. The annex has been amended from the last plan update to reflect changes in priority including meeting the new FEMA's Local Mitigation Planning Policy Guide (April 11, 2025) requiring public and stakeholder outreach, jurisdiction-specific vulnerabilities, community lifelines, expanded mitigation capabilities, and NFIP assessments. The following is intended to clarify what, if any, unique considerations and differences there are between the plan participants hazards and mitigation capabilities. Further, this annex documents the selected mitigation actions for Town of Mammoth Lakes.

Town of Mammoth Lakes Participation

This plan was developed through a collaborative planning process including Mono County, the Town of Mammoth Lakes, the participating special districts, many stakeholders, and the public. An important part of the plan update is documenting the planning process itself, including who represented which plan participant. The Town of Mammoth Lakes was represented during the plan update process by the individuals listed in Table 1.

Table 1: Town of Mammoth Lakes Representatives in the Planning Process

Name	Title	Organization/Department	
Pam Kobylarz	Assistant to the Town Manager	Town of Mammoth Lakes	
Haislip Hayes	Public Work Director	Town of Mammoth Lakes	
Amy Callanan	Engineering Manager	Town of Mammoth Lakes	
Betsy Truax	Vice President of Community Engagement	Mammoth Lakes Tourism	
Bill Sauser	Council Member	Town of Mammoth Lakes	
Brent Truax	Council Member	Town of Mammoth Lakes	
Christina Ackerman	Assistant to the Chief/Public Information Officer	Town of Mammoth Lakes - Police Department	
Dan Casabian	Police Chief	Town of Mammoth Lakes - Police Department	
Jason Heilman	Sergeant	Town of Mammoth Lakes - Police Department	

Name	Title	Organization/Department
Michael Vanderhurst	Chair	Mammoth Lakes Planning and Economic Development Commission
Mike Martinez	IT Director	Town of Mammoth Lakes/Mono County
Nolan Bobroff	Community and Economic Development Director	Town of Mammoth Lakes
Rob Patterson	Town Manager	Town of Mammoth Lakes
Sierra Waugh	Deputy Airport Manager	Town of Mammoth Lakes
Soibian Spring	Manager – Mammoth Yosemite Airport	Town of Mammoth Lakes
Stuart Brown	Public Information Officer	Town of Mammoth Lakes

Local Stakeholder Involvement

Stakeholders, including local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development, neighboring communities, representatives of businesses, academia, other private organizations, nonprofit organizations, and community-based organizations, were invited to participant in the plan update. A full list of stakeholders is included in the base plan. Table 2 lists at least one stakeholder per required stakeholder type that work in or have knowledge of the Town of Mammoth Lakes. Stakeholders were invited to participate by attending two meetings on the Risk Assessment and Mitigation Strategy, attending focused stakeholder meetings, completing the draft stakeholder survey, and reviewing the draft plan.

Table 2: Local Stakeholders

Name	Description	Stakeholder Type
Whitebark Institute	Non-Profit Organization dedicated to reducing wildfire risk and enhancing sustainability in Eastern Sierra Forests	Representatives of nonprofit organizations, including community-based organizations
Mammoth Mountain Ski Area/Mammoth Resorts	Mammoth Lakes Hospitality Industry Representatives	Representatives of businesses, academia, and other private organizations
Southern California Edison	Utility Company	Representatives of businesses, academia, and other private organizations

Name	Description	Stakeholder Type
Eastern Sierra Avalanche Center (ESAC)	Provides information and education on avalanche conditions for Eastern Sierra Region	Representatives of nonprofit organizations, including community-based organizations
TOML Council	Town of Mammoth Lakes Council Member, Elected to represent constituents.	Agencies that have the authority to regulate development
TOML Community and Economic Development	Community Economic Development, Housing Coordination	Agencies that have the authority to regulate development
TOML Police	Public Safety for TOML	Local and regional agencies involved in hazard mitigation activities
TOML Community Engagement	Sustainable tourism and community engagement	Agencies that have the authority to regulate development
Mammoth Yosemite Airport	Aviation/Airport Management	Representatives of businesses, academia, and other private organizations
TOML Engineering Services Department	Engineering services division of Town of Mammoth Lakes	Local and regional agencies involved in hazard mitigation activities
Mono County	County that surrounds Town of Mammoth Lakes on all sides.	Neighboring Community
Mammoth Geothermal Complex (Ormat)	Geothermal Power Station	Representatives of businesses, academia, and other private organizations

Public Engagement

The public was also encouraged to participate in the plan update process. Members of the public were provided the opportunity to participate in the planning process through a digital survey, flyers, and public meetings. The Town of Mammoth Lakes share the information on the town's website and post the flyer in public spaces. Public feedback was incorporated into the risk assessment and mitigation strategy sections.

Jurisdiction-Specific Hazards and Vulnerabilities

The risk assessment identifies and analyzes the hazards of concern in the planning area. The full risk assessment is included in the base plan. Where differences exist, they are noted in this annex.

Jurisdictional Risk Differences

Each plan participant was asked to consider how their risks and vulnerabilities compare to the overall planning area. To calculate these differences, participants ranked their unique vulnerabilities utilizing the following Calculated Priority Risk Index (see Table 3).

Table 3: Calculated Priority Risk Index

Risk Index Factor	Degree of Risk Level		Criteria	Factor Weight for Degree of Risk Level
Probability of Future Events		Unlikely	Less than 1% probability of occurrence in the next year or a recurrence interval of greater than every 100 years	30%
	2	Occasional	1%–10% probability of occurrence in the next year or a recurrence interval of 11–100 years	
		Likely	11%–90% probability of occurrence in the next year or a recurrence interval of 1–10 years	
	4	Highly Likely	91%–100% probability of occurrence in the next year or a recurrence interval of less than 1 year	
Spatial Extent (Geographic coverage) How large of an area	1	Limited	Less than 10% of the planning area could be impacted.	20%
could be affected by the specific hazard?		Small	10%–25% of the planning area could be impacted.	
	3	Significant	25%–50% of the planning area could be impacted.	
	4	Extensive	50%–100% of the planning area could be impacted.	
Severity of Life/Property Impact	1	Negligible	Less than 5% of the affected area's critical and non-critical facilities and structures are damaged or destroyed. Only minor property damage and minimal disruption of life. Temporary shutdown of critical facilities.	30%

Risk Index Factor	Degree of Risk Level		Criteria	Factor Weight for Degree of Risk Level
	2	Limited	Greater than 5% and less than 25% percent of property in the affected area is damaged or destroyed. Complete shutdown of critical facilities for more than one day but less than one week.	
	3	Critical	Greater than 25%, but less than 50% of property in the affected area was damaged or destroyed. Complete shutdown of critical facilities for over a week but less than one month.	
	4	Catastrophic	Over 50% of critical and non- critical facilities and infrastructures in the affected area are damaged or destroyed. Complete shutdown of critical facilities for more than one month.	
Warning Time (Warning time	1	Self-defined	More than 24 hours	10%
refers to the duration between the	2	Self-defined	12–24 hours	
moment a warning is issued for an impending threat or disaster	3	Self-defined	6–12 hours	
and when the threat or disaster occurs. Having more warning time allows for better emergency preparations and public information dissemination.)		Self-defined	Less than 6 hours	
Duration (The span of time local,	1	Brief	Up to 6 hours	10%
state, and/or federal assistance		Intermediate	Up to one day	
will be necessary to prepare for, respond to, and recover from a	3	Extended	Up to one week	
potential disaster event.)	4	Prolonged	More than one week	

Risk Factor Equation

RF Value = [(Probability x .30) + (Spatial Extent x .20) + (Severity of Life/Property Impact x .30) + (Warning Time x .10) + (Duration x .10)]

Hazards identified as having as risk factor value greater than or equal to 2.5 are considered high risk. Risk factors ranging from 2.0 to 2.4 are considered moderate risk hazards. Hazards with a risk factor value less than 2.0 are considered low risk. The highest possible risk factor value is 4. The calculated priority risk index for Town of Mammoth Lakes is presented in Table 4.

Table 4: Calculated Priority Risk Index for Town of Mammoth Lakes

Type of Hazard Event	Probability of Future Events	Spatial Event	Severity of Life/Property Impact	Warning Time	Duration	Risk Factor Value
Avalanche	2	1	4	4	1	2.5
Dam Failure	1	1	1	1	3	1.2
Disease and Pest Management	2	3	2	2	3	2.3
Drought	2	3	2	4	1	2.3
Earthquake and Seismic Hazards	2	3	З	1	4	2.6
Energy Shortages and Energy Resiliency	3	3	1	4	3	2.5
Epidemic/Pandemic	1	4	1	4	4	2.2
Extreme Heat	1	3	1	2	1	1.5
Flood	1	1	1	4	1	1.3
Landslide	1	1	2	2	1	1.4
Hazardous Materials	1	1	1	1	1	1
Severe Wind	3	3	2	3	3	2.7
Severe Winter Weather and Snow	3	3	2	1	4	2.3
Volcanoes	1	3	3	1	2	2.1
Wildfire	3	3	4	3	4	3.4
Wildlife Collisions	4	1	1	4	1	2.2

Past Hazard Events

The plan must present the history of hazards events. While the past cannot predict the future, especially as climate change is causing more frequent and intense events, it can give an idea of what might happen and what is at risk. The base plan provides a description of general state and Federal Emergency Management Agency (FEMA) previous hazard occurrences. The plan participants were asked to provide additional information on hazards that have impacted them, if any. Table 5 lists these hazard events of local significance.

Table 5: Previous Disaster Impacts for Town of Mammoth Lakes

Type of Hazard Event	FEMA Disaster # (If Applicable)	Date(s)	Damage or Impacts	Description
Avalanche	N/A	Annually	Multiple events with no damage or impacts ¹	Avalanche activity regularly reported https://www.esavalanche.org/observations/
Dam Failure	N/A	N/A	N/A	N/A
Disease and Pest Management	N/A	N/A	N/A	N/A
Drought	N/A	July 8, 2021	N/A	Governor Newsom Extends Regional Drought State of Emergency to Include Mono County. https://www.monocounty. ca.gov/sites/default/files/fileattachments/county ad ministration/page/31650/ pr droughtdeclaration 07 .08.21_final.pdf
Earthquake and Seismic Hazards	None	May 25, 1980	Broken windows and water mains, damage to residential structures and public structures	A 6.0 earthquake occurred near Mammoth Lakes
Energy Shortages and Energy Resiliency	N/A	N/A	N/A	N/A
Epidemic/Pandemic	DR-4482	2020–2023	Infections	Local Emergency related to the COVID-19 pandemic declared by the county health officer on March 15, 2020
Extreme Heat	N/A	N/A	N/A	N/A
Flood	N/A	N/A	N/A	N/A
Landslide	N/A	N/A	N/A	N/A

¹ Eastern Sierra Avalanche Center, 2025, "Recent Avalanche Observations Portal - September 1, 2024 to May 19, 2025" https://www.esavalanche.org/observations/#/view/avalanches?startDate=%222024-09-01%22&endDate=%222025-05-19%22&season=2025&impacts=[%22Humans+Caught%22]

Type of Hazard Event	FEMA Disaster # (If Applicable)	Date(s)	Damage or Impacts	Description
Hazardous Materials	N/A	N/A	N/A	N/A
Severe Wind	N/A	N/A	N/A	N/A
Severe Winter Weather and Snow	EM-3592-CA	Dec 2022- April 2023	Structural collapses and propane explosions ²	Severe winter storms and snow fall exceeding normal seasonal levels, prompting emergency activation ³
Volcanoes	N/A	N/A	N/A	N/A
Wildfire		Sept. 4, 2020	The Creek Fire was a large wildfire which started on September 4, 2020 near Shaver Lake, California. The fire burned 379,895 acres (153,738 ha).	The Creek Fire was a large wildfire which started on September 4, 2020 near Shaver Lake, California. The fire burned 379,895 acres (153,738 ha) and was declared 100% contained on December 24, 2020. The Creek Fire was the fourth-largest wildfire in modern California history, and the largest single fire not part of a greater complex. This fire caused poor air quality in Mammoth Lakes and endangered back country hikers.
Wildlife Collisions	N/A	N/A	N/A	N/A

⁻

² Town of Mammoth Lakes. "22/23 Winter Storms After-Action Reports," April 2024. https://www.townofmammothlakes.ca.gov/DocumentCenter/View/14208/MammothLakes WinterStorms-AAR FinalDraft 052624.

³ Town of Mammoth Lakes. "22/23 Winter Storms After-Action Reports," April 2024. https://www.townofmammothlakes.ca.gov/DocumentCenter/View/14208/MammothLakes WinterStorms-AAR FinalDraft 052624.













Figure 1: 2022–2023 Winter Storm Photographs in the Town of Mammoth Lakes

Jurisdiction-Specific Vulnerabilities

The plan participants also evaluated their specific vulnerabilities to each of the hazards affecting the overall planning area. Assets were determined by the community. Asset types may differ between plan participants, including the following:

• People (residents, workers, visiting populations, and socially vulnerable populations like seniors, individuals with disabilities, lower-income individuals, etc.)

- Structures (residential, commercial, industrial, government-owned, planned capital improvement, etc.)
- Economic assets (major employers, primary economic sectors, key infrastructure like telecommunications networks, etc.)
- Natural, historic, and cultural resources (areas of conservation, parks, critical habitats, community centers, historic places, etc.)
- Critical facilities and infrastructure (hospitals, law enforcement, water, power, transportation systems, etc.)
- Community activities (major local events, such as festivals, or economic events, like farming or fishing)

The following problem statements describe the unique jurisdiction-specific vulnerabilities of Town of Mammoth Lakes. Where no unique considerations are noted, it can be assumed the information included in the base plan also applies to Town of Mammoth Lakes.

Avalanche

- **Location:** The southwestern part of the town located east and downslope of Mammoth Pass is at high risk due to steep terrain, geological features, orientation, and prevailing winds that contribute to avalanche conditions.
- **Extent:** Based on historical occurrences, the planning area can expect to experience D2 avalanche sizes as a worst-case scenario.
- **Impacts**: Damage to several areas in town, including homes in the Sherwin Range and Knolls neighborhoods, face the risk of avalanche damage. Also, the Mammoth Mountain Ski Resort ski lifts and lodges that are vulnerable to runout paths originating from Mammoth Mountain, which could impact the local economy and thousands of visitors on the slopes when avalanche risk is high.
- Jurisdiction-Specific Vulnerabilities:
 - Private homes and businesses located in the southwestern part of town are vulnerable to avalanche events.
 - > Visitors to the ski slopes are vulnerable to avalanches in high-risk areas.
 - > The local economy is primarily tourism-based, including skiing.
 - Lake Mary Road is at risk of avalanche damage from the nearby Mammoth Mountain and Mammoth Pass.

Dam Failure

• **Location:** Mammoth Creek, which drains the Mammoth Lakes Basin containing over a dozen lakes, including the three dammed lakes, collects water from the Sierra crest and flows downstream through Lake Mary, Lake Mamie, and into Twin Lakes. The creek exits the Mammoth Lakes Basin at the outlet of Twin Lakes and continues along the southern edge of the Town of Mammoth Lakes.

- **Extent:** None of the dammed lakes in Mammoth Lakes Basin considered high or significant risk dams, however urbanized flooding from any level of dam failure could occur.
- **Impacts**: A failure of any of these dams could lead to significant flood inundation within the urban area of Mammoth Lakes, potentially impacting numerous structures along the creek. In addition, a decline in tourism, critical for the area's economy, can occur if flooding deters visitors

Jurisdiction-Specific Vulnerabilities:

- > Critical facilities, homes and businesses located near the outlet of Twin Lakes and the southern edge of the town may be vulnerable to inundation from dam failure.
- > The local economy is large tourism-based which could be impacted by widespread street flooding if roads become unsafe.
- > Data limitations exist, indicating there may be an additional unknown level of risk to this hazard.
- > Residents on the eastern section of Mammoth Lakes downstream from Twin Lakes are most vulnerable from flooding from dam failure.

Disease and Pest Management

- Location: The entire planning area.
- **Extent:** Based on historical occurrences, the Disease Severity Scale for Town of Mammoth Lakes indicates a moderate susceptible/disease score 5. Pine mortality caused by the mountain pine beetle (*Dendroctonus ponderosae*) has remained high.
- **Impacts**: Diseases and pests can impact local water systems, agriculture, and natural resources like forests. There have been confirmed cases of avian influenza and hantavirus infections in Town of Mammoth Lakes that has impacted public health resources.

Jurisdiction-Specific Vulnerabilities:

- Water systems could be vulnerable to specific disease and pests. Recent detections of avian influenza in wastewater highlight the importance of surveillance in understanding and managing outbreaks.
- Community activities, especially those in natural settings are vulnerable to decline as health concerns over pest-related diseases emerge, potentially leading to reduced participation in outdoor recreation.
- Hantavirus can cause illness and potentially death for those who come into contact with rodents or rodent droppings. This particularly impacts cleaners and domestic workers who are at higher risk of coming in contact with rodent droppings.

Drought

- Location: The entire Town is susceptible to drought.
- **Extent:** Based on historical data, the Town of Mammoth Lakes can expect to experience Exceptional Drought (D4) as a worst-case scenario.
- **Impacts**: Drought can result in economic and environmental impacts, including reduced snowpack and groundwater supply. In the Town, related economic activities including tourism may be disrupted by prolonged drought. Water systems can also be impacted due to increased strain on the system.

Jurisdiction-Specific Vulnerabilities:

- > Tourist economy for the town is vulnerable to the impacts of drought economically, as it is near ski resorts, parks, and lakes that can be directly impacted from reduced precipitation.
- Water systems are vulnerable. The Town receives water through the Mammoth Community Water District, which may necessitate water conservation measures or a switch from surface water to groundwater during prolonged drought conditions.
- > Older residents may lack efficient cooling systems and face health risks from elevated temperatures and lack of water.

Earthquake and Seismic Hazards

- Location: The entire town can experience intense ground shaking from earthquake and seismic activity.
- **Extent:** Depending on the scenario, according to the Modified Mercalli Intensity Scale, the Town can expect to experience shaking levels ranging from IV Light to VII Very Strong.
- **Impacts**: Damage to buildings and critical facilities, people in the vicinity of weak structures. Critical infrastructure, including medical, communications, power, and transportation community lifelines can be impacted. Severe damage to popular tourist attractions could impact the local economy.

Jurisdiction-Specific Vulnerabilities:

- > The Town of Mammoth Lakes is located in the vicinity of the Antelope Valley fault, the Hilton Creek Fault, White Mountains Fault and the Fish Lake Valley Fault, making the area prone to earthquakes.
- > Structures, including critical facilities, are likely at risk to seismic activity due to their age. However, data limitations exist, indicating further need to study this vulnerability.
- Depending on the location and size of the event, transportation routes in and out of the community may be cut off.
- A largescale event could put a strain on local housing and medical capacities. The time of the year may influence the vulnerability of the community as during peak tourism season, large quantities of visitors who may have only intended to stay for the day could be trapped without adequate food, water, and shelter.

- > The local economy is vulnerable to the long-term effects of an earthquake.
- People living in vehicles or temporary housing may lack structurally sound shelter and communications access.

Energy Shortages and Energy Resiliency

- Location: Energy emergencies can affect any part of the planning area.
- **Extent:** Based on historical occurrences, the Town can expect to experience regular intervals of power outages that cause service disruptions.
- **Impacts**: Loss of power to local homes and businesses can impact daily life and the local tourist economy. Prolonged power outages could lead to loss of life and deterioration of health conditions for individuals dependent on life-sustaining medical equipment dependent on electrical power.

Jurisdiction-Specific Vulnerabilities:

- All of the town's critical facilities are vulnerable to the effects of frequent and prolonged power outages and have a direct impact on the local tourism industry if alternative energy sources are not available.
- > Vulnerable populations dependent on life-sustaining medical devices may experience health risks. Medical facilities like Mammoth Hospital are also at risk.
- > Vulnerability increases depending on the weather. As a worst case scenario, power outages during a significant winter storm especially when evacuation routes are closed could trap people in their homes without sufficient heating.
- Propane can cause explosions and spark fires. Data limitations exist as some lines are unmapped across Town.

Epidemic/Pandemic

- Location: More densely populated areas like the Town of Mammoth Lakes would foster the spread of diseases like the flu, COVID-19, and RSV faster than less densely populated areas of the county.
- **Extent:** Defined by geographic spread, epidemic disease is spread on the local and community level, while a pandemic is national or global, both of which can occur quickly isolated communities, such as in the planning area.
- **Impacts**: Epidemic/pandemic can impact human health, causing everything from days off work to death. Widespread pandemics can impact worker productivity, potentially disrupting critical services like medical care. Economically, the local tourism sector, a crucial economic pillar, may experience declines as potential visitors are dissuaded by health risks.

Jurisdiction-Specific Vulnerabilities:

> The Town's remote location complicates the swift deployment of medical resources and personnel during a health crisis.

- > Transportation complications, such as road closures and limited helicopter landing sites, can impede efforts to quickly evacuate sick patients.
- Medical services can be overwhelmed by an influx of tourists which far exceed the Town's regular population during peak seasons.
- Additional information is needed on housing options during a major event such as global pandemic where infected people, including out of town visitors who may not have plans for long stays, are required to quarantine. There are limited shelters and long-term housing available.
- Residents with disabilities or without personal vehicles may be unable to travel to testing, treatment, or testing sites.

Extreme Heat

- Location: The entire planning area.
- **Extent:** The Town may receive extreme heat warnings based on current heat index, also known as the apparent temperature or how temperature feels to the human body when relative humidity is combined with the air temperature. (see Extreme Heat profile in base plan)
- **Impacts**: Extreme heat impacts can be on the transportation infrastructure from warming, include softening or buckling of road pavement and deterioration of concrete structures, compromising roadway integrity during heat waves or reducing their useful lifetimes.
- Jurisdiction-Specific Vulnerabilities:
 - > The transportation infrastructure and energy infrastructure, critical facilities, including pavement, asphalt, and the power grid are vulnerable to extreme heat events and may require financial resources to improve structures and increase maintenance.
 - > Individuals exposed to extreme heat may suffer from heat exhaustion, and other heat related medical conditions.

Flood

- **Location:** Generally low flood hazards with the exception of Mammoth Creek, which can carry significant volumes during peak 100-year flood conditions. FEMA flood maps likewise show areas adjacent to Mammoth Creek in the Old Mammoth area as within the 100-year flood zone. Over 444 acres of the town are located in the 100-year flood hazard zone. Rain, including rain-on-snow events, can impact the entire town.
- **Extent:** Flooding issues in Mammoth Lakes have been the result of shallow, overbank flooding, within the 100-year flood zone.
- **Impacts**: Flooding can damage or destroy local infrastructure, private property, transportation systems, water systems, and utility systems.
- Jurisdiction-Specific Vulnerabilities:

- Communities living in flood prone areas may experience financial hardships due to loss of access to their homes and places of employment from flood damage, especially for those with limited savings or insurance coverage.
- > Flood risk may vary depending on snow accumulation. Rainwater can weigh down already snow-covered structures, potentially causing damage including structural collapse. Roofs that are not as well designed for snowy climates are particularly susceptible.
- The local tourism industry is vulnerable to loss of business due to closures from flood damage and loss of inventory.
- > Visitors unfamiliar with flooding in the region may be caught off guard by fast developing events.
- Major roads, including Old Mammoth Road, along Mammoth Creek and its tributaries are vulnerable to flooding.

Landslide

- Location: All deep-seated landslide susceptibly classes are located in various sections of town.
- **Extent:** All landslide susceptibility classes are found in various locations throughout the Town of Mammoth lakes. All mass wasting movement types can be found in town.
- **Impacts**: The town's diverse climate, location and susceptibility to ground shaking from fault lines which can trigger landslides, exposing its critical facilities and infrastructure to landslides damage.
- Jurisdiction-Specific Vulnerabilities:
 - > Critical facilities and infrastructure and the transportation system (HWY 203) are vulnerable to landslide damage, due to proximity to susceptibility zones.
 - Landslide-prone areas can cause substantial financial losses for property owners and businesses.
 - > Residents in the southwestern neighborhoods of Mammoth Lakes, including The Bluffs, are particularly vulnerable to landslides.

Hazardous Materials

- **Location:** The town is not located in close proximity to the interstate highway corridor where the likelihood of a Hazmat incident occurring is higher. However, a Hazmat release along US 395 could affect the town if the wind carried gases or odors; if the release triggered other hazards, such as fire; or if it blocked key access into the town. In addition, some vehicles carry Hazmat such as propane for use in the town, which poses some risk.
- **Extent:** The Town would utilize the Hazmat Warning System to identify specific Hazmat incident levels. Levels range from 1- Minor to 5- Catastrophic.
- **Impacts**: Transportation in and out of Mammoth Lakes can be restricted due to a hazardous materials spill. Air and water quality may be impacted. Long-term environmental impacts may be experienced. Transportation routes may be disrupted, including potentially evacuation routes out of town.

Economic losses may arise from road closures shutting down affected areas, impacting businesses and loss tourism revenue.

Jurisdiction-Specific Vulnerabilities:

- > Major transportation routes, like State Route 203, are vulnerable to hazardous materials spills while being transported.
- > Residents that use propane are vulnerable to propane spills and potential explosions.

Severe Wind

- **Location:** Severe wind events have the potential to occur in a variety of locations around the Town of Mammoth Lakes.
- **Extent:** The extent of severe wind can be classified using the Beaufort Wind Scale. The worst-case scenario for severe winds are speeds more than 100 mph.
- Impacts: Prolonged power outages from downed power lines due to severe winds, or from wildfire
 ignition caused by downed power lines can impact homes and businesses. In addition, severe winds
 can overturn vehicles on the local highways that lead to road closures and increase risk on roads.

Jurisdiction-Specific Vulnerabilities:

- > Severe wind can cause trees to fall impeding road access or even power lines to fall increasing the risk of a fire.
- Individuals with pre-existing medical conditions dependent on electricity to power life-sustaining medical equipment can be put at risk when severe winds cause prolonged power shortages from downed power lines.
- Housing quality significantly influences vulnerability. Structures built before the adoption of modern building codes may not be designed to withstand severe wind conditions, placing their occupants at greater risk.

Severe Winter Weather and Snow

- Location: All of the Town of Mammoth Lakes can be impacted by severe winter weather and snow.
- **Extent:** The National Weather Service Winter Storm Severity Index (WSSI) and the Wind Chill Temperature Index are both used to indicate severity levels for winter weather and snow. The worst-case scenario for winter storms based on the winter severity index is extreme.
- **Impacts**: Disruption of local businesses and decline in tourism. The structural integrity of homes and historic sites may be compromised as snow and ice cause damage necessitating costly repairs and

preservation efforts.⁴ Community lifelines, including energy, water, and communications can be damaged or destroyed. Prolonged outages can delay response and hinder recovery efforts.

Jurisdiction-Specific Vulnerabilities:

- > Severe winter weather and snow can cause significant disruption that make transportation and infrastructure unsafe, and vulnerable to the hazard.
- Individuals in the community with limited access to alternative heating and cooling methods during prolonged power outages due to severe winter weather and snow can experience health impacts.
- > Communicating important messages in English and Spanish has been a challenge.
- > There is a limited number of pre-identified locations suitable for sheltering.
- > Propane leaks or explosions around town can increase during severe winter storm and snow events. A clear protocol is needed to assess and mitigate this risk. Data limitations exist as not all propane tanks and lines are mapped.
- > Building closures or disruption to services due to unplowed streets and an overwhelming amount of snow as well as the cost of snow removal can result in economic impacts.
- As of the 22/23 Winter Storms After-Action Report, the Town's buildings codes did not sufficiently account for the significant snow loads and propane infrastructure deficiencies highlighted during this disaster event.

Volcanoes

- **Location:** The Town of Mammoth Lakes is near the southwest edge of the Long Valley Caldera. Mammoth Mountain and basaltic volcanic vents have been historically active within the town boundaries. In addition, an area of potential future volcanic vents, inferred based on seismic activity, extends into the town's east side. The entire town is within hazard areas for pyroclastic flows and tephra falls.
- **Extent:** The Long Valley Volcanic Center, which is considered in the impact proximity to the planning area, is one of 18 "very high threat" volcanoes listed in a 2005 ranking developed as part of the National Volcano Early Warning System (NVEWS).
- **Impacts**: Ash accumulations from volcanic eruption can collapse building roofs, close roads, and seriously disrupt utilities and communications.

⁴ Town of Mammoth Lakes. "22/23 Winter Storms After-Action Reports," April 2024. https://www.townofmammothlakes.ca.gov/DocumentCenter/View/14208/MammothLakes WinterStorms-AAR FinalDraft 052624.

Jurisdiction-Specific Vulnerabilities:

- All assets—including people, structures, and infrastructures are at-risk from disruption, damage, or destruction from this hazard.
- Ash can pose a threat to air and water quality.
- > Tourists may be particularly vulnerable, especially those unfamiliar with this hazard, to death or injury.

Wildfire

- **Location:** Wildfire is a concern for the entire Town of Mammoth Lakes; historically, wildfires have occurred on all sides of the town. However, certain portions of Mammoth Lakes have higher hazard exposure, including areas close to the Valentine Reserve Ecological Study Area and neighborhoods south of Old Mammoth Road (typically referred to as Old Mammoth and Lake Mary).
- **Extent:** CAL FIRE has mapped the entire Town of Mammoth Lakes in considered to be in the Wildland Urban Interface, and in the high and very high wildfire severity zone.
- **Impacts**: Wildfire can damage or destroy structures, including homes, businesses, critical facilities, and other community assets in the town. People may be injured or killed.

Jurisdiction-Specific Vulnerabilities:

- Wildfire can damage structures and community lifelines including critical power and communication infrastructure in Mammoth Lakes, including internet connection.
- Wildfires can block access to transportation routes isolating communities and preventing emergency services.
- > Woodlands and other natural vegetation can be destroyed resulting in a loss of timber, wildlife habitat, scenic quality, and recreational resources.
- People living in the WUI are at higher risk.
- > During evacuation and emergency response procedures, the lack of alternative routes could inhibit transportation in and out of most areas.

Wildlife Collisions

- **Location:** Wildlife collisions are most common on State Route 203 between Crowley Lake and the Town of Mammoth Lakes.
- **Extent:** Due to its more developed nature and lower speed limits, the risk of wildlife collisions in Town of Mammoth Lakes is significantly lower than the rest of the county.
- **Impacts**: Wildlife collisions pose significant risks to both human safety and animal populations in Mammoth Lakes. Incidents can lead to injuries or fatalities for both animals and drivers, and they may also result in extensive vehicle damage and expensive repair costs.

Jurisdiction-Specific Vulnerabilities:

- > The diverse ecosystems in the region, home to species such as deer, bears, and various small mammals, increase the risk of vehicle encounters, particularly near roadways that intersect natural habitats.
- > Transportation routes can be temporarily closed due to wildlife collisions.

Jurisdiction-Specific Changes in Development and Impacts

The plan must describe changes in development that have occurred in hazard-prone areas and how they have increased or decreased the vulnerability of each jurisdiction since the previous plan was approved.

Changes in development include recent development (e.g., construction completed since the last plan was approved), potential development (e.g., development planned or under consideration by the jurisdiction), conditions that may affect the risks and vulnerabilities of the jurisdictions (e.g., climate change, declining populations or projected increases in population, or foreclosures), shifts in the needs of underserved communities, or gaps in social equity. This can also include changes in local policies, standards, codes, regulations, land use regulations, and other conditions. Table 6 lists the changes in development for Town of Mammoth Lakes.

Table 6: Town of Mammoth Lakes Changes in Development

Type of Hazard Event	Changes in Land Use	Changes in Population	Changes in Conditions (e.g., Climate Change)	Overall Vulnerability (Increased, Decreased, Stayed the Same)
Avalanche	State law streamlining the construction of Accessory Dwelling Units (ADU) increases the habitable structures being constructed in Mammoth Lakes avalanche conditional development areas.	Potentially increases population in these areas	Climate change is exacerbating this hazard.	Increased
Dam Failure	None	None	Climate change	Stayed the same
Disease and Pest Management	None	None	Climate change	Increased
Drought	None	None	Climate change	Increased
Earthquake and Seismic Hazards	State law streamlining the construction of Accessory	None	None	Increased

Type of Hazard Event	Changes in Land Use	Changes in Population	Changes in Conditions (e.g., Climate Change)	Overall Vulnerability (Increased, Decreased, Stayed the Same)
	Dwelling Units (ADU) increases the habitable structures being constructed in Mammoth Lakes.			
Energy Shortages and Energy Resiliency	State law streamlining the construction of Accessory Dwelling Units (ADU) increases the structures using electricity in the Town.	None	Climate change	Increased
Epidemic/Pande mic	During the pandemic, second homeowners chose to stay in the Eastern Sierra which increased the regional population and strained local resources. The pandemic fundamentally changed the housing market during the work from home "Zoom Cabin" trend which increased the pace of local development and decreased the housing options available locally.	Increased population	Climate change	Increased
Extreme Heat	None	None	Climate change	Increased
Flood	State law streamlining the construction of Accessory Dwelling Units (ADU) increases the habitable structures being constructed in Mammoth Lakes.	None	Climate change	Increased
Landslide	None	None	None	Stayed the same
Hazardous Materials	None	None	None	Stayed the same
Severe Wind	State law streamlining the construction of Accessory	None	Climate change	Increased

Type of Hazard Event	Changes in Land Use	Changes in Population	Changes in Conditions (e.g., Climate Change)	Overall Vulnerability (Increased, Decreased, Stayed the Same)
	Dwelling Units (ADU) increases the habitable structures being constructed in Mammoth Lakes.			
Severe Winter Weather and Snow	State law streamlining the construction of Accessory Dwelling Units (ADU) increases the habitable structures being constructed in Mammoth Lakes.	None	Climate change	Increased
Volcanoes	None	None	None	Stayed the same
Wildfire	Changes to State Minimum Fire Safe Regulations (setbacks, emergency water, and road/access standards) and the conflict of those regulations with State ADU streamlining law. Changes to ADU state law that increases habitable structures in fire hazard areas and provides for a reduction in setbacks to 4' (as opposed to the BOF standard of 30').	None	Climate change	Increased

Mitigation Capabilities

Local mitigation capabilities are existing authorities, policies, programs, and resources that reduce hazard impacts or could help to carry out hazard mitigation activities. Analyzing local mitigation capabilities and opportunities to expand or improve mitigation capabilities can help decision-makers determine feasible mitigation actions. The Town of Mammoth Lakes assessed the following mitigation capabilities.

Planning and Regulatory

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of hazards.

Table 7: Town of Mammoth Lakes Plans

Plans	Does the plan address hazards?	How can the plan be used to implement mitigation actions?	When was it last updated? When will it next be updated?
General Plan	Yes	Identifies overarching policies and programs that affect land use, public services, housing, natural resources, and safety, among other items. The General Plan can be updated to include information and mitigation measures identified in this Plan. ⁵	Last updated: 2019 Next updated: As needed
Capital Improvement Plan (CIP)	Yes	The CIP can be used to propose mitigation actions projects and identify funding sources. ⁶	Last updated: 2025- 2026 Next updated: Annually
Climate Change Adaptation Plan	No		Next updated: 2028
Community Wildfire Protection Plan	Yes	The CWPP, located in the 2021 MCHMP, involves wildfire mitigation best practices, resources, and community partners to propose wildfire risk reduction mitigation actions and provide funding sources	Last updated: 2021 Next updated: 2026
Economic Development Plan	Y	Economic Development element, located in the General Plan can be used in developing mitigation actions and provide alternative funding sources. ⁷	Last updated: 2007 Next updated: As needed

⁵ Town of Mammoth Lakes. "Town of Mammoth Lakes General Plan," 2019. https://www.townofmammothlakes.ca.gov/DocumentCenter/View/9579/General_Plan-Updated-Sep-2019?bidId=.

⁶ Town of Mammoth Lakes. "Capital Improvement Plan," 2023. https://www.townofmammothlakes.ca.gov/DocumentCenter/View/13231/Draft-CIP-2023-24.

⁷ Town of Mammoth Lakes. "Town of Mammoth Lakes General Plan," 2019. https://www.townofmammothlakes.ca.gov/DocumentCenter/View/9579/General_Plan-Updated-Sep-2019?bidId=.

Plans	Does the plan address hazards?	How can the plan be used to implement mitigation actions?	When was it last updated? When will it next be updated?
Land Use Plan	Yes	Located in the General Plan, the Future Land Use Map can be used in developing mitigation actions. ⁸	Last updated: 2016 Next updated: As needed
Local Emergency Operations Plan	Yes	Located in General Plan, the Local Emergency Operations element describes the responsibilities, roles, and resources of local agencies before, during, and directly after an emergency. ⁹	Last updated: 2017 Next updated: As needed
Stormwater Management Plan	Yes	Located in General Plan, the Stormwater Management element can support identification of flood mitigation actions and define objectives.10	Last updated: 2019 Next updated: As needed
Transportation Plan	Yes	Located in the General Plan, the Mobility and connectivity element in the plan can be used in developing transportation lifelines mitigation actions.11	Last updated: 2024 Next updated: 2028
Substantial Damage Plan	No	A Substantial Damage Plan can be used to understand what regulations exist before developing mitigation actions	N/A

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⁸ Town of Mammoth Lakes. "Town of Mammoth Lakes General Plan," 2019.

https://www.townofmammothlakes.ca.gov/DocumentCenter/View/9579/General_Plan-Updated-Sep-2019?bidId=.

⁹ Town of Mammoth Lakes. "Town of Mammoth Lakes General Plan," 2019.

 $https://www.townofmammothlakes.ca.gov/DocumentCenter/View/9579/General_Plan-Updated-Sep-2019?bidId=.$

¹⁰ Town of Mammoth Lakes. "Town of Mammoth Lakes General Plan," 2019.

https://www.townofmammothlakes.ca.gov/DocumentCenter/View/9579/General_Plan-Updated-Sep-2019?bidId=.

¹¹ Town of Mammoth Lakes. "Town of Mammoth Lakes General Plan," 2019.

https://www.townofmammothlakes.ca.gov/DocumentCenter/View/9579/General_Plan-Updated-Sep-2019?bidId=.

Table 8: Town of Mammoth Lakes Regulations and Ordinances

Plans	Does this regulation/ordinance effectively reduce hazard impacts?	Is it adequately administered and enforced?	When was it last updated? When will it next be updated?
Building Code	Yes; 2022 California Building Code	Yes	Last updated: 12/7/2022 Next updated: 01/01/2026
Flood Insurance Rate Maps	Yes	Yes	Last updated: 02/18/2011 Next updated:
Floodplain Ordinance	Yes	Yes	Last updated: 03/19/2025 Next updated: N/A
Subdivision Ordinance	Yes	Yes	Last updated: 10/15/2008 Next updated: As needed
Zoning Ordinance	Yes	Yes	Last updated: 03/19/2014 Next updated: As needed
Natural Hazard Specific Ordinance (Stormwater, Steep Slope, Wildfire)	Yes	Yes	Last updated: 03/19/2014 Next updated: As needed
Acquisition of Land for Open Space and Public Recreation Use	No	N/A	N/A
Prohibition of Building in At-Risk Areas	No	N/A	N/A

Administrative and Technical

Administrative and technical capabilities include staff and their skills. They also include tools that can help you carry out mitigation actions.

Table 9: Town of Mammoth Lakes Administrative Capabilities

Administrative Capability	In place? (Y/N)	Is staffing adequate?	Is staff trained on hazards and mitigation?	Is coordination between agencies and staff effective?
Chief Building Official	Yes	Yes	Yes	Yes
Civil Engineer	Yes	Yes	Yes	Yes
Community Planner	Yes	Yes	Yes	Yes
Emergency Manager	Yes	No	No	Yes
Floodplain Administrator	Yes	Yes	Yes	Yes
Geographic Information System (GIS) Coordinator	Yes, under contract with Mono County	Yes	Yes	Yes
Planning Commission	Yes	Yes	Yes	Yes
Fire Safe Council	Coordinated by Mammoth Lakes Fire Protection District	Yes	Yes	Yes
CERT (Community Emergency Response Team)	No	N/A	N/A	N/A
Active VOADs (Voluntary Organizations Active in Disasters)	No	N/A	N/A	N/A

Table 10: Town of Mammoth Lakes Technical Capabilities

Technical Capability	In place? (Y/N)	How has the capability been used to assess/mitigate risk in the past? (Answer or N/A)	How can the capability be used to assess/mitigate risk in the future?
Mitigation Grant Writing	Yes	Applied for project specific mitigation measures as appropriate.	To assist with funding resources capability

Technical Capability	In place? (Y/N)	How has the capability been used to assess/mitigate risk in the past? (Answer or N/A)	How can the capability be used to assess/mitigate risk in the future?
Hazard Data and Information	Yes	To assist with data and information management. For example, to manage damaged building inventory during the 2022-23 snow emergency.	To assist with data and information management
GIS	Yes	To assist with management of data including asset management and tracking of patterns with a georeferenced database.	To assist with GIS capability and mapping
Mutual Aid Agreements	Yes	The Town of Mammoth Lakes maintains mutual aid agreements with Mono County and the U.S. Forest Service to support each other in emergencies. The MLPD has a mutual aid agreement with Madera County due to the Town's proximity to Devil's Postpile National Monument.	Continue to maintain and/or enter into mutual aid agreements with partner agencies to allow the Town to share limited resources during emergencies.

Financial

Financial capabilities are the resources to fund mitigation actions.

Table 11: Town of Mammoth Lakes Financial Capabilities

Funding Resource	In place? (Y/N)	Has this funding resource been used in the past and for what types of activities?	Could this resource be used to fund future mitigation actions?	Can this be used as the local cost match for a federal grant?
Capital Improvement Project Funding	Yes	Yes, capital improvement projects	Yes	Yes
General Funds	Yes	Yes, capital improvement projects	Yes	Yes

Funding Resource	In place? (Y/N)	Has this funding resource been used in the past and for what types of activities?	Could this resource be used to fund future mitigation actions?	Can this be used as the local cost match for a federal grant?
Hazard Mitigation Grant Program (HMGP/404)	Yes	Yes. Mitigation projects	Yes	No
Building Resilient Infrastructure & Communities (BRIC)	No	N/A	No, this grant funding has been discontinued by the federal government.	N/A
Flood Mitigation Assistance (FMA)	No	N/A	Yes	No
Public Assistance Mitigation (PA Mitigation/406)	No	N/A	Yes	No
Community Development Block Grant (CDBG)	Yes	This funding source has been used in the past for housing and childcare programs.	Yes	No
Natural Resources Conservation Services (NRCS) Programs	No	N/A	Yes	No
U.S. Army Corps (USACE) Programs	No	N/A	Yes	No
Property, Sales, Income, or Special Purpose Taxes	Yes	These taxes enter the general fund and have been used for mitigation projects in the past.	Yes	Yes
Stormwater Utility Fee	No	N/A	Yes	Yes
Fees for Water, Sewer, Gas, or Electric Services	Yes	These funds have been used for various mitigation projects in the past.	Yes	Yes
Impact Fees from New Development and Redevelopment	Yes	These funds have been used for various mitigation projects in the past.	Yes	Yes

Funding Resource	In place? (Y/N)	Has this funding resource been used in the past and for what types of activities?	Could this resource be used to fund future mitigation actions?	Can this be used as the local cost match for a federal grant?
General Obligation or Special Purpose Bonds	Yes	No	Yes	Yes
Federally Funded Programs (Please describe)	Yes	These funds have been used for various mitigation projects in the past.	Yes	Noe
State-Funded Programs (Please describe)	Yes	These funds have been used for various mitigation projects in the past.	Yes	Yes
Private Sector or Nonprofit Programs	Yes	These funds have been used for various mitigation projects in the past.	Yes	Yes

Education and Outreach

Education and outreach capabilities are programs and methods that could communicate about and encourage risk reduction.

Table 12 Town of Mammoth Lakes Education and Outreach Capabilities

Education and Outreach Capability	In place? (Y/N)	Does this resource currently incorporate hazard mitigation?	Notes
Community Newsletter(s)	Yes	Yes	Town E-News (weekly)
Hazard Awareness Campaigns (such as Firewise, Storm Ready, Severe Weather Awareness Week, School Programs)	Yes	Yes	Social media posts that target current weather impacts/hazards. Fire mailers are sent to all residences to encourage defensible space work.
Public Meetings/Events (Please describe.)	Yes	Yes	Various as needed i.e. winter expo, summer expo, Kidapalooza.

Education and Outreach Capability	In place? (Y/N)	Does this resource currently incorporate hazard mitigation?	Notes
Emergency Management Listserv	No	Yes	Informal internal processes that are dependent upon each specific hazard
Local News	Yes	Yes	Town frequently advertises in local news to heighten public awareness.
Distributing Hard Copies of Notices (e.g., public libraries, door-to-door outreach)	Yes	Yes	Various flyers/posters as needed.
Insurance Disclosures/Outreach	No	No	N/A
Organizations that Represent, Advocate for, or Interact with Underserved and Vulnerable Communities (Please describe.)	Yes	Yes	Various organizations work with the Town to reach vulnerable communities.
Social Media (Please describe.)	Yes	Yes	Social media posts that target current weather impacts/hazards.

Ability to Expand and Improve Existing Capabilities

Capability Type	Opportunity to Expand and/or Improve	
Planning and Regulations	The Town of Mammoth Lakes could work with its planning department to create more in-depth hazard focused plans including a flood management strategy, slope assessment, and hazmat assessment. These plans will allow the Town of Mammoth Lakes to better address hazards.	
Administrative and Technical	The Town of Mammoth Lakes could improve its use of direct technical assistance to develop hazard mitigation projects, by obtaining parcel-specific information and incorporating this information into GIS related databases	
Financial	New grant writing staff could help the current emergency management staff to access grant funds for hazard mitigation projects. Several grants have not been applied for due to lack of staff to apply and manage the grant.	
Education and Outreach	The Town of Mammoth Lake could improve their outreach by creating a hazard mitigation page on the Town website that is updated regularly	

Capability Type	Opportunity to Expand and/or Improve	
	with hazard mitigation information. Linking the digital HMP to public outreach efforts will help expand its reach.	

National Flood Insurance Program Capability Assessment

The National Flood Insurance Program (NFIP) is a FEMA program that provides flood insurance to millions of policyholders across the country. The plan must describe participation in the NFIP for each participant, as applicable, in accordance with NFIP regulatory requirements. Town of Mammoth Lakes participates in the NFIP.

Table 13: Floodplain Management

Response
Public Works Director, secondary
/es
Floodplain Management (Chapter 12.10 of the Town of Mammoth Lakes Municipal Cod. The chapter establishes regulations for development in floodplain areas to minimize public and private osses due to flood conditions.
None
Jnknown
Jnknown
No
August 2024
No
Yes. Floodplain Management Section12.20.040 Methods of reducing flood losses and 12.20.080
Provisions for flood hazard reduction.

Question	Response
How does the community issue development permits in the special flood hazard area?	Duties and responsibilities of the floodplain administrator. The duties and responsibilities of the Floodplain Administrator shall include, but not be limited to, the following: (1) Permit review: Review all development permits to determine that: a. Permit requirements of this chapter have been satisfied; b. All other required State and Federal permits have been obtained; c. The site is reasonably safe from flooding; and d. The proposed development does not adversely affect the carrying capacity of areas where base flood elevations have been determined but a floodway has not been designated.
Does the community maintain elevation certificates?	No
Does the community track the number of buildings in the special flood hazard area? If yes, are there any trends?	No
How many repetitive loss (RL) structures does the community have? (List number and type of structure.)	None
How many severe repetitive loss (SRL) structures does the community have? (List number and type of structure.)	None
Have any RL/SRL properties been mitigated since the last plan update?	None
Who is responsible for making substantial damage/substantial improvement determinations?	Floodplain Administrator
How does the substantial damage/substantial improvement process work in your community?	Substantial damage/substantial improvement structures are identified through the permitting process and required to come into compliance with the requirements outlined in 12.20.080 Provisions for flood hazard reduction. (a) Standards for construction.

Question	Response
Is there sufficient staff and training to make substantial damage/substantial improvement determinations?	Yes
How are substantial damage/substantial improvement requirements messaged to the public before and after an event?	ENews on Town website
Have any substantially damaged/substantially improved structures been mitigated since the last plan update?	No
How will the community remain in compliance with the NFIP moving forward? (Simply stating "the community will continue to comply with the NFIP" will not meet FEMA's planning requirements.)	The Town's Floodplain Administrator will engage in Floodplain Mangers membership to stay informed of upcoming changes to the NFIP and potential effects these changes could have

Table 14: Floodplain Mapping

Question	Response
How does the community support map change requests? This could be requests during the Risk MAP process or through Letters of Map Amendment or Revision.	Requests map changes during the Risk MAP process.
When did the latest Flood Insurance Rate Map (FIRM) become effective?	02/18/2011
When was the latest FIRM adopted?	09/30/1987
Is the FIRM and Flood Insurance Study (FIS) report in an accessible location? How would the public get access to their flood map information?	The study, FIRMs and FBFMs are on file at the Town offices and can be furnished upon request.
Does the community use any Risk MAP products? If so, describe.	12.20.060 General provisions. This FIS and attendant mapping is the minimum area of applicability of this chapter and may be supplemented by studies for other areas which allow implementation of this chapter and which are recommended to the Town Council by the floodplain administrator.
Does the community collect updated floodplain data or modeling? Is this shared with partners and with FEMA?	No

Table 15: Flood Insurance and Outreach

Question	Response
How does the community educate the public on floodplain management and the availability of flood insurance, in and out of the floodplain?	Information about floodplain management and flood insurance is posted on the Town's website.
How does the community engage with insurance agents on flood insurance?	Unknown
Does the community (or state) have flood hazard disclosure laws?	15.24.140 Flood hazard areas. Design for structures within flood hazard areas shall be per the requirements established in the most recently adopted floodplain management ordinance. (Code 1990, § 15.24.120; Ord. No. 13-10, § 3(exh. A), 12-4-2013; Ord. No. 19-05, § 2(exh. A), 11-20-2019)
How familiar is the public with their flood insurance options?	Unknown
How many properties have flood insurance in the community?	None
Are there any areas where flood insurance is lacking?	None

Town of Mammoth Lakes 2025–2030 Mitigation Strategy

The mitigation strategy is often known as the heart of the plan or the community's blueprint for disaster risk reduction. Updating the mitigation strategy to reflect current conditions, vulnerabilities, and action priorities reflects an ongoing process to identify, analyze, and address hazards of concern. The strategy is comprised of goals (included in the base plan), actions, and the mitigation action plan. The goals for this plan are as follows:

- GOAL 1. Avoid exposure of people and improvements to unreasonable risks of damage or injury from the hazards identified in this plan.
- GOAL 2. Keep Mono County and the Town of Mammoth Lakes a safe place to live, work, and play by
 reducing the risks from natural hazards through planning for safe development, increasing public
 awareness of the natural hazards in Mono County, and providing an integrated multiagency approach
 to emergency response.
- GOAL 3. Prepare for changing climate conditions in Mono County.

- GOAL 4. Maintain adequate emergency response capabilities.
- GOAL 5. Build partnerships with local, state, federal, tribal, and other stakeholders to promote a whole community approach to response, recovery, and mitigation.
- GOAL 6. Identify, develop, and publicize evacuation routes to reduce risk from hazards like wildfire.
- GOAL 7. Study and implement mitigation actions to address potential impacts of compounding hazards such as flood following wildfire.
- GOAL 8. Utilize the mitigation planning process as a call to action demonstrating plan participants' commitment to work together toward implementing the mitigation actions identified in the plan.

Status of Previous Actions

Documenting the status of the actions identified in the plan helps show progress in implementing mitigation measures. At the same time, it provides the opportunity to reevaluate priorities and resources, as well as lessons learned which can be captured and utilized during future mitigation action development and implementation. For this plan updated, the plan participants reviewed all of the actions identified in the previous plan and indicated whether the action has been completed or not.

Table 16: Town of Mammoth Lakes Mitigation Actions

Measure Number	Measure Description	Lead Agency (include relevant Department and Position Title)	Status Update	Should this action be retained in the plan update?
	Multi	ple Hazards		
1.3	Require individuals and companies that provide home or accommodation rentals to clearly post available emergency evacuation routes for guests.	Town of Mammoth Lakes	Implemented.	No
1.4	Collect parcel-specific information necessary to complete a more accurate "estimate losses" for inclusion in the next LHMP update. The County and Town should inventory existing developments to obtain the following data: types of structures, construction types, building sizes, building footprints,	Community Development, Information Technology, Assessor's Office		No

Measure Number	Measure Description	Lead Agency (include relevant Department and Position Title)	Status Update	Should this action be retained in the plan update?
	structure values, and replacement values. Incorporate data into a geographic information system (GIS) and related databases.			
1.5	Continue to work with state and federal agencies and wireless providers to expand and improve coverage and interoperability of cell and radio service throughout the County.	Sheriff's Office, Police, Fire, and Mono County IT	Ongoing effort, CRIS system is currently being upgraded	Yes
1.6	For communities with only one access route, evaluate options to provide an emergency access route, prioritized based on multihazard risk to existing access. Design and create the alternative access route(s) if an option is chosen and if funding and resources are available.	Public Works, Community Development		No
1.7	Provide information to community members during emergencies through the following media: 1) coordinated through Public Information Officer (PIO); 2) local radio in English and Spanish; 3) reverse 911; 4) internet; and 5) local phone trees.	Sheriff's Office, Police, Fire, and EMS, PIO		No
1.8	Each department should have emergency supplies, including, at minimum, drinking water and meals ready to eat (MREs) to support its personnel for 24–48 hours.	Sheriff's Office, Administration		No
1.9	Require applicants for major development projects to conduct hazard assessment studies and to design new or significantly	Community Development		No

Measure Number	Measure Description	Lead Agency (include relevant Department and Position Title)	Status Update	Should this action be retained in the plan update?
	retrofitted structures to be resilient to identified priority hazards in this plan.			
1.10	Develop procedures that allow public infrastructure and service personnel with appropriate identification to access areas affected by a hazard event that has been deemed safe to assist in response and early recovery activities. Incorporate procedures in the Emergency Operations Plan upon its next update.	Sheriff's Office, Police, Fire, and EMS, Public Works		No
1.11	In communities with limited evacuation options, review residents' ability to obtain shelter within their community. For areas that do not have a suitable shelter location, evaluate locations for creating one and work with local resident groups and emergency response providers to do so.	Sheriff's Office, Community Development		No
	\	Wildfire		
2.1	For communities and neighborhoods identified to be at the highest fire risk, complete a parcel-level analysis. Incorporate it into a GIS system and use itto prioritize parcel-level defensible space improvements. Upon completion of the analysis, update the CWPP to incorporate information.	TOML, MLFPD	In 2025, the Town of Mammoth Lakes established a wildfire prevention taskforce. As part of these ongoing efforts, Fireaside is being used to track parcel level wildfire risk data and prioritize defensible space improvements.	Yes

Measure Number	Measure Description	Lead Agency (include relevant Department and Position Title)	Status Update	Should this action be retained in the plan update?
2.3	Request Caltrans to install more and higher-visibility "fire awareness" signs along major highways to inform the public of the current fire danger and promote fire prevention.	Public Works, Community Development		No
2.5	Support efforts by Firewise communities and community groups to promote fire prevention, fuel treatments, invasive species control, and defensible space in the WUI and assist in identifying and pursuing funding opportunities to complete these activities.	Town of Mammoth Lakes	There are ongoing efforts to create Firewise communities in the Town. There are currently three active Firewise communities in the Town.	Yes
2.6	Develop community-level fire plans for all communities with the highest fire risk, utilizing resources and assistance from the California Fire Alliance.	Fire, Police, and EMS		No
2.7	Educate homeowners about forest health, fire prevention, and home defense and distribute information on fire prevention resources.	Fire, Police, and TOML	Ongoing efforts through the Mammoth Lakes Wildfire Taskforce.	Yes
2.8	Ensure that wildland fire hazards are disclosed during the building permit process, emphasizing properties in the WUI zone.	Community Development		No
2.9	Encourage local landowners to participate in state and federal programs for fuel reduction on private property, such as the Cal Fire Vegetation Management Program, Cal Fire Hazardous Fuel Reduction Program, and BLM Wildland Urban Interface Grant Awards program.	TOML	Ongoing outreach efforts as part of the Mammoth Lakes Wildfire Taskforce	Yes

Measure Number	Measure Description	Lead Agency (include relevant Department and Position Title)	Status Update	Should this action be retained in the plan update?
2.10	Support efforts by the U.S. Forest Service, the Bureau of Land Management, and other landowners to control or eradicate invasive and/or highly destructive forest pests.	Community Development		No
2.12	Investigate a program that provides residents who own older, non-compliant WUI structures the opportunity to make the exteriors code compliant.	TOML	Not yet begun. Looking for funding sources.	Yes
2.13	Supports fuel reduction, maintenance of treated areas, and broadcast burning in areas around the private land boundary.	Fire and TOML	Ongoing.	Yes
2.15	Prepare for the health impacts of smoke from wildfires, including designating clean air shelters in additional communities as needed and notifying residents of their locations.	TOML	There is an ongoing study to determine best location for a resilience center.	Yes
	Severe Winter	Weather and Snow		
3.1	Maintain a list of the residences and needs of vulnerable persons, including elderly residents, socially isolated persons, and immune-compromised individuals, that could require special emergency response resources during hazard events. Develop a response plan for vulnerable persons for use by emergency operators during hazard events.	Public Health, Sheriff's Office, Fire, Police, and EMS	Ongoing effort by Mono County.	No
3.2	Coordinate and work with Caltrans and local snow removal resources to maintain critical roadway operations.	TOML	Town coordination with Caltrans is ongoing as needed during	No

Measure Number	Measure Description	Lead Agency (include relevant Department and Position Title)	Status Update	Should this action be retained in the plan update?
			major snow events.	
3.3	Educate community members about severe storm preparedness, including home and vehicle supplies and public refuge locations.	Sheriff's Department, Fire, Police, and EMS		No
3.4	Operate and make accessible public refuge locations within 10 miles of all urbanized communities during severe storm events. Each location should be heated and have on-site backup generators, adequate parking, and sufficient food and water to serve vulnerable nearby residents and visitors.	Sheriff's Department, Social Services	There is an ongoing study to determine best location for a resilience center.	No
	9	Seismic		
4.1	Conduct a comprehensive survey of the structural condition of all public buildings and critical facilities, including identification of unreinforced masonry and softstory structures. Prioritize surveying buildings and facilities in earthquake fault zones. Retrofit or replace structures, as funding allows, identified as being at high risk of collapse in a seismic event.	Public Works, Community Development		No
4.2	Continue to require new and retrofitted structures to meet minimum state seismic safety standards and encourage property owners to exceed these standards.	Public Works, Community Development		No
4.3	Require property owners to locate new developments outside of known fault rupture hazard zones	Community Development		No

Measure Number	Measure Description	Lead Agency (include relevant Department and Position Title)	Status Update	Should this action be retained in the plan update?
	or design to appropriate standards.			
4.4	Design Town- and County-owned infrastructure in fault rupture zones to resist damage from fault rupture and encourage other agencies to use similar strategies. Use similar strategies outside of fault rupture zones to the extent feasible.	Public Works		No
4.5	Require new development in areas susceptible to liquefaction to conduct a geotechnical evaluation and implement actions to mitigate liquefaction risk. Avoid development in areas where liquefaction risk cannot be adequately mitigated.	Public Works, Community Development		No
	\	/olcano		
5.1	Distribute information regarding evacuation procedures in the event of potential volcanic lava, pyroclastic, debris flow, or ash distribution.	Sheriff's Department, Fire, Police, and EMS		No
5.2	Support efforts to improve volcanic forecasting strategies.	Information Technology		No
	С	Prought		
6.1	Encourage retrofits of private homes and businesses for increased water conservation. Continue to educate about and promote the Property Assessed Clean Energy (PACE) programs in funding retrofits.	MCWD		No

Measure Number	Measure Description	Lead Agency (include relevant Department and Position Title)	Status Update	Should this action be retained in the plan update?
6.3	Provide landowners with resources about irrigation efficiency and crops with reduced water requirements. Encourage landowners to use plants that require little or no irrigation in new or retrofitted landscapes.	Community Development	Mammoth Community Water District, not the Town, works with landowners on irrigation. That part of this action has been removed.	No
	Extr	eme Heat		
7.1	Identify ways to provide free or low-cost weatherization and energy-efficient heating and cooling appliances to lower-income residents without access to these devices.	Community Development		No
	Sev	ere Wind		
8.1	Work with Caltrans to install a real- time wind and visibility tracking system for crucial access road segments and incorporate warnings into online notifications and the emergency notification system.	Community Development		No
8.2	Encourage project applicants to incorporate wind-resistant design features into new or significantly renovated buildings.	Community Development		No
		Flood		
9.3	Document past flood events in the GIS system to identify historic flooding patterns that can be used to understand better where repetitive flooding hazards occur and enable the County and Town to minimize risks to existing development in those areas.	Community Development, Public Works, Information Technology		No

Measure Number	Measure Description	Lead Agency (include relevant Department and Position Title)	Status Update	Should this action be retained in the plan update?
9.4	Through an ongoing public education program, ensure that property owners are aware of flood hazards and practices necessary to diminish the impacts of those hazards. This program should include information on participation in the NFIP.	Community Development, Public Works		No
9.5	Develop a Comprehensive Flood Management Strategy for the County and Town.	Public Works		No
9.6	Consider investment in of stormwater infrastructure in areas of recurrent flooding and identify improvements that need to be implemented as funding becomes available.	TOML		Yes
	Av	valanche		
10.1	Update parcel-level avalanche mapping for the County's GIS system, including the Town of Mammoth Lakes data. Upon completion of mapping, develop a zoning overlay that requires a fair warning of avalanches for all permits and an avalanche risk assessment for all new residential development that recommends required construction standards.	Community Development		No
10.2	Support efforts by the U.S. Forest Service and organizations such as the Eastern Sierra Avalanche Center to post information about avalanche risks and current conditions at trailheads throughout avalanche-prone areas, in visitor centers, and online.	TOML	Ongoing.	Yes

Measure Number	Measure Description	Lead Agency (include relevant Department and Position Title)	Status Update	Should this action be retained in the plan update?
10.3	Develop a map for the County website that identifies roadway segments at avalanche risk and educates communities about the risks, forecasting methods, and roadway operations within areas at avalanche hazard areas. As part of the countywide notification system, provide real-time avalanche conditions along the identified roadway segments.	Public Works, Information Technology		No
10.4	Work with federal agencies to transfer privately owned properties in avalanche hazard zones adjacent to or on public lands into federal ownership or the ownership of land conservation organizations and restrict their use to permanent open space use.	Community Development		No
	Hazar	dous Waste		
12.1	Establish multiple sites for free or low-cost disposal of hazardous household wastes, including electronic waste.	Public Works	This program is in progress. Mammoth Disposal has opened up a hazardous waste disposal site at their Transfer Station.	No
12.2	Support and publicize propane tank exchange and recycling programs.	Public Works	This program has been discontinued due to high costs.	No
12.3	Support public information and enforcement of standards for proper installation and storage of propane tanks.	TOML	Ongoing.	Yes

Measure Number	Measure Description	Lead Agency (include relevant Department and Position Title)	Status Update	Should this action be retained in the plan update?
	Disease and	Pest Management		
13.3	Practice Integrated Pest Management strategies on public landscapes, emphasizing a preventive approach and minimizing the use of chemicals.	Community Development, Public Works		No
13.4	Conduct periodic educational campaigns through in-person events and various media types to encourage community members to remove standing water and practice other mosquito prevention strategies.	Public Health, Police, Fire, and EMS		No
13.5	Support efforts by the U.S. Forest Service, the Bureau of Land Management, and other landowners to control or eradicate invasive and/or abnormally active forest pests.	TOML	Ongoing.	Yes
	Clima	ate Change		
15.1	Based on more current information, reevaluate changes to hazards and risks caused by climate change every five years and revise the LHMP to account for new information.	Community Development, Public Health	Complete; climate change is considered in LHMP at every update.	No

Considered Mitigation Actions

The mitigation strategy must include analyzing a comprehensive range of actions or projects the participants considered to address vulnerabilities identified in the risk assessment. The actions considered must emphasize reducing risk to existing buildings, structures, and infrastructure and limiting risk to new development and redevelopment. They must connect specifically to the risk and vulnerabilities identified

in the risk assessment, including the specific hazards profiled by each plan participant. Types of actions considered for this plan update included the following:

- Local Plans and Regulations
- Structure and Infrastructure Projects
- Natural Systems Protection
- Education and Awareness Programs

The Mitigation Action Plan may also include additional response, preparedness, or prevention focused actions, but these are not considered mitigation actions during the FEMA plan review process. A full list of actions considered can be found in Appendix C: Sample Mitigation Action Ideas.

2025 Mitigation Action Plan

The Mitigation Action Plan outlines the mitigation measures Town of Mammoth Lakes has identified. Actions may not be completed within five years. Including long-term actions and priorities in the mitigation plan reflects a comprehensive approach to managing community resilience and reducing risk. Further, it positions the plan participant to access post-disaster funding in the case of a disaster event. As funding and resources become available, the Town of Mammoth Lakes will pursue the mitigation actions included in this plan. Implementing mitigation actions like these will help save lives, protect property and livelihoods, and break the cycle of disaster damage and reconstruction.

Key components of the Mitigation Action Plan are defined as follows:

Hazards Addressed

- Avalanche
- Dam Failure
- Disease/Pest Management
- Drought
- Earthquake/Seismic Hazards
- Energy Shortages and Energy Resiliency
- Epidemic/Pandemic
- Extreme Heat
- Flood
- Landslides
- Hazardous Materials
- Severe Wind

- Severe Winter Weather and Snow
- Volcanoes
- Wildfire
- Wildlife Collisions

Responsible Agency

 The position, office, department or agency responsible for implementing/administrating the identified mitigation action

Potential Funding

• Grants or local funding sources relevant to implementing the associated action

Cost Estimate

A rough estimate of the project's cost, which may help determine which projects to pursue and when

Timeframes

Short-term: 1–2 years

Medium-term: 2–5 years

Long-term: 5+ years

Community Lifelines

The link below will provide more information on community lifelines.¹² Community lifelines are essential for the continuous operation of critical government and business functions and are vital for human health, safety, and economic security. They represent the most fundamental services in the community, and when they are stabilized, they enable all other aspects of society to function. The FEMA Community Lifelines are as follows:

- Safety and Security: Law Enforcement/Security, Fire Service, Search and Rescue, Government Service,
 Community Safety
- Food, Hydration, Shelter: Food, Hydration, Shelter, Agriculture

¹² FEMA. "Community Lifelines Implementation Toolkit." https://www.fema.gov/emergency-managers/practitioners/lifelines-toolkit.

- Health and Medical: Medical Care, Public Health, Patient Movement, Medical Supply Chain, Fatality
 Management
- Energy: Power Grid, Fuel
- **Communications**: Infrastructure, Responder Communications, Alerts, Warnings and Messages, Finance, 911, and Dispatch
- Transportation: Highway/Roadway/Motor Vehicle, Mass Transit, Railway, Aviation, Maritime
- Hazardous Materials: Facilities, HAZMAT, Pollutants, Contaminants
- Water Systems: Potable Water Infrastructure, Wastewater Management

Priorities

Priorities are defined by the community. Each action was assigned a prioritization category of low, medium, or high to each natural hazard action item being retained or created. The criteria to calculate the following priority categories is included in Table 18:

- **Low**: the action received less than 5 points.
- Medium: the action received 5-7 points.
- **High**: the action received 8-10 points.

Table 17 shows the mitigation actions Town of Mammoth Lakes has selected for this planning cycle.

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Table 17: Town of Mammoth Lakes 2025–2030 Mitigation Actions¹³

#	Project Title	Hazard Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
1	Develop Snowpack/ Avalanche Danger Monitoring System	Avalanche, Drought	Obtain ongoing and enhanced funding sources for snowpack monitoring and avalanche threat monitoring in TOML and Mono County.	Public Works, Mono County	ESAC, Mammoth Resorts	Hazard Mitigation Grant Program, Pre-Disaster Mitigation Grant Program TOML General Funds	\$250,000	Short-term	Safety and security	High
2	Installation of Outdoor Warning Systems	Avalanche, Dam Failure, Earthquake/Seismic Hazards, Flood, Landslides, Severe Wind, Severe Winter Weather and Snow, Volcanoes, Wildfire	Install audible sirens or an alternative method for notifying residents of imminent threat from various hazards including dam failure and wildfire. Areas with limited cell service will be specifically targeted for the system.	Mono County, OEM, Public Works	Fire districts, MCWD, State and Federal agencies	HMGP, PDM, TOML General Funds	\$100,000- \$300,000	Short-term	Safety and Security, Communications	Medium
3	Bark Beetle Mitigation Project(s)	Disease/Pest Management, Wildfire	Implement various bark beetle mitigation strategies including, but not limited to, pheromone treatments, SPLAT, etc. to help protect various tree species including the protected White Bark Pine.	USFS, Mono County, TOML Parks and Recreation	USFS, Mono County, TOML, LADWP, non-profits (Whitebark Institute)	HMGP, PDM, TOML General Funds	\$250,000- \$500,000	Medium- term	Safety and security	High
4	Biodiversity Friendly Landscaping Opportunities	Disease/Pest Management, Drought, Wildfire	Create a homeowners' guide to biodiverse, native landscaping. This will include suggestions for plant selection and best practices for planting	Community and Economic Development	USFS, Mono County	HMGP, PDM, TOML General Funds	<\$100,000	Short-term	All	Low

¹³ BLM = Bureau of Land Management, CEQA = California Environmental Quality Act, CRIS = California Radio Interoperable System, ESAC = Eastern Sierra Avalanche Center, FERC = Federal Energy Regulatory Commission, IMACA = Inyo Mono Advocates for Community Action, LADWP = Los Angeles Department of Water and Power, MCWD = Mono County Water District, MLFD = Mammoth Lakes Fire District, MLMAD = Mammoth Lakes Mosquito Abatement District, MMSA = Mammoth Mountain Ski Area, MUP = Multi-Use Paths, NEPA = National Environmental Policy Act, OEM = Office of Emergency Management, SCE = Southern California Edison, SMHD = Southern Mono Healthcare District, TOML = Town of Mammoth Lakes, USFS = United States Forest Service.

#	Project Title	Hazard Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
			and maintenance. These gardens will support beneficial insects and animals, reduce water usage, and be fireresistant.							
5	TOML Recycled Water Infrastructure Project	Drought	Install pumps and other infrastructure at Shady Rest Park and other TOML facilities/parks to allow future use of recycled water.	Public Works	MCWD, Mono County	HMGP, PDM, TOML General Funds	\$200,000	Medium- term	Water systems	Low
6	Stormwater Retention Systems Improvements	Drought	Create programs and incentives to facilitate the installation of stormwater retention systems to promote groundwater recharge.	Public Works	MCWD, Mono County	HMGP, PDM TOML General Funds	\$100,000- \$500,000	Medium- term	Water systems	Medium
7	Cloud Seeding	Drought	Support Mammoth Mountain's program to cloud seed around hydrologic basins to create more snowfall.	Public Works, Mono County, USFS	MCWD, MMSA	HMGP, PDM TOML General Funds	\$100,000— \$200,000	Short-term	Water systems	Low
8	Water Conservation Education Efforts	Drought	Support programs to educate the public on water conservation.	Community and Economic Development, Mono County	MCWD, other water service districts	HMGP, PDM TOML General Funds	<\$100,000	Short-term	Water systems	Low
9	Community Retrofit Assessment Project	Earthquake/Seismic Hazards, Flood, Wildfire, Severe Winter Weather, Severe Wind	Conduct data-driven analysis of public buildings and infrastructure to identify the potential need for retrofitting community infrastructure and structures. This assessment would inform potential alternate locations for the Town EOC. This would include	Mono County, Public Works		HMGP, PDM, TOML General Funds	<\$100,000	Medium- term	Safety and security	Medium

#	Project Title	Hazard Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
			upgrading HVAC systems to deal with wildfire smoke.							
10	Seismic retrofit of community infrastructure.	Earthquake/Seismic Hazards	Conduct seismic retrofit work on community infrastructure identified in the retrofit assessment project.	Mono County, Public Works		HMGP, PDM, TOML General Funds	\$500,000 - \$2 million	Long-term	Safety and security, Water and wastewater, Transportation Systems	Low
11	Seismic risk assessment of private residences and buildings	Earthquake/Seismic Hazards, Severe Winter Weather and Snow	Utilize data to determine building codes that were applied when certain buildings were built to assess current risk to hazards. This can be used to conduct outreach to property owners about risk and options for mitigation.	Mono County, Public Works		HMGP, PDM, TOML General Funds	<\$100,000	Medium- term	Safety and security, Water and wastewater, Transportation Systems	Medium
12	Seismic risk assessment for propane infrastructure	Earthquake/Seismic Hazards	Assess propane systems that lack infrastructure to allow shut-off or maintenance during emergencies. This assessment will be used to prioritize upgrades to the propane systems.	Public Works, Mono County	Gas utility providers	HMGP, PDM, TOML General Funds	<\$100,000	Medium- term	Energy	Low
13	Conduct residential subdivision ingress/egress studies to identify high risk areas	Avalanche, Dam Failure, Earthquake/Seismic Hazards, Flood, Landslides, Hazardous Materials, Severe Winter Weather and Snow, Volcanoes, Wildfire	Work with partners on Sherwin Creek Road, ORMAT Shady Rest access, June-Mammoth MUP, and other alternative egress options for communities throughout Mono County.	Mono County, Public Works	USFS, LADWP, BLM	HMGP, PDM, TOML General Funds	<\$100,000	Short-term	Transportation	Medium

#	Project Title	Hazard Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
14	Backup power assessment plan	Energy Shortages and Energy Resiliency	Evaluate emergency power options—including generators, solar panels, and battery backup systems—to determine the most efficient backup power source.	Community and Economic Development	SCE	HMGP, PDM, TOML General Funds	<\$100,000	Short-term	Energy	Medium
15	Community-wide fuel resiliency plan	Energy Shortages and Energy Resiliency	Work with public and private partners to develop strategies to ensure fuel security, access, and availability during emergencies.	Mono County, Community and Economic Development	SCE, MMSA, private fuel providers, Mammoth Yosemite Airport, MCWD	HMGP, PDM, TOML General Funds	<\$100,000	Short-term	Energy	High
16	Business emergency communication plan	Energy Shortages and Energy Resiliency	Create a communication plan to ensure private providers have the information they need to access and secure the movement of goods and services during an emergency.	Mono County, Community and Economic Development	Chamber(s), private fuel providers,	HMGP, PDM, TOML General Funds	<\$100,000	Short-term	Energy	Medium
17	Expand Firewise Communities Program	Wildfire	Increase community participation in Firewise education and preparation. Establish new Firewise Council in TOML to assist with implementation of the CWPP (including fuels reduction treatments, home hardening, defensible space, education, etc.).	OEM, Community and Economic Development	Local Fire Safe Councils, Private Property Owners, Special Districts, TOML	CalFire Grant Funds for Coordinator, US Fire Service Grant, SCE International, Whitebark	<\$100,000	Short-term	All	Medium
18	Advocate for legislative actions to streamline wildfire mitigation projects	Wildfire	Work with lobbyists, legislature, USFS, etc. to change NEPA and CEQA permitting processes to facilitate healthy forests and defensible space.	Mono County, TOML Town Manager		HMGP, FMAG, PDM, TOML General Funds	<\$100,000	Medium- term	Safety and Security	High

#	Project Title	Hazard Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
19	Community education and outreach programs	Avalanche, Dam Failure Disease/Pest Management, Drought, Earthquake/Seismic Hazards, Energy Shortages and Energy Resiliency, Epidemic/ Pandemic, Flood, Landslides, Hazardous Materials, Severe Wind, Severe Winter Weather and Snow, Volcanoes, Wildfire, Wildlife Collisions	Educate the community about household mitigation actions, and prepare education materials, adding them to the Town's website, and tabling at local events to educate residents, etc.	Community and Economic Development	Mono County, TOML, other agencies	HMGP, PDM, TOML General Funds	<\$100,000	Short-term	Communications	Low
20	Establishing and funding a residential home hardening program	Wildfire	Develop and fund incentives and programs for residential property owners to retrofit with fire-resistant materials.	Community and Economic Development	MLFD	HMGP, FMAG, PDM, TOML General Funds	\$1 million	Medium- term	Safety and Security	Medium
21	Facilitate, perform, or assist with fuels reduction projects to reduce the risk of wildfire.	Wildfire	Develop a funding plan to reduce the risk of catastrophic wildfire at the landscape level. Examples include pile burning, managed fire, or general forest health (fuels reduction) projects.	Mono County, Community and Economic Development, MLFD		HMGP, FMAG, PDM, TOML General Funds	<\$100,000	Medium- term	Safety and Security,, Hazardous Materials	High
22	TOML Community Resiliency Center	Extreme Heat, Earthquake, Flood, Severe Winter Weather and Snow, Volcanoes, Wildfire	Construct a Community Resiliency Center that has the capacity to function as a cooling center during extreme heat events or a shelter during other emergencies.	Public Works	Mono County	HMGP, PDM, TOML General Funds	\$8,000,000	Medium- term	Safety and Security	High

#	Project Title	Hazard Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
23	Slope assessment and scaling project	Landslides	Evaluate slopes and burn areas along roadways, critical infrastructure, and private property for potential hazards, and implement scaling and hazard removal measures. Track hazard events that could have destabilized slopes.	Public Works	USFS	HMGP, PDM, TOML General Funds	\$100,000- \$200,000	Medium- term	Safety and Security	Medium
24	Review and Update Building Codes for Heavy Snow Loads	Severe Winter Weather and Snow	Review and update building codes to incorporate provisions for structures to withstand heavy snow loads, ensuring structural integrity during severe weather events. Consider the following: Revising regulations related to propane infrastructure to address structural deficiencies. Developing plans and standards to implement isolation valves for underground propane infrastructure, residential tank remote shutoffs, and retrofits for emergency shutoffs for existing commercial and residential properties. Conducting comprehensive risk assessments to identify vulnerable areas and structures susceptible to snow-related hazards and	Public Works		HMGP, PDM, TOML General Funds	<\$100,000	Short-term	Safety and Security, Energy, Hazardous Materials	Medium

#	Project Title	Hazard Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
			propane infrastructure failures.							
25	Mutual Aid Agreement with Caltrans and Mono County	All Hazards	Develop a formal mutual aid agreement between the Town, Caltrans, and Mono County to facilitate efficient sharing of services during emergencies and high-impact events. Consider outlining clear protocols, responsibilities, and resource-sharing mechanisms to ensure seamless coordination and mutual support in times of need.	TOML Town Manager, Mono County, Caltrans		TOML General Funds	<\$100,000	Short-term	Safety and Security	High
26	Develop a Plan for Snow Storage	Severe Winter Weather and Snow	Develop plans to increase snow storage capacity in high-elevation areas by identifying new storage locations or optimizing existing ones. Consider acquiring land for designated snow storage areas or implementing innovative solutions, such as snowmelting systems.	Public Works		HMGP, PDM, TOML General Funds	<\$100,000	Short-term	Transportation	High
27	Wildlife Outreach and Education	Wildlife Collisions	Develop and implement an educational outreach campaign and signage to help reduce vehicle-wildlife collisions within TOML.	Transportation		HMGP, PDM, TOML General Funds	<\$100,000	Short-term	Transportation	Low
28	Residential Propane Enclosures	Flooding, Hazardous Materials	Develop a local program that reimburses homeowners for retrofitting propane enclosures to protect against flooding and other hazards.	Public Works		HMGP, PDM, TOML General Funds	\$250,000- \$500,000	Medium- term	Energy	High

#	Project Title	Hazard Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
29	Implement Alternative Communication Methods	All Hazards	Explore and implement alternative communication methods to reach individuals with hearing impairments for public meetings. Consider utilizing technologies such as closed captioning and video relay services to enhance accessibility in media coverage and press releases, and create guidelines for producing accessible media content and press releases tailored to individuals with visual or hearing impairments.	Town Council		HMGP, PDM, TOML General Funds	<\$100,000	Short-term	Communications	Low
30	Assess Additional Shelter Locations	Extreme Heat, Earthquake, Flood, Severe Winter Weather and Snow, Volcanoes, Wildfire	Identify and assess additional potential shelter locations within the Town and surrounding areas. Consider prioritizing spaces that can accommodate a larger number of individuals effectively during disasters. Collaborate with local businesses, hotels, schools, and community organizations to establish agreements for using their facilities as emergency shelters when needed. Improve the effectiveness of sheltering efforts by ensuring shelter locations are clearly identified and integrated into platforms like Zonehaven.	Police		HMGP, PDM, TOML General Funds	<\$100,000	Short-term	Food, Hydration, Shelter	High

#	Project Title	Hazard Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
31	Wildlife Security Fence	Wildlife Collisions	Install 23,000 ft. of 8-foot-tall chain link fence along the airport perimeter per the Hazard Mitigation Plan to mitigate wildlife versus aircraft collisions.	Airport	Caltrans/FAA/DOT Aeronautics Division/USFS	Caltrans/Federal Aviation Administration/D OT Aeronautics Division	\$4,900,000	Short-term	Transportation	High
32	PFAS Monitoring Wells	Hazardous Materials	Install two PFAS-monitoring wells to detect PFAS in groundwater prior to it reaching the airports two production wells.	Public Works	CA State Water Board	HMGP, PDM, TOML General Funds	\$75,000	Short-term	Hazardous Materials	Medium
33	Water System Generator	Energy Shortage/Wildfire	Purchase and install a generator to run the water distribution system during power outages to support wildfire mitigation and firefighting.	Public Works, MLFD	Cal OES	HMGP, PDM, TOML General Funds	\$230,000	Short-term	Water Systems	High
34	Water Distribution System Replacement	Wildfire/ Earthquake/Seismic Hazards	Replace aging water distribution systems and related infrastructure to improve water delivery and protect infrastructure during a disaster.	Public Works		Integrated Regional Water Management Program Grants	\$3 million	Short-term	Water Systems	High
35	Regional Emergency Training Center	Earthquake, Flood, Severe Winter Weather and Snow, Volcanoes, Wildfire	Construct a regional emergency resource center, including a burn tower and classroom facility located at the Mammoth Yosemite Airport. This facility meets the needs identified in the 2022/23 Winter Storms After-Action Report and could be used to hold Firewise meetings and	Airport, Public Works, Police	MLFD, LVFD, CALFIRE, Cal OES, Mono County Fire Chiefs Association, FAA	Assistance to Firefighters Grant (AFG)	\$5 million	Long-term	Safety and Security	Medium

#	Project Title	Hazard Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
			property owner education programs.							
36	Replace Obstruction Lights	Earthquake/Seismic Hazards	Replace Doe Ridge and Sub- hill Obstruction Lights to improve their durability to mitigate potential seismic damage and protect critical facility infrastructure required to maintain airport operations.	Airport	FAA/USFS	HMGP, PDM, TOML General Funds	\$500,000	Medium- term	Transportation	Low
37	Plan for Moving Ammo Cache to JMSA	Hazardous Materials, Wildfire	Develop a plan to upgrade the ammo cache to allow transport of explosives from Mammoth Mountain Ski Area (MMSA) to June Mountain Ski Area (JMSA) in case of wildfire.	Public Works	JMSA/USFS	HMGP, PDM, TOML General Funds	\$100,000	Short-term	Hazardous Materials, Safety and Security	Low
38	Gazex at Lake Mary and Canyon Trail	Avalanche	Install Gazex avalanche systems on Lake Mary Road and Canyon Trail for avalanche control.	Public Works	MMSA/JMSA/USFS / TOML/Mono County	HMGP, PDM, TOML General Funds	\$2,000,000 (\$1M each)	Medium- term	Safety and Security, Transportation	Low
39	Traffic Control Plan for Emergencies	Earthquake, Energy Shortages and Energy Resiliency, Flood, Severe Wind, Severe Winter Weather and Snow, Volcanoes, Wildfire	Upgrade and retrofit traffic control devices with backup power. Develop plans for traffic control devices/ secondary public safety transportation issues during emergency events.	Transportation	SCE	HMGP, PDM, TOML General Funds	\$300,000	Short-term	Transportation, Energy	Medium
40	Collaborate with SCE on PSPS Messaging and Education	Energy Shortages and Energy Resiliency	Work with SCE to develop an action plan for communicating PSPS incidents to residents. This will include providing feedback to SCE after PSPS on how communication systems functioned. TOML will also	Community and Economic Development, SCE		HMGP, PDM, TOML General Funds	<\$100,000	Short-term	Energy, Safety and Security	Medium

#	Project Title	Hazard Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
			work with SCE to provide education to local residents and businesses on PSPS and ways to mitigate impacts (e.g., backup generation capability).							
41	California Radio Interoperability System (CRIS)	Avalanche; Dam Failure; Earthquake; Seismic; Energy Shortages and Energy Resilience Extreme Heat; Flood; Landslide; Hazardous Materials; Severe Wind; Severe Winter Weather and Snow; Volcanoes; Wildfire	Implement radio communications technologies that will provide more reliable service than existing radio communications technology in use. Anticipate this project beginning in the first quarter of 2026. Continue to work with state and federal agencies and wireless providers to expand and improve coverage and interoperability of cell and radio service throughout the County.	Radio Governance Committee, Mono County IT, TOML IT	MLPD, Fire Districts	Hazard Mitigation Grant Program (HMGP), Pre- Disaster Mitigation Grant Program (PDM), TOML General Fund	\$4 million	Short-term	Communications; Energy; Safety and Security	High
42	Defensible Space Improvement Prioritization	Wildfire	For communities and neighborhoods identified to be at highest fire risk, complete a parcel-level analysis. Incorporate the data into a GIS system, and use it to prioritize parcel-level defensible space improvements. Upon completion of the analysis, update the CWPP to incorporate the information.	Community and Economic Development, Mono County IT, OEM	Local Fire Safe Councils, Fire Protection Districts	CalFire Grants, USFS Grants, TOML General Funds	<\$100,000	Medium- term	Safety & Security; Food Hydration Shelter; Energy; Communications; Transportation; Water Systems	High
43	Facilitate Participation in	Wildfire	Facilitate local landowner participation in state and federal programs for fuel	Community Development	BLM, CalFire	TOML General Funds	<\$100,000	Short-term	Safety and Security	High

#	Project Title	Hazard Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
	Fuels Reduction Programs		reduction on private property, such as the Cal Fire Vegetation Management Program, Cal Fire Hazardous Fuel Reduction Program, and BLM Wildland Urban Interface Grant Awards program.							
44	Low-Cost Weatherization	Extreme Heat	Identify ways to provide free or low-cost weatherization and energy-efficient heating and cooling appliances to lower-income residents without access to these devices.	Community Development	IMACA, High Sierra Energy Foundation	HMGP, PDM, TOML General Fund	<\$100,000	Medium- Term	Energy	Low

Mitigation Action Prioritization

The Town of Mammoth Lakes and Mono County developed their own mitigation action prioritization ranking methodology in alignment with current priorities and hazard concerns for each community. Five questions were created as criteria for action prioritization:

- Does this action align with Town/County strategic priorities? (0 No, 1 Partially, 2 Yes)
- Does this action align with the other planning partners' priorities? (0 No, 1 Partially, 2 Yes)
- Is funding currently available? (0 No, 1 Partially, 2 Yes)
- Does this action align with other planning mechanisms and policies currently in place? (0 No, 1 Partially, 2 Yes)
- What is the ranking of this hazard? (0 Low, 1 Medium, 2 High)

Based on the criteria above, actions were scored as High, Medium, or Low priority:

- **Low**: the action received less than 5 points.
- **Medium**: the action received 5-7 points.
- **High**: the action received 8-10 points.

Table 18 documents how each action was prioritized.

Table 18: Action Prioritization for the Town of Mammoth Lakes

Action #	Does this action align with Town/County strategic priorities?	Does this action align with the other planning partners' priorities?	Is funding currently available?	Does this action align with other planning mechanisms and policies currently in place?	What is the ranking of this hazard?	Priority (High, Medium, Low)
1	2	2	0	2	2	High
2	2	2	1	1	1	Medium
3	2	2	1	2	2	High
4	1	1	0	2	0	Low
5	2	0	0	2	0	Low
6	2	2	1	1	1	Medium

Action #	Does this action align with Town/County strategic priorities?	Does this action align with the other planning partners' priorities?	Is funding currently available?	Does this action align with other planning mechanisms and policies currently in place?	What is the ranking of this hazard?	Priority (High, Medium, Low)
7	1	0	1	1	0	Low
8	1	1	1	1	0	Low
9	2	2	1	1	1	Medium
10	1	1	1	1	0	Low
11	2	2	1	1	1	Medium
12	1	1	1	1	0	Low
13	2	2	0	2	1	Medium
14	2	2	1	1	1	Medium
15	2	2	1	2	2	High
16	2	2	1	1	1	Medium
17	2	2	1	1	1	Medium
18	2	2	1	2	2	High
19	1	1	1	1	0	Low
20	2	2	1	1	1	Medium
21	2	2	1	2	2	High
22	2	2	1	2	2	High
23	2	2	1	1	1	Medium
24	2	1	1	1	1	Medium
25	2	2	2	2	2	High
26	2	1	2	2	2	High
27	1	1	1	1	0	Low
28	2	1	1	2	2	High
29	2	0	1	1	0	Low
30	2	2	2	2	2	High
31	2	2	1	2	2	High
32	2	2	1	1	1	Medium
33	2	1	1	2	2	High
34	2	1	1	2	2	High
35	2	2	1	1	1	Medium

Action #	Does this action align with Town/County strategic priorities?	Does this action align with the other planning partners' priorities?	Is funding currently available?	Does this action align with other planning mechanisms and policies currently in place?	What is the ranking of this hazard?	Priority (High, Medium, Low)
36	2	0	1	1	0	Low
37	1	1	1	1	0	Low
38	2	1	0	1	0	Low
39	2	2	1	1	1	Medium
40	2	2	1	1	1	Medium
41	2	2	2	2	2	High
42	2	2	1	2	2	High
43	2	2	2	2	2	High
44	2	0	1	1	0	Low

Plan Integration

One way to demonstrate progress in local mitigation efforts and increase the likelihood of mitigation action implementation is through plan integration. An updated mitigation plan describes how each plan participant integrated the previous plan or could integrate the prior plan into their respective planning mechanisms. Planning mechanisms refer to the governance structures used to manage local land use development and community decision making, such as budgets, comprehensive plans, capital improvement plans, or other long-range plans, codes, and ordinances. Relevant components of the hazard mitigation that could be integrated into other mitigation plans include the following:

- The integration of the hazards the community is vulnerable to
- The data and analysis presented in the risk assessment
- The goals of the mitigation plan
- Potential projects or actions to carry out in the future

Past Integration Efforts

Town of Mammoth Lakes reviewed previous plan integration efforts as noted in Table 19.

Table 19: Town of Mammoth Lakes Previous Plan Integration

Plan Name	How the Prior Plan Was Integrated
None	

Future Integration Opportunities

Town of Mammoth Lakes identified future plan integration opportunities as described in Table 20.

Table 20: Town of Mammoth Lakes Future Plan Integration

Plan Name	Description	Process for Integration
Capital Improvement Plan	A plan which identified financing, location, and timing for capital improvement projects around the Town of Mammoth Lakes.	The Town of Mammoth Lakes will seek to integrate the mitigation actions in this current plan into its Capital Improvement Plan to identify hazard risks and implement mitigation projects to reduce those risks.

Conclusion

This hazard mitigation plan update represents a collaborative effort between local governments, special districts, federal, state and local stakeholders and the public.

The Town of Mammoth Lakes has actively participated through meetings, plan participant input forms, and draft plan review. The Town also provided significant opportunity for the public and stakeholders to engage in the process. The Town extended invitations to private sector partners such as Southern California Edison and Mammoth Mountain Ski, and nonprofit partners Whitebark Institute and the Eastern Sierra Avalanche Center to create public-private partnerships as a whole community effort to secure the future of its the community and preserve a pristine ecological environment for its valued residents and visitors. The Town of Mammoth Lakes



Annex provides mitigation strategy goals and objectives that focus on developing mitigation actions and projects supporting the Town's Strategic Priorities.

Mitigation Success Stories

TOWN GENERATOR PROJECT 2020

In response to the high number of Power Safety Power Shutoff (PSPS) events that impacted the Town of Mammoth Lakes installed and upgraded generators at five Town owned sites. These locations included the Town Administrative Offices, Community Center, Transit Building, Airport Administrative Building, Police Station, and Airport Terminal. Three generators were purchased and two generators that the Town already owned were also used. The newly installed generators significantly mitigate the Town's exposure to PSPS events. The Town was awarded a grant from Cal OES that covered \$215,000 of the cost to provide the generators. The remaining \$247,000 was covered by General Fund.¹⁴

¹⁴ Town of Mammoth Lakes.ca.gov, 2025, "2022/2023 Town of Mammoth Lakes Capital Improvement Plan," https://www.townofmammothlakes.ca.gov/DocumentCenter/View/12258/2022-23-Capital-Improvement-Plan.