

Southern Mono Healthcare District

Special District Annex

Date | Draft One



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Southern Mono Healthcare District

The Southern Mono Healthcare District (SMHD) has demonstrated its commitment to a comprehensive mitigation program by developing a district-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. This is the first time the special district is participating in a hazard mitigation plan; therefore, there are no changes in priority since the prior plan update. The following is intended to clarify what, if any, unique considerations and differences exist between the plan participants' hazards and mitigation capabilities. Furthermore, this annex documents the selected mitigation actions for the SMHD.

Southern Mono Healthcare District Participation

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

Table 1: Representatives of the Southern Mono Healthcare District in the Planning Process

Name	Title	Organization/Department
Elizabeth Weeks-Comeau	Emergency Preparedness Coordinator	Mammoth Hospital
Staci Brock	Infection Prevention Coordinator	Mammoth Hospital

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 participate 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 works in or has knowledge of the SMHD. 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
Mono County EMS	Mono County EMS is responsible for emergency medical calls and inter-facility ambulance transports within Mono County.	Local and regional agencies involved in hazard mitigation activities
Town of Mammoth Lakes Public Works	The Department of Public Works is involved in the planning, design, and construction of infrastructure projects within the Town of Mammoth Lakes	Agencies that have the authority to regulate development
Mono County Health Department	The Mono County Health Department provides environmental and public health services that support the health and safety of Mono County residents and visitors.	Neighboring community
Mammoth Lakes Chamber of Commerce	The Mammoth Lakes Chamber of Commerce works to foster a business environment that promotes business development, supports established businesses, and encourages new business and investment within the Town of Mammoth Lakes.	Representatives of businesses, academia, and other private organizations
Mammoth Yosemite Airport	Mammoth Yosemite Airport is a town-owned public airport seven miles east of Mammoth Lakes, in Mono County, California, United States.	Representatives of businesses, academia, and other private organizations
Eastern Sierra Area Agency on Aging (ESAAA)	The purpose of the ESAAA Advisory Council is to be a principal advocate body on behalf of older individuals within a planning and service area and provide advice and consultation on issues affecting the provision of services provided locally to older individuals.	Representatives of nonprofit organizations, including community-based 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. Widespread outreach occurred across the district's service area, including through flyers posted across the Town of Mammoth Lakes. In addition, this plan and methods of participation were advertised at The SMHD monthly coalition meeting, attended by healthcare partner agencies. Public feedback was incorporated into the risk assessment and mitigation strategy sections.

District-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.

District Risk Differences

Each plan participant was asked to consider how their risks and vulnerabilities compared to the overall planning area. To calculate these differences, participants ranked their unique vulnerabilities using the Calculated Priority Risk Index in Table 3 and the equation below it.

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	1	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	
	3	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 could be affected by the specific hazard?	1	Limited	Less than 10% of the planning area could be impacted.	20%
	2	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.	

Risk Index Factor	Degree of Risk Level		Criteria	Factor Weight for Degree of Risk Level
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%
	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 refers to the duration between the moment a warning is issued for an impending threat or disaster and when the threat or disaster occurs. Having more warning time allows for better emergency preparations and public information dissemination.)	1	Self-defined	More than 24 hours	10%
	2	Self-defined	12–24 hours	
	3	Self-defined	6–12 hours	
	4	Self-defined	Less than 6 hours	
Duration (The span of time local, state, and/or federal assistance will be necessary to prepare for, respond to, and	1	Brief	Up to 6 hours	10%
	2	Intermediate	Up to one day	
	3	Extended	Up to one week	
	4	Prolonged	More than one week	

Risk Index Factor	Degree of Risk Level	Criteria	Factor Weight for Degree of Risk Level
recover from a potential disaster event.)			

Risk Factor Equation

$$\text{RF Value} = [(\text{Probability} \times .30) + (\text{Spatial Extent} \times .20) + (\text{Severity of Life/Property Impact} \times .30) + (\text{Warning Time} \times .10) + (\text{Duration} \times .10)]$$

Hazards with an RF value greater than or equal to 2.5 are considered high risk. Those with RF values of 2.0 to 2.4 are considered moderate risk hazards, and those with an RF value less than 2.0 are considered low risk. The highest possible RF value is 4. The calculated priority risk index for the SMHD is presented in Table 4.

Table 4: Calculated Priority Risk Index for Southern Mono Healthcare District

Type of Hazard Event	Probability of Future Events	Spatial Event	Severity of Life/Property Impact	Warning Time	Duration	Risk Factor Value
Avalanche	4	1	1	4	1	2.2
Dam Failure	1	1	1	4	4	1.6
Disease and Pest Management	1	1	1	1	3	1.2
Drought	2	2	1	1	4	1.8
Earthquake and Seismic Hazards	4	4	4	4	4	4
Energy Shortages and Energy Resiliency	3	2	2	2	2	2.3
Epidemic/Pandemic	3	4	2	1	1	2.5
Extreme Heat	1	1	1	1	1	1
Flood	2	1	1	1	3	1.5
Landslide	1	1	1	4	3	1.5
Hazardous Materials	3	3	1	4	3	2.5
Severe Wind	4	2	1	1	1	2.1

Type of Hazard Event	Probability of Future Events	Spatial Event	Severity of Life/Property Impact	Warning Time	Duration	Risk Factor Value
Severe Winter Weather and Snow	4	2	1	1	4	2.4
Volcanoes	1	4	4	4	4	3.1
Wildfire	4	4	4	1	2	3.5
Wildlife Collisions	1	1	1	4	1	1.3

Past Hazard Events

The plan must present the history of hazard events. Although 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 descriptions of general hazard occurrences identified by the state and/or the Federal Emergency Management Agency (FEMA). 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 the Southern Mono Healthcare District

Type of Hazard Event	FEMA Disaster # (If Applicable)	Date(s)	Damage or Impacts	Description
Avalanche	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A
Earthquake and Seismic Hazards	N/A	N/A	N/A	N/A
Energy Shortages and Energy Resiliency	N/A	Ongoing	Power failures led to disruptions in clinics.	Planned and unplanned outages happen multiple times per year.
Epidemic/Pandemic	COVID-19: DR-4482	05/15/2020	Precautions had to be put in place to reduce spread of virus; Capacity of hospital staff was stressed in response to COVID-19.	Local Emergency related to the COVID-19 pandemic declared by the county health officer on March 15, 2020.

Type of Hazard Event	FEMA Disaster # (If Applicable)	Date(s)	Damage or Impacts	Description
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
Hazardous Materials	N/A	2023–2024	Potential health impacts on staff	Two Code Orange events: Sterile processing of chemical leak, staff respiratory impact; chemical spill in warehouse.
Severe Wind	N/A	N/A	N/A	N/A
Severe Winter Weather and Snow	N/A	February 26 and 28, 2023	Staffing shortage and emergency housing preparations; reduction in services	Between February 22 and 26, another 52 inches of snow fell and peaked at 67 inches, breaking the 1952 record.
Volcanoes	N/A	N/A	N/A	N/A
Wildfire	Creek Fire: FM-5348-CA	September 4, 2020	Smoke Infiltration to internal hospital; Replacement of HEPA filters	One of the most significant fires of California's record-setting 2020 wildfire season, it burned 379,895 acres over several months. It was declared 100% contained on December 24, 2020.
Wildlife Collisions	N/A	N/A	N/A	N/A

District-Specific Vulnerabilities

The plan participants also evaluated their specific vulnerabilities to each hazard that affects the overall planning area. Assets were determined by the community. Asset types may differ among plan participants, including the following:

- **People:** Residents, workers, visiting populations, and socially vulnerable populations like seniors, individuals with disabilities, and lower-income individuals
- **Structures:** Residential, commercial, industrial, government-owned, planned capital improvement, etc.)

- **Economic Assets:** Major employers, primary economic sectors, key infrastructure like telecommunications networks
- **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 district-specific vulnerabilities of the SMHD. Where no unique considerations are noted, it can be assumed that the information included in the base plan also applies to the SMHD.

Avalanche

- **Location:** Eastern Sierra communities near steep mountain slopes, particularly in the Mammoth Lakes areas.
- **Extent:** D2 avalanche size would be the worst-case scenario in the district's service area.
- **Impacts:** Avalanches can block or damage critical access routes, isolate communities, and pose direct threats to those living or traveling in high-risk zones. Infrastructure and critical facilities located in avalanche prone areas could be impacted along with isolating communities with limited transportation networks.
- **District-Specific Vulnerabilities:**
 - › The SMHD facilities are not directly at risk of damage from avalanches, but access could be blocked to SMHD facilities due to damage to critical access routes.
 - › People with medical needs may not be able to access care due to impacts on access routes.

Dam Failure

- **Location:** Areas downstream of water storage and dam infrastructure throughout Mono County, particularly rural communities, and the transportation corridor along U.S. Highway 395. The Town of Mammoth Lakes, where Mammoth Hospital is located, may experience street flooding.
- **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 in the Town of Mammoth Lakes. Outside of Town, there are several high hazard potential dams.
- **Impacts:** A dam failure can cause flooding, isolating communities and disrupting essential services. Damage to Highway 395 or other major roadways could severely hinder emergency response and evacuation. Structures could suffer significant damage or collapse. The economic impacts could be

widespread, affecting agriculture, tourism, and local government services. Vital facilities, such as the hospital, could be impacted due to access, power, and supply disruptions.

- **District-Specific Vulnerabilities:**
 - A dam failure at the Long Valley Dam, located at Crowley Lake, could damage US 395 between Mammoth Lakes and Bishop, separating transportation between SMHD facilities in those two towns.
 - Street flooding in the town of Mammoth Lakes may present public safety hazards for people accessing the Mammoth Hospital.

Disease and Pest Management

- **Location:** All of SMHD's jurisdiction is at risk of disease and pest management.
- **Extent:** The Disease Severity Scale for Mono County indicates a moderately susceptible/disease score of five as the worst-case scenario.
- **Impacts:** Disease and pest management hazards arise from undesirable organisms, such as insects, bacteria, and viruses, that can cause serious harm to plants, animals, and humans. These organisms threaten human health by infecting individuals, flora, and fauna with various diseases, some of which can be fatal. Impacts on water systems would be particularly impactful for the hospital.
- **District-Specific Vulnerabilities:**
 - If water becomes contaminated with disease, SMHD facilities could be impacted and contingency measures required to be put into place.
 - Public health may be affected particularly if water systems are infected by disease. The SMHD would be in charge of treating the people impacted by disease.

Drought

- **Location:** SMHD's entire district is vulnerable to drought.
- **Extent:** Exceptional Drought (D4) as the worst-case scenario for Mono County.
- **Impacts:** Drought can impact any sector in Mono County that needs consistent access to water, including the healthcare industry. Drought impacts include cascading effects, such as increased wildfire risk.
- **District-Specific Vulnerabilities:**
 - SMHD facilities require a consistent water source, especially where required for medical processes. Under an exceptional drought, when these water sources are threatened, SMHD facilities might have difficulty functioning.
 - Older residents may lack efficient cooling systems and face health risks from elevated temperatures and lack of water. These residents would need to be treated by SMHD.

Earthquake and Seismic Hazards

- **Location:** All of SMHD is susceptible to the impacts of earthquakes. Mammoth Hospital is located in the Antelope Valley and Hilton Creek fault shake scenarios.
- **Extent:** Moderate intensity shaking level as the worst-case scenario for Mono County.
- **Impacts:** Major earthquakes could damage buildings, disrupt essential utilities, and isolate communities by damaging key roadways, such as Highway 395.
- **District-Specific Vulnerabilities:**
 - SMHD facilities are vulnerable to seismic events like earthquakes. Relocating services from the old hospital to a new facility which is built in accordance with 2030 state seismic code for hospitals can help reduce this vulnerability.
 - SMHD would be called upon to support the medical response efforts to an earthquake. A major earthquake could produce significant injuries or fatalities to people in Mono County. Mammoth Hospital is a 17-bed facility which may be quickly overwhelmed, particularly during peak tourism season when the Town's population rises dramatically.
 - Disruptions to transportation routes could block access to SMHD facilities for both staff and patients.

Energy Shortages and Energy Resiliency

- **Location:** SMHD's entire district is susceptible to energy shortages and energy resilience.
- **Extent:** All four Bishop/Mammoth District Indices for planned and unplanned outages (dSAIDI, dSAIFI, dMAIFI, and dCAIDI) have been consistently rising since 2014.
- **Impacts:** Energy outages disrupt the operation of critical infrastructure reliant on power.
- **District-Specific Vulnerabilities:**
 - Clinics in SMHD without back-up generators are at risk of disruption due to power outages.
 - Residents who rely on powered medical devices are at risk during prolonged outages.

Epidemic/Pandemic

- **Location:** SMHD's entire district is susceptible to epidemics and pandemics. More densely populated areas, such as the Town of Mammoth Lakes, are more likely to spread disease quickly than less densely populated areas of the county.
- **Extent:** Community-wide pandemic (e.g., COVID-19)
- **Impacts:** Pandemics and epidemics can overwhelm healthcare capacity, disrupt public services, and impact the local economy, including tourism.

- **District-Specific Vulnerabilities:**

- › Service interruptions due to illness of SMHD staff.
- › Rising number of emergency illnesses that SMHD would need to respond to, straining capacity.
- › There is limited opportunity to cross-train and prepare for major disaster events. Disaster volunteers are largely staffed with retired nurses or current staff.
- › Vulnerable populations are at higher risk of diseases. There are no pediatric beds or NICUs in the area. Disruptions of any kind to transportation, including flights out of the community, could particularly impact younger patients. In addition, respiratory patients are particularly vulnerable to altitude. Moving these high-risk patients can be affected by disruptions to transportation routes from any cause.
- › During the COVID-19 pandemic, a great number of visitors flocked to Mono County and the Town of Mammoth Lakes to avoid larger communities, bringing COVID-19 with them in the process. Even during the normal tourism season, the population rises. The tourist population is not included in funding calculations, resulting in both difficulties funding and responding to increased need.

Extreme Heat

- **Location:** SMHD's entire district is susceptible to extreme heat.
- **Extent:** Summer highs are between 80–90° Fahrenheit in the summer.
- **Impacts:** Prolonged exposure to extreme heat can lead to heat exhaustion, heat stroke, or even death. Extreme heat can degrade road infrastructure, reduce water availability, stress local power grids, and increase wildfire risk.
- **District-Specific Vulnerabilities:**
 - › Heat-related stress on the power grid may trigger power supply events that impact clinics that do not have back-up generators.
 - › Vulnerable populations, including those without access to traditional housing options, such as people camping on public land or living in vehicles, are more likely to be affected by this hazard.
 - › This can increase the risk of wildfire, threatening SMHD facilities and local transportation infrastructure.

Flood

- **Location:** No SMHD facilities are in the FEMA high (1%) or moderate risk (0.2%) flood zones; however, the entire district is still vulnerable to pluvial flooding, such as rain on snow events.
- **Extent:** The district is vulnerable to pluvial flooding, such as rain on snow events. Pluvial events can be measured by the amount of water that falls over a certain period.

- **Impacts:** Flooding can isolate entire communities by cutting off primary access roads, delay emergency response, damage public infrastructure, and displace residents.
- **District-Specific Vulnerabilities:**
 - Impacts on roads could block access to SMHD facilities for people that need to reach the hospital or clinic.
 - Floodwaters can contaminate the water supply, potentially introducing diseases or disrupting water systems services the SMHD relies on.
 - People could be injured or killed, requiring additional medical support from SMHD.

Landslide

- **Location:** All of Mono County is susceptible to the hazard of landslides with heightened susceptibility in steep slope areas, burn scars, and along transportation corridors, such as US 396.
- **Extent:** All landslide susceptibility classes are found in various locations throughout Mono County. All mass-wasting movement types can be found in the county.
- **Impacts:** Landslides block critical roadways, disrupt emergency access, damage utilities and structures, and trigger cascading hazards.
- **District-Specific Vulnerabilities:**
 - The SMHD facilities are not directly at risk of damage from landslides, but access could be blocked to SMHD facilities due to damage to critical access routes.
 - People with medical needs may not be able to access needed medical care due to impacts on access routes.

Hazardous Materials

- **Location:** Hazardous materials are particularly present in healthcare facilities run by the SMHD.
- **Extent:** The HazMat Warning System is used to measure HazMat incident levels.
- **Impacts:** HazMat events can post immediate health threats, including toxic exposure and respiratory issues.
- **District-Specific Vulnerabilities:**
 - Chemical spills in the SMHD warehouse can lead to health threats to SMHD staff and general public.
 - Chemical leaks from sterile processing can make SMHD facilities inaccessible due to contamination.
 - People can be injured or killed, requiring SMHD medical care.

Severe Wind

- **Location:** All of SMHD is susceptible to the hazard of severe wind.
- **Extent:** The extent of severe wind can be classified using the Beaufort Wind Scale. SMHD can expect to experience force 11 winds as a worst-case scenario.
- **Impacts:** Widespread power outages can occur, along with structural damage, fallen trees, injuries, and flying debris due to severe wind.
- **District-Specific Vulnerabilities:**
 - Clinics in SMHD without backup generators are at risk of disruption due to power outages caused by severe wind.
 - Impacts on roads could block access to SMHD facilities for people who need medical care.
 - People without power due to severe wind face higher risks of compounding concerns like extreme cold.

Severe Winter Weather and Snow

- **Location:** All of SMHD is susceptible to the hazard of 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:** Winter storms can isolate communities, prevent emergency access, and disrupt utility services. Snow can impact the stability of structures, potentially collapsing roofs and injuring or killing people.
- **District-Specific Vulnerabilities:**
 - Impact on transportation can lead to staffing shortages and require emergency housing preparation.
 - Extreme storms can lead to a reduction in services due to impacts on facilities and transportation. These reduced services impact people who need medical care.

Volcanoes

- **Location:** Mono-Inyo Craters volcanic chain and Long Valley Caldera region with elevated exposure in Mammoth Lakes.
- **Extent:** The Long Valley Volcanic Center is one of 18 “very high threat” volcanoes listed in a 2005 ranking developed as part of the National Volcano Early Warning System (NVEWS). The Mono-Inyo Craters volcanic chain would experience a worst-case scenario of a volcanic explosivity index of 3.

- **Impacts:** May require evacuations, air quality deterioration due to ash fall, damage to infrastructure and property, and closure of major transportation corridors. Toxic inhalation of sulfur fumes may cause death.
- **District-Specific Vulnerabilities:**
 - SMHD facilities could face direct damage from volcanic vents in the case of an eruption.
 - SMHD staff could be personally impacted, affecting their ability to report for duty.
 - Major transportation corridors in Southern Mono County could be blocked, restricting travel for staff and patients.
 - Services from SMHD could be severely curtailed, impacting people that need medical care.

Wildfire

- **Location:** All of SMHD is susceptible to impacts from wildfires.
- **Extent:** Most of Mammoth Lakes is in a high wildfire severity zone.
- **Impacts:** Wildfires can lead to widespread evacuations, structure losses, health impacts due to smoke and ash, utility outages, road closures, and economic disruptions.
- **District-Specific Vulnerabilities:**
 - Wildfires could damage or destroy SMHD facilities.
 - Smoke from wildfires can infiltrate the hospital air system, impacting patients and staff.
 - Services from SMHD could be severely curtailed, impacting people that need medical care.

Wildlife Collisions

- **Location:** Wildlife vehicle collisions (WVC) are most common along US 395.
- **Extent:** Although there is no universal scale for wildlife collisions, a hot spot analysis of vehicle collisions with mule deer ranked very high along the southern portions of Highway 395.
- **Impacts:** Impacts include injury or loss of human life, damage to vehicles and infrastructure, disruption of traffic flow on key routes, and harm to local wildlife populations.
- **District-Specific Vulnerabilities:**
 - WVC can damage or delay emergency vehicles bringing patients to SMHD.
 - WVC are unlikely to damage SMHD facilities.

District-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 participant 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 district), conditions that may affect the risks and vulnerabilities of the districts (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 include changes in local policies, standards, codes, regulations, land use regulations, and other conditions. Table 6 lists the changes in development for the SMHD.

Table 6: Changes in Development for the Southern Mono Healthcare District

Type of Hazard Event	Changes in Land Use	Changes in Population	Changes in Conditions (e.g., Climate Change)	Overall Vulnerability
Avalanche	None	No changes	Climate change	Increased
Dam Failure	None	No changes	Climate change	Increased
Disease and Pest Management	None	No changes	Climate change	Increased
Drought	None	No changes	Climate change	Increased
Earthquake and Seismic Hazards	North Wing Project	No changes	None	Stayed the same, project in progress
Energy Shortages and Energy Resiliency	Generators Implemented	No changes	Climate stressors on electric grid	Decreased
Epidemic/Pandemic	None	No changes	COVID policies	Decreased
Extreme Heat	None	No changes	Climate change	Increased
Flood	None	No changes	Climate change	Increased
Landslide	None	No changes	Climate change	Increased
Hazardous Materials	None	No changes	Code Orange Protocol	Decreased
Severe Wind	None	No changes	None	Stayed the same
Severe Winter Weather and Snow	None	No changes	Climate change	Increased
Volcanoes	None	No changes	None	Stayed the same
Wildfire	None	No changes	Climate change	Increased
Wildlife Collisions	None	No changes	None	Stayed the same

Mitigation Capabilities

Local mitigation capabilities are existing authorities, policies, programs, and resources that reduce hazard impacts or could help 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 SMHD 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: Plans of the Southern Mono Healthcare District

Plan	Does the plan address hazards? (Y/N)	How can the plan be used to implement mitigation actions?	When was it last updated? When will it next be updated?
General Plan	N/A	N/A	N/A
Capital Improvement Plan	Unsure	Unsure	Unsure
Climate Change Adaptation Plan	N/A	N/A	N/A
Community Wildfire Protection Plan	N/A	N/A	N/A
Economic Development Plan	N/A	N/A	N/A
Land Use Plan	N/A	N/A	N/A
Local Emergency Operations Plan	Yes	Include potential mitigation actions and references to hazard mitigation plan in the Emergency Operations Plan	2026
Stormwater Management Plan	N/A	N/A	N/A
Transportation Plan	N/A	N/A	N/A
Substantial Damage Plan	N/A	N/A	N/A
HVA & Mitigation Action Plan	Yes	Identifies specific vulnerabilities and mitigation actions.	Unknown
Emergency Response Codes	Yes	N/A	Unknown

Plan	Does the plan address hazards? (Y/N)	How can the plan be used to implement mitigation actions?	When was it last updated? When will it next be updated?
96hr Sustainability Plan	Yes	N/A	Unknown
Decon-Hazmat Plan	Yes	N/A	Unknown
Evacuation Plan (draft)	Yes	Identify vulnerabilities.	The plan is currently being drafted.
Communication Plan	Yes	N/A	Unknown
COOP (draft)	Yes	Reduce risk to operations.	The plan is currently being drafted.
Other? (Describe.) - Seismic Compliance Summary Document - COVID-19 AAR & IP	Yes	Identify opportunities for future mitigation measures.	Unknown

Table 8: Regulations and Ordinances of the Southern Mono Healthcare District

Regulation/Ordinance	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 Standards Code with local modifications.	Yes – by Town of Mammoth Lakes and Mono County	2022 – Every 4 years as required by the State.
Flood Insurance Rate Maps	N/A	N/A	N/A
Floodplain Ordinance	N/A	N/A	N/A
Subdivision Ordinance	N/A	N/A	N/A
Zoning Ordinance	Yes	Yes	Integrated into the Land Use Element in 2023 – updated as needed.
Natural Hazard Specific Ordinance (Stormwater, Steep Slope, Wildfire)	Yes	Yes	The Mono County General Plan, Land Use Element contains Chapters on Floodplain Management (Chapter 21) as well as Fire Safe Regulations (Chapter 22). The Safety Element

Regulation/Ordinance	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?
			contains regulations and policies regarding natural hazards. The Safety Element is updated in connection with MJHMP update and the Land Use Element is updated annually as necessary.
Acquisition of Land for Open Space and Public Recreation Use	N/A	N/A	N/A
Prohibition of Building in At-Risk Areas	N/A	N/A	N/A

Administrative and Technical

Administrative and technical capabilities include staff and their skills. They include tools that can help carry out mitigation actions. Table 9 provides a list of the district's administrative capabilities, while Table 10 lists the district's technical capabilities.

Table 9: Administrative Capabilities of the Southern Mono Healthcare District

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	Unsure	Unsure	Unsure
Civil Engineer	Yes	Unsure	Unsure	Unsure
Community Planner	No	N/A	N/A	N/A
Emergency Manager	Yes	Somewhat	No	Yes
Floodplain Administrator	No	N/A	N/A	N/A
Geographic Information System (GIS) Coordinator	No	N/A	N/A	N/A

Administrative Capability	In place? (Y/N)	Is staffing adequate?	Is staff trained on hazards and mitigation?	Is coordination between agencies and staff effective?
Planning Commission	No	N/A	N/A	N/A
Fire Safe Council	No	N/A	N/A	N/A
CERT (Community Emergency Response Team)	No	N/A	N/A	N/A
Active VOAD (Voluntary Organizations Active in Disasters)	No	N/A	N/A	N/A
Other? (Please describe.)	No	N/A	N/A	N/A

Table 10: Technical Capabilities of the Southern Mono Healthcare District

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	No	N/A	N/A
Hazard Data and Information	No	N/A	N/A
GIS	No	N/A	N/A
Mutual Aid Agreements	Few – supply chain; alternative care site	No	Unsure
Other? (Please describe.)	N/A	N/A	N/A

Financial

Financial capabilities are the resources available to fund mitigation actions. Table 11 outlines the district's financial capabilities.

Table 11: Financial Capabilities of the Southern Mono Healthcare District

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, building and updating facilities.	Yes	Unsure
General Funds	Yes	Unsure	Yes	Yes
Hazard Mitigation Grant Program (HMGP/404)	No	N/A	Yes	No
Building Resilient Infrastructure & Communities (BRIC)	No	N/A	No	No
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)	No	N/A	Yes	No
Natural Resources Conservation Services (NRCS) Programs	No	N/A	No	N/A
U.S. Army Corps (USACE) Programs	No	N/A	No	N/A
Property, Sales, Income, or Special Purpose Taxes	No	N/A	No	N/A
Stormwater Utility Fee	No	N/A	No	N/A
Fees for Water, Sewer, Gas, or Electric Services	No	N/A	No	N/A
Impact Fees from New Development and Redevelopment	No	N/A	No	N/A

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	No	N/A	No	N/A
Federally Funded Programs (Please describe)	Hospital Preparedness Program Grant for EP program	Training supplies and programs; communications	Only as it relates to preparedness training and education	Unsure
State-Funded Programs (Please describe)	Yes	No	Yes	Yes
Private Sector or Nonprofit Programs	Yes	No	Yes	Yes

Education and Outreach

Education and outreach capabilities are programs and methods that could communicate about and encourage risk reduction. Table 12 summarizes the district's education and outreach capabilities.

Table 12: Education and Outreach Capabilities of the Southern Mono Healthcare District

Education and Outreach Capability	In place? (Y/N)	Does this resource currently incorporate hazard mitigation?	Notes
Community Newsletter(s)	Yes	No	Heartbeats
Hazard Awareness Campaigns (such as Firewise, Storm Ready, Severe Weather Awareness Week, School Programs)	No	No	EP Coordinator in communication with the Firewise Representative for Mono County
Public Meetings/Events (Please describe.)	Yes	Unsure	Elevate; Board Meetings; Trauma Series; hospital sponsored events
Emergency Management Listserv	Somewhat	No	Lists included in Communications Plan; MIHCC Teams
Local News	No	No	No

Education and Outreach Capability	In place? (Y/N)	Does this resource currently incorporate hazard mitigation?	Notes
Distributing Hard Copies of Notices (e.g., public libraries, door-to-door outreach)	Unsure	Unsure	Unsure
Insurance Disclosures/Outreach	Unsure	Unsure	Unsure
Organizations that Represent, Advocate for, or Interact with Underserved and Vulnerable Communities (Please describe.)	Yes	Unsure	AFN program linked to Clinic visits
Social Media (Please describe.)	Yes	No	EP website – not promoted or utilized at this time

Ability to Expand and Improve Existing Capabilities

The capability assessment findings were reviewed to identify opportunities to expand, initiate, or integrate capabilities to further hazard mitigation goals and objectives. These opportunities are included in .

Table 13: Opportunities to Expand or Improve Capabilities of the Southern Mono Healthcare District

Capability Type	Opportunity to Expand and/or Improve
Planning and Regulations	A multi-year training and exercise planning workgroup is in progress to build a 3–5 year plan related to an all-hazards approach to top 10 hazards, improvement plans, and required training and testing hospital-wide, which will help mitigate risks. The implementation of this plan could use addition funding and support. Safety and security procedures could use updating.
Administrative and Technical	Additional administrative support including for hospital-wide training and implementation could be beneficial. Training staff will increase their awareness of hazard events and what to do about them as well as garner support for mitigation measures.
Financial	The SMHD would like to be able to access the Hazard Mitigation Grant Program to fund mitigation actions across their facilities. Obtaining this grant will help advance SMHD's mitigation-related financial capabilities.
Education and Outreach	Staff education program needs building and implementation for standardized operational procedures related to emergencies and policy referencing. Time and funding is limited in all groups and staffing levels.

National Flood Insurance Program Capability Assessment

The SMHD does not participate and is not eligible to participate in the National Flood Insurance Program (NFIP), a FEMA program that provides flood insurance to millions of policyholders across the country. This program is typically regulated at the local and county levels; however, FEMA mitigation planning guidelines still request information on how each plan participant supports or implements floodplain management regulations. Table 14 includes a high-level overview of what, if anything, the district does to support floodplain management for known risks.

Table 14: NFIP Capabilities of the Southern Mono Healthcare District

Question	Response
What communities does your special district operate in? Are you aware of any flood concerns in these communities?	Town of Mammoth Lakes and Bishop; Unaware of flooding concerns
Which of your assets are at-risk from flooding?	N/A
Is your organization involved in floodplain management? If so, how?	N/A

Southern Mono Healthcare District 2025–2030 Mitigation Strategy

The mitigation strategy is often seen 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 is an ongoing process to identify, analyze, and address hazards of concern. The strategy comprises goals (included in the base plan), actions, and the mitigation action plan. The goals of this plan are as follows:

- **Goal 1:** Avoid the 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 of 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 floods following wildfires.
- **Goal 8:** Utilize the mitigation planning process as a call to action demonstrating the plan participants' commitment to work together toward implementing the mitigation actions identified in the plan.

Status of Previous Actions

The SMHD did not participate in the last hazard mitigation plan update and therefore has no status updates to report at this time.

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 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 the SMHD has identified. Actions might not be completed in five years. Including long-term actions and priorities in the mitigation plan reflects a comprehensive approach to managing community resilience and reducing risk. Furthermore, it positions the plan participant to access post-disaster funding in the case of a disaster event. As funding and resources become available, the SMHD 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

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:¹

- **Safety and Security:** Law Enforcement/Security, Fire Service, Search and Rescue, Government Service, and Community Safety
- **Food, Hydration, Shelter:** Food, Hydration, Shelter, Agriculture
- **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 district. After considering the following evaluation criteria and the definitions, assign a prioritization category of low, medium, or high to each natural hazard action item being retained or created. SMHD prioritized actions based on the perceived benefits to the safety of hospital facilities, staff, and patients.

Table 15 shows the mitigation actions the SMHD has selected for this planning cycle.

¹ FEMA. "Community Lifelines Implementation Toolkit." <https://www.fema.gov/emergency-managers/practitioners/lifelines-toolkit>.

Table 15: Southern Mono Healthcare District 2025–2030 Mitigation Actions²

#	Project Title	Hazard Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Time-frame	Community Lifelines	Priority
1	Protect Critical Infrastructure & Facilities	Earthquake/ Seismic Events	Implement seismic mitigation measures to reduce risk to critical infrastructure and facilities. Measures may including seismically retrofitting facilities like Mammoth Hospital, bracing generators, using flexible piping, and installing shut-off valves.	SMHD	TOML Mono County OES	Hospital reserves; revenue bonds; philanthropic donations; HMGP	High	Medium-term	Health and Medical	High
2	Energy Research & Development	Energy Shortages and Energy Resiliency	Invest in R&D for new energy technology.	SMHD	TOML Mono County OES	Hospital reserves	Unknown	Long-term	Health and Medical	Low
3	Develop Comprehensive Surge Capacity & Crisis Management Training Program	Epidemic/ Pandemic	Develop and implement comprehensive training modules, collaboration & resource management, prioritize crisis communication, collect feedback.	SMHD	Mono County Public Health & OES	Staff time	Staff time	Medium-term	Health and Medical	Low
4	Proper Disposal	Hazardous Materials	Establish protocols for safe disposal; collaborate with licensed contractors	SMHD	Waste Management; Mono County Public Health & OES	Staff time	Staff time	Medium-term	Health and Medical	Low
5	Reduce Impacts to Roadways	Severe Winter Weather and Snow	Support the installation of roadway heating systems. Reduce transportation disruptions, reducing road debris and clearing.	SMHD	TOML, Mono County, Caltrans,	Caltrans	High	Long-term	Health and Medical	Low

² BRIC = Building Resilient Infrastructure and Communities, Caltrans = California Department of Transportation, HMGP = Hazard Mitigation Grant Program, ICARP = Integrated Climate Adaptation and Resiliency Program, OES = Office of Emergency Services, TOML = Town of Mammoth Lakes,

#	Project Title	Hazard Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Time-frame	Community Lifelines	Priority
6	Air Filtration Systems for Critical Facilities	Wildfire	Ensure the highest ability to provide clean air by upgrading air filtration systems.	SMHD	Mono County Public Health	Hospital reserves, HMGP, BRIC, ICARP	Low	Medium-term	Health and Medical	High
7	Increased Hazard Education & Risk Assessment	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, Volcano, Wildfire, Wildlife Collisions	Launch seasonal hazard awareness week, interactive website, annual workshops. Engage the public on how they can reduce their hazard risks.	SMHD	Mono County OES & Public Health	Staff time	Staff time	Short-term	Health and Medical	High

Mitigation Action Prioritization

The SMHD organized discussions with staff to prioritize projects. Staff provided feedback on which projects they deemed most important for the safety of hospital facilities, staff, and patients. This feedback was collected and averaged to get to the final priority level.

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 hazard mitigation that could be integrated into other mitigation plans include the following:

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

Past Integration Efforts

The SMHD did not meaningfully integrate the prior plan anywhere, as the district was not a plan participant in the prior plan.

Future Integration Opportunities

The SMHD identified future plan integration opportunities, as described in Table 16.

Table 16: Future Plan Integration by the Southern Mono Healthcare District

Plan	Description	Process for Integration
Training and Exercise Plan	A multi-year training and exercise planning workgroup is in progress to build a 3–5 year plan related to an all-hazards approach to top 10 hazards, improvement plans, and required training and testing hospital-wide.	The updated hazard mitigation plan will be utilized to make sure all relevant hazards are included in training for staff.

Conclusion

The Southern Mono Healthcare District has actively participated in the hazard mitigation planning process to document past disasters, understand potential impacts, and prioritize mitigation actions. SMHD healthcare facilities are critical for the health and safety of residents of Southern Mono County. Through this planning process, SMHD has identified specific vulnerabilities and ways to mitigate disaster impacts that could threaten healthcare services. This process meets the requirements for eligibility for FEMA hazard mitigation grants. By implementing effective mitigation measures, the district will be better positioned to continue to support health and safety of residents across Southern Mono County before, during, and after disaster events.