

Mammoth Community Water District Annex

Date | Draft One



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Mammoth Community Water District

The Mammoth Community Water District (MCWD) has demonstrated its commitment to a comprehensive mitigation program by developing a separate 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 that MCWD is participating in a hazard mitigation plan. Therefore, there have been 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 MCWD.

Mammoth Community Water 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 is documenting the planning process itself, including who represented which plan participant. The MCWD was represented during the plan update process by the individuals listed in Table 1.

Table 1: Representatives of the Mammoth Community Water District in the Planning Process

Name	Title	Organization/Department
Michael Draper	Principal Administrative Analyst	Mammoth Community Water District
Nick Holt	Staff Engineer	Mammoth Community Water District
David Carlson	Associate Engineer	Mammoth Community Water District

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 MCWD. 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
Lahontan Regional Water Quality Control Board (SWRCB)	This agency seeks to preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use, for the benefit of present and future generations.	Agencies that have the authority to regulate development
California Broadband Cooperative (CBC)	CBC: - Is a middle-mile provider of broadband service - Provides facilities-based service to locations where it has fiber connectivity - Provides only "Last Mile" access services to government, educational, medical institutions and points of interconnection (service providers) - Is a cooperative that only government, educational, medical and carriers can join	Representatives of businesses, academia, and other private organizations
Hilton Creek Community Services District (HCCSD)	HCCSD is a local government agency that provides essential public services to the residents of the Hilton Creek area in Mono County. The district is primarily focused on providing water and sewer services, maintaining infrastructure, and ensuring the health and safety of its community.	Neighboring community
Blue Forest	This nonprofit brings communities, finance, and science together to restore and protect forests and watersheds.	Representatives of nonprofit organizations, including community-based organizations
U.S. Forest Service	This agency is responsible for managing the nation's forests, including collaborating with the Mammoth Community Water District to reduce risks to Lake Mary, the District's water supply.	Agencies that have the authority to regulate development
Inyo National Forest	This United States National Forest covers parts of the eastern Sierra Nevada of California and the White Mountains of California and Nevada.	Local agency involved in hazard mitigation
Southern California Edison	This is the primary electric utility company for Southern California.	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 public was invited to participate in the plan update through bilingual flyers which were posted in public areas around the Town of Mammoth Lakes (MCWD's service area) in public spaces. Public feedback is 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.

Table 3: Hazard Omissions

Hazard	Statement of Omission
Avalanche	Not applicable, infrastructure is not in avalanche terrain.
Landslides	Not applicable, facilities have minimal risk to landslides.
Extreme Heat	Not applicable, no impact/risk to water systems or operations.
Severe Wind	Not applicable, severe wind does not affect operations and the majority of infrastructure is located underground.

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 4 and the equation below it.

Table 4: 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%

Risk Index Factor	Degree of Risk Level		Criteria	Factor Weight for Degree of Risk Level
	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.	
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	

Risk Index Factor	Degree of Risk Level		Criteria	Factor Weight for Degree of Risk Level
			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 recover from a potential disaster event.)	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 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 MCWD is presented in Table 5.

Table 5: Calculated Priority Risk Index for Mammoth Community Water District

Type of Hazard Event	Probability of Future Events	Spatial Event	Severity of Life/Property Impact	Warning Time	Duration	Risk Factor Value
Dam Failure	1	2	4	4	4	2.7
Disease and Pest Management	1	1	1	1	1	1
Drought	3	4	1	1	4	2.5

Type of Hazard Event	Probability of Future Events	Spatial Event	Severity of Life/Property Impact	Warning Time	Duration	Risk Factor Value
Earthquake and Seismic Hazards	2	4	4	4	4	3.4
Energy Shortages and Energy Resiliency	2	4	2	2	4	2.6
Epidemic/Pandemic	1	4	4	1	4	2.8
Flood	1	2	1	1	1	1.2
Hazardous Materials	1	1	1	4	1	1.3
Severe Winter Weather and Snow	4	4	2	1	1	2.8
Volcanoes	1	4	4	4	4	3.1
Wildfire	3	3	4	4	4	3.5

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 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 impacted them. Table 6 lists the hazard events of local significance.

Table 6: Previous Disaster Impacts for the Mammoth Community Water District¹

Type of Hazard Event	FEMA Disaster # (If Applicable)	Date(s)	Damage or Impacts	Description
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	April 2022–April 2023	Drought conditions required limiting the use of potable water because surface water availability was reduced.	Due to drought conditions, the MCWD Board set the Water Conservation Level to level 3 (of 5). At this level, the use of potable water for purposes other than domestic, in-home use (drinking, washing, toilets) is

¹ MCWD = Mammoth Community Water District.

Type of Hazard Event	FEMA Disaster # (If Applicable)	Date(s)	Damage or Impacts	Description
				significantly reduced. The use most impacted was landscape irrigation.
Earthquake and Seismic Hazards	N/A	N/A	N/A	N/A
Energy Shortages and Energy Resiliency	N/A	Annually	Energy outages have the impact on significantly disrupt water production.	The MCWD constructed a solar facility on its property for on-site energy production so it could operate the wastewater treatment plan. Diesel generators are used for backup energy at select locations.
Epidemic/Pandemic	DR-4482	April 2020 – May 2022	Productivity was reduced because of limited staff availability to provide services.	COVID pandemic.
Flood	N/A	January 1997	Increased runoff into the sewage collection system caused temporary high flows, forcing use of an emergency storage facility.	Rain on snow event generated significant runoff.
Hazardous Materials	N/A	N/A	N/A	N/A
Severe Winter Weather and Snow	N/A	March–December 2023	Potable water storage tank collapse	A potable water storage tank collapsed due to severe snow accumulation.
Volcanoes	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A

District-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 by plan participant, and they include the following:

- **People** (residents, workers, visiting populations, and socially vulnerable populations such as 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.)
 - › Lake Mary – Surface water supply
 - › Groundwater Basin (Mammoth) – Groundwater supply
 - › Laurel Pond – Surface wastewater discharge site
- **Critical facilities and infrastructure** (hospitals, law enforcement, water, power, transportation systems, etc.)
 - › Water and Wastewater Treatment Plant Campus (1315 Meridian Blvd.) – This asset is most critical to the distribution of potable water and collection/treatment of wastewater.
 - › Water treatment plants (3)
 - › Water storage tanks (8)
 - › Water distribution system (80 miles)
 - › Water collection system (75 miles)
- **Community activities** (major local events, such as festivals, or economic events, such as farming or fishing)
 - › Tourism causes major increases in the visitor population.

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

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 and Lake Mamie 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 is considered a high- or significant-risk dam. However, urbanized flooding from any level of dam failure could occur.
- **Impacts:** A failure of any of these dams could lead to flood inundation in the urban area of Mammoth Lakes, potentially impacting many structures along the creek.

- **District-Specific Vulnerabilities:**

- MCWD stormwater infrastructure could be damaged by flooding following a dam failure.
- Water distribution operations could be impacted by drastic changes in water levels and flow due to dam failure. This disruption could impact the population, who would be without water services.
- Dam capacity could be reached during an extreme precipitation event, resulting in overtopping or a breach scenario.
- Data limitations exist regarding the magnitude of a realistic flood event that would overload MCWD capacities. Additional studies could help clarify this vulnerability.

Disease and Pest Management

- **Location:** The entire MCWD jurisdiction is impacted by disease and pests.
- **Extent:** Based on historical occurrences, the Disease Severity Scale for the Town of Mammoth Lakes indicates a moderate susceptible/disease score 5.
- **Impacts:** Pine mortality caused by the mountain pine beetle (*Dendroctonus ponderosae*) has remained high. This pine mortality has an impact on the local ecosystem and water quality.
- **District-Specific Vulnerabilities:**
 - Continued impacts on local forests from pests can reduce water quality and raise costs for MCWD.
 - MCWD facilities themselves are not directly vulnerable to disease and pests. However, facility operations could be affected by reduced water quality.
 - Public health may be affected, particularly if water systems are compromised. The discovery of avian influenza in wastewater underscores the crucial role of monitoring disease outbreaks.

Drought

- **Location:** The entire MCWD jurisdiction is impacted by drought.
- **Extent:** Based on historical data, the Town of Mammoth Lakes, where MCWD is located, can expect to experience Exceptional Drought (D4) as a worst-case scenario.
- **Impacts:** Extended drought can have serious impacts on the operations, costs, and ability of MCWD to provide Mammoth Lakes with clean water.
- **District-Specific Vulnerabilities:**
 - Drought can reduce the water supply and require water restrictions for the MCWD to maintain water levels. The annual snowpack can be decreased, reducing the supply as well.

- Normally, MCWD obtains 40–60% of its annual water supply from surface water. However, during periods of drought, the District might have to switch to groundwater supply.²
- Changing hydrologic patterns in the Mammoth Basin put water supply at risk without aquifer recharge at the District’s production wells or increased water storage at Lake Mary.³
- Low water levels from drought can increase the concentration of pollutants, thereby increasing water treatment challenges and the potential for harm to the general public.
- Drought conservation efforts reduce the availability of potable water for purposes other than domestic, in-home use (drinking, washing, toilets).
- Decreased water use affects the District’s finances, as each 10% reduction results in an approximately 1.2% or \$170,000 loss in revenue.⁴ Additional economic losses are incurred by the District due to the additional costs associated with pumping and treating groundwater.

Earthquake and Seismic Hazards

- **Location:** The entire town can experience intense ground shaking from earthquakes and seismic activity, as it is located in the Antelope Valley and Hilton Creek fault shake scenarios.
- **Extent:** Based on the town’s location, the District is in the moderate-intensity shaking level.
- **Impacts:** Damage to buildings, critical facilities, and transportation infrastructure is possible. Such damage can cause significant disruption throughout the MCWD service area.
- **District-Specific Vulnerabilities:**
 - Earthquakes can damage MCWD stormwater and other water conveyance infrastructure, including treatment facilities, water storage tanks, and underground pipes.
 - Damage to MCWD facilities can cause delays in service. These service interruptions could impact people’s health in Mammoth Lakes.
 - Disruption to transportation infrastructure, especially US 395, can impede MCWD personnel from reporting to work.

Energy Shortages and Energy Resiliency

- **Location:** Energy emergencies can affect any part of the planning area.
- **Extent:** Based on historical occurrences, the planning area can expect to experience regular intervals of power outages that cause service disruptions in the water distribution system.

² Mammoth Community Water District. (2021, May). *Watershed Sanitary Survey May 2021*. Mammoth Community Water District. [Watershed+Sanitary+Survey+2021.pdf](#).

³ Mammoth Community Water District. (2021, May). *2020 Urban Water Management Plan*. Mammoth Community Water District. [Final-2020-UWMP.pdf](#).

⁴ Mammoth Community Water District. (2021, May). *2020 Urban Water Management Plan*. Mammoth Community Water District. [Final-2020-UWMP.pdf](#).

- **Impacts:** Energy outages can have widespread impacts on critical services, including water systems. Disruption to essential services like water systems can impact daily life and public health.
- **District-Specific Vulnerabilities:**
 - Loss of power can disrupt MCWD’s ability to maintain water quality in the District’s system. Critical facilities vulnerable to power outages include groundwater treatment plant(s), Lake Basin facilities (surface water treatment plant and wastewater lift stations), and Old Mammoth area assets (Ground Water Treatment Plant No. 1, four production wells, and one sewer lift station).⁵
 - The service interruptions caused by energy outages could impact people’s health in Mammoth Lakes.

Epidemic/Pandemic

- **Location:** Densely populated areas such as the Town of Mammoth Lakes could foster the spread of diseases faster than less densely populated areas of the county.
- **Extent:** Defined by geographic spread, epidemic disease is spread on the local and community levels, while a pandemic is national or global, both of which can occur quickly in isolated communities, such as in the planning area.
- **Impacts:** Epidemics and pandemics can disrupt all aspects of functioning for local communities as individuals get sick and are forced to stay distant.
- **District-Specific Vulnerabilities:**
 - MCWD personnel can get sick from an epidemic/pandemic, diminishing the capacity to run the water utility.
 - Water systems can be contaminated with harmful bacteria, increasing the potential health impacts on residents. MCWD conducts tests multiple times a month to assess this, including testing of source water.
 - Water infrastructure may be strained, and costs to MCWD may increase due to disease.

Flood

- **Location:** The flood hazard is generally low, 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 in the 100-year flood zone. Over 444 acres of the town are in the 100-year flood hazard zone.
- **Extent:** Flooding issues in Mammoth Lakes have been the result of shallow, overbank flooding in the 100-year flood zone.

⁵ Mammoth Community Water District. (2021, May). *2020 Urban Water Management Plan*. Mammoth Community Water District. [Final-2020-UWMP.pdf](#).

- **Impacts:** Floods have had moderate impacts on local infrastructure, private property, transportation systems, and utility systems.
- **District-Specific Vulnerabilities:**
 - Floods can damage stormwater infrastructure and overwhelm water systems.
 - Both surface water supply (Lake Mary) and groundwater supply (Groundwater Basin [Mammoth]) can be flooded, altering water quality and causing erosion. The Coldwater Lift Station and East May Station could contaminate Lake Mary if they overflowed.⁶
 - Water quality changes and erosion can impact communities near Lake Mary. Disruptions to MCWD services may result in public health concerns and increased economic losses.
 - As floods wash debris downstream, cleanup efforts can be expensive and time-consuming for MCWD personnel.

Hazardous Materials

- **Location:** The town is not located near the interstate highway corridor, where the likelihood of a HazMat incident is higher. However, a HazMat release along US 395 could affect the town, including MCWD, 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. Propane also is a concern.
- **Extent:** According to the Hazmat Warning System, level 1 (minor) through level 5 (catastrophic) is possible.
- **Impacts:** Transportation in and out of Mammoth Lakes can be restricted due to a HazMat spill. Air and water quality may be impacted. Long-term environmental impacts may be experienced. Transportation routes may be disrupted.
- **District-Specific Vulnerabilities:**
 - MCWD personnel's access to critical facilities could be restricted due to a HazMat spill, particularly along US 395, as some MCWD employees reside in surrounding communities.
 - Water treatment or wastewater plants could experience chlorine gas leaks, which would require an immediate risk assessment and emergency repairs or evacuation. A chlorine leak would disrupt water service for Mammoth Lake residents.
 - Chemicals used to stabilize the snow pack for skiing can enter the groundwater, potentially contaminating it.⁷
 - If HazMat enters the local water system, it can put significant stress on MCWD's infrastructure and potentially result in impacts to public health.

⁶ Mammoth Community Water District. (2021, May). *Watershed Sanitary Survey May 2021*. Mammoth Community Water District. [Watershed+Sanitary+Survey+2021.pdf](#).

⁷ Mammoth Community Water District. (2005, July). *Groundwater Management Plan for the Mammoth Basin Watershed*. Mammoth Community Water District. [Mammoth Community Water District](#).

Severe Winter Weather and Snow

- **Location:** The entire MCWD jurisdiction is 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.
- **Impacts:** Events can disrupt transportation and damage the structural integrity of facilities. Impacts on transportation can restrict personnel from accessing critical facilities.
- **District-Specific Vulnerabilities:**
 - MCWD's critical facilities can be disrupted due to snowfall. MCWD must clear snow from facilities, which can cause delays in service for customers.
 - Some MCWD personnel reside out of town and are vulnerable to road closures, particularly along US 395.

Volcano

- **Location:** The Town of Mammoth Lakes is near the southwest edge of the Long Valley Caldera. Mammoth Mountain and basaltic volcanic vents have historically been active within town boundaries. In addition, an area of potential future volcanic vents, inferred from seismic activity, extends into the town's east side. The entire town is in 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 as part of the National Volcano Early Warning System (NVEWS).
- **Impacts:** Volcanic eruptions can destroy property and injure or kill people. Ash accumulations from volcanic eruptions can collapse roofs, close roads, and seriously disrupt utilities and communications.
- **District-Specific Vulnerabilities:**
 - Volcanic impacts, including pyroclastic flow and vent eruptions, can directly damage MCWD facilities and infrastructure, including treatment facilities, water storage tanks, and underground pipes.
 - Ash accumulation can worsen water quality, putting increased stress on water treatment facilities.
 - Volcanoes can cause power outages, disrupting electricity-dependent facilities and straining generator capacities over prolonged outages. These prolonged outages will directly impact the residents of Mammoth Lakes whom MCWD serves.
 - Impacts on transportation can restrict personnel from accessing critical facilities. Vehicles and other motorized equipment may be disabled by volcanic ash.

Wildfire

- **Location:** Wildfire is a concern for the entire Town of Mammoth Lakes, as 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). Additional assets are in the Inyo National Forest.
- **Extent:** CAL FIRE considers the entire Town of Mammoth Lakes 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. CAL FIRE has designated most of the privately owned land as having a very high fire hazard severity level.
- **District-Specific Vulnerabilities:**
 - Wildfire can add ash and debris to the water system, increasing the cost of water treatment and the potential for damage to stormwater infrastructure.
 - MCWD facilities can be impacted by wildfire, impairing the ability to provide water service to customers. Critical potable water and wastewater collection infrastructure, including piping, pumps, storage tanks, and wells, is located throughout the town and in the Inyo National Forest.
 - Damaged water mains from any source, including other natural hazards, could limit crucial fire-fighting water supply (which needs up to 2,000 gallons/minute).⁸
 - The public, including MCWD staff, could be injured or killed. Lack of water or impacts to water systems could hinder effective response and recovery efforts.

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, and gaps in social equity. This can also include changes in local policies, standards, codes, regulations, land use regulations, and other conditions. Table 7 lists the changes in development for the MCWD.

⁸ Mammoth Community Water District. (2021, May). *2020 Urban Water Management Plan*. Mammoth Community Water District. [Final-2020-UWMP.pdf](#).

Table 7: Changes in Development for the Mammoth Community Water District

Type of Hazard Event	Changes in Land Use	Changes in Population	Changes in Conditions (e.g., Climate Change)	Overall Vulnerability
Dam Failure	Hotel expansions, residential developments, infrastructure improvements	No changes	Climate Change	Increased
Disease and Pest Management	Hotel expansions, residential developments, infrastructure improvements	No changes	Climate Change	Increased
Drought	More landscape irrigation, new development including proposed 580-unit, low-income housing project	No changes	Climate Change	Increased
Earthquake and Seismic Hazards	Hotel expansions, residential developments, infrastructure improvements	No changes	None	Stayed the same
Energy Shortages and Energy Resiliency	Hotel expansions, residential developments, infrastructure improvements	No changes	Climate Change	Increased
Epidemic/Pandemic	Hotel expansions, residential developments, infrastructure improvements	No changes	None	Stayed the same
Flood	Hotel expansions, residential developments, infrastructure improvements	No changes	Climate Change	Increased
Hazardous Materials	Hotel expansions, residential developments, infrastructure improvements	No changes	None	Stayed the Same
Severe Winter Weather and Snow	Hotel expansions, residential developments, infrastructure improvements	No changes	Climate Change	Increased
Volcanoes	Hotel expansions, residential developments, infrastructure improvements	No changes	None	Stayed the Same
Wildfire	Hotel expansions, residential developments, infrastructure improvements	No changes	Climate Change	Increased

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 MCWD 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 8: Plans of the Mammoth Community Water 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	Yes	The Plan identifies capital improvements needed to prevent impacts and improve resilience of facilities and the distribution and collection system	Annually
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	N/A	N/A	N/A
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
Other? (Describe.)	No	N/A	N/A

Table 9: Regulations and Ordinances of the Mammoth Community Water 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; the Town of Mammoth Lakes effectively implements the 2022 California Building Code	Yes; the building code is administered and enforced by the Town of Mammoth Lakes	Last updated: 12/7/2022 Next updated: 01/01/2026
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	N/A	N/A	N/A
Natural Hazard Specific Ordinance (Stormwater, Steep Slope, Wildfire)	N/A	N/A	N/A
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
Other? (Describe.)	N/A	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 10: Administrative Capabilities of the Mammoth Community Water 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	Yes	No	Yes
Civil Engineer	Yes	Yes	Yes	Yes
Community Planner	Yes	Yes	Yes	Yes

Administrative Capability	In place? (Y/N)	Is staffing adequate?	Is staff trained on hazards and mitigation?	Is coordination between agencies and staff effective?
Emergency Manager	No	N/A	N/A	N/A
Floodplain Administrator	No	N/A	N/A	N/A
Geographic Information System (GIS) Coordinator	Yes	Yes	Yes	Yes
Planning Commission	Yes	Yes	Yes	Yes
Fire Safe Council	Yes	Yes	Yes	Yes
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 11: Technical Capabilities of the Mammoth Community Water 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	Yes	Identify risk areas for the purpose of locating facilities	Identify risk areas for the purpose of locating facilities.
Mutual Aid Agreements	Yes	MCWD assists adjacent community water suppliers to mitigate risk when there are equipment failures/needs.	By identifying instances when mutual aid is needed, other community water suppliers can work toward improvements

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?
			specific to their needs to mutual aid.
Other? (Please describe.)	No	N/A	N/A

Financial

Financial capabilities are the resources to fund mitigation actions.

Table 12: Financial Capabilities of the Mammoth Community Water 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	No	Yes	Yes
General Funds	Yes	Yes, system improvements	Yes	Yes
Hazard Mitigation Grant Program (HMGP/404)	No	N/A	Yes	N/A
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	No	Yes	No
U.S. Army Corps (USACE) Programs	No	N/A	N/A	No

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?
Property, Sales, Income, or Special Purpose Taxes	Yes	Yes, system improvements	Yes	Yes
Stormwater Utility Fee	No	N/A	N/A	N/A
Fees for Water, Sewer, Gas, or Electric Services	Yes	Yes, system improvements	Yes	Yes
Impact Fees from New Development and Redevelopment	Yes	Yes, system improvements	Yes	Yes
General Obligation or Special Purpose Bonds	No	N/A	N/A	N/A
Federally Funded Programs (Please describe)	No	N/A	N/A	N/A
State-Funded Programs (Please describe)	No	N/A	N/A	N/A
Private Sector or Nonprofit Programs	No	N/A	N/A	N/A
Other?	No	N/A	N/A	N/A

Education and Outreach

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

Table 13: Mammoth Community Water District Education and Outreach Capabilities

Education and Outreach Capability	In place? (Y/N)	Does this resource currently incorporate hazard mitigation?	Notes
Community Newsletter(s)	No	N/A	N/A
Hazard Awareness Campaigns (such as Firewise, Storm Ready, Severe Weather Awareness Week, School Programs)	Yes	Yes	MCWD campaigns through the newspaper, radio, and social media to communicate tips to customers for winterizing their water system, updating their contact information on file with the District, and utilizing the

Education and Outreach Capability	In place? (Y/N)	Does this resource currently incorporate hazard mitigation?	Notes
			MCWD Customer Portal to set up alerts.
Public Meetings/Events (Please describe.)	Yes	Yes	MCWD Board meetings are open to the public.
Emergency Management Listserv	No	N/A	N/A
Local News	Yes	Unsure	N/A
Distributing Hard Copies of Notices (e.g., public libraries, door-to-door outreach)	No	N/A	N/A
Insurance Disclosures/Outreach	Yes	No	N/A
Organizations that Represent, Advocate for, or Interact with Underserved and Vulnerable Communities (Please describe.)	No	N/A	N/A
Social Media (Please describe.)	Yes	Yes	N/A
Other? (Please describe.)	No	N/A	N/A

Ability to Expand and Improve Existing Capabilities

Table : Opportunities to Expand and/or Improve the Capabilities of the Mammoth Community Water District⁹

Capability Type	Opportunity to Expand and/or Improve
Planning and Regulations	MCWD would like to be able to monitor all landscape irrigation water use. However, many multi-family residential complexes do not have dedicated irrigation meters, and the cost to install the meter prohibits them from doing so. MCWD will advocate for the inclusion of meters in future regulations to be able to monitor and reduce water use during drought conditions
Administrative and Technical	The District has many staff that are trained and familiar with hazard mitigation principles. The District will pursue training for staff on hazard mitigation grant writing, including how to apply for HMGP grants. In addition, training on hazards and mitigation for the Chief Building Official.

⁹ HMGP = Hazard Mitigation Grant Program, MCWD = Mammoth Community Water District, PA = Public Assistance.

Capability Type	Opportunity to Expand and/or Improve
Financial	The District could pursue new grants for mitigation activities, such as HMGP or PA Mitigation (406) post-disaster.
Education and Outreach	MCWD has difficulty communicating with second homeowners. Oftentimes, second homeowners do not return emails or phone calls, or they do not provide up-to-date contact information. There are few means to conduct public outreach. There is one newspaper in town and one local radio station. Although MCWD does have a social media presence, not all customers use social media. The District could work with the town to publicize hazard mitigation information and obtain contact information for second homeowners. Furthermore, the District could link to the online hazard mitigation plan and ReadyMono to promote understanding of local risks and what to do about them.

National Flood Insurance Program Capability Assessment

The MCWD 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 Mammoth Community Water 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; No
Which of your assets are at-risk from flooding?	Nothing specifically in the Special Flood Hazard Area.
Is your organization involved in floodplain management? If so, how?	No

Mammoth Community Water District 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 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 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 floods following wildfires.
- 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

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

2025 Mitigation Action Plan

The Mitigation Action Plan outlines the mitigation measures the MCWD has identified. Actions might 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. 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 MCWD 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.

The key components of the Mitigation Action Plan are defined as follows:

Hazards Addressed

- Dam Failure
- Disease/Pest Management
- Drought

- Earthquake/Seismic Hazards
- Energy Shortages and Energy Resiliency
- Epidemic/Pandemic
- Flood
- Hazardous Materials
- 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:¹⁰

¹⁰ FEMA. "Community Lifelines Implementation Toolkit." <https://www.fema.gov/emergency-managers/practitioners/lifelines-toolkit>.

- **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, the district assigned a prioritization category of low, medium, or high to each natural hazard action item. Calculations for the following priority categories are based on the STAPLEE criteria: (Social, Technical, Administrative, Political, Legal, Economic, and Environmental):

- **Low:** Based on one to two STAPLEE criteria, the action is feasible and important for the district but has multiple potential challenges. The action should be implemented as funding becomes available.
- **Medium:** Based on three to four STAPLEE criteria, the action is feasible and important for the district, with some potential challenges. Its implementation is less urgent than a high-priority action item and can be implemented over time.
- **High:** Based on five or more STAPLEE criteria, the action is feasible and important for the district, with minimal to no concerns. It is essential for the district to implement and may be prioritized in the short term.

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

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Table 15: Mammoth Community Water District 2025–2030 Mitigation Actions¹¹

#	Project Title	Hazard/s Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Time-frame	Community Lifeline/s	Priority
1	Monitoring landscape irrigation with DIMs.	Drought	The lack of dedicated landscape irrigation meters at properties with existing landscaping limits the ability to track irrigation use during times of restriction. MCWD would like to be able to provide the meters, rebates, or financial assistance to incentivize installation of dedicated irrigation meters.	MCWD	TOML	MCWD General Fund	\$252–\$1,000/ meter. ~\$50,000	Long-term	Water Systems	High
2	Acquire potable water trucks	Energy Shortages and Energy Resilience	Provide mobile sources of potable water during an energy shortage impacting the District’s ability to distribute potable water.	MCWD	TOML	MCWD General Fund	\$500,000	Medium-term	Water Systems	Low
3	Implement structural mitigation measures	Earthquake	Use structural mitigation measures to reduce damage from future seismic events, such as: • Strengthening and retrofitting non-reinforced masonry buildings and non-ductile concrete facilities that are particularly vulnerable to ground shaking. • Retrofitting building veneers to prevent failure. • Building a safe room to provide protection during an earthquake. • Installing window film to prevent injuries from shattered glass. • Anchoring rooftop-mounted equipment (i.e., HVAC units, satellite dishes).	MCWD		MCWD General Fund	\$1,500,000	Long-term	Water Systems	Medium

¹¹ DIM = Dedicated Irrigation Meters, HVAC = Heating, Ventilation, and Air Conditioning, INF = Inyo National Forest, MCWD = Mammoth Community Water District, MLFPD = Mammoth Lakes Fire Protection District, PPE = personal protective equipment, SCE = Southern California Edison, TOML = Town of Mammoth Lakes.

#	Project Title	Hazard/s Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Time-frame	Community Lifeline/s	Priority
4	Conduct Winter Weather Educational Campaign	Severe Winter Weather and Snow	Educate property owners about freezing pipes and how to protect pipes to prevent bursting.	MCWD	TOML	MCWD General Fund	\$5,000	Medium-term	Water Systems, Hydration	Low
5	Implement Defensible Space Program Around District Assets	Wildfire, Wildlife Collisions	On a 1–5-year basis, assess and complete defensible space around critical facilities.	MCWD	INF, TOML	MCWD General Fund	\$50,000	Long-term	Water Systems, hydration	High
6	Source Water Protection	Disease/Pest Management, Wildfire	Support watershed-scale forest management to reduce disaster impacts on source water.	MCWD	INF, TOML, MLFPD	MCWD General Fund, Blue Forest Partnership	\$100,000	Medium-term	Water Systems	Medium
7	Backup Tesla battery	Energy Shortages and Energy Resiliency	Purchase and install a backup Tesla battery to support existing onsite renewal energy production	MCWD		MCWD General Fund, HMGP	\$2,300,000	Long-term	Water Systems	Low
8	Generator/ Power Supply backup	Dam Failure, Drought, Earthquake/ Seismic Hazards, Energy Shortages and Energy Resiliency, Flood, Severe Winter Weather and Snow, Volcanoes, Wildfire	Purchase and install backup energy supplies at critical facilities to maintain water service.	MCWD	SCE	MCWD General Fund, CA Public Utilities Commission	\$5,000/ generator x 10 = \$50,000	Medium-term	Water Systems	Medium

#	Project Title	Hazard/s Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Time-frame	Community Lifeline/s	Priority
9	Fire retardance for critical facilities	Wildfire	Purchase and install fire retardance	MCWD	TOML	MCWD General Fund	\$10,000	Medium-term	Water Systems	Medium
10	Purchase snow removal equipment	Severe Winter Weather and Snow	Purchase and maintain snow removal equipment used at facilities needed to continue operation of the water and wastewater systems.	MCWD	TOML	MCWD General Fund	\$500,000	Long-term	Water Systems	Low
11	Construction of replacement Administration Building	Earthquake/ Seismic Hazard	The existing Administration Building does not meet structural seismic standards during catastrophic earthquake. The building needs to be replaced with a new facility that meets current codes.	MCWD	TOML	MCWD General Fund, HMGP, PA Mitigation (406)	\$2,000,000	Long-term	Water Systems	Medium
12	Facility air purification system	Wildfire, Hazardous Materials, Epidemic/ Pandemic, Volcanoes	MCWD Campus facilities lack an air purification system. To protect the health and safety of employees needed to maintain daily operations of the water and wastewater system, air purification is necessary.	MCWD		MCWD General Fund	\$500,000	Long-term	Water Systems	Medium
13	Seismic/Snow Structural Risk Assessment	Earthquake, Severe Winter Weather and Snow	Analysis and mitigation plan for all water and wastewater infrastructure. Identify assets at risk of structural collapse or failure in the event of a seismic or snow event.	MCWD	TOML	MCWD General Fund	\$300,000	Complete in 2025	Water Systems	High
14	Develop Groundwater Management Plan	Drought, Wildfire	Plan for long-term drought conditions. Identify opportunities to reduce long-term risk through monitoring, operating, and administering groundwater in a sustainable manner.	MCWD	TOML	MCWD General Fund	\$25,000	Years 1–2	Water Systems, Hydration	Medium
15	Building Partnerships for Federal	Dam Failure, Flood	Coordinate with Inyo National Forest and US Bureau of Reclamation on federally owned structures in Mammoth Lakes Basin including	MCWD	INF, US Bureau of	MCWD General Fund, INF,	\$10,000	First meeting in 2026,	Water Systems,	Low

#	Project Title	Hazard/s Addressed	Description	Responsible Agency	Potential Partners	Potential Funding	Cost Estimate	Time-frame	Community Lifeline/s	Priority
	Dam Coordination		mitigation measures as appropriate, such as studies outlining the potential impacts to MCWD facilities and downstream communities.		Reclamation	US Bureau of Reclamation		and then meet yearly	Safety and Security	
16	Implement Sewer System Management Plan	Flood	Implement the sewer system management plan as required by the State Water Board to prevent the discharge of wastewater during flood events.	MCWD	State Water Board, INF	MCWD General Fund	\$10,000	Begin in 2026 and continue as needed	Water Systems	Low
17	PPE Planning	Epidemic/Pandemic	Provide and enforce workforce PPE and adaptation planning.	MCWD	Mono County Public Health	MCWD General Fund	\$10,000	1–3 years	Health and Medical	Low

Mitigation Action Prioritization

The MCWD considered the STAPLEE criteria when prioritizing its actions. Table 16 documents how each action was prioritized.

Table 16: STAPLEE Prioritization for the Mammoth Community Water District

Action	Social	Technical	Administrative	Political	Legal	Economic	Environmental	Priority
1	2	4	4	2	2	2	4	High
2	4	4	4	4	4	3	4	Medium
3	2	2	4	3	3	3	4	Medium
4	3	3	3	3	3	3	3	Medium
5	4	4	4	4	4	4	4	High
6	3	3	4	4	2	2	4	Medium
7	3	3	4	4	2	2	4	Medium
8	3	3	4	4	2	2	4	Medium
9	3	3	4	3	2	2	3	Low
10	3	3	3	3	3	2	3	Low
11	2	3	3	2	2	2	3	Medium
12	2	3	3	3	3	3	3	Medium
13	4	3	4	4	4	4	4	High
14	3	4	4	4	4	4	4	Medium
15	4	4	2	2	2	2	3	Low
16	3	4	2	2	4	3	4	Low
17	3	4	2	2	4	3	3	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 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 MCWD did not meaningfully integrate the prior plan anywhere, as the District was not a plan participant in the prior plan.

Future Integration Opportunities

The MCWD identified future plan integration opportunities, as described in Table 17.

Table 17: Future Plan Integration for the Mammoth Community Water District

Plan	Description	Process for Integration
MCWD Strategic Plan	A yearly planning document that outlines yearly strategic objectives and metrics for measuring progress.	The Local Multi-Jurisdictional Hazard Mitigation Plan will be consulted on an annual basis to add mitigation actions into the Strategic Plan.

Conclusion

The MCWD is committed to carefully and effectively managing and maintaining local water resources. This includes planning and implementing hazard mitigation projects that increase community resilience. The MCWD has taken multiple recent measures to reduce hazard risk, including the following:

- **Drought:** MCWD developed a Water Shortage Contingency Plan with updates and refinements of proposed water conservation measures.
- **Energy Shortages and Energy Resiliency:** MCWD developed energy system redundancy through the purchase and installation of power packs and generators at multiple facilities.
- **Epidemic/Pandemic:** MCWD updated its human resource operations in response to the COVID-19 pandemic.
- **Wildfire:** MCWD has expanded partnerships for community wildfire protection to protect surface watershed and surface water treatment facilities.

- **Multi-Hazard:** Cybersecurity threats are an ongoing hazard which may be increased post-disaster when systems are more vulnerable. The District has increased its cybersecurity posture and network resilience.

The District provides water and wastewater services to meet the health and safety needs of the community. The District's commitment to its customers and the environment is demonstrated through its active participation in this hazard mitigation plan. Participating in the mitigation plan not only provides the opportunity to evaluate risk and build partnerships for mitigation but also positions MCWD to be eligible for additional hazard mitigation grants. Implementing future mitigation measures will help the District continue to provide water and wastewater services to meet the health and safety needs of the community.

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