

RESILIENT MAMMOTH LAKES: ADAPTATION STRATEGY DEVELOPMENT

Purpose: develop adaptation strategies to increase both physical and social resilience of the community's people, natural environment, built systems, and economy.

The Mammoth Lakes vulnerability assessment considers ten different exposures:

- Drought
- Extreme heat
- Flooding
- Forestry pests and diseases
- Human health hazards
- Landslides and mudflows
- Severe weather
- Severe winter weather
- Wildfire
- Smoke and Ash

The adaptation strategies are organized by the following sectors:

- **Human** – can include cultural systems such as Native American groups, Faith groups, Civic Organizations, and Local Cultural Groups; and social systems such as Health (mental, physical), Emergency Services (preparedness, response, law enforcement), Leadership (elected leaders, government staff, informal civic leaders), and Underrepresented Populations (communities of color, young people, elders, people with disabilities, homeless residents, seasonal and/or low income workers)
- **Built** – The built sector can consist of the following systems: Water (wastewater, stormwater, residential water, and industrial/agricultural water), Transportation, Energy (production, distribution), Buildings (residences, industrial), Utilities, Municipal Planning, and Engineering and Construction.
- **Economic** – The economic sector can consist of Business and Industry, Forestry, Agriculture, and Recreation/Tourism.
- **Natural** – The natural sector can include Aquatic (rivers and lakes) and Terrestrial (forest) environments.

Note: The adaptation strategies that were developed by CCAT members are marked with a ▲ symbol, and the adaptation strategies developed at the Community Workshop are marked with a ● symbol. Where the strategies fit within the General Plan are noted after each strategy.

HUMAN

STRATEGY	VULNERABILITY	STRATEGY	ACTION	CO-BENEFITS	CONSISTENCY WITH OTHER PLANS
HM-1	Populations are vulnerable to the effects of extreme heat, including heat stroke and heat exhaustion. (Exposure: Extreme Heat, Smoke and Ash)	<p>Create an extreme heat response plan that includes establishment of community cooling centers, weatherization of Town buildings, and cooling strategies for persons engaged in outdoor work. ▲ (Public Health & Safety Element)</p> <p>Increase education and awareness around cooling strategies and prepare vulnerable populations for higher temperatures and more frequent extreme heat. (Public Health & Safety Element)</p>	<ul style="list-style-type: none"> • Build or use existing facilities with air conditioning as cooling centers for populations vulnerable to extreme heat, including homeless populations or those lacking in permanent shelter. ▲ • Create targeted public outreach and education around cooling strategies for those populations sensitive to higher temperatures, especially those who work outdoors or lack permanent shelter. • Use state incentives and programs for weatherizing support. 	<ul style="list-style-type: none"> • Cooling centers can double as energy, communications and technology back-up hubs. • Emergency gathering center for extreme weather, flooding, and wildfire events. • Improved public health. • Community equity. 	Mammoth Lakes Housing Action Plan
HM-2	Residents and visitors are vulnerable to extreme weather and other events that would require evacuation to ensure safety. (Extreme Heat, Severe Weather, Severe Winter Weather, Flooding, Landslides and Mudflows, Wildfire, Smoke and Ash)	<p>Prepare a comprehensive Town emergency response system and/or plan that identifies or creates a central and safe refuge location for emergency situations. Improve evacuation routes for emergency situations to serve both local residents and visitors. ▲● (Public Health & Safety Element: S.1; S.4)</p> <p>Launch coordinated preparedness education campaign to encourage community members to take action to improve resilience. ● (Public Health & Safety Element: S.4)</p>	<ul style="list-style-type: none"> • Create evacuation / resilience centers to provide safe refuge during emergency situations. ▲ • Provide safe evacuation and shelter services for emergency situations that accommodate the needs of populations that are homeless and lack permanent shelter. • Create transportation routes and/or transit systems that can support residents and visitors during evacuation situations. ▲● • Incorporate back-up powered emergency response center systems into evacuation center to provide off-grid electricity and communications services. • Create alert system that can be used by locals and visitors. ▲● • Include analog backup to the digital alert system. ● 	<ul style="list-style-type: none"> • An evacuation center can double as a cooling center during times of extreme heat, or as a warming center during times of extreme cold. • Increased positive public perception and visitor numbers. • Community equity. 	

STRATEGY	VULNERABILITY	STRATEGY	ACTION	CO-BENEFITS	CONSISTENCY WITH OTHER PLANS
HM-3	Heavy snow and other winter weather conditions impede transportation and reduce mobility for community members, especially those with limited access to appropriate transportation and snow removal equipment. (Severe Weather, Severe Winter Weather)	<p>Provide education and outreach to community members on mobility options during winter weather conditions. (Mobility Element: M.3, M.5)</p> <p>Improve transportation network and mobility options to help people who walk or who use two-wheel-drive vehicles to travel. ▲ (Mobility Element: M.5)</p>	<ul style="list-style-type: none"> • Create reliable year-round transportation systems and explore alternative transit options for extreme weather events such as heavy and/or wet snow. ▲● • Provide information to residents on visitors regarding safe transportation options during severe winter weather. • Implement comprehensive snow removal practices that benefit both motorized vehicle users and pedestrians, and those with limited access to private snow removal equipment. ● 	<ul style="list-style-type: none"> • Reduce greenhouse gas emissions and increase adaptation of travel. • Diversified transportation options. • Increased walkability. • Meet needs of commuting population (buses, carpooling, and traffic management). • Increased/maintained economic activity. • Community equity. 	
HM-4	It is challenging to manage a high snow load for certain populations. There is an increased financial, physical, and logistical burden of snow removal for many vulnerable or disadvantaged populations. (Severe weather, Severe Winter Weather)	<p>Ensure that snow load management is more equitable and safe for entire community. ▲ (Mobility Element: M.4, M.8, M.9; Public Health & Safety Element: S.2, S.3)</p>	<ul style="list-style-type: none"> • Improve snow removal and storage systems, modeling after specific needs of residents. Look to community-based snow management systems already used by condominiums, town programs, and private snow storage. ▲ • Create equitable and affordable snow removal options for low-income residents. ▲ • Explore snow removal equipment lending program that serves disadvantaged populations. 	<ul style="list-style-type: none"> • Local businesses supported. • Increased/maintained economic activity. • Increased walkability and reduced transportation related emissions. 	
HM-5	The close proximity of Town to forest increases risk of wildfire. (Wildfire, Severe Weather, Extreme Heat, Drought)	<p>Create a Town wildfire mitigation strategy and community vegetation management plan in coordination with USFS. ▲ (Public Health & Safety Element)</p> <p>Increase funding for wildfire mitigation and protection. ▲ (Public Health & Safety Element)</p> <p>Create a Fire Safe Council and Town Fire District safety strategy. ● (Public Health & Safety Element)</p> <p>Increase neighborhood outreach and education around wildfire risk and reduction strategies. ▲● (Public Health & Safety Element)</p>	<ul style="list-style-type: none"> • Manage and mitigate wildfire fuel in offseason including prescribed burning, mechanical thinning, chipping, and biomass utilization efforts. Include public outreach and education around forest fire management strategies. ▲● • Develop a public outreach and education program for home owners and residents to better prepare for wildfire mitigation and protection. ▲● • Provide education and outreach for funding opportunities for residents and business owners. ▲● • Seek state grants and find technical assistance providers. ▲ 	<ul style="list-style-type: none"> • Carbon sequestration. • Wildlife habitat restoration. • Increased underground water supply. • Economic activity. • Increased public wildfire preparedness and resilience of residents. 	

STRATEGY	VULNERABILITY	STRATEGY	ACTION	CO-BENEFITS	CONSISTENCY WITH OTHER PLANS
HM-6	Vulnerable populations are especially sensitive to fine particles in wildfire smoke and ash conditions. (Wildfire, Smoke and Ash)	Create a wildfire smoke hazard mitigation program for vulnerable communities. (Public Health & Safety Element; Resource Management & Conservation Element: R.10)	<ul style="list-style-type: none"> • Create program to provide community members with air purifiers, masks, and bottled water in case of extreme smoke and ash which results in poor air quality. Include public outreach and education program with air quality alerts. ▲ • Create/improve access to weatherization programs and other home fortification resources. • Designate community smoke and ash resilience centers. Ensure such centers are accessible to populations that are homeless and lack permanent shelter. 	<ul style="list-style-type: none"> • Improved visitor experience during smoke events. • Reduce energy waste related to drafty homes. • Improved public health. • Community equity. 	Mammoth Lakes Housing Action Plan
HM-7	Food security, food systems, and vital services are at risk of interruption or disruption during emergency or disaster situations. (Severe Weather, Severe Winter Weather, Flooding, Landslides and Mudflows, Wildfire)	<p>Assess food security, food systems, and vital services to strengthen and diversify local and regional food systems. ● (Public Health & Safety Element: S.4)</p> <p>Create partnerships and programs to reduce food disparity and increase food security and equity. (Public Health & Safety Element: S.4)</p>	<ul style="list-style-type: none"> • Create a community food storage system and work with local grocery stores to implement. ● • Coordinate with local food banks and homelessness organizations for efforts to increase food security and storage systems. • Establish emergency food storage system. ● • Create more robust local food system by expanding year-round local agriculture which could be housed indoors or in greenhouses. ● 	<ul style="list-style-type: none"> • Increased jobs and economic activity associated with food/agriculture industry. • Reduce emissions associated with food production and transportation. • Community Equity. 	
HM-8	Isolated individuals or groups, or groups without robust social support networks, may be unable to manage unexpected hazards, costs, or other burdens. (Severe Weather, Extreme Heat, Human Health Hazards, Severe Winter Weather, Wildfire, Smoke and Ash)	<p>Increase community resiliency and capacity to thrive in the future. Build stronger community connections and support networks between vulnerable and not-as-vulnerable populations. ● (Community Design Element)</p> <p>Build partnerships between public, private, and nonprofit sectors to provide critical services to vulnerable populations and foster community connections. (Community Design Element)</p>	<ul style="list-style-type: none"> • Use a services exchange platform or network to exchange services related to adaptation strategies. One example is a senior community member exchanging an hour of childcare for an hour of snow shoveling from a more able-bodied community member. ● • Increase access to shared vehicles, especially four-wheel drive vehicles. ● • Providing mobile generators for emergency situations. ▲ 	<ul style="list-style-type: none"> • Improve overall community connectivity, well-being, equity, and mental health 	

BUILT

STRATEGY	VULNERABILITY	STRATEGY	ACTION	CO-BENEFITS	CONSISTENCY WITH OTHER PLANS
BT-1	Water supply is vulnerable to changing climate and damage to water supply infrastructure (including private wells). (Drought, Flooding, Landslides and Mudflows, Severe Weather)	Increase resiliency of water systems for the Town and residents. ▲ (Resource Management and Conservation Element: R.4)	<ul style="list-style-type: none"> • Improve and protect existing wells, and improve water resource resiliency. ▲ • Continue current drought policy, water restrictions (hourly water metering available). ▲ • Encourage MCWD to add water wells away from the mountain or in lower arsenic areas to increase water supply during drought years. ▲ 	<ul style="list-style-type: none"> • Improved water quality and quantity. 	
BT-2	Flooding can damage and overflow sewage system. (Flooding, Landslides and Mudflows, Severe Weather)	Improve resiliency of wastewater systems through grey and green infrastructure improvements. ▲ (Public Health & Safety Element; Resource Management & Conservation Element)	<ul style="list-style-type: none"> • Rehabilitation/maintenance of water system and sewer system as a preventative measure and to improve the system’s resiliency to flooding events. ▲ • Assess water system flow capacity and determine potential flooding risks to anticipate potential damage, and to develop mitigation strategies. ▲ • Increase rain/storm water capture gardens and other green spaces. • Assess and improve storm water storage. 	<ul style="list-style-type: none"> • Heat island mitigation. • Public health benefits. 	
BT-3	The Town and residents are vulnerable to an increase in flooding from extreme weather events. (Severe Weather, Flooding, Landslides and Mudflows, Drought)	<p>Promote green infrastructure strategies that increase flood mitigation capacity within the Town. (Public Health & Safety Element: S.3; Resource Management & Conservation Element: R.5)</p> <p>Identify and prioritize key neighborhoods for storm water capture (flood water) and green infrastructure development. (Public Health & Safety Element: S.3; Resource Management & Conservation Element: R.5)</p> <p>Develop projects that restore existing flood controls and riparian corridors. (Public Health & Safety Element: S.3; Resource Management & Conservation Element: R.5)</p>	<ul style="list-style-type: none"> • Consider green infrastructure solutions to improve flood control, improve surface retention and subsurface water storage. • Create demonstration neighborhood green infrastructure projects (pilot programs). 	<ul style="list-style-type: none"> • Reduced heat gain. • Support local food systems. • Groundwater recharge. • Expand active recreation. 	

STRATEGY	VULNERABILITY	STRATEGY	ACTION	CO-BENEFITS	CONSISTENCY WITH OTHER PLANS
BT-4	Telecommunication and broadband infrastructure at vulnerable to outages, damage, and disruption. (Wildfire, Flooding, Landslides and mudflows, Severe Weather)	<p>Coordinate with telecommunication and internet service providers to improve resilience and redundancy of telecommunication and broadband infrastructure. (Economy Element; Public Health & Safety Element)</p> <p>Create redundancy in communication systems. ▲ (Community Design Element: C.3)</p> <p>Identify or build a technological back up system and/or powered energy resource center to provide alternative telecommunication services. ▲ (Economy Element; Public Health & Safety Element)</p>	<ul style="list-style-type: none"> • Work with telecommunication and internet service providers to modernize and strengthen broadband systems, and reinforce barriers to protect vulnerable infrastructure. • Designate community buildings for additional back up services, connections and energy. • Capitalize on Digital 395 infrastructure to enhance communication capabilities and redundancies. • Improve and expand channels of communication between Town and emergency services and the community. ▲ 	<ul style="list-style-type: none"> • The economy and other public systems can continue to function in emergencies. • This building can double as a cooling or resilience center. • Job creation through digital markets. • Enable remote workforce. • Long-term sustainable economic and social prosperity. • Improve connectivity and coordination of related services, not limited to: roads, air services, and telecommunications 	
BT-5	The current supplies of energy resources (fossil fuels, propane, and fuel wood) are vulnerable to damage and service disruptions. The electrical distribution system is at risk during high wind and wildfire events. (Severe Weather, Severe Winter Weather, Wildfire, Flooding)	<p>Increase resilience of energy supply and distribution systems to improve grid reliability and energy independence through coordinated efforts with Southern California Edison. ▲● (Community Design Element; Economy Element; Public Health & Safety Element; Resource Management & Conservation Element: R.6, R.7, R.8)</p> <p>Explore feasibility of supply side diversification, resilient electrical distribution infrastructure, and facilitate access to local, decentralized renewable energy. ▲● (Economy Element; Resource Management & Conservation Element: R.6, R.7, R.8)</p> <p>Reduce energy system reliance on fossil fuels through demand side reductions, increasing energy efficiency, and renewable energy procurement. ▲● (Economy Element; Resource Management & Conservation: R.6, R.7, R.8)</p>	<ul style="list-style-type: none"> • Create a micro grid utilizing renewable energy and battery storage which could serve schools, college, municipal buildings, hospital, emergency shelter, and other emergency services. ▲● • Create a powered emergency response center (PERC). ● • Increase energy efficiency, renewable energy, and incorporation of electrical battery storage. ▲● • Explore feasible local renewable energy options, including solar, wind, and biomass. ▲● • Create policies that encourage solar and other renewable energy generation. For example by reducing and streamlining permitting process and fees. • Continue undergrounding of electrical lines, and explore other ways to improve infrastructure to better resist impacts associated with wildfire. ▲ 	<ul style="list-style-type: none"> • Resilient electrical distribution system for wildfire events. • Financial and energy resilience benefits. • Localized renewable energy. • Improved emergency response. • Increased energy efficiency and reduced greenhouse gas emissions. • Local job creation. 	SB 100 alignment.

STRATEGY	VULNERABILITY	STRATEGY	ACTION	CO-BENEFITS	CONSISTENCY WITH OTHER PLANS
BT-6	The Town’s roadway infrastructure, access, and emergency vehicles are vulnerable to disruption by severe weather events. (Severe Weather, Severe Winter Weather, Flooding, Wildfire, Landslides and Mudflows)	<p>Create and reinforce emergency modes and routes of transportation. ▲● (Mobility Element: M.2)</p> <p>Identify key vulnerable points in transportation system to determine where to build grey or green infrastructure to mitigate disruption to transportation infrastructure. (Mobility Element)</p>	<ul style="list-style-type: none"> • Develop new and/or alternate routes to the roadways that are vulnerable such as single-access roads. ▲ • Encourage residents on single-access roads to maintain emergency supplies to last at least three days. ▲ • Identify sites for and build bioswales and fire breaks to protect transportation infrastructure. 	<ul style="list-style-type: none"> • Improved public transit and reduced VMT emissions. • Mixed-use public green spaces w/ public health benefits. 	
BT-7	The accessibility and functionality of the Town transportation system and snow management systems are vulnerable during severe winter weather events. (Severe Winter Weather, Severe Weather)	<p>Improve transportation system, infrastructure, and mobility options to serve community during winter weather events. ▲ (Mobility Element: M.3)</p> <p>Ensure that snow load management is equitable, effective, and safe for entire community. ▲ (Mobility Element: M.9)</p>	<ul style="list-style-type: none"> • Explore reliable transportation options for extreme weather events such as heavy and/or wet snow, especially as alternatives to people limited to two wheel drive vehicles. ▲ • Create and implement more effective snow removal and storage system to ensure benefit to all residents and visitors, including those populations with limited access to private snow removal equipment. ▲ • Ensure that vulnerable populations have access to appropriate mobility and transportation options during severe winter weather events. • Improve snow removal systems to clear walkways for pedestrian traffic. 	<ul style="list-style-type: none"> • Maintained economic activity. • Improved access for visitors. • Increase winter walkability of Town in winter. • Reduced transportation emissions. • Improved public health. • Community equity. 	Mammoth Lakes Housing Action Plan

STRATEGY	VULNERABILITY	STRATEGY	ACTION	CO-BENEFITS	CONSISTENCY WITH OTHER PLANS
BT-8	Increased risk of wildfire damage to structures and roadways (Wildfire, Drought, Severe Weather)	<p>Encourage fire safe design for homes, neighborhoods, and streets to minimize vulnerability to fire. (Public Health & Safety Element: S.3)</p> <p>Support/increase fuel reduction to mitigate wildfire. ▲ (Public Health & Safety Element: S.3)</p> <p>Identify sites for new or improved fire breaks. ▲ (Public Health & Safety Element: S.3)</p> <p>Fire-proof buildings and homes through increasing education, awareness, and retrofit funding opportunities. ● (Public Health & Safety Element: S.3)</p>	<ul style="list-style-type: none"> • Adopt local building, zoning, and development ordinances that encourage or require fire safe design. • Explore feasibility of establishing biomass renewable energy in Mammoth Lakes ▲● • Provide education and outreach to private property owners to increase or improve their defensible space, increase their individual preparedness and prevention measures. ▲● • Provide information on financing options for property owners, fines/rewards system for creating defensible space. ▲● 	<ul style="list-style-type: none"> • Improved economic activity. • Forest management. • Wildfire prevention. • Energy resilience. • Financial benefits. • Wildfire/vegetation management. 	Forest carbon plan.

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ECONOMIC

STRATEGY	VULNERABILITY	STRATEGY	ACTION	CO-BENEFITS	CONSISTENCY WITH OTHER PLANS
EC-1	Increases in wildfire smoke from other regions, wildfire prescribed burning, or managed burning by USFS can cause smoke, fine particles and ash, and other conditions that impact tourism and the local economy. (Wildfire, Severe Weather, Smoke and Ash)	<p>Improve wildfire management coordination between Town, local air quality agency and USFS to mitigate economic impacts of prescribed/managed fires. ▲ (Public Health & Safety Element; Resource Management & Conservation Element)</p> <p>Create smoke protection plan that contributes to positive experience of visitors, and supports visitor-serving industry during smoke events. ▲ (Public Health & Safety Element; Economy Element)</p>	<ul style="list-style-type: none"> • Improve fire management coordination between the Town and USFS by implementing prescribed and managed burning strategy that accommodates the busy tourist season. ▲ • Factor community economic impact into the decision making model and processes, both for the Town and USFS. ▲ • Increase “let it burn” period of time during shoulder seasons, permitting that conditions are appropriate. ▲ • Create smoke protection program for tourism industry (hotels, recreation, etc.) to provide visitors with air purifiers, masks, and bottled water in case of poor air quality due to smoke and ash. 	<ul style="list-style-type: none"> • Improved public perception during peak seasons, • Smoke intensity burden distributed rather than concentrated. • Improved tourism experience for visitors during periods of poor air quality. • Improved public health. 	
EC-2	Economic assets are vulnerable to increases in wildfire activity. (Wildfire, Smoke and Ash)	<p>Support forest thinning byproduct economies and markets to create a revenue stream for mechanical treatments. ▲● (Public Health & Safety Element; Economy Element; Resource Management & Conservation Element)</p> <p>Support biomass-to-energy facilities and systems locally and regionally. ▲ (Public Health & Safety Element; Economy Element; Resource Management & Conservation Element)</p>	<ul style="list-style-type: none"> • Seek wood product innovation grants and financing mechanisms to build market for biomass thinning. ▲ • Analyze the feasibility of biomass energy facility. ▲● 	<ul style="list-style-type: none"> • Job creation and local economic returns. • Economic diversification. • Increased long term carbon sequestration, and overall forest health improvement. • More downstream water quantity and quality. • Wildfire and smoke risk mitigation. • Local, renewable energy. • Improved public health. 	Forest Carbon Plan
EC-3	The Town may have a reduced ability to effectively respond to an emergency situation due to lack of funds. (Extreme Heat, Flooding, Landslides and Mudflows, Severe Weather, Severe Winter Weather, Wildfire)	<p>Create a Disaster Preparedness Fund. ● (Public Health & Safety Element: S.3)</p> <p>Expand workforce preparedness training to include programs for restoring city services after a major disaster or emergency. ● (Public Health & Safety Element; Economy Element)</p>	<ul style="list-style-type: none"> • Fund to be pre-approved and agreed upon by the Town set aside (earmarked) and ready to be used in an emergency or disaster situation. ● • Explore potential trainings and partnerships to expand workforce trainings to include emergency preparedness. 	<ul style="list-style-type: none"> • Funding to fill gaps left by federal disaster funding. • Could support actions that would only need to be implemented in the case of an emergency or disaster. 	Mammoth Lakes Housing Action Plan – funding source strategies

STRATEGY	VULNERABILITY	STRATEGY	ACTION	CO-BENEFITS	CONSISTENCY WITH OTHER PLANS
EC-4	Businesses are vulnerable to wildfire, flooding, and severe weather due to loss of data and inability to reopen business after disaster. (Wildfire, Severe Weather, Severe Winter Weather)	<p>Support business resiliency through preparedness education, trainings, and resources. ▲ (Economy Element)</p> <p>Increase access to emergency preparedness and mitigation resources specifically for businesses. ▲ (Economy Element)</p>	<ul style="list-style-type: none"> • Support business community to increase their resiliency and ability to reopen business after disaster occurs. ▲ • Support efforts to expand business resiliency trainings, data backup plans, and other resources specific to business owners. ▲ 	<ul style="list-style-type: none"> • Improve overall business continuity • Enhanced business and community image. • Reduced insurance costs. • Resilient local economy. 	
EC-5	Local ski industry and winter recreation jobs and income may decline as decreasing snowpack reduces the snow economy; wildfire smoke impacts may drive away recreational visitors. (Decreased Snowpack, Smoke and Ash)	<p>Diversify jobs and economy in Mammoth Lakes to reduce dependence on snow and winter recreation economy. ● (Economy Element: E.3)</p>	<ul style="list-style-type: none"> • Increase STEAM (Science, Technology, Engineering, Art/Design, and Math) programs, training, and employment. ● • Improve broadband connectivity to spur job growth and economic development. ● • Coordinate with Mammoth Mountain Ski Resort to support additional recreational activities that are less dependent on snowpack levels. 	<ul style="list-style-type: none"> • Increase the remote employment economy in Mammoth lakes. • Create more local career pathways for youth. • Year-round economic activity. 	

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NATURAL

STRATEGY	VULNERABILITY	STRATEGY	ACTION	CO-BENEFITS	CONSISTENCY WITH OTHER PLANS
NT-1	All ecosystems are vulnerable to the reduction of available groundwater supplies due to changing climate and weather conditions. (Drought, Flooding, Severe Weather, Landslides and Mudflows)	<p>Increase the groundwater recharge potential within the Town's urban growth boundary and surrounding areas. ▲ (Resource Management & Conservation Element: R.1, R.4)</p> <p>Provide education and increase awareness around water conservation and protection. ▲ (Resource Management & Conservation Element: R.4)</p>	<ul style="list-style-type: none"> Invest in forest thinning and meadow restoration especially in the high Sierra areas to improve groundwater recharge. ▲ Develop a water conservation and efficiency education and outreach campaign. ● Develop a water-recycling program. Develop a drought tolerant and fire resistant landscaping demonstration garden to encourage public participation in water conservation and fire preparedness efforts. ● Foster partnership with fishing and water recreation community to encourage water conservation and habitat protection. 	<ul style="list-style-type: none"> Increased water supply. Habitat restoration. Increased wildfire resilience. Expand active recreation. 	
NT-2	All ecosystems are vulnerable to larger, more severe wildfires, and lakes and waterways are vulnerable to the associated smoke pollution. (Wildfire, Severe Weather, Smoke and Ash)	Increase fuel reduction activities by implementing a Town wildfire mitigation strategy and fuel management/reduction plan. ▲● (Public Health & Safety Element: S.3, S.4; Resource Management & Conservation Element)	<ul style="list-style-type: none"> Create a Land Inventory using GIS to identify fuel reduction status and points of contact. ▲ Promote proper type and placement of landscaping vegetation around structures and critical facilities to reduce wildfire vulnerability. Coordinate wildfire mitigation and fuel reduction activities with USFS. ▲● Explore feasibility of biomass supply chain from fuel management plan, in order to expand biomass renewable energy. ▲ 	<ul style="list-style-type: none"> Removal of bark beetle affected trees and invasive species. Job creation. Expanded bioresource economy. Improved air quality. 	

STRATEGY	VULNERABILITY	STRATEGY	ACTION	CO-BENEFITS	CONSISTENCY WITH OTHER PLANS
NT-3	Local biodiversity and habitat is vulnerable to changing climate conditions and human impact. (Drought, Flooding, Forestry pests and diseases, Landslides and mudflows, Severe weather, Wildfire)	<p>Identify and protect local areas where native species may shift or lose habitat due to climate change impacts. (Resource Management & Conservation Element: R.1, R.2 ; Community Design Element: C.4)</p> <p>Identify benefits of ecosystem services and improve public education and outreach to protect and conserve local and regional habitat. (Resource Management & Conservation Element: R1; Economy Element: E.2)</p> <p>Conserve and expand healthy conifer cover in forested areas to protect ecosystem services including carbon sequestration, soil retention, and water supply. (Resource Management & Conservation Element: R1; R.2; Community Design Element: C.4)</p>	<ul style="list-style-type: none"> • Coordinate conservation and protection efforts with local organizations, including outdoor recreation groups. • Identify the vulnerable species and habitats in region. • Create wildfire corridors and migration paths (overpass/underpass) to accommodate the new and existing migration of plants and animals. ▲ • Invest in the Eastern Sierra Sustainable Recreation Partnership projects to minimize impact of summer recreation on critical habitat. ▲ • Improve education surrounding the migration of new plant and animal species to the area including the effects of tourism and recreation on natural environment. ▲ • Invest in sustainable trails and trail building to create recreational spaces that are least damaging for people to interact with nature. ▲ 	<ul style="list-style-type: none"> • Species conservation and habitat protection. • Expand active outdoor recreation. • Improve natural resource economy. • Dispersed recreation impacts. 	

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