

This Section describes the State's mitigation goals that guide the selection of mitigation activities. It also describes how the previous goals were assessed and whether or not they were revised. It includes a discussion of the State's pre- and post-disaster hazard management policies, programs, and capabilities. It includes an evaluation of State laws, regulations, policies, and programs related to hazard mitigation. It evaluates the State's policies related to development in hazard-prone areas and discusses State funding capabilities for hazard mitigation projects. This section includes a general description and analysis of the effectiveness of local mitigation policies, programs, and capabilities.

The Subcommittee's strategy is to support and encourage the lead agencies and their efforts to achieve their mitigation goals and objectives to the maximum extent possible. This Plan stresses its support of all mitigation efforts as resources become available.

For the 2013 iteration of this plan, the NHMP Subcommittee made the following revisions:

- *Table 4-1 showing the State's mitigation goals and lead agencies was changed by the deletion of the column showing changes to the goals because the goals remained valid.*
- *Table 4-2 showing the State's mitigation goals and strategic actions was updated with current data from groups such as the Nevada Earthquake Safety Council and the Nevada Division of Forestry.*
- *Table 4-3 of hazard management policies, programs, and capabilities was updated with additional hazardous materials programs and current data.*
- *Tables 4-4, 4-5, 4-6 and Figures 4-1, 4-2, 4-3 relating to hazard mitigation grant funding were revised to reflect additional program management capability and funding received since the last plan iteration.*
- *Table 4-7 of State Model Codes was updated to reflect changes in revised statutes since the last plan iteration.*
- *Table 4-8 Local Capabilities General Analysis was updated to reflect changes in local and plan status and changes to capabilities since the last plan iteration, and approved tribal plans were added.*
- *New STAPLE-E prioritization of Strategic Actions was done by the Subcommittee and used to update Table 4-10, Strategic Action Plan Matrix.*
- *Tables 4-11 and 4-12 of potential and current funding sources were revised slightly to reflect additional funding sources developed since the last plan iteration.*
- *Definitions for Repetitive Loss and Severe Repetitive Loss properties were revised based on new legislative data from the Biggert-Waters Act Flood Insurance Reform Act of 2012.*

The requirements for mitigation strategy are described below:

DMA 2000 REQUIREMENTS: MITIGATION STRATEGY OVERVIEW

Mitigation Strategy

Requirement §201.4(c)(3)(i): To be effective the plan **must** include a Mitigation Strategy that provides the State's blueprint for reducing losses identified in the risk assessment.

Source: FEMA, Standard State Hazard Mitigation Plan Review Crosswalk 2008

4.1 HAZARD MITIGATION GOALS

The requirements for hazard mitigation goals, as stipulated in the DMA 2000 and its implementing regulations, are described below.

DMA 2000 REQUIREMENTS: MITIGATION STRATEGY

Hazard Mitigation Goals

Requirement §201.4(c)(3)(i): The State mitigation strategy **shall** include a description of State goals to guide the selection of activities to mitigate and reduce potential losses.

Requirement §201.4(d): Plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities . . .

Element

Does the **new or updated** plan provide a description of State mitigation **goals** that guide the selection of mitigation activities?

Does the updated plan demonstrate that the goals were assessed and either remain valid or have been revised?

Source: FEMA, Standard State Hazard Mitigation Plan Review Crosswalk 2008

4.1.1 Hazard Mitigation Goal Assessment Overview

The NHMP Subcommittee members were asked to review and assess the 2010 goals for the 2013 Enhanced Plan based on the revised hazard rankings that resulted from the Subcommittee's hazard categorization and assessment work presented earlier in Section 3 that identified earthquake, flood, and wildfire as the High Risk hazards in the state. Specific feedback was requested from those Subcommittee members from the lead agencies for each of the major profiled high-risk hazards – earthquake, flood, and wildfire. The five previous 2010 goals were found to still be valid for 2013 without modifications. These goals and the lead agencies that assessed them are shown in Table 4-1. The lead agency for each goal is the state agency with regulatory responsibility to address a particular proposed action, or which is capable and willing to organize resources, find appropriate funding, oversee implementation, monitor and evaluate the goal's activities. Agencies that may be able to assist in the implementation of a particular proposed action item by providing added resources to the lead agency are also listed. The intent of these goals is to guide NHMPC in the selection of mitigation activities at the state level as well as the local jurisdiction level in accomplishing these goals.

Table 4-1. 2013 Goals and Lead Agencies	
2013 Goals	2013 Lead Agencies
Goal 1: <i>Reduce the loss of life and injuries.</i>	<i>Nevada Division of Emergency Management (NDEM) and Nevada Hazard Mitigation Planning Committee (NHMPC)</i>
Goal 2: <i>Improve local hazard mitigation plans -technical assistance.</i>	<i>Nevada Division of Emergency Management and Nevada Hazard Mitigation Planning Committee</i>
Goal 3: <i>Reduce the possibility of damage and losses due to earthquakes.</i>	<i>Nevada Bureau of Mines and Geology (NBMG), Nevada Seismology Laboratory (NSL), Nevada Earthquake Safety Council (NESC), NDEM, NHMPC</i>
Goal 4: <i>Reduce the possibility of damage and losses due to flooding.</i>	<i>Nevada Division of Water Resources(NDWR), NHMPC</i>
Goal 5: <i>Reduce the possibility of damage and losses due to wildfire.</i>	<i>Nevada Division of Forestry (NDF)</i>

4.1.2 Mitigation Goals and Strategic Actions

The NHMP Subcommittee members and specifically the lead agencies for each of the 2013 profiled High-Risk hazards were asked to review and assess all 2010 strategic actions for the 2013 Enhanced Plan. Updates are shown in Table 4-2 with any changes, additions, or deletions noted in an added column at the end. The intent of the updated Strategic Actions is to guide NHMPC in the selection of mitigation activities at the state level as well as the local jurisdiction level to accomplish the goals. Since these goals and actions were developed through the contribution of state and local agencies, they are a guide to the mitigation activities that are needed in Nevada. Each action provides a framework for the NHMPC members to advise, review, and direct resources of the state to projects that will address hazard mitigation. The flood action items were developed by the Nevada Division of Water Resources staff including the State Floodplain Manager and the Dam Safety Officer. The Nevada Division of Forestry provided the Wildland Fire actions. NBMG working with NESC and NSL developed the Earthquake actions. The Subcommittee and DEM staff joined forces to update the current actions found in Goal 1 to reduce the loss of life and injuries and improve local hazard mitigation plan technical assistance.

SECTION FOUR

Mitigation Strategy

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
Goal 1: <i>Reduce the loss of life and injuries</i> Nevada Division of Emergency Management and Nevada Hazard Mitigation Planning Committee	1.A	Improve awareness of the locations, potential impacts and links among hazards, vulnerability and measures to protect life safety and health.	
	1.B	Provide current information and workshops about hazards, vulnerabilities, mitigation processes and technical assistance for planning and grant availability and application procedures to State and local agencies.	
	1.C	Encourage the incorporation of mitigation measures into repairs, major alterations, new development and redevelopment practices.	
	1.D	Promote the modification of structures to meet life safety standards.	
	1.E	Improve communication, collaboration and integration among stakeholders and promote hazard mitigation as an integrated public policy.	
	1.F	Encourage local governments, special districts and tribal organizations to develop, adopt, implement maintain and update hazard mitigation plans.	The words “maintain and update” were added because a majority of local plans are developed or in progress and will require only maintenance and updating from now on
	1.G	Develop a hazard communication system that can be used to rapidly detect and provide early warning for multiple hazards, including earthquakes and wildfires.	

SECTION FOUR

Mitigation Strategy

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
Goal 2: <i>Improve Local Hazard Mitigation Plans Technical Assistance</i> Nevada Division of Emergency Management and Nevada Hazard Mitigation Planning Committee	2.A	Promote local hazard evaluation and mitigation planning and assist in developing local hazard mitigation plans Provide technical assistance, guidance, resources and tools to local governments and tribal entities to promote hazard evaluation and to develop and update hazard mitigation plans.	Combined 2a and 2b The majority of local plans are developed or area in progress and will require only updating from now on; while most tribes still require plan development.
	2.B	Provide technical assistance, guidance, resources and tools to local governments for all aspects of local hazard mitigation planning	Combined 2a and 2b The majority of local plans are developed or in progress and will require only updating from now on; while most tribes still require plan development.
	2.B	Provide specialized training and exercises to state agency staff and local governments concerning local hazard mitigation planning and the local hazard mitigation plan program.	
	2.C	Develop Maintain a tracking system for local and state government mitigation plans and projects.	Deleted word "Develop" and added "Maintain" because plan is already developed; and requires only maintenance
	2.D	Provide training to local governments and state agency staff to clarify mitigation measures from response and recovery and preparedness measures.	
	2.E	Develop Maintain a system to allow state agencies with hazard mitigation programs and plans to make recommendations about how local governments can incorporate these in support of the state's mitigation program efforts.	Deleted word "Develop" and added "Maintain" because NHMPC is this system that has been

SECTION FOUR

Mitigation Strategy

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
			implemented and requires only maintenance
	2.F	Continue to build operational links between hazard mitigation, disaster preparedness and recovery programs with public and private sectors	
	2.G	Promote understanding by the general public of the benefits of hazard mitigation in reducing casualty and property losses and ensuring continuity of businesses, institutional and government functions	
	2.H	Promote coordination among state agencies, local governments and tribal organizations of regional hazard mitigation activities	
	2.I	Identify, enhance and integrate public education efforts by state and local agencies that have programs directed to hazard mitigation	
Goal 3: <i>Reduce the possibility of damage and losses due to earthquakes</i> NBMG, NV Seismology Laboratory (NSL), Nevada Earthquake Safety Council (NESC).	3.A	Protect existing assets, as well as future development, from the effects of earthquakes by providing setback criteria for building and development.	Goal 3 was modified to better integrate the strategic actions of the NESC 2013 Strategic Plan. Strategic Action 3A was modified to match strategies of NESC.
	3.B	Mitigate shaking hazards in communities' and State critical facilities so that they are seismically resistant and operational following a strong earthquake.	Deleted. Integrated into 3F and G
	3.B	Hold workshops on strategies, benefits, risk-reduction opportunities, and challenges associated with the inventory of seismically susceptible buildings.	
	3.C	Assist communities and State to retrofit, change occupancy to decrease risk, or demolish susceptible buildings and structures.	

SECTION FOUR

Mitigation Strategy

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
	3.D	Create planning for "special consideration zones" for Nevada communities.	
	3.E	Create microzonation of earthquake hazards in Nevada.	
	3.G	Improve the threshold of detection and accuracy of location for earthquakes throughout Nevada	Deleted. Covered by #3S and 3Y
	3.F	Encourage seismic retrofit of deficient essential structures and infrastructure of community and State critical facilities (economic and lifeline-utilities) to structurally and seismically withstand the effects of earthquakes.	modified to match strategies of NESC
	3.G	Encourage seismic retrofit of public safety and critical facilities (both community and State) (such as 911 communications, hospitals, fire, law enforcement and ambulance facilities, etc.)	Added to match strategies of NESC
	3.H	Develop lesson plans or activities for teachers to increase awareness about Nevada's earthquake hazard that tie into the existing science curriculum and align with the science standards for the state.	Added to match strategies of NESC.
	3.I	Increase media involvement by networking with partners from all media types such as print, radio, TV, and social media.	Added to match strategies of NESC.
	3.J	Provide Applied Technology Council (ATC) training and develop formalization of the process.	Added to match strategies of NESC.
	3.K	Expand earthquake awareness in educational sites such as regional science fairs, and speakers.	Added to match strategies of NESC.
	3.L	Develop earthquake hazard information programs targeting public safety, emergency managers, local government executives, and business and industry.	Added to match strategies of NESC.
	3.M	Promote the Great Nevada Shakeout and earthquake drills throughout the state.	Added to match strategies of NESC.
	3.N	Promote training of volunteer community emergency response teams (CERT) about earthquake risks and possible mitigation activities.	Added to match strategies of NESC.
	3.O	Promote training of hospital staff about earthquake risks and possible mitigation activities.	Added to match strategies of NESC.

SECTION FOUR

Mitigation Strategy

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
	3.P	Improve integration of the emergency management system at all levels of the community bringing forth the “whole community” approach.	Added to match strategies of NESC.
	3.Q	Provide publications and workshops to promote the exchange of technical information relating to earthquakes among professionals, managers and the citizens of Nevada.	Added to match strategies of NESC.
	3.R	Promote a post-earthquake technical clearinghouse through planning and established practices.	Added to match strategies of NESC.
	3.S	Give planning and special consideration to developing a “Fault Map of Nevada” and identifying all active faults and seismic sources near major urban areas in Nevada.	Added to match strategies of NESC.
	3.T	Establish a “lifelines and transportation” workgroup.	Added to match strategies of NESC.
	3.U	Enhance implementation of nonstructural remediation.	Added to match strategies of NESC.
	3.V	Create earthquake planning scenarios (Las Vegas and rural areas).	Added to match strategies of NESC.
	3.W	Determine potential fault rupture characteristics and maximum earthquakes.	Added to match strategies of NESC.
	3.X	Continue to inventory and field-verify unreinforced masonry buildings in Nevada and make this data publicly available to planners and emergency response staff in communities statewide.	Added to match strategies of NESC.
	3.Y	Promote coordination among private and public entities to improve statewide earthquake monitoring capabilities.	Added to match strategies of NESC.
	3.Z	Identify potential funding sources for earthquake mitigation strategic actions not only at the Federal and State levels but also from private funding and community partnerships.	Added to match strategies of NESC.
	3AA	Develop a set of model codes and regulations that would be presented after a major earthquake occurs in Nevada.	Added to match strategies of NESC.
Goal 4:	4.A	Protect existing assets, as well as future development, from the effects of flooding.	

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
Reduce the possibility of damage and losses due to flooding Div. of Water Resources, NHMPC	4.B	Identify and prioritize areas in the State where existing flood hazard mapping is inadequate due to planned and existing significant development and conduct flood hazard mapping in those areas.	
	4.C	Conduct flood hazard mapping in piedmont and alluvial fan environments.	
	4.D	Retrofit State buildings to meet NFIP standards.	
	4.E	Assist communities and State with programs to elevate, dry-flood proof or wet-flood proof identified structures to obtain NFIP compliance and/or mitigate repetitive loss structures and severe repetitive loss structures.	Added SRL structures
	4.F	Assist communities and State with programs dealing with repetitive loss structures and severe repetitive loss structures; these programs may involve acquisition and demolition; relocation; elevation or other mitigation strategies.	Added SRL structures and broadened possible mitigation strategies to deal with them.
	4.G	Upgrade State-owned or operated infrastructure (e.g. servicing roads, culverts, bridges, channels, and structures) related to State-owned or operated critical facilities to protect critical facilities from flood damages or disruption of essential services.	
	4.H	Protect existing assets as well as future development from the effects of dam failure	
	4.I	Inventory existing dams and add to the inventory as dams are discovered or constructed.	
	4.J	Inventory and inspect existing dams for structural and hydraulic adequacy and implement operational constraints, if warranted.	
	4.K	Install early warning weather stations in watersheds with dams above populated areas.	
	4.L	Assist communities and State in structural mitigation measures, updates, repairs and maintenance to dams, ditches, and canals.	Added the words "maintenance, ditches, and canals" to incorporate mitigation activities for canals and ditches.

SECTION FOUR

Mitigation Strategy

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
	4.M	Encourage local ordinances and regulations to reduce encroachment into flood-prone zones resulting from dam impoundment or high (non-failure) releases.	
	4.N	Identify hazards of flooding from man-made structures, such as irrigation ditches and canals, and integrate these into local zoning ordinances.	
	4.O	Develop laws and regulations that ensure reasonable standards of design and construction to reduce flood hazards.	
	4.P	Develop Emergency Action Plans to ensure swift coordinated response in the event of an emergency.	
Goal 5: <i>Reduce the possibility of damage and losses due to wildfire.</i> Division of Forestry	5.A	Protect existing assets, as well as future development, from the effects of wildfire.	
	5.B	Identify and recommend changes to State NRS, NAC and communities' ordinances and regulations.	
	5.C	Assist local communities in enacting local ordinances for mitigation and fire prevention.	
	5.D	Provide public education and outreach to educate homeowners in the Wildland Urban Interface (WUI) about proper defensible space practices and landscaping for fire resistance and encourage community involvement in project completion, participation, and maintenance.	
	5.E	In highly motivated communities, focus on activities by individual participation in and maintenance of projects (personal responsibility).	
	5.F	Educate and train State and communities in current standards and regulations for proper practices in defensible space and firefighting.	
	5.G	Ensure proper personal protective equipment, apparatus, equipment and training for career staff and seasonal wildland firefighters.	
	5.H	Assist volunteer fire departments in attaining funds for proper personal protective equipment, apparatus, equipment and training.	
	5.I	Participate in research and development of interoperability for emergency response communications.	
	5.J	Coordinate the development of a comprehensive, collaborative program for mutual aid/mobilization of	

SECTION FOUR

Mitigation Strategy

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
		state and local government fire resources.	
	5.K	Encourage collaboration on all levels among state, federal and local cooperators, both fire- and resource-related.	
	5.L	Continue to improve fire prevention programs statewide through partnerships with Fire Prevention Association of Nevada, State Fire Marshal's Office, University of Nevada Cooperative Extension, and any other cooperators.	
	5.M	Assist communities in fuels-reduction projects for areas with extreme or high ratings in updating Community Wildfire Protection Plan (CWPP) assessments.	
	5.N	Provide funding and service forestry technical assistance through the State Fire Assistance and Hazardous Fuels Reduction programs to reduce fuels on state and private property.	
	5.O	Provide assistance to counties for priority setting and CWPP updating.	
	5.P	Provide a statewide evaluation process for monitoring community progress, prioritization and participation in CWPP.	
	5.Q	Provide and maintain a statewide process for documenting fuels projects progress, completion, success and maintenance.	
	5.R	Focus projects in areas to attain desired forest conditions and coordinate with forest health program activities.	
	5.S	Ensure that all projects have an approved fuels/forest health/stewardship plan that includes all aspects of service forestry (State Historic Preservation Officer (SHPO) (threatened and endangered species, prescriptions, actions, etc.).	
	5.T	Provide training for employees and project managers on SHPO and cultural resource identification, reporting methods and clearances.	
	5.U	Work closely with the Tribal communities, local landowners, and the SHPO to obtain clearances and to mark sensitive sites.	

SECTION FOUR

Mitigation Strategy

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
	5.V	Provide assistance to communities and State in planning and implementing long-term sustainable landscape projects.	
	5.W	Restore native and adapted vegetation and work to prevent areas being impacted by non-native or undesirable species conversions through collaborative efforts.	
	5.Y	Use mechanical and hand treatments as well as prescribed fire to assist in attaining desired forest and rangeland conditions.	
	5.Z	Provide native and accepted introduced seed species through the Nevada State seed bank program.	
	5.AA	Provide training for local cooperators for treatment practices and skill acquisition.	
	5.AB	Encourage collaboration at all levels with state, federal and local cooperators.	
	5.AC	Assist communities and State in Burned Area Emergency Rehabilitation, and complete fire damage reclamation reports and public education and outreach to provide the best land management practices available for collaborative land rehabilitation.	
	5.AD	Assess damage to critical watershed and threats to communities' domestic water supplies and mitigate those threats through erosion control practices.	
	5.AE	Supply resources for rehabilitation efforts through the State Tree Nurseries in Las Vegas and Washoe Valley, and the Nevada State seed bank programs.	
	5.AF	Provide training, expertise, and supplies/equipment in a collaborative manner to assist in rehabilitation.	
	5.AG	Provide public education and outreach to communities affected by wildfire.	
	5.AH	Focus fuels projects in communities with extreme or high ratings in CWPP assessments.	
	5.AI	Assist with the development of and the participation in a comprehensive program by which current CWPP or equivalent assessments are updated as projects are completed, ratings change or new at-risk communities arise.	
	5.AJ	Assist in the formulation and dissemination of current information such as Living with Fire documents.	

SECTION FOUR

Mitigation Strategy

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
	5.AK	Encourage community involvement in project completion, participation, and maintenance.	
	5.AL	Assist, encourage and provide guidance to communities in the development of the appropriate fire service organization for their community (i.e. a legally constituted fire protection district or fire department) according to NRS 472.040.	
	5.AM	Assist in acquiring funding for local firefighters for training and equipment through the State Fire Assistance, and Volunteer Fire Assistance when funded by US Forest Service.	
	5.AN	Assist in the planning for and removal of biomass waste on fuels reduction and forest health projects, as well as following wildland fires, flooding and other catastrophic natural event.	
	5.AO	Provide technical assistance in the formation of end users of woody biomass to produce heat and/or power (i.e. Fuels in Schools program) and provide ongoing outreach and education as to the societal benefits associated with utilization of biomass in the State of Nevada.	Action no longer valid due to federal funding cutbacks.
	5.AP	Participate in the Nevada State Biomass Working Group, southern Nevada Woody Biomass Collaboration Group, and other state, local, and national biomass committees.	Program closed by Dept. of Corrections; Action deleted
	5.AO	Comply with all federal regulations in the funding stream to ensure compliance and future competitiveness.	
	5.AP	Keep apprised of all federal, state, and local regulations.	
	5.AQ	Participate in interagency project planning, implementation and monitoring.	
	5.AR	Protect the envelope of buildings from wildfire.	

The implementation strategy for the Strategic Actions shown in Table 4-2 above is found in Section 4.4, Table 4-10, Strategic Action Plan Matrix. This table includes the lead department/division, potential funding sources, implementation timelines, and economic justification.

4.2 STATE CAPABILITY ASSESSMENT

The requirements for State capability assessment, as stipulated in the DMA 2000 and its implementing regulations, are described below.

DMA 2000 REQUIREMENTS: MITIGATION STRATEGY

State Capability Assessment

Requirement §201.4(c)(3)(ii): The State mitigation strategy **shall** include a discussion of the State's pre- and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including: an evaluation of State laws, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas [and] a discussion of State funding capabilities for hazard mitigation projects

Element

Does the new or updated plan include an evaluation of the State's **pre-disaster** hazard management policies, programs, and capabilities?

Does the new or updated plan include an evaluation of the State's **post-disaster** hazard management policies, programs, and capabilities?

Does the new or updated plan include an evaluation of the State's policies related to **development in hazard prone areas**?

Does the new or updated plan include a discussion of State **funding capabilities** for hazard mitigation projects?

Does the updated plan address any hazard management capabilities of the State that have changed since approval of the previous plan?

Source: FEMA, Standard State Hazard Mitigation Plan Review Crosswalk 2008

4.2.1 Pre- and Post- Disaster Hazard Management Capability

Table 4-3 below presents the state's capability to mitigate the hazards described in Section 3 and demonstrates pre-and post-disaster hazard management policies, programs, and capabilities. It also presents the state's funding capabilities for hazard mitigation projects - whether it can support, facilitate, or fund such projects. Support implies that the state manages federally-funded programs. The state may also facilitate mitigation programs by providing technical assistance to local, tribal, and other entities. The last column provides details of each listed program or agency and its policies and capabilities to mitigate hazards in the state. In the 2013 iteration of the plan, the State's capability to mitigate hazards has been increased by the addition of 4 programs, one federal and 3 State programs that have been added to Table 4-3 below under the Hazardous Materials section of the Table: the Nevada Brownfields Program, the Federal Brownfields Program, the Nevada Petroleum Fund, and the Nevada Voluntary Clean-up Program.

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
U. S. Housing and Urban Development (HUD)	All Hazards	Community Development Block Grants (CDBG)	√	√	√	√		Grants to develop viable communities, principally for low and moderate income persons. CDBG funds available through Disaster Recovery Initiative. Contingent upon Presidential Disaster declaration http://www.hud.gov/offices/cpd/communitydevelopment/programs/
HUD	All Hazards	Disaster Recovery Assistance		√	√	√		Disaster relief and recovery assistance in the form of special mortgage financing for rehabilitation of impacted homes. http://www.hud.gov/offices/cpd/communitydevelopment/programs/dri/assistance.cfm
HUD	All Hazards	HUD Sustainable Communities Planning Grant Program	√		√	√		This program supports multi-jurisdictional regional efforts that integrate housing, economic development, transportation, water infrastructure and environmental planning, and assists regional entities and consortia of local governments with integrated decision-making. www.hud.gov/sustainability
HUD	All Hazards	HOME Investment Partnerships Program	√	√	√	√		HOME provides formula grants to States and localities that communities use, often in partnership with local nonprofit groups, to fund a wide range of activities that build, buy, and/or rehabilitate affordable housing for rent or home ownership or provide direct rental assistance to low-income people. The construction is up to standard hazard-resistant building codes.

SECTION FOUR

Mitigation Strategy

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
								http://www.hud.gov/offices/cpd/affordablehousing/programs/home
U. S. Dept. of Agriculture (USDA)	All Hazards	Smith-Lever Special Needs Funding	√		√	√		Grants to State Extension Services at 1862 Land-Grant Institutions to support education-based approaches to addressing emergency preparedness and disasters. http://www.csrees.usda.gov/funding/rfas/smith_lever.html
USDA	All Hazards	Community Facilities Guaranteed Loan Program	√		√	√		This program provides an incentive for commercial lending to develop essential community facilities, such as fire stations, police stations, and other public buildings. http://www.rurdev.usda.gov/rhs/cf/cp.htm
USDA	All Hazards	Community Facilities Direct Loans Community Facilities Direct Grants	√		√	√		This program provides direct loans for essential community facilities. http://www.rurdev.usda.gov/rhs/cf/cp.htm
USDA	All Hazards	Community Facilities Direct Grants	√		√	√		This program provides grants to develop essential community facilities. http://www.rurdev.usda.gov/rhs/cf/cp.htm

SECTION FOUR

Mitigation Strategy

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
USDA Farm Service Agency	All Hazards	Farm Service Agency Disaster Assistance Programs		√	√	√		This program provides emergency funding and technical assistance for farmers and ranchers to rehabilitate farmland and livestock damaged by natural disasters. http://www.fsa.usda.gov/
U.S. Department of Health & Human Services	All Hazards	Disaster Assistance for State Units on Aging (SUAs)		√	√	√		This program provides disaster relief funds to those SUAs and tribal organizations who are currently receiving a grant under Title VI of the Older Americans Act. http://www.aoa.gov/doingbus/fundopp/fundopp.asp
U.S. Economic Development Administration (EDA)	All Hazards	Economic Development Administration Investment Programs	√	√	√	√		These programs provide grants that support public works, economic adjustment assistance, and planning. Certain funds are allocated for locations recently hit by major disasters. http://www.eda.gov/AboutEDA/Programs.xml
U.S. Small Business Administration	All Hazards	Small Business Administration Loan Program		√	√	√		This program provides low-interest, fixed rate loans to small businesses for the purpose of implementing mitigation measures. Also available for disaster- damaged property. http://www.sba.gov/services/financialassistance/index.html

SECTION FOUR

Mitigation Strategy

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
USDA/APHIS/ Veterinary Services	All Hazards	Animal Disaster Program	√	√		√		This program plans and facilitates sheltering of animals during emergency or disaster incidents.
Federal Emergency Management Agency	All Hazard	Hazard Mitigation Grant Program (HMGP)		√	√	√		This program provides grants to implement long-term hazard mitigation measures after a major disaster declaration. http://www.fema.gov/government/grant/hmgp/index.shtm
FEMA	All Hazard	Pre-Disaster Mitigation Grant Program (PDM)	√		√	√		This program provides funds for hazard mitigation planning and implementation of mitigation projects prior to a disaster event. http://www.fema.gov/government/grant/pdm/index.shtm
FEMA	All Hazard	Hazard Mitigation Funding Under Section 406 (Stafford Act)		√	√	√	√	This FEMA program provides funds for the repair of disaster-damaged facilities that directly reduce the potential of future, similar damages to the repaired facility by subsequent disaster events.
FEMA	All Hazard	Emergency Management Performance Grant	√		√	√	√	This program assists in the development, maintenance and improvement of state, tribal and local emergency management capabilities
NDEM	All Hazard	Disaster Relief Fund		√	√	√	√	This fund provides required matching funds for federal grants for local governments.
NDEM	All Hazard	Emergency Assistance Account		√	√	√	√	This account provides required matching funds for federal grants local governments.
US Department of Commerce, Economic Development	All Hazard	Disaster Mitigation Planning and Technical	√		√	√		This provides technical and planning assistance grants for capacity building and mitigation project activities focusing on creating disaster resistant jobs and workplaces.

SECTION FOUR

Mitigation Strategy

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
Administration		Assistance						www.doc.gov/eda
USDA NRCS	All Hazard	Watershed Program	√		√	√		Through the Watershed Programs NRCS provides technical and financial assistance to States, local governments and Tribes (project sponsors) to plan and implement authorized watershed project plans for the purpose of: watershed protection, flood mitigation, water quality improvements, soil erosion reduction, rural, municipal and industrial water supply, irrigation, water management, sediment control, fish and wildlife enhancement, wetlands and wetland function creation and restoration, groundwater recharge, easements, wetland and, floodplain conservation, hydropower, watershed dam rehabilitation. http://www.nrcs.usda.gov/programs/watershed/index.html
USDA-NRCS	All Hazards	Emergency Watershed Protection Program		√	√	√		The EWP Program assists sponsors, landowners, and operators in implementing emergency recovery measures for runoff retardation and erosion prevention to relieve imminent hazards to life and property created by a natural disaster that causes a sudden impairment of a watershed. http://www.nrcs.usda.gov/programs/ewp/
National Science Foundation (NSF)	All Hazards	Decision, Risk, and Management Sciences Program (DRMS)	√		√	√		This program provides grants for small-scale, exploratory, high-risk research having a severe urgency with regard to natural or anthropogenic disasters and similar unanticipated events. http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5423&org=SES

SECTION FOUR

Mitigation Strategy

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
Department of Homeland Security (DHS), FEMA, NDCNR Bureau of Corrective Actions (BCA), NDEM	All Hazards	Homeland Security Grant Programs	√		√	√	√	These programs provide funding to assist state, tribal, and local governments to maintain and improve plans, facilities and equipment. They also fund disaster preparedness exercises and training for emergency services.
NBMG	All Hazards	GIS and HAZUS support	√	√	√	√		NBMG provides expertise in HAZUS loss estimation modeling to support mitigation planning efforts and disaster training.
National Science Foundation (NSF)	All Hazards	Hazard Reduction Program			√	√	√	NSF provides funding for research and related educational activities on hazards.
US Department of Health and Human Services (USDHHS) (partners with Nevada Department of Health and Human Services (NDHHS) and State Health Division (SHD))	All Hazards	Emergency Management/ Mitigation Training	√		√	√		This program provides training in disaster mitigation, preparedness, and planning for Public Healthcare http://www.cdc.gov/about/business/funding.htm
ACE, USDA-Farm Service Agency (FSA)	Drought	Drought Assistance	√	√	√	√		Nevada Department of Agriculture coordinates requests for disaster declarations related to drought. The state's Disaster Assistance Account funding may become available for drought declaration assistance.

SECTION FOUR

Mitigation Strategy

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
Nevada Department of Conservation and Natural Resources, Division of Water Planning	Drought	Nevada Drought Plan	√		√	√		This document establishes a system for determining drought severity and establishes an administrative coordinating system among agencies to help mitigate drought impacts. It also establishes a process for obtaining federal assistance if required.
NDWR, Colorado River Water Commission	Drought		√		√	√		Coordination of water distribution for the Colorado River basin among all interested parties.
USDA Farm Service Agency	Drought	Emergency Conservation Program (ECP)		√	√	√		This program provides emergency funding and technical assistance for farmers and ranchers to rehabilitate farmland damaged by natural disasters and for carrying out emergency water conservation measures in periods of severe drought. http://www.fsa.usda.gov/FSA/webapp?area=home&subject=copr&topic=ecp
USDA Farm Service Agency	Drought	Emergency haying and grazing		√	?	?		Emergency haying and grazing of CRP acreage may be authorized to provide relief to livestock producers in areas affected by a severe drought. Emergency authorization is provided by either a national FSA office authorization or by a state FSA committee determination utilizing the U.S. Drought Monitor. http://www.fsa.usda.gov/Internet/FSA_File/haying_and_grazing_july2012.pdf

SECTION FOUR

Mitigation Strategy

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
Southern Nevada Water Authority, Truckee Meadows Water Authority	Drought	Several water conservation and drought mitigation programs	√		√	√	√	Local government and state agencies and consortia have authority to place restrictions on water use and to implement programs for drought mitigation. TMWA offers a information on water conservation at http://www.tmh20.com/conservation/ SNWA offers incentive programs and information to encourage water conservation. http://www.snwa.com/html/cons_index.html
US Environmental Protection Agency (EPA)	Drought and Flood	Clean Water Act Section 319 Grants	√		√	√	√	This program provides grants to state agencies to implement non-point source programs, including support for nonstructural watershed resource restoration activities. http://www.epa.gov/nps/cwact.html
EPA Bureau of Water Quality Planning (BWQP) may have a grant from EPA to fund this type of program/project in NV)	Drought and Flood	Clean Water Act Section 319 Grants	√		√	√	√	This program provides grants to state agencies to implement non-point source programs, including support for nonstructural watershed resource restoration activities. http://www.epa.gov/nps/cwact.html
National Institute of Science and Technology (NIST); FEMA; US Department of Interior, USGS; National Science Foundation (NSF) (Partnering with UNR-	Earthquake	National Earthquake Hazard Reduction program (NEHRP) in Earth Sciences	√		√	√		NEHRP Provides grants for seismic mapping for U.S. HAZUS loss-estimation modeling, fault-hazard identification, liquefaction-hazard identification, landslide-hazard identification, probabilistic seismic hazard analysis, ground-shaking microzonation, basin-effect analysis, earthquake process research. http://www.nehrp.gov/contracts/solicitations.htm

SECTION FOUR

Mitigation Strategy

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
NBMG, NSL, UNLV)								
Center for Disease Control (CDC), US Dept. of Health and Human Services	Epidemic	Programs for prevention of epidemic disease	√	√	√	√		CDC Provides funding for preparation for and prevention and control of diseases. http://emergency.cdc.gov/
USDA/Animal and Plant Health Inspection Service/ Veterinary Services (Partners with Nevada Dept. of Agriculture)	Epidemic	Animal diseases	√		√	√		USDA conducts tests for State/Federal program of animal diseases, livestock issues related to food safety, and those animal diseases transmissible to man. http://www.aphis.usda.gov/animal_health/ http://agri.nv.gov/index_Animal2.htm
EPA (NDEP has a grant from EPA to manage a Safe Drinking Water Revolving Loan Fund)	Epidemic	Safe Drinking Water Revolving Loan.	√		√	√		This program provides funds to communities, tribes, individuals and others to finance infrastructure improvements to drinking water systems with an emphasis on providing funds to small and disadvantaged communities and to programs that encourage pollution prevention as a tool for ensuring safe drinking water. http://www.epa.gov/safewater/dwsrf/index.html
US Department of Health and Human Services (USDHHS)	Epidemic	The Hospital Preparedness Program (HPP)	√	√	√	√		This program enhances the ability of hospitals and health care systems to prepare for and respond to bioterrorism and other public health emergencies.

SECTION FOUR

Mitigation Strategy

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
								http://www.hhs.gov/aspr/oepo/hpp/
FEMA (Partners with NDWR, Tribes, local and individuals)	Flood	National Flood Insurance Program	√	√	√	√		This program enables property owners to purchase insurance as a protection against flood losses in exchange for state and community floodplain management regulations that reduce future flood damages. HTTP://WWW.FEMA.GOV/BUSINESS/NFIP
FEMA (Partners with NDWR, Tribes, local and individuals)	Flood	Flood Mitigation Assistance	√		√	√		This program provides funding to implement measures to reduce or eliminate the long term risk of flood damage. http://www.fema.gov/government/grant/fma/index.shtm
FEMA (Partners with NDWR, Tribes, local and individuals)	Flood	Repetitive Flood Claims	√		√	√		This program provides funds to assist States and communities reduce flood damages to insured properties that have had one or more claims to the National Flood Insurance Program (NFIP). http://www.fema.gov/government/grant/rfc/index.shtm
EPA (Partners with NDWR, Tribes, local and individuals)	Flood	Wetlands Program Development	√		√	√		This program provides funds for projects that promote research, investigations, experiments, training, demonstrations, surveys, and studies relating to the causes, effects, extent, prevention, reduction and elimination of water pollution. http://www.epa.gov/wetlands/grantguidelines/
ACE (Army Corps of Engineers) (Partners with Tribes, Div. of Water Resources)	Flood	Planning Assistance to States	√		√	√		This program provides funding for the development of plans to conserve water resources, dam safety, flood damage reduction, and flood plain management. http://www.lre.usace.army.mil/planning/assist.html

SECTION FOUR

Mitigation Strategy

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
(DWR), Carson Water Subconservancy District (CWSD), Truckee River Flood Project (TRFP), Tribes)								
ACE (Partners with Tribes, TRFP, NDWR, Clark County Flood Control Project)	Flood	Flood Plain Management Services	√		√	√		This program provides technical support for effective flood plain management. http://www.lre.usace.army.mil/planning/fpman.html
ACE (Partners with Tribes, locals, NDWR)	Flood	USACE Environmental Laboratory						This program provides guidance for implementing environmental programs as ecosystem restoration and reuse of dredged materials. http://el.erdc.usace.army.mil/products.cfm?Topic=none
USDA	Flood	Emergency Watershed Protection Support Services		√	√	√		This program provides funds for implementing emergency measures in watersheds in order to relieve imminent hazards to life and property created by a natural disaster. www.nrcs.usda.gov/programs/ewp/
USDA	Flood	Watershed Protection and Flood Prevention	√		√	√		This program provides funding for soil conservation, development, utilization and disposal of water, and conservation as well as the proper use and conservation of land. www.nrcs.usda.gov/programs/watershed/index.html

SECTION FOUR

Mitigation Strategy

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
ACE, EPA	Flood	Aquatic Ecosystem Restoration	√		√	√		The purpose of the program is the development of aquatic ecosystem restoration and protection projects that improve the quality of the environment, are in the public interest, and are cost effective. www.usace.army.mil/howdoi/where.html http://cfpub.epa.gov/fedfund/program.cfm?prog_num=104
USEPA (Partners with DCNR, Bureau of Water Quality Planning(BWQP))	Flood	Wetlands Protection and Development	√		√		√	This Federal grant program supports State, Tribal, and local efforts to protect wetlands by providing funds to enhance existing programs or develop new programs. http://www.epa.gov/owow/wetlands/initiative/#financial
USEPA (Partners with DCNR, Bureau of Safe Drinking Water, Dept. of State Lands)	Flood	Source Water Protection	√		√	√		This program provides funding to states, local and tribes for activities to protect drinking water. http://cfpub.epa.gov/safewater/sourcewater/sourcewater.cfm?action=Programs
FEMA	Flood	National Dam Safety Program	√		√	√		This program provides financial assistance to the states for strengthening their dam safety programs.
FEMA (Partners with NDWR, Tribes, local communities)	Flood	Community Assistance Program - State Support Services Element	√		√	√		This program provides funding to States to provide technical assistance to communities in the National Flood Insurance Program (NFIP) and to evaluate community performance in implementing NFIP floodplain management activities http://www.fema.gov/plan/prevent/floodplain/fema_cap-ssse.shtm

SECTION FOUR

Mitigation Strategy

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
U.S. Department of Energy Partners with NDEM, DRI, and NDHHS	Hazardous Materials	U. S. Department of Energy's Radiological Assistance Program (RAP)	√		√	√		RAP provides resources (trained personnel and equipment) to evaluate, assess, advise, isotopically identify, search for, and assist in the mitigation of actual or perceived nuclear or radiological hazards. The RAP is implemented on a regional basis, with coordination between the emergency response elements of state, local, and federal agencies. http://nnsa.energy.gov/emergency_ops/print/1709.htm
U.S. Department of Transportation Pipeline and Hazardous Materials Administration (Partners with State Emergency Response Commission (SERC), tribes and local emergency planning committees)	Hazardous Materials	Hazardous Materials Emergency Preparedness (HMEP) Grant Program	√		√	√		The HMEP program provides financial and technical assistance as well as national direction and guidance to enhance State, Territorial, Tribal, and local hazardous materials emergency planning and training. http://www.phmsa.dot.gov/grants-state-programs
SERC Partners with local emergency planning committees and state agencies	Hazardous Materials	Superfund Amendment and Reauthorization Act (SARA) Title III	√		√	√	√	Filing fees for reports submitted pursuant to SARA, Title III provide funding for planning, training and equipment activities in emergency preparedness, prevention, mitigation and response capabilities associated with hazardous chemicals. Eligible applicants include local emergency planning committees (LEPCs) and state agencies. Funding is available to public officials, fire and police personnel, medical personnel, first responders and tribal personnel through the

SECTION FOUR

Mitigation Strategy

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
								LEPCs. http://serc.nv.gov/
USEPA Partners with Tribes	Hazardous Materials	Hazardous Waste Management grant program	√		√	√		This program supports projects designed to develop and implement hazardous waste management programs that improve the applicant's ability to properly identify, manage, or dispose of hazardous waste. All hazardous waste management activities that address the RCRA Subtitle C "cradle to grave" approach are eligible. http://www.epa.gov/oswer/docs/grants/09-01.pdf
NDEP	Hazardous Materials	Nevada Brownfields Program		√	√	√	√	The Nevada Brownfields Program currently operates a \$2 million dollar revolving loan fund intended to help property owners or developers cover the costs associated with the cleanup of sites with environmental contamination. http://ndep.nv.gov/bca/brown_loan.htm
NDEP	Hazardous Materials	Nevada Brownfields Revolving Loan Fund Program		√	√	√	√	The Nevada Brownfields Program currently operates a \$900,000 dollar revolving loan fund to help property owners or developers cover the costs associated with the cleanup of sites that are hindered for redevelopment due to environmental contamination and have no viable responsible party. http://ndep.nv.gov/bca/brown_loan.htm
NDEP	Hazardous Materials	Nevada 128(a) Brownfields Program		√	√	√	√	The Nevada 128(a) Brownfields Program provides funding to municipalities and non-profit organizations when there are no viable responsible parties for the assessment and characterization of sites that are abandoned or under developed due to the perception of

SECTION FOUR

Mitigation Strategy

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
								contamination. http://ndep.nv.gov/bca/brownfld.htm
USEPA	Hazardous Materials	104(k) Brownfields Program		√	√			US EPA provides a wide-range of funding opportunities to municipalities and non-profit organizations that may be used to mitigate potential hazards on eligible Brownfields sites. EPA Region IX also may provide Targeted Site Assessment services with their federal monies for Brownfields projects in the State of Nevada http://www.epa.gov/brownfields/
NDEP	Hazardous Materials	Nevada Petroleum Fund		√				This fund provides reimbursement to the qualified storage tank owner/operators for corrective action costs associated with cleaning up petroleum product releases. http://ndep.nv.gov/bca/petrofnd.htm
NDEP	Hazardous Materials	Nevada Voluntary Cleanup Program		√				This program provides relief from liability to owners who undertake cleanups of contaminated properties under the oversight of the NDEP.. http://ndep.nv.gov/bca/vcpfctsh.pdf
USDA Farm Service Agency (FSA)	Multiple: drought, infestation, flood	Noninsured Crop Disaster Assistance Program (NAP)		√	√	√	?	Provides financial assistance to producers of noninsurable crops when low yields, loss of inventory or prevented planting occur due to a natural disaster. http://www.fsa.usda.gov/Internet/FSA_File/nap_august_2011.pdf

SECTION FOUR

Mitigation Strategy

Table 4-3. Pre- and Post-Disaster Hazard Management Policies, Programs, and Capabilities

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre-Disaster	Post-Disaster	Support	Facilitate	Funds	
USDA Farm Service Agency	Multiple: drought, infestation, flood	Supplemental Revenue Assistance Payments (SURE) Program		√	√	√	?	is authorized by the 2008 Farm Bill to provide assistance to producers suffering crop losses due to natural disasters. SURE is available for crop losses due to natural disasters occurring through Sept. 30, 2011. http://www.fsa.usda.gov/Internet/FSA_File/sure_2011.pdf
SERC Partners with local emergency planning committees and state agencies	Terrorism	United We Stand State License Plates	√		√	√	√	The revenue will be disbursed by the State Emergency Response Commission to provide financial assistance to state or local governments to support preparedness to combat terrorism including planning, training, supplies and equipment efforts. http://serc.nv.gov/

4.2.2 Policies Related to Development in Hazard-Prone Areas

The State of Nevada has not established a statewide land use plan although the state provides guidance to the counties and local communities in legislating policies related to development in hazard-prone areas. However, it is the responsibility of the counties to adopt and enforce building code policies within their jurisdictions. Nevada Revised Statutes require each county to have and maintain a Master Plan that regulates development in hazard-prone areas. In addition, organizations such as the University of Nevada Cooperative Extension and regulating state agencies such as the Division of Water Resources provide a wide array of technical assistance, funding, and support to Nevada communities in the mitigation of hazards.

Nonetheless, the current social and political climates are not conducive to providing the necessary foundation for the State to promote a uniform statewide “smart growth” policy. HMPC attempts to promote “smart growth” in its grant-awarding procedures by considering the subapplicant’s existing building codes and regulations when prioritizing proposals for mitigation funding. The State’s Notice of Intent requires information about the proposed activity’s concurrence with the subapplicant’s adopted building codes which is provided to NHMPC members with the proposal. Please see a copy of the Notice of Intent in Appendix I and in Section 8.2., Figure 8-2, page 8-5 for the prioritization criteria.

4.2.3 State Funding Capabilities

Nevada has two sources of funding created by the Legislature to assist with hazard management and mitigation.

1. The Emergency Assistance Account (EAA) provides support to state agencies and local jurisdictions during declared emergencies on the state or local level. In order to receive moneys from the EAA, the applicant must declare an emergency or disaster, have a preliminary damage assessment, and disclose financial records within thirty days or forty-five days depending on jurisdiction type. See Appendix E for a copy of the Nevada Administrative Code 414.105 through 414.140 with detailed information on procedures to obtain funding from this State source.
2. The Disaster Relief Account is a special account intended to stabilize the operation of the state government after a disaster. The Interim Finance Committee administers the account. This account is used to match Federal funding for declared disasters. See NRS 353.2735 and 2755 for details.

4.2.4 Hazard Management Capabilities Changes

The permanent staffing levels in DEM have remained essentially unchanged since the 2010 plan, although temporary staff members have helped with the management of the program. The collaborative approach to mitigation has enabled Nevada’s mitigation capability to multiply, since the process involves coordination among government entities at all levels,

including tribal nations. The following paragraphs provide a summary of mitigation activities accomplished since the approval of the last plan.

FEMA's unification of the hazard mitigation programs provided an excellent platform for NDEM and the Nevada Division of Water Resources to join forces in the management of the five programs in Nevada. During the update of this plan, the State Flood Plain Manager and the SHMO have worked together to promote all five programs and provide additional technical assistance to local and tribal government resulting in added number of and improved quality of applications. This resulted in increased funding for the state. In 2012 NDWR ceded the management of the 3 flood programs to NDEM while maintaining a close working relationship for HMA programs.

Since the approval of the previous 2010 plan, more counties and State agencies have become involved in the planning process. This has promoted networking which has led to a greater awareness of existing mitigation programs. This has resulted in better mitigation planning and related activities in the State. In 2004, 5 counties and 3 cities had approved plans. At the beginning of 2013, eleven (11) local counties have plans that have been approved. These include Carson City, Churchill, Clark, Douglas, Elko, Esmeralda, Lincoln, Mineral, Nye, Storey, and Washoe. The remaining six counties in the state are in the process of developing their plans: Eureka, Lyon, Humboldt, Lander, Pershing, and White Pine. Clark County, Carson City and Washoe County updated their earlier existing plans. The State has promoted the cost effectiveness as well as other benefits of a regional planning approach. Washoe and Clark Counties updated their plans with multi-jurisdictional and regional plans to include incorporated cities, school districts, and tribal nations. Nye County has updated their plan to include the Duckwater Tribe as an additional jurisdiction. Churchill County included the City of Fallon in its multi-jurisdictional plan. Additionally, White Pine and Eureka as well as Pershing, Humboldt and Lander counties are regional areas with low populations but similar topography and hazards that have joined together to develop regional multi-jurisdictional plans. This has allowed the state to better manage the planning process including training and support with limited state resources.

The SHMO and the NHMPC are increasing public awareness by convening the NHMPC quarterly committee meetings at locations around the state where the local community stakeholders are invited to participate. At these meetings, local community leaders are invited to give presentations on the area's demographics, government, geography, economic, and social profile. Local emergency managers provide specifics on the area's hazards and capabilities or needs and the area Flood Plain Manager presents local flood hazard information and capabilities if known. The State Geologist or representative presents information regarding the HAZUS-MH runs on earthquakes and the SHMO provides information on the PDM and HMGP grants. NBMG provides MyPlan information and data access details. This provides to the community increased awareness of the programs and funding opportunities and provides the NHMPC information to help with their evaluation of applications. The SHMO continues working closely with fiscal staff to increase efficiency in distributing funds to subgrantees and to improve capability for obtaining the cost share requirements. The SHMO continues to take advantage of the administrative funds allocated by HMA programs.

The table below provides information on the number of PDM applications submitted each year. The SHMO and NHMPC continue to provide technical assistance during the application drafting process. The SHMO annually provides a Grant Application Workshop and a BCA Workshop in both northern and southern Nevada.

Table 4-4. HMA Grant Applications			
Year	Type	# Submitted	# Approved
PDM 2007	Planning	3	3
	Project	1	1
PDM 2008	Planning	1	1
	Project	4	1
PDM 2009	Planning	1	0
	Project	4	2
PDM 2010	Planning	4	4
	Project	7	4
PDM 2011	Planning	4	1
	Project	3	1
FMA 2011	Planning	0	0
	Project	1	1
PDM 2012	Planning	2	2
	Project	3	1
PDM 2013 – Accepted by NHMPC but not submitted to FEMA because PDM 2013 remains unfunded.	Planning	1	0
	Project	2	0

The table and figures below provide HMA funding by year in Nevada, including management costs where applicable. The increased local awareness combined with the technical assistance are demonstrated by the increased funding each year. Also evident is the state's reliance on pre-disaster funding sources for the implementation of mitigation plans.

Table 4-5. Mitigation Funding 2001-2013						
Year	Funding by Program			Three-Year Total		
	PDM (\$)*	HMGP (\$)	FMA (\$)	PDM (\$)	HMGP (\$)	FMA (\$)
2001						
2002	297,271	0				
2003	198,125	0		198,125	0	
2004 – SHMP Approved Oct		523,113				
2005	60,064	392,541				
2006	29,115	413,679		89,178	1,329,333	
2007 – Update Approved Oct	561,347					
2008	573,173	489,792				
2009	1,067,996			2,202,515	489,792	
2010	3,515,777					
2011	905,822		1,930,138			
2012	2,598,569			7,020,168	0	1,930,138
2013						
Sub- Total	\$9,807,258	\$1,819,125	\$1,930,138			
Total	\$13,556,521			\$8,950,306		
* Funding amounts reflect selected projects. Funding is conditioned on NEPA review						

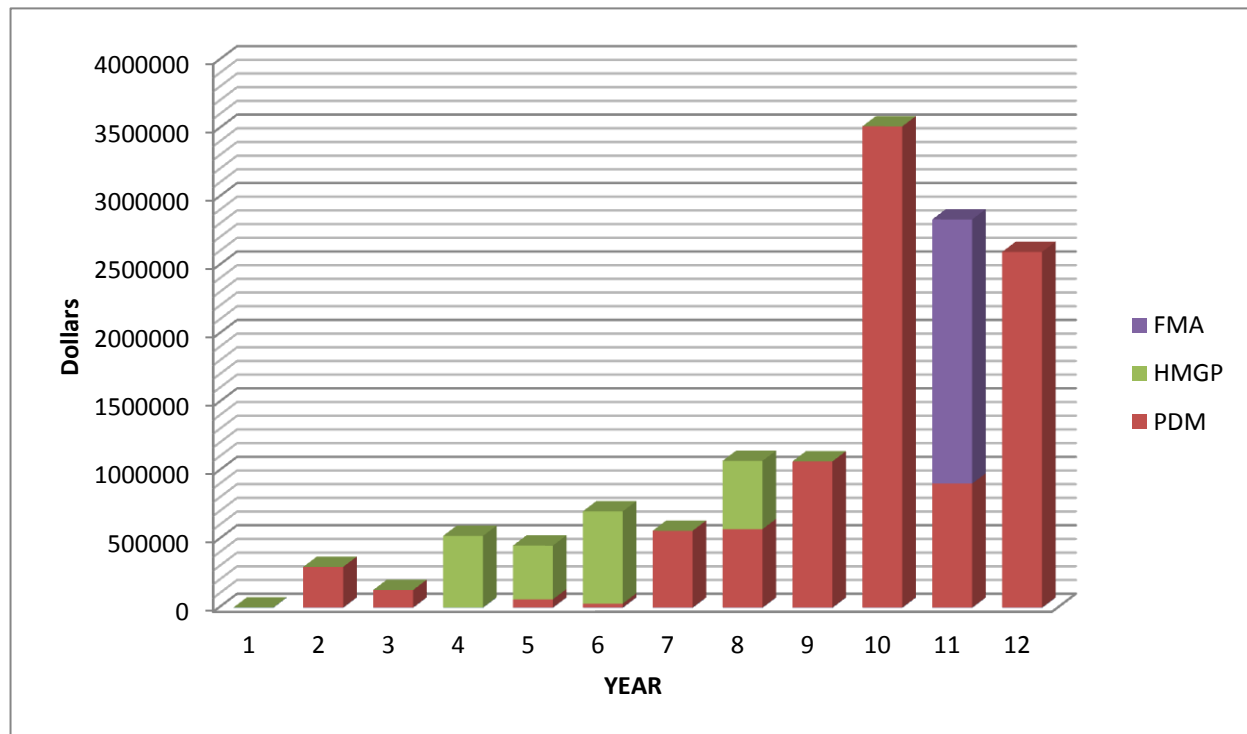


Figure 4-1. PDM, FMA and HMGP Grant Dollars of Funding per Year

The table and figure below provide the PDM, FMA, and HMGP funding by type of mitigation activity and project. Earthquake, flood and wildfire are Nevada's most destructive hazards.

Table 4-6. PDM & HMGP Funding by Hazard Type	
Hazard or Grant Type	Amount
Earthquake	\$ 513,262.00
Flood	\$ 8,169,963.82
Wildfire	\$ 2,047,127.29
Public Awareness	\$ 36,310.00
Local Planning	\$ 562,392.85
NHMPC & State Plan	\$ 1,053,602.95
Management	\$ 1,005,104.77
Total	\$ 13,387,763.68

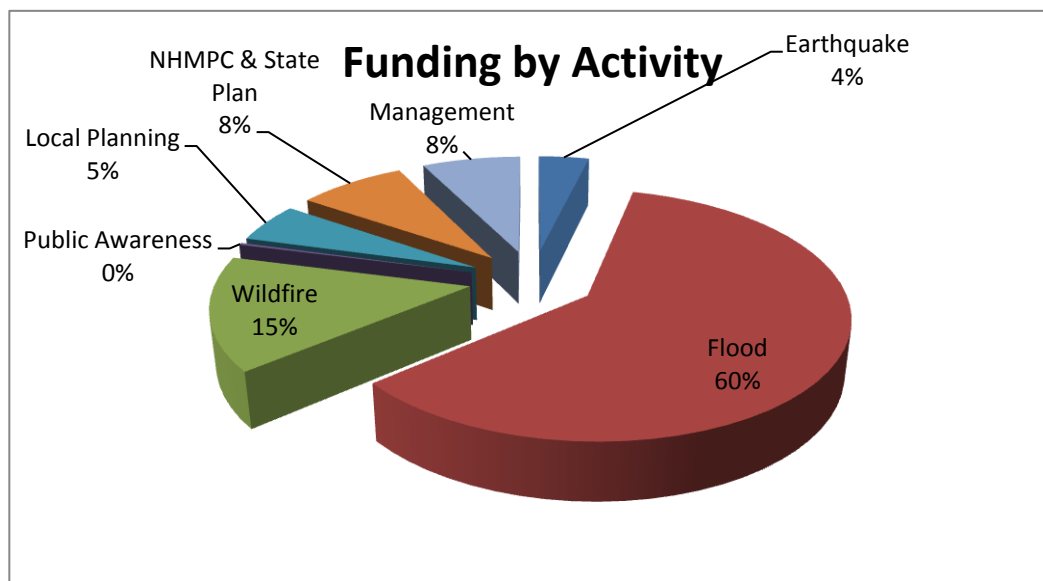


Figure 4-2. PDM, FMA & HMGP Funding by Activity Type

Figure 4-3 below depicts HMA funding by county. Tracking county funding allows the State to provide training and public awareness to counties that are not applying.

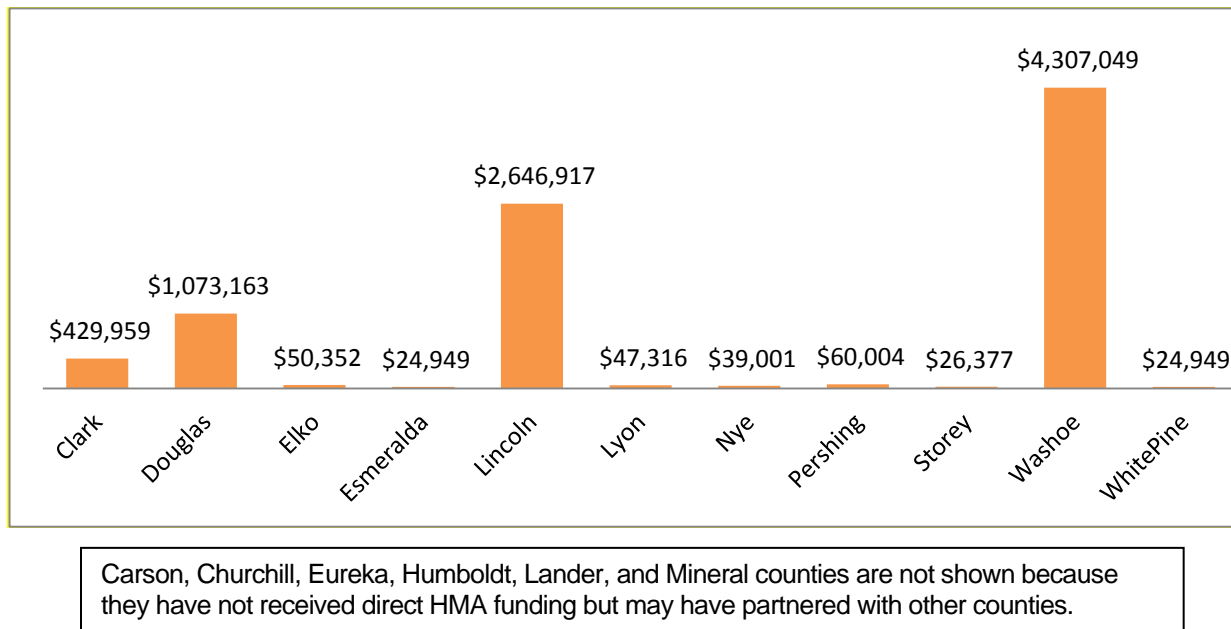


Figure 4-3. Bar Graph of HMA Funding by County

Currently, the Division of Risk Management and Public Works Division works closely with NDEM, Public Works, and Buildings and Grounds to complete mitigation activities and projects affecting State buildings. This change has an added capability to the State's hazard management programs.

The Nevada Bureau of Mines and Geology first ran HAZUS "Loss-Estimation Modeling" earthquake scenarios for each county in Nevada in 2007 and created a new report with similar data for 35 additional towns and cities with population of 500 or greater in 2009. They reran the data using the new revised HAZUS software in 2012 using FEMA's newly revised HAZUS software, but results were inconsistent with some known values. FEMA is currently working to fix problems with the fragility curves that may have caused the inconsistencies. Due to the submission deadlines for this report, the new HAZUS data based on the FEMA HAZUS revisions are not available as of the writing of this plan revision. The new HAZUS numbers will be made available to communities for planning purposes via the MyPlan website as they become available and will be contained in the next iteration of this plan.

There is continued commitment of the Nevada Division of Emergency Management (NDEM), Nevada Division of Water Resources (NDWR), and NHMPC to a comprehensive mitigation program as evidenced by the development of this Plan, the commitment to local mitigation planning, statewide promotion of mitigation, interdepartmental coordination, and

the continuation of training workshops, technical assistance and outreach efforts. Examples of these ongoing efforts are listed below.

1. NDEM- and NDWR coordinate regular training sessions on the five Unified Hazard Mitigation Assistance Programs (HMA) to assist local governments with grant administration, hazard mitigation planning and related duties.
2. NDEM administers pass-through of HMA grant funds to counties and municipalities to develop DMA 2000-compliant hazard mitigation plans.
3. NDEM coordinates the Nevada Hazard Mitigation Planning Subcommittee which is directly responsible for assisting in the development and updating of this plan.
4. NHMPC and NDWR evaluate and prioritize hazard mitigation grant proposals.
5. NHMPC and NDWR provide advice to NDEM in mitigation planning activities statewide.
6. NHMPC and NDWR improve the level of coordination across state agency programs that share objectives that complement the goals of this plan.
7. NDEM continues to develop the mitigation program's GIS capability with support from UNR, Nevada Bureau of Mines and Geology's existing system.
8. NBMG partnering with NDEM provides and enhances risk and vulnerability assessment data for local and tribal governments.
9. NDEM coordinates local annual Tabletop Exercises (TTX) for Hazard Mitigation plan maintenance statewide.
10. NDEM supports Threat Hazard Identification and Risk Assessment (THIRA) activities at the state and local level.
11. NDWR manages and coordinates the Silver Jackets team program.

4.3 LOCAL CAPABILITY ASSESSMENT

The requirements for local capability assessment, as stipulated in the DMA 2000 and its implementing regulations, are described below.

DMA 2000 REQUIREMENTS: MITIGATION STRATEGY

Local Capability Assessment

Requirement §201.4(c)(3)(ii): The State mitigation strategy **shall** include a general description and analysis of the effectiveness of local mitigation policies, programs, and capabilities.

Element

Does the **new or updated** plan present a general description of the local mitigation policies, programs, and capabilities?

Does the **new or updated** plan provide a general analysis of the effectiveness of local mitigation policies, programs, and capabilities?

Source: FEMA, Standard State Hazard Mitigation Plan Review Crosswalk 2008

4.3.1 Local Capability Description

The Nevada Hazard Mitigation Planning Committee (NHMPC) has been actively working with local governments to identify the most effective strategic actions for hazard mitigation planning. Nevada has a history of being strong on property rights, but support is growing for policies that will help with hazard mitigation. NHMPC identifies those local governments with policies currently in place that include strong hazard mitigation programs and offers them as positive examples to other Nevada communities and local governments in developing their own effective hazard mitigation plans and ordinances. The State provides guidance to these communities, and supports pass-through funds available to communities interested in adopting hazard mitigation actions.

The existing State model codes are shown in Table 4-7 below and local code adoption is found in Table 8-3 in Section 8. Adoption of these codes by local jurisdictions is encouraged and will make local mitigation more effective. As stated above, the NHMPC takes into consideration the adoption of building codes by the community applying for hazard mitigation funding when prioritizing proposals.

Table 4-7. Existing State Model Codes Promoted for Adoption by Local Governments		
Policy	Description of Model Codes	Applicability
Building and Fire Codes	<p>The State has adopted a building code and local governments are required to adopt and enforce this code with the exception of Clark County.</p> <p>NRS 278.580 – Amend building codes to include seismic provision of the International Building Code.</p> <p>NRS 461.170 – Manufactured buildings required to use the various uniform codes.</p> <p>NRS 477.030 (1)–Requires the State Fire Marshal to adopt minimum fire and building codes applicable statewide to ensure fire safety.</p> <p>NRS 477.030 (3) – The State Fire Marshal and the State Forester adoption of fire retardant roofing requirements in specified areas and the adoption of a wildland-urban interface code in Carson City, Clark, Douglas and Washoe Counties.</p> <p>NRS 477.030 (12)-Provides an exception requested by Clark County where the state codes do not apply in that county</p> <p>NRS 514.040(3) – Nevada Bureau of Mines and Geology to apply geologic engineering principles to construction, etc.</p> <p>NRS 623 – Architecture, Interior Design and Residential Design.</p>	<p>The adoption and enforcement of building and fire codes relates the design and construction of structures to standards established for withstanding wildfires, earthquakes, flooding, dam failure, and high winds.</p>

Table 4-7. Existing State Model Codes Promoted for Adoption by Local Governments

Policy	Description of Model Codes	Applicability
Zoning	<p>Laws and ordinances regulate development by dividing the community into zones and by setting development criteria for each zone.</p> <p>NRS 278.147 – Conditional use permits for explosive and highly hazardous material manufacturing, handling, processing, and storage facilities.</p> <p>NRS 278.160 – Planning and zoning.</p> <p>NRS 278.580—Investigation of seismic hazards: fault, fissure, and liquefaction.</p> <p>NRS 410.095 through 410.210 – Regulation and restriction of landfills, garbage dumps, and junkyards.</p>	<p>Zoning can keep inappropriate development out of hazard-prone areas and can designate certain areas for such things as conservation, public use, or agriculture. Zoning can also be used to control construction by dedicating areas for cluster development or planned unit development. The State currently works with local governments on implementing these last two policies.</p>
Land Use Planning	<p>Comprehensive land use planning provides a mechanism to prevent development in hazardous areas or allows development in a manner that minimizes damage from hazards. Land use planning gives local governments "the big picture" of what is happening in their jurisdiction.</p> <p>NRS 278.02521 – Protecting environmentally sensitive areas</p> <p>NRS 278.160 – Planning and zoning.</p> <p>NRS 278.580—Investigation of seismic hazards: fault, fissure, and liquefaction.</p> <p>NRS 321.640 through 321,770 – Laws to govern growth and use of lands which could impact emergencies.</p> <p>NRS 324 – Regulates use of water and reclamation of water projects.</p> <p>NRS 376A – Taxes for development of open space land.</p> <p>NRS 472 – Fire warden's duties to include preservation of forest and vegetation cover.</p> <p>NRS 528 – Regulation of forest practice and reforestation.</p> <p>NRS 534 – Planning and development of water resources and management of water resources.</p>	<p>Local governments can use land use planning to identify those areas subject to damage from hazards and work to keep inappropriate development out of those areas. Land use planning can also be used for more regional approach when local governments work together.</p>
Subdivision Regulations	<p>Sets construction and location standards for subdivision layout and infrastructure.</p> <p>NRS 445D – Environmental covenants that attach to real property.</p>	<p>Contains standards for such things as storm water management and erosion control</p>
Capital Improvements Planning	<p>Identifies where major public expenditures will be made over the next 5 to 10 years.</p>	<p>Capital Improvement Plans can secure hazard-prone areas for low risk uses, identify roads or utilities that</p>

Table 4-7. Existing State Model Codes Promoted for Adoption by Local Governments		
Policy	Description of Model Codes	Applicability
		need strengthening, replacement, or realignment, and can prescribe standards for the design and construction of new facilities.

4.3.2 Local Capabilities General Analysis

At this time 12 out of 17 Nevada counties have FEMA-approved mitigation plans. The Subcommittee will integrate the capabilities from local jurisdictions as soon as their completed plans are approved by FEMA. The NHMPC Task Force derived this information from the local jurisdictions' hazard mitigation plans. The following table provides a general summary analysis of the effectiveness of the local capabilities of the completed plans.

Table 4-8. Local and Tribal Capabilities General Analysis				
County	Effectiveness			Comments
	Legal Regulatory	Administrative Technical	Fiscal	
Carson City	Excellent	Excellent	Excellent	The awareness of mitigation needs to be enhanced through training and public awareness campaigns. Carson City adopted the most current building codes.
Churchill	Excellent	Very Good	Very Good	Plan approved. Actively working to implement flood mitigation activities.
Clark	Excellent	Excellent	Excellent	They have excellent mitigation actions in flood awareness and prevention. Currently, they are researching earthquake mitigation actions, but already have regulations dealing with faults and fissures. They have one community rated extreme for wildfire risk. The County, State, and Federal agencies implement mitigation activities for wildfire. The most current building codes are in place
Douglas	Very Good	Very Good	Very Good	Douglas has legal, regulatory, and

Table 4-8. Local and Tribal Capabilities General Analysis

County	Effectiveness			Comments
	Legal Regulatory	Administrative Technical	Fiscal	
				fiscal and administrative capability. Coordination and partnerships have improved in the hazard management field. Plan under update process,
Duck Valley Shoshone-Paiute	Good	Good	Good	Plan is approved by FEMA Region X. Hazard Mitigation Program is managed via State of Idaho.
Duckwater-Shoshone	NA	NA	NA	Under development in conjunction with Nye County
Elko	Very Good	Very Good	Very Good	Elko County has the foundation in place to enhance current hazard mitigation strategy. Plan under update process. Implementing local mitigation activities.
Elko Band Council (Te-Moak Tribal Council)	Very Good	Very Good	Very Good	Approved plan in 2011; expires in 2016.
Eureka	NA	NA	NA	Developing a plan with local money.
Esmeralda	Good	Good	Good	Considering the rural nature of this County, they are progressing well in adopting their hazard mitigation plan. Coordination among its agencies improved through the planning process.
Humboldt	NA	NA	NA	Developing a plan
Lander	NA	NA	NA	Developing a plan
Lincoln	Very Good	Very Good	Very Good	Considering the rural nature of this County, they are progressing well in updating their hazard mitigation plan. Coordination among its agencies improved through the planning process and implementing a strategy.
Lyon	NA	NA	NA	Developing a plan
Mineral	Very Good	Good	Very Good	Plan approved in May 2012. First Annual Tabletop exercise took place in May 2013.
Nye	Good	Good	Good	Nye Co. has the ability to adopt regulations. Additional staff and funding for mitigation purposes would

Table 4-8. Local and Tribal Capabilities General Analysis				
County	Effectiveness			Comments
	Legal Regulatory	Administrative Technical	Fiscal	
				help the growing population. Update in progress.
Pershing	NA	NA	NA	Developing a plan.
Pyramid Lake Paiute Tribe	Good	Very Good	Good	Developed an approved plan in conjunction with Washoe County.
Reno-Sparks Indian Colony	Good	Good	Very Good	Developed an approved plan in conjunction with Washoe County.
Storey	Very Good	Very Good	Very Good	Approve plan in update process; building codes adopted and funding requests for UHMA selected for further review.
Washoe	Excellent	Excellent	Excellent	Washoe Co. completed a regional hazard mitigation plan to include tribes, and communities have applied for funding to implement strategy.
Washoe Tribe of Nevada and California	Excellent	Excellent	Excellent	First tribe to develop and update their HMP for all their colonies; served as model for other tribes. Approved plan in June 2009, expires in 2014
White Pine	NA	NA	NA	Developing a plan.

The Subcommittee will continue to track and analyze the local jurisdictions' capabilities as their hazard mitigation plans are approved.

4.4 MITIGATION ACTIONS

The requirements for mitigation actions, as stipulated in the DMA 2000 and its implementing regulations, are described below.

DMA 2000 REQUIREMENTS: MITIGATION STRATEGY

Mitigation Actions

Requirement §201.4(c)(3)(iii): State plans **shall** include an identification, evaluation, and prioritization of cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering and an explanation of how each activity contributes to the overall mitigation strategy. This section **should** be linked to local plans, where specific local actions and projects are identified.

Requirement §201.4(d): **Plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities . . .**

Element

Does the **new or updated** plan identify cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering?

Does the **new or updated** plan evaluate these actions and activities?

Does the **new or updated** plan prioritize these actions and activities?

Does the **new or updated** plan explain how each activity contributes to the overall State mitigation strategy?

Does the mitigation strategy **in the new or updated** section reflect actions and projects identified in local plans?

Source: FEMA, Standard State Hazard Mitigation Plan Review Crosswalk 2008

This is the process by which the Subcommittee identified, evaluated and prioritized cost-effective, environmentally sound, and technically feasible mitigation strategy actions

4.4.1 Identification of Cost-Effective, Environmentally Sound, and Technically Feasible Mitigation Actions

To identify strategic actions, we first reviewed the 2010 mitigation strategic actions and projects and requested input from Subcommittee members on any needed additions deletions or changes to the list or any that had been accomplished. Newly identified strategic actions have been added to Table 4-2. Completed mitigation activities are listed in Appendix P.

4.4.2 Evaluation and Prioritization of Strategic Actions and Activities

The standard FEMA-approved STAPLEE process was used as a starting point for the Subcommittee to focus prioritization of action items in the strategic plan. Table 4-9 presents the evaluation criteria of the STAPLEE process as used in development of mitigation strategy.

Table 4-9. STAPLE-E Evaluation Criteria for Ranking Mitigation Strategic Action Items

Evaluation Category	Discussion topics	Considerations
Social	Is there public support for the overall mitigation strategy and specific mitigation actions?	Community acceptance; any adverse effects on population
Technical	Is the mitigation action technically feasible and is it a whole or partial solution?	Technical feasibility; long-term solutions; secondary impacts
Administrative	Does the community have the personnel and administrative capabilities necessary to implement the action or will outside help be necessary?	Staffing; funding allocation; maintenance/operations
Political	What do the community and its members feel about issues related to the environment, economic development, safety, and emergency management aspects of the action?	Political support; local champion; public support
Legal	Does the community have the legal authority to implement the action, or must the community pass new regulations?	Local, state, and federal authority; potential legal challenges
Economic	Can the action be funded with current or future internal and external sources? Do the costs seem reasonable for the size of the project, and is enough information available to complete a FEMA Benefit-Cost Analysis?	Benefit/cost of action; contributes to other economic goals; outside funding required; FEMA Benefit-Cost Analysis
Environmental	What is the impact on the environment? Does the action promote a desirable, sustainable and environmentally healthy community for the public?	Effect on local flora and fauna; consistent with community environmental goals; consistent with local, state, and federal laws.

To achieve this, the subcommittee members were given a spreadsheet containing the action items as rows and the items defining STAPLEE as columns. The members ranked the actions using numbers 1 to 5 with 1 being the lowest rating and 5 the highest rating for each specific action and item. The numbers were added and ranked based on a summation of all points received from members providing input. These results for all of the participating members are shown as a column under the Subcommittee Respondents heading.

A review of the results of the STAPLEE prioritization shows that the 102 strategic action items received scores of between 249 and 347 points each from Subcommittee members; The top 25% scoring 293 and above were ranked as “High” priority strategic action items. The second quartile (scoring 281 to 292) were ranked as “Medium” priority strategic action items and the lower half receiving less than 280 points in the STAPLEE rating process were ranked as “Low” priority strategic action items.

The Subcommittee met in a Special Meeting after this ranking was suggested to discuss details and change the priority of any strategic action items that members felt merited special consideration due to particular circumstances not addressed by the numerical modeling. The members discussed the suggested prioritization at the meeting and approved it with no revisions.

The resulting prioritization of strategic actions effectively constitutes the Mitigation Strategy for the State and is listed below in Table 4-10, Strategic Action Plan Matrix. This listing details not only the ranking of strategic action items, but also the lead agencies for each item, possible funding sources for their highest priority actions, implementation timeline and economic justification. The Subcommittee strongly supports any mitigation action for earthquake, flood, and wildfire — those hazards that are rated “High” and that affect all Nevada communities.

Although this prioritization presents a general framework for mitigation strategy at the state level, it should not be regarded as a rigid set of guidelines dictating all mitigation activity. Actual mitigation efforts across the state are more often directed by the efforts of the local communities and groups who submit innovative, feasible, fundable grant projects with local matching funds for activities of importance to them at the community level. These projects are deserving of state support whenever possible.

SECTION FOUR

Mitigation Strategy

Table 4-10. Strategic Action Plan Matrix; 2013 NHMP Prioritization of Strategic Actions

Action Number	Strategic Action Item Description	Lead Agency Department/ Division	Potential Funding Sources	Implementation Timeline	Economic Justification	Prioritization
5.D	Provide public education and outreach to educate homeowners in the Wildland Urban Interface (WUI) about proper defensible space practices and landscaping for fire resistance and encourage community involvement in project completion, participation, and maintenance	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.A	Protect existing assets, as well as future development, from the effects of wildfire	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.AR	Protect the envelop of buildings from wildfire	NDF	USDA, BLM, USFS, NRCS, UNCE, locals, private, FEMA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.M	Assist communities in fuels reduction projects for areas with extreme or high ratings in Community Wildfire Protections Plan (CWPP) assessments	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS, locals	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.C	Assist local communities in enacting local ordinances for mitigation and fire prevention	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH

SECTION FOUR

Mitigation Strategy

1.A	Improve awareness of the locations, potential impacts and links among hazards, vulnerability and measures to protect life safety and health	DEM, DWR	HMA, EMPG, DHS grant, USFS, FMAG, BLM, Emergency Response Commission, Local fees	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.N	Provide funding and service forestry technical assistance through the State Fire Assistance and Hazardous Fuels Reduction programs to reduce fuels on state and private property	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS, locals	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.F	Educate and train State and communities in current standards and regulations for proper practices in defensible space and firefighting	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS, UNCE	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
3.G	Encourage seismic retrofit of public safety and critical facilities (both community and State) (such as 911 communications, hospitals, fire, law enforcement and ambulance facilities, etc.)	NESC, NSL, NBMG	HMA, EMPG, USFS, BLM, NDF, Local FD	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.AO	Comply with all federal regulations in the funding stream to ensure compliance and future competitiveness	NDF	NDF	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
4.B	Identify and prioritize areas in the State where existing flood hazard mapping is inadequate due to planned and existing significant development and conduct flood hazard mapping in those areas	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
2.A	Provide technical assistance, guidance, resources and tools to local governments and tribal entities to promote hazard mitigation planning	DEM, DWR	HMA, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH

SECTION FOUR

Mitigation Strategy

4.G	Upgrade State owned or operated infrastructure (e.g. servicing roads, culverts, bridges, channels, and structures) related to State owned or operated critical facilities to protect critical facilities from flood damages or disruption of essential services	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.AG	Provide public education and outreach to communities affected by wildfire	NDF	USDA, BLM, USFS, NRCS, UNCE, Living With Fire Program, FEMA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
1.B	Provide current information about hazards, vulnerabilities, mitigation processes and technical assistance for planning and grant availability and application procedures to State and local agencies	DEM, DWR	HMA, EMPG, DHS grant, USFS, FMAG, BLM, Emergency Response Commission, Local fees	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.AC	Assist communities and State in Burned Area Emergency Rehabilitation, and complete fire damage reclamation reports and public education and outreach to provide the best land management practices available for collaborative land rehabilitation	NDF	USDA, BLM, USFS, NRCS, USACE, UNCE	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.L	Continue to improve fire prevention programs statewide through partnerships with Fire Prevention Association of Nevada, State Fire Marshals Office, University of Nevada, Reno Cooperative Extension, and any other cooperators.	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH

SECTION FOUR

Mitigation Strategy

5.G	Ensure proper personal protective equipment, apparatus, equipment and training for career staff and seasonal wildland firefighters.	NDF	FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.B	Identify and recommend changes to State NRS, NAC and communities ordinances and regulations	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
2.G	Promote understanding by the general public of the benefits of hazard mitigation in reducing casualty and property losses and ensuring continuity of businesses, institutional and government functions	DEM, DWR	HMA, EMPG, NHERP, NSF	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
4.K	Install early warning weather stations in watersheds with dams above populated areas	NDWR, NDEM	NWS, NOAA, USGS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
4.A	Protect existing assets, as well as future development, from the effects of flooding	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.H	Assist volunteer fire departments in attaining funds for proper personal protective equipment, apparatus, equipment and training	NDF	FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.AL	Assist, encourage and provide guidance to communities in the development of the appropriate fire service organization for their community (i.e. a legally constituted fire protection district or fire department) according to NRS 472.040	NDF	USDA, BLM, USFS, NRCS, UNCE, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH

SECTION FOUR

Mitigation Strategy

5.K	Encourage collaboration on all levels among state, federal and local cooperators, both fire- and resource-related	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.AN	Assist in the planning for and removal of biomass waste on fuels reduction and forest health projects, as well as following wildland fires, flooding and other catastrophic natural event.	NDF	USDA, BLM, USFS, NRCS, UNCE, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
2.F	Continue to build operational links between hazard mitigation, disaster preparedness and recovery programs with public and private sectors	DEM, DWR,	HMA, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.AH	Focus fuels projects in communities with extreme or high ratings in CWPP assessments	NDF	USDA, BLM, USFS, NRCS, UNCE, Living With Fire Program, FEMA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
1.F	Encourage local governments, special districts and tribal organizations to develop, adopt and implement, maintain and update hazard mitigation plans	DEM, DWR	HMA, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
3.N	Promote training of volunteer community emergency response teams (CERT) about earthquake risks and possible mitigation activities.	NESC, NSL, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
4.P	Develop Emergency Action Plans to ensure swift coordinated response in the event of an emergency	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
3.M	Promote the Great Nevada Shakeout and earthquake drills throughout the state.	NESC, NSL, NBMG	HMA, NEHRP	ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM

SECTION FOUR

Mitigation Strategy

4.E	Assist communities and State with programs to elevate, dry-flood proof or wet-flood proof identified structures to obtain NFIP compliance and/or mitigate repetitive loss structures and severe repetitive loss structures.	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
2.B	Provide specialized training and exercises to state agency staff and local governments concerning local hazard mitigation planning and the local hazard mitigation plan program	DEM, DWR	HMA, EMPG, CDBG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.AK	Encourage community involvement in project completion, participation, and maintenance.	NDF	USDA, BLM, USFS, NRCS, UNCE, Living With Fire Program, FEMA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
1.E	Improve communication, collaboration and integration among stakeholders and promote hazard mitigation as an integrated public policy	DEM, DWR	HMGP, EMPG, USGS, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.E	In highly motivated communities, focus on activities by individual participation in and maintenance of projects (personal responsibility)	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS, UNCE	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
3.P	Improve integration of the emergency management system at all levels of the community bringing forth the "whole community" approach.	NESC, NSL, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
1.C	Encourage the incorporation of mitigation measures into repairs, major alterations, new development and redevelopment practices	DEM, DWR	HMA, EMPG, DHS grant, USFS, FMAG, BLM, Emergency Response Commission, Local fees	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM

SECTION FOUR

Mitigation Strategy

4.J	Inventory and inspect existing dams for structural and hydraulic adequacy and implement operational constraints, if warranted.	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.AP	Keep apprised of all federal, state, and local regulations	NDF	NDF	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.AQ	Participate in interagency project planning, implementation and monitoring	NDF	USDA, BLM, USFS, NRCS, UNCE, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
1.G	Develop a hazard communication system that can be used to rapidly detect and provide early warning for multiple hazards, including earthquakes and wildfires	DEM, DWR	HMA, EMPG, BLM, Nevada Division of Forestry, USFS, SERC, Local Fees	12-18 Months	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.AD	Assess damage to critical watershed and threats to communities' domestic water supplies and mitigate those threats through erosion control practices	NDF	USDA, BLM, USFS, NRCS, USACE	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.AJ	Assist in the formulation and dissemination of current information such as Living with Fire documents	NDF	USDA, BLM, USFS, NRCS, UNCE, Living With Fire Program, FEMA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
3.X	Continue to inventory and field-verify unreinforced masonry buildings in Nevada and make this data publicly available to planners and emergency response staff in communities statewide.	NESC, NSL, NBMG	HMA, NEHRP, EMPG, locals	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM

SECTION FOUR

Mitigation Strategy

5.J	Coordinate the development of a comprehensive, collaborative program for mutual aid/mobilization of state and local government fire resources	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.O	Provide assistance to counties for priority setting and CWPP updating	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS, locals	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
4.L	Assist communities and State in structural mitigation measures, updates, and repairs to dams	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
3.F	Encourage seismic retrofit of deficient essential structures and infrastructure of community and State critical facilities (economic and lifeline-utilities) to structurally and seismically withstand the effects of earthquakes.	NESC, NSL, NBMG	HMA, EMPG, USFS, BLM, UNR Coop Extension	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
4.D	Retrofit State buildings to meet NFIP standards	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.Y	Use mechanical and hand treatments as well as prescribed fire to assist in attaining desired forest and rangeland conditions	NDF	USDA, BLM, USFS, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
3.Z	Identify potential funding sources for earthquake mitigation strategic actions not only at the Federal and State levels but also from private funding and community partnerships.	NESC, NSL, NBMG	HMA, NEHRP, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
3.L	Develop earthquake hazard information programs targeting public safety, emergency managers, local government executives, and business and industry.	NESC, NSL, NBMG	HMA, EMPG, USFS, BLM, NDF, Local FD	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM

SECTION FOUR

Mitigation Strategy

5.AM	Assist in acquiring funding for local firefighters for training and equipment through the State Fire Assistance, and Volunteer Fire Assistance when funded by US Forest Service.	NDF	USDA, BLM, USFS, NRCS, UNCE, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.AB	Encourage collaboration at all levels with state, federal and local cooperators	NDF	USDA, BLM, USFS, Living With Fire Program	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
2.H	Promote coordination among state agencies, local governments and tribal organizations of regional hazard mitigation activities	DEM, NESC, BMNG,	HMA, EMPG, FEMA,	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
1.D	Promote the modification of structures to meet life safety standards	DEM, DWR	HMA, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
4.M	Encourage local ordinances and regulations to reduce encroachment into flood prone zones resulting from dam impoundment or high (non-failure) releases.	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, NRCS, USDA	Ongoing	Reduce the impact of hazards on infrastructure and reduce loss of life and injury	LOW
4.N	Identify hazards of flooding from man-made structures, such as irrigation ditches and canals, and integrate these into local zoning ordinances	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.S	Give planning and special consideration to developing a "Fault Map of Nevada" and identifying all active faults and seismic sources near major urban areas in Nevada.	NESC, NSL, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.V	Provide assistance to communities and State in planning and implementing long-term sustainable landscape projects	NDF	USDA, BLM, USFS, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW

SECTION FOUR

Mitigation Strategy

4.O	Develop laws and regulations that ensure reasonable standards of design and construction to reduce flood hazards	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.Q	Provide publications and workshops to promote the exchange of technical information relating to earthquakes among professionals, managers and the citizens of Nevada.	NESC, NSL, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
2.C	Maintain a tracking system for local and state government mitigation plans and projects	DEM, DWR	HMA, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.AI	Assist with the development of and participation in a comprehensive program by which current CWPP or equivalent assessments are updated as projects are completed, ratings change or new at-risk communities arise.	NDF	USDA, BLM, USFS, NRCS, UNCE, Living With Fire Program, FEMA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
2.I	Identify, enhance and integrate public education efforts by state and local agencies that have programs directed to hazard mitigation	DEM, DWR	HMA, EMPG, FMA, RFC, local fees	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
4.C	Conduct flood hazard mapping in piedmont and alluvial fan environments	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA, USGS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.B	Hold workshop on strategies, benefits, risk-reduction opportunities, and challenges associated with the inventory of seismically susceptible buildings	DEM, DWR	HMA, EMPG, FMA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW

SECTION FOUR

Mitigation Strategy

5.W	Restore native and adapted vegetation and work to prevent areas being impacted by non-native or undesirable species conversions through collaborative efforts.	NDF	USDA, BLM, USFS, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.A	Protect existing assets, as well as future development, from the effects of earthquakes by providing setback criteria for building and development	DEM, DWR	HMA, EMPG, FMA, RFC	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.P	Provide a statewide evaluation process for monitoring community progress, prioritization and participation in CWPP	NDF	locals?	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.K	Expand earthquake awareness in educational sites such as regional science fairs, and speakers	NESC, NSL, NBMG	HMA, EMPG, USFS, BLM, NDF, UNR Coop Extension	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.I	Increase media involvement by networking with partners from all media types such as print, radio, TV, and social media.	NESC, NSL, NBMG	HMA, EMPG, USFS, BLM,	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.AE	Supply resources for rehabilitation efforts through the State Tree Nurseries in Las Vegas and Washoe Valley, and the Nevada State Seedbank programs.	NDF	NDF	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.Y	Promote coordination among private and public entities to improve statewide earthquake monitoring capabilities.	NESC, NSL, NBMG	HMA, NEHRP, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.E	Create microzonation of earthquake hazards in Nevada	NESC, NSL, NBMG	HMA, EMPG, USFS, BLM	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW

SECTION FOUR

Mitigation Strategy

4.F	Assist communities and State with programs dealing with Repetitive Loss and Severe Repetitive Loss structures; these programs may involve acquisition and demolition; relocation; elevation or other mitigation strategies.	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.O	Promote training of hospital staff about earthquake risks and possible mitigation activities.	NESC, NSL, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
2.D	Provide training to local governments and state agency staff to clarify mitigation measures from response and recovery and preparedness measures	DEM, DWR	HMGP, EMPG, Interoperable Communications, USGS, USFS, BLM, FEMA, BOR	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.AF	Provide training, expertise, and supplies/equipment in a collaborative manner to assist in rehabilitation	NDF	USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.R	Focus projects in areas to attain desired forest conditions and coordinate with forest health program activities	NDF	USDA, BLM, USFS, locals	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.V	Create earthquake planning scenarios (Las Vegas and rural areas).	NESC, NSL, NBMG	HMA, NEHRP, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.W	Determine potential fault rupture characteristics and maximum earthquakes.	NESC, NSL, NBMG	HMA, NEHRP, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.C	Assist communities and State to retrofit, change occupancy to decrease risk, or demolish susceptible buildings and structures	DEM, DWR	HMA, EMPG, USGS, Interoperable communications, local fees	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW

SECTION FOUR

Mitigation Strategy

5.Z	Provide native and accepted introduced seed species through the Nevada State Seedbank program	NDF	USDA, BLM, USFS, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
2.E	Maintain a system to allow state agencies with hazard mitigation programs and plans to make recommendations about how local governments can incorporate these in support of the state's mitigation program efforts	DEM, DWR	HMA, EMPG, Local fees, SERC	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.I	Participate in research and development of interoperability for emergency response communications	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.H	Develop lesson plans or activities for teachers to increase awareness about Nevada's earthquake hazard that tie into the existing science curriculum and align with the science standards for the state.	NESC, NSL, NBMG	HMA, EMPG, USFS, BLM, SHPO,	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.S	Ensure that all projects have an approved fuels/forest health/stewardship plan that includes all aspects of service forestry (State Historic Preservation Officer (SHPO) (threatened and endangered species, prescriptions, actions, etc.)	NDF	USDA, BLM, USFS, locals	ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.AA	Develop a set of model codes and regulations that would be presented after a major earthquake occurs in Nevada.	NESC, NSL, NBMG	HMA, NEHRP, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW

SECTION FOUR

Mitigation Strategy

4.I	Inventory existing dams and add to the inventory as dams are discovered or constructed.	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
4.H	Protect existing assets as well as future development from the effects of dam failure	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.Q	Provide and maintain a statewide process for documenting fuels projects progress, completion, success and maintenance	NDF	locals?	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.U	Enhance implementation of nonstructural remediation.	NESC, NSL, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.AA	Provide training for local cooperators for treatment practices and skill acquisition	NDF	USDA, BLM, USFS, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.U	Work closely with the Tribal communities, local landowners, and the SHPO to obtain clearances and to mark sensitive sites	NDF	USDA, BLM, USFS, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.T	Establish a “lifelines and transportation” workgroup.	NESC, NSL, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.R	Promote a post-earthquake technical clearinghouse through planning and established practices.	NESC, NSL, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.J	Provide Applied Technology Council (ATC) training and develop formalization of the process	NESC, NSL, NBMG	HMA, EMPG, USFS, BLM, UNR Coop X	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW

SECTION FOUR

Mitigation Strategy

5.T	Provide training for employees and project managers on SHPO and cultural resource identification, reporting methods and clearances	NDF	BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.D	Create planning for "special consideration zones" for Nevada communities	DEM, DWR	HMA, EMPG, USGS, FMA, FEMA, local fees	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW

The Subcommittee will continue to evaluate all the listed strategic action items during its quarterly meetings for validity and revise the related plan sections accordingly. Any significant revisions will be submitted to FEMA as they occur.

The action items provided by each of the lead agencies participating in the Planning Subcommittee meetings fall into one of the following broad mitigation strategy categories.

Prevention: These strategic activities are especially effective in areas where development has not occurred or capital improvements have not been substantial. For example:

- Planning and zoning
- Hazard mapping
- Building codes
- Studies, data collection and analysis
- Open space preservation
- Floodplain regulations
- Storm water management

Property Protection: Examples of activities for property protection are listed below. These actions enable structures to better withstand hazard events or remove structures from hazardous locations.

- Acquisition
- Relocation
- Building elevation
- Critical facilities protection and/or hardening
- Retrofitting
- Insurance

Natural Resource Protection: These activities reduce the impact of hazards by preserving or restoring the natural function of environmental systems. These measures serve the dual purpose of protecting lives and property while enhancing environmental goals. These activities are usually carried out by parks, recreation or conservation organizations.

- Floodplain protection
- Fire resistant landscaping
- Fuel breaks
- Watershed protection

Structural Projects: These projects modify the physical environment of the structures to lessen the impacts of a hazard.

- Levees/dikes/floodwalls
- Reservoirs
- Diversion, detention, retention dams

Emergency Services: These activities are generally not considered as mitigation

techniques, but they minimize the impact of a hazard on people and property.

- Warning system
- Evacuation planning and management

Public Information and Awareness: These activities are used to advise residents, business owners, visitors and government officials about hazards, hazardous areas, and mitigation techniques used to protect life and property.

- Outreach and education
- Training
- Public service announcement

4.4.3. Actions in Local Plans & State Mitigation Strategy

The NHMPC's quarterly meetings are now being conducted at a different county each quarter. A list of the local planning area goals and actions, when available, is provided to the NHMPC members prior to the meeting, providing them with background on mitigation strategy identified by the locals. It also provides input for NHMPC to reflect these local mitigation strategies in the state goals and objectives.

Although local agencies are independent in their development of mitigation goals and actions, the state provides a plan format as a recommended guide. The plan format provides a sample list of mitigation goals and objectives that mirror the state strategy. The final local actions are reviewed by Planning Subcommittee members and NHMPC as each local plan is submitted. This dual process of similar goals and actions provide familiarity and supports the development of concurrent action items for both state and local plans.

Some tribal entities have chosen to develop mitigation plans as governmental entities at the State level and their planning process did not include a review by the State of Nevada. They received their funding directly from FEMA. Nevada provides technical assistance to tribal entities only when requested. When the information on goals and actions is available NDEM will distribute it to the NHMPC members.

4.5 FUNDING SOURCES

The requirements for funding sources, as stipulated in the DMA 2000 and its implementing regulations, are described below.

DMA 2000 REQUIREMENTS: MITIGATION STRATEGY

Funding Sources

Requirement §201.4(c)(3)(iv): The State mitigation strategy **shall** include an identification of current and potential sources of Federal, State, local, or private funding to implement mitigation activities.

Element

Does the **new or updated** plan identify **current** sources of Federal, State, local, or private funding to implement mitigation activities?

Does the **new or updated** plan identify **potential** sources of Federal, State, local, or private funding to implement mitigation activities?

Does the updated plan identify the sources of mitigation funding used to implement activities in the mitigation strategy since approval of the previous plan?

Source: FEMA, Standard State Hazard Mitigation Plan Review Crosswalk 2008

4.5.1 Current Funding Sources

Since 2010, the State of Nevada has used the funding sources shown in the table below for mitigation activities. Local jurisdictions supply matching funds and at times fully support mitigation activities without assistance from Federal or State resources. The rural counties have less economic, administrative, and technical capability to manage and support mitigation activities. The more populous counties, Clark, Carson City, Douglas, Washoe and to a limited extent, Elko have programs that support mitigation activities, such as paid fire departments, flood control districts and the ability to enforce land-use regulations. For additional sources of funding currently available for mitigation activities, see Table 4-3 in Section 4.2.1. This table will be updated as the Subcommittee finds new funding sources to implement mitigation activities.

Table 4-11. Current Funding Sources for Strategic Mitigation Actions

Description	Comments
Clark County Flood Control District	Develops flood control projects countywide
FEMA	For pre-disaster and post-disaster mitigation and emergency funding, HMGP, PDM, FMA, RFC, FMAG
National Weather Service	Early warning public announcements (<i>new in 2012</i>)
Nevada Division of Forestry	Administers funding from FEMA, BLM, and U.S. Forest Service for wildfire emergency and mitigation funding, except for HMGP and PDM (<i>new in 2011</i>)
Nevada Earthquake Safety Council	Allocates FEMA money for earthquake mitigation efforts
Nevada State Emergency Response Commission (SERC)	Administers state and federal money for pre-disaster funding in mitigation efforts for Hazardous Materials and Terrorism (<i>newly identified in 2012</i>)
Nevada Mining Association, Newmont Gold, Barrick Mines, and other individual mining companies.	Donations, public awareness, and/or mitigating their structures for hazard safety (<i>new in 2012</i>)
Private individuals	Provide labor and matching costs for mitigation activities.
Southern Nevada Water Authority	Provides incentives to preserve water (<i>new in 2012</i>)
Truckee Meadows Water Authority	Regulates the use of water in the Truckee Meadows
Truckee River Flood Management Authority	Responsible for implementing the "Living River" project that eliminates flood risk throughout the Truckee River.
U. S. Army Corps of Engineers (ACE)	Mitigation and emergency funding for any navigable river, stream, or waterway (<i>new in 2011</i>)
U. S. Bureau of Land Management	Funding for plans and projects for wildfire and urban-wildfire interface
U. S. Forest Service	Provides emergency and mitigation funding for wildfire
U. S. Geological Survey	UNR and UNLV have participated in the external grants program of the USGS portion of the National Earthquake Hazard Reduction program.
U. S. HUD Community Development Block Grants (CDBG)	State-administered Small Cities CDBG grants program to smaller units of local government for community development activities. Annually, each State develops funding priorities and criteria for selecting projects to address a wide range of community development needs including hazard mitigation (<i>newly identified in 2012</i>)
United We Stand	Special License Plate that funds first responder training and equipment. (<i>new in 2012</i>)
Volunteer Fire Departments (local and paid)	Local fundraisers and local jurisdictions; general fund (<i>newly identified in 2012</i>)

4.5.2 Potential Funding Sources

In addition to Federal agencies already providing hazard mitigation funding (see Table 4-3, Section 4.2.1), Table 4-12 lists several potential funding sources in the private sector for mitigation activities. This table will be updated as the Subcommittee discovers new potential funding sources for implementing strategic mitigation activities.

Table 4-12. Potential Funding Sources for Strategic Mitigation Activities	
Private Sources	Comments
Casinos	Donations, public awareness, and/or mitigating their structures for hazard safety
Construction (New Development) Companies, Contractors	Donations, public awareness, and/or mitigating their structures for hazard safety
Federal Emergency Management Agency	Through the PDM and the HMGP funded local jurisdiction hazard mitigation plans, FMA, CAP, National Dam Safety Program, NFIP and flood modernization programs, etc.
Housing and Urban Development	CDBG
Intermountain Farmers Association, Nevada Cattlemen's Association, etc.	Public awareness and/or mitigating their structures for hazard safety
Local communities/districts	Fire districts, school districts, general improvement districts, county and city governing authorities have all provided in-kind or cash matching sources for all the activities accomplished through federal sources.
Local media	Offering free public safety announcements
National Science Foundation	Earthquake risk reduction
Private Insurance Companies Farmers Insurance, AIG, Allstate, etc.	Public awareness, incentives for mitigation activities, and mitigation training.
U. S. Army Corps of Engineers	Design and construction of local flood control projects, riverbank protection, floodplain management, etc.
U. S. Department of Agriculture	Waterway protection from erosion: EQIP, WHIP, AMA, CSP, CRP
U. S. Department of Agriculture	Invasive species protection programs: EQIP, WHIP, GRP, WRP, CSP, CRP
U. S. Department of Agriculture	Wildfire protection programs: HERP, EQIP, WHIP, GRP, WRP, CSP, AMA
U. S. Department of Agriculture	Animal disease, rural development, flood control projects, etc.
U. S. Department of Agriculture	Severe wind damage protection: EQIP, WHIP, CSP
U. S. Department of Energy	Stream gauging, flood monitoring, disaster mitigation planning and technical assistance, disaster resistance jobs and workplaces, etc.
U. S. Department of Health and Human Services	Medical emergency management and mitigation, training and preparedness, etc.
U. S. Environmental Protection Agency	Wetlands protection, emergency watershed protection, Clean Water Act, etc.
U. S. Bureau of Land Management	Funded CWPPs and WUIs
U. S. Geological Survey	Earthquake hazard reduction, mapping, etc.

4.6 Repetitive Loss and Severe Repetitive Loss

This Section addresses the State's strategy for mitigation of repetitive loss properties including Severe Repetitive Loss properties.

DMA 2000 REQUIREMENTS: PREREQUISITES

Severe Repetitive Loss Strategy

Requirement §201.4(c)(3)(v): A State may request the reduced cost share authorized under §79.4(c)(2) of this chapter for the FMA and SRL programs, if it has an approved State Mitigation Plan...that also identifies specific actions that the State has taken to reduce the number of repetitive loss properties (which **must** include severe repetitive loss properties), and specifies how the State intends to reduce the number of such repetitive loss properties.

Element

Does the new or updated plan describe State mitigation goals that support the selection of mitigation activities for repetitive loss properties (see also Part 201.4(c)(3)(i))?

Does the new or updated plan consider repetitive loss properties in its evaluation of the State's hazard management policies, programs, and capabilities and its general description of the local mitigation capabilities (see also Part 201.4(c)(3)(ii))?

Does the new or updated plan address repetitive loss properties in its risk assessment (see also Part 201.4(c)(2))?

Does the new or updated plan identify, evaluate and prioritize cost-effective, environmentally sound, and technically feasible mitigation actions for repetitive loss properties (see also Part 201.4(c)(3)(iii))?

Does the new or updated plan describe specific actions that have been implemented to mitigate repetitive loss properties, including actions taken to reduce the number of severe repetitive loss properties?

Does the new or updated plan identify current and potential sources of Federal, State, local, or private funding to implement mitigation activities for repetitive loss properties (see also Part 201.4(c)(3)(iv))?

Requirement §201.4(c)(3)(v): *In addition, the plan **must** describe the strategy the State has to ensure that local jurisdictions with severe repetitive loss properties take actions to reduce the number of these properties, including the development of local mitigation plans.*

Element

Does the new or updated plan provide a description of the State process to support, through funding and technical assistance, the development of local mitigation plans in communities with severe repetitive loss properties (see also Part 201.4(c)(4)(i))?

Does the new or updated plan include considerations for repetitive loss properties in its criteria for prioritizing communities and local jurisdictions that would receive planning and project grants under available mitigation funding programs (see also Part 201.4(c)(3)(iii))?

Source: FEMA, Standard State Hazard Mitigation Plan Review Crosswalk 2008

Legislative changes made in the Biggert-Waters Flood Insurance Reform Act of 2012 define a **Severe Repetitive Loss (SRL)** property as a **structure** that:

- (a) is covered under a contract for flood insurance made available under the NFIP and
- (b) Has incurred flood-related damage

- (i) For which four or more separate claims made available under flood insurance coverage with the amount of each such claim exceeding \$5,000, and the cumulative amount of such claims payments exceeding \$20,000; or
- (ii) For which at least 2 separate claims payments have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the insured structure.

A **Repetitive Loss Property** is a structure covered by a contract for flood insurance made available under the NFIP that:

- (a) Has incurred flood-related damage on 2 occasions, in which the cost of the repair, on the average, equaled or exceeded 25% of the market value of the structure at the time of each such flood event; and
- (b) At the time of the second incidence of flood-related damage, the contract for flood insurance contains increased cost of compliance.

Existing National Flood Insurance Program data for the State of Nevada indicate that there is currently one Severe Repetitive Loss property in the State that fulfills the criteria defined above.

The Nevada Hazard Mitigation Plan Subcommittee will continue to monitor data from the National Flood Insurance Program to identify any SRL properties in the State. The goal is to address any repetitive flood structure to avoid it becoming an SRL. Should the State develop any additional SRL properties in the future, the following strategy will be followed to mitigate such SRL occurrences.

4.6.1 Goals that Support Mitigation Activities for Repetitive Loss Properties

State mitigation goals that support the selection of mitigation activities for repetitive loss properties are Goal 1 – Reduce the loss of life and injuries, and Goal 4 – Reduce the possibility of damage and losses due to flooding. See Section 4.1.2 for more detail on goals and actions.

4.6.2 Repetitive Loss and State & Local HM Policies, Programs & Capabilities

Section 4.2.1, Table 4-3 provides Nevada's policies, programs and capabilities for flood hazards. Additionally, NDWR manages floodplain managers. NDWR works with local communities to address NFIP issues and flood mapping. This provides communities with guidance and assistance in hazard mitigation projects.

4.6.3 Repetitive Loss Properties in Risk Assessment

Table 3-17 in Section 3.3.7.3.2 provides a summary of repetitive loss and severe repetitive loss properties due to flood for each community in Nevada. Section 3.3.7.3.3 provides a description of partnerships and stakeholders with whom Nevada cooperates to reduce repetitive losses from floods.

4.6.4 Mitigation Actions for Repetitive Loss and Severe Repetitive Loss Properties

Section 4.1.2., Table 4-2, Goal 4, Action item 4.E and 4.F provide actions effective in mitigating and reducing the flood hazard in repetitive loss and severe repetitive loss properties in Nevada. Specifically:

Action item 4.E: “Assist communities and State with programs to elevate, dry-flood proof or wet-flood proof identified structures to obtain NFIP compliance and/or mitigate repetitive loss structures and Severe Repetitive Loss structures, “and

4.F “Action 4.F: “ Assist communities and State with programs dealing with Repetitive Loss and Severe Repetitive Loss structures; these programs may involve acquisition and demolition; relocation; elevation or other mitigation strategies.” The STAPLEE process was used to prioritize actions.

4.6.5 Specific Actions Implemented to Mitigate Repetitive Loss Properties

See Section 3.3.7.3.3 and Appendix P, page 2 for examples of actions implemented in Nevada to mitigate repetitive loss properties. In addition, the Truckee River Flood Management Authority (TRFMA) purchased a parcel that contains repetitive loss structures. Through NDEM, TRFMA applied for a PDM 2010 grant to demolish these structures along the Truckee River and this project has now been completed. Using HMGP funds, repetitive loss property located along the Truckee River at the Lockwood Mobile Home Park was purchased thus eliminating repetitive loss structures.

The TRFMA is applying for funding in 2013 to elevate flood-prone residences in the Hidden Valley area of Washoe County.

In a separate area within the Carson River Special Flood Hazard Area, residences located in flood-prone areas were elevated.

In 2012, Nevada applied for its first FMA funding. The application was selected for further review and is currently in the NEPA process.

4.6.6 Funding for Repetitive Loss Properties

Sections 4.5.1 and 4.5.2 identify current and potential sources of Federal, State, local, and private funding to implement mitigation activities for repetitive loss properties.