

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.

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 demonstrates 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 Overview**

The NHMPC modified the goals and action items in the 2010 updated NHMP to reflect the new hazard rankings that resulted from the Subcommittee's hazard categorization and assessment work presented earlier in Section 3. The following sections present updated goals and action items for earthquake as a Very High Risk hazard and for flood and wildfire

as High Risk hazards. Terrorism was also ranked as a Very High Risk hazard, but its state mitigation strategy is found in the Homeland Security Strategy (HSS) plan which also addresses the risk and vulnerability assessment, location, critical facilities, history, probability of future events and funding sources associated with the mitigation of terrorism. Therefore, no strategy for terrorism is presented in this document.

The listing found in the 2007 plan was modified to a table format in this plan containing goals and strategic action items. Some goals and actions are incorporated from other plans, such as the Western States Governor's Association's – *10 Year Strategy for Wildfire Prevention* and the *Nevada Earthquake Mitigation Plan*. The intent of the updated Goals and Actions is to guide NHMPC in the selection of mitigation activities at the state level as well as the local jurisdiction level. The previous goals were found to be valid, the updated language and action items include the intent of deleted goals as well as better "mitigation" approach to response and recovery, public awareness, and, state and local planning actions. The following table shows the completed, modified or added goals in this iteration.

Table 4-1. 2007 to 2010 Goals and Strategic Actions Update

2007 Goals	2010 Update Action
Goal 1	Modified language and actions. The goal remains valid but language was changed to reflect the combined language from previous Goals 1 and 2. The new language and action items reflect the same intent only in a more succinct manner.
Goal 2	Modified language and actions. The goal remains valid and its intent is captured in action items across all the goals. For example, Goal 3, action item E improves technical assistance to promote disaster-resistant development.
Goal 3	Was deleted as its intent has been included in actions within Goals 1 and 2. For example, Goal 2, action item 2.G depicts a better "mitigation" approach to response and recovery.
Goal 4	Modified language and actions to include all flood actions (dam failure and flood). The new goal is a result of the risk assessment combining dam failure as a type of flooding and includes the action items from previous goals 4 and 6.
Goal 5	Number was modified to Goal 3 with slightly modified language and actions. As goals were consolidated and numbers were deleted, our previous Goal 7 became current Goal 5. The current plan no longer has a Goal 7. In the review process, duplicate action items were deleted. When similar intent was found in two or more action items, the language was combined into one action. This reduced the number of strategic action items by 3.
Goal 6	Number modified to Goal 4 (flood) and slightly modified language and actions. The action items from this previous goal are currently found in Goal 4. This change brings consistency with the risk assessment in combining the types of flood hazards. Due to the consolidation of previous Goals 2 and 3 with other current goals, previous Goal 6 was renumbered

	to current Goal 4.
Goal 7	Please see explanation for Goal 5 above.

#### 4.1.2 Mitigation Goals and Strategic Actions

Table 4-2 below shows the State of Nevada's hazard mitigation goals and strategic actions. 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.

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 developed the Earthquake actions. The Subcommittee and DEM staff joined forces to update the current actions found in the goal to reduce the loss of life and injuries and improve local hazard mitigation plans technical assistance. All actions were reviewed and approved by the Subcommittee members. The objectives found in the 2007 iteration were eliminated for brevity with the intent kept in the action items.

Please see Appendix N containing the 2007 mitigation strategy modification and status of each action item.

Table 4-2 below depicts the revised goals and action items. The implementation strategy is found in Section 4.9, Table 4-10 Strategic Action Plan Matrix. The table includes the lead department/division, potential funding sources, implementation timelines, and economic justification.

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action
<b>Goal 1:</b> <i>Reduce the loss of life and injuries</i>  <i>Nevada Division of Emergency Management and Nevada Hazard Mitigation Planning Committee</i>	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 and implement hazard mitigation plans
	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
<b>Goal 2:</b> <i>Improve Local Hazard Mitigation Plans Technical Assistance</i>  <i>Nevada Division of Emergency Management and Nevada Hazard Mitigation Planning Committee</i>	2.A	Promote local hazard evaluation and mitigation planning and assist in developing local hazard mitigation plans
	2.B	Provide technical assistance, guidance, resources and tools to local governments for all aspects of local hazard mitigation planning
	2.C	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.D	Develop and maintain a tracking system for local and state government mitigation plans and projects
	2.E	Provide training to local governments and state agency staff to clarify mitigation measures from response and recovery and preparedness measures
	2.F	Develop 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

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action
	2.G	Continue to build operational links between hazard mitigation, disaster preparedness and recovery programs with public and private sectors
	2.H	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.I	Promote coordination among state agencies, local governments and tribal organizations of regional hazard mitigation activities
	2.J	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, NDEM, NHMPC	3.A	Protect existing assets, as well as future development, from the effects of earthquakes
	3.B	Mitigate shaking hazards in communities' and State critical facilities so that they are seismically resistant and operational following a strong earthquake
	3.C	Hold workshop on strategies, benefits, risk-reduction opportunities, and challenges associated with the inventory of seismically susceptible buildings
	3.D	Assist communities and State to retrofit, change occupancy to decrease risk, or demolish susceptible buildings and structures
	3.E	Create planning for "special consideration zones" for Nevada communities
	3.F	Create microzonation of earthquake hazards in Nevada
	3.G	Improve the threshold of detection and accuracy of location for earthquakes throughout Nevada
	3.H	Retrofit buildings, building contents and building infrastructure to structurally and seismically withstand the effects of earthquakes
Goal 4: <i>Reduce the possibility of damage and losses due to flooding</i>	4.A	Protect existing assets, as well as future development, from the effects of flooding
	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

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action
<i>Div. of Water Resources, NHMPC</i>	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
	4.F	Assist communities and State with programs to acquire and demolish or relocate repetitive loss structures
	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, and repairs to dams
	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</i>	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

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## Mitigation Strategy

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action
<i>due to wildfire.</i> <i>Division of Forestry</i>	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 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 Marshals Office, University of Nevada, Reno Cooperative Extension, and any other cooperators.
	5.M	Assist communities in fuels reduction projects for areas with extreme or high ratings in Community Wildfire Protections 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	

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## Mitigation Strategy

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action
		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
	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
	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

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action
	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
	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
	5.AP	Participate in the Nevada State Biomass Working Group, southern Nevada Woody Biomass Collaboration Group, and other state, local, and national biomass committees
	5.AQ	Comply with all federal regulations in the funding stream to ensure compliance and future competitiveness
	5.AR	Keep apprised of all federal, state, and local regulations
	5.AS	Participate in interagency project planning, implementation and monitoring
	5.AT	Protect the envelop of buildings from wildfire

### 4.1.3 Goal Assessment and Updates

To assess the goals from 2007, DEM provided information about projects requested and completed successfully or not completed with comments on why the action was incomplete, as well as expected future requests to the Subcommittee. Each member was asked for input through email, or telephone conversation on the validity of the goals, revisions, modification or elimination of the actions and goals following the questions found in Section 6.1.3. The result of the assessment was:

- 2007 Goals 1 through 3 were carefully reviewed by NDEM and the Subcommittee members and condensed into the new Goals 1 and 2. The new goals provide extensive coverage to include the public awareness and technical assistance found in the previous version, and added new Strategic Actions to improve the distribution of current and new risk assessment information. The Subcommittee agreed to remove the objectives in an effort to be brief without diminishing the content of the plan.
- In Goal 3, Action 3.H was added - Retrofit buildings, building contents and building infrastructure to structurally and seismically withstand the effects of earthquakes.
- The 2007 Goals 4 and 6, were combined into current Goal 4, which reflects all flood hazard actions to mirror the profiles and order found in the updated version of Section 3. Both of the following actions were removed from the strategy.  
*Action 4.A.3 - Develop detailed earthquake disaster planning scenarios for Nevada communities – this was completed by NBMG in 2009.*  
*Action 4.A.5 - Inventory Nevada’s seismically susceptible buildings – this is in process.*
- The 2007 Goal 7 was changed to Goal 5 and the actions were slightly modified to eliminate duplication. Action 7.K.1 was moved to Goal 1 to better reflect that technical training would be beneficial for all hazards. Action 5.AT was added - Protect the envelope of buildings from wildfire by the lead agency to reflect changes in FEMA policy MRR-2-08-1.

Also, the tasks below were targeted separately in the 2007 iteration of the state plan. The current status of each task follows the task in italicized font.

Several tasks that remain lacking in the mitigation program due to technical, economic and administrative constraints are listed below.

1. Updating the current HMGP application. *This was accomplished thanks to the assistance provided by hiring one consultant. The new application is modeled after the Arizona version with slight modifications to fit Nevada’s application process.*

2. Development and delivery of mitigation program workshops, specific to Nevada. *The state floodplain manager and the SHMO developed a grant application workshop delivered in eastern rural Nevada, and the most populated counties of Nevada, Washoe and Clark, with great success as shown in the 2010 allocation received from PDM.*
3. Create the mitigation program's ability in GIS by supporting enhancements to UNR, Nevada Bureau of Mines and Geology's existing system. *This will be an on-going task, but with the development of the "MyPlan" website, the greatest portion of this task will be completed.*
4. Provide additional training in e-Grants, BCA, and formulation of applications. *This task is included in Task #2. More detailed training in BCA still requires FEMA expertise.*
5. DMA 2000 training to increase the understanding of its process and requirements. *The SHMO developed training specific to the planning requirements and process. The course was delivered in early 2010 both in Northern and Southern Nevada locations.*
6. Enhancing the collaborative efforts with other state agencies, committees/boards, and tribal nations: *This task is still incomplete and is on-going. However, successful efforts have been made with the Nevada Earthquake Safety Council (NESC) and the Wildfire Urban Interface Summit as follows:*
  - a. The creation and enforcement of mitigation codes: *The NESC has been the closest ally for this task by adopting the Western States Seismic Policy Council's policies. Enforcement in Nevada by the state is difficult due to "home rule" laws.*
  - b. Increasing the mitigation capabilities through leveraging of funding sources: *Contact has been made with the Community Development Block Grant managing agency to bring awareness to the subgrantees about mitigation leveraging of funds. With the budgetary cutbacks, it will be a difficult task to complete in the next three years.*
  - c. Improving public awareness of the mitigation program: *This is an on-going task. The NHMPC's efforts in meeting at rural communities have been very successful in bringing awareness to elected officials.*

## 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*

In an effort to make this plan functional and keep it as a living document, the Team worked to consolidate similar information and to eliminate duplicate entries from the previously existing three tables into one. The Subcommittee was provided a list of the previous and new listing for their review and approval. This section was updated by consolidating previous tables containing the pre- and post-disaster and response into one table. The table with the response capabilities was eliminated. The language for the development in hazard-prone areas, funding capabilities and changes in the hazard management capabilities was updated to reflect their current status.

### 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.

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	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 <a href="http://www.hud.gov/offices/cpd/communitydevelopment/programs/">http://www.hud.gov/offices/cpd/communitydevelopment/programs/</a>
U. S. Housing and Urban Development	All Hazards	Disaster Recovery Assistance		√	√	√		Disaster relief and recovery assistance in the form of special mortgage financing for rehabilitation of impacted homes. <a href="http://www.hud.gov/offices/cpd/communitydevelopment/programs/dri/assistance.cfm">http://www.hud.gov/offices/cpd/communitydevelopment/programs/dri/assistance.cfm</a>
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. <a href="http://www.hud.gov/sustainability">www.hud.gov/sustainability</a>
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. <a href="http://www.hud.gov/offices/cpd/affordablehousing/programs/home">http://www.hud.gov/offices/cpd/affordablehousing/programs/home</a>

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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. 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. <a href="http://www.csrees.usda.gov/funding/rfas/smith_lever.html">http://www.csrees.usda.gov/funding/rfas/smith_lever.html</a>
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. <a href="http://www.rurdev.usda.gov/rhs/cf/cp.htm">http://www.rurdev.usda.gov/rhs/cf/cp.htm</a>
USDA	All Hazards	Community Facilities Direct Loans Community Facilities Direct Grants	√		√	√		This program provides direct loans for essential community facilities. <a href="http://www.rurdev.usda.gov/rhs/cf/cp.htm">http://www.rurdev.usda.gov/rhs/cf/cp.htm</a>
USDA	All Hazards	Community Facilities Direct Grants	√		√	√		This program provides grants to develop essential community facilities. <a href="http://www.rurdev.usda.gov/rhs/cf/cp.htm">http://www.rurdev.usda.gov/rhs/cf/cp.htm</a>
USDA Farm Service Agency	All Hazards	Farm Service Agency Disaster		√	√	√		This program provides emergency funding and technical assistance for farmers and ranchers to rehabilitate farmland and livestock damaged by natural disasters. <a href="http://www.fsa.usda.gov/">http://www.fsa.usda.gov/</a>

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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	
		Assistance Programs						
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. <a href="http://www.aoa.gov/doingbus/fundopp/fundopp.asp">http://www.aoa.gov/doingbus/fundopp/fundopp.asp</a>
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. <a href="http://www.eda.gov/AboutEDA/Programs.xml">http://www.eda.gov/AboutEDA/Programs.xml</a>
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. <a href="http://www.sba.gov/services/financialassistance/index.html">http://www.sba.gov/services/financialassistance/index.html</a>
USDA/APHIS/ Veterinary Services		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. <a href="http://www.fema.gov/government/grant/hmgp/index.shtm">http://www.fema.gov/government/grant/hmgp/index.shtm</a>

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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	
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. <a href="http://www.fema.gov/government/grant/pdm/index.shtm">http://www.fema.gov/government/grant/pdm/index.shtm</a>
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 Administration		Disaster Mitigation Planning and Technical Assistance	√		√	√		This provides technical and planning assistance grants for capacity building and mitigation project activities focusing on creating disaster resistant jobs and workplaces. <a href="http://www.doc.gov/eda">www.doc.gov/eda</a>
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,

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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	
								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. <a href="http://www.nrcs.usda.gov/programs/watershed/index.html">http://www.nrcs.usda.gov/programs/watershed/index.html</a>
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. <a href="http://www.nrcs.usda.gov/programs/ewp/">http://www.nrcs.usda.gov/programs/ewp/</a>
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. <a href="http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5423&amp;org=SES">http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5423&amp;org=SES</a>
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.

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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	
National Science Foundation (NSF)	All Hazards	Hazard Reduction Program			√	√	√	NSF provides funding for research and related educational activities on hazards.
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.
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.  <a href="http://www.fsa.usda.gov/FSA/webapp?area=home&amp;subject=copr&amp;topic=ecp">http://www.fsa.usda.gov/FSA/webapp?area=home&amp;subject=copr&amp;topic=ecp</a>
Southern Nevada Water Authority, Truckee Meadows Water	Drought	Several water conservation and drought mitigation	√		√	√	√	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

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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	
Authority		programs						<a href="http://www.tmh20.com/conservation/">http://www.tmh20.com/conservation/</a> SNWA offers incentive programs and information to encourage water conservation. <a href="http://www.snwa.com/html/cons_index.html">http://www.snwa.com/html/cons_index.html</a>
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. <a href="http://www.epa.gov/nps/cwact.html">http://www.epa.gov/nps/cwact.html</a>
National Institute of Science and Technology (NIST); FEMA; US Department of Interior, USGS; National Science Foundation (NSF) (Partnering with UNR- NBMG, NSL, UNLV)	Earthquake	National Earthquake Hazard Reduction program (NEHRP) in Earth Sciences	√		√	√		NEHRP provides grants to states or local jurisdictions for training, planning, and technical assistance related to earthquake hazard reduction. <a href="http://www.nehrp.gov/contracts/solicitations.htm">http://www.nehrp.gov/contracts/solicitations.htm</a>
USGS, FEMA, NIST, and NSF (Partnering with UNR- NBMG, NSL, UNLV)	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. <a href="http://www.nehrp.gov/contracts/solicitations.htm">http://www.nehrp.gov/contracts/solicitations.htm</a>
USGS, FEMA, NIST, and NSF (Partnering with	Earthquake	National Earthquake Hazard	√		√	√		Research into basic and applied earth and building sciences. <a href="http://www.nehrp.gov/contracts/solicitations.htm">http://www.nehrp.gov/contracts/solicitations.htm</a>

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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	
UNR-NBMG, NSL, UNLV, NESCS, UNR)		Reduction program (NEHRP)						
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. <a href="http://emergency.cdc.gov/">http://emergency.cdc.gov/</a>
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. <a href="http://www.aphis.usda.gov/animal_health/">http://www.aphis.usda.gov/animal_health/</a> <a href="http://agri.nv.gov/index_Animal2.htm">http://agri.nv.gov/index_Animal2.htm</a>
EPA	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. <a href="http://www.epa.gov/safewater/dwsrf/index.html">http://www.epa.gov/safewater/dwsrf/index.html</a>
US Department of Health and Human Services (USDHHS) (partners with Nevada Department of Health and Human		Emergency Management/ Mitigation Training	√		√	√		This program provides training in disaster mitigation, preparedness, and planning for Public Healthcare <a href="http://www.cdc.gov/about/business/funding.htm">http://www.cdc.gov/about/business/funding.htm</a>

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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	
Services (NDHHS) and State Health Division (SHD))								
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. <a href="http://www.hhs.gov/aspr/opeo/hpp/">http://www.hhs.gov/aspr/opeo/hpp/</a>
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. <a href="HTTP://WWW.FEMA.GOV/BUSINESS/NFIP">HTTP://WWW.FEMA.GOV/BUSINESS/NFIP</a>
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. <a href="http://www.fema.gov/government/grant/fma/index.shtm">http://www.fema.gov/government/grant/fma/index.shtm</a>
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). <a href="http://www.fema.gov/government/grant/rfc/index.shtm">http://www.fema.gov/government/grant/rfc/index.shtm</a>
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.

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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	
								<a href="http://www.epa.gov/wetlands/grantguidelines/">http://www.epa.gov/wetlands/grantguidelines/</a>
ACE (Army Corps of Engineers) (Partners with Tribes, Div. of Water Resources (DWR), Carson Water Subconservancy District (CWSD), Truckee River Flood Project (TRFP), Tribes)	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. <a href="http://www.lre.usace.army.mil/planning/assist.html">http://www.lre.usace.army.mil/planning/assist.html</a>
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. <a href="http://www.lre.usace.army.mil/planning/fpman.html">http://www.lre.usace.army.mil/planning/fpman.html</a>
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. <a href="http://el.erdc.usace.army.mil/products.cfm?Topic=none">http://el.erdc.usace.army.mil/products.cfm?Topic=none</a>
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. <a href="http://www.nrcs.usda.gov/programs/ewp/">www.nrcs.usda.gov/programs/ewp/</a>

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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	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. <a href="http://www.nrcs.usda.gov/programs/watershed/index.html">www.nrcs.usda.gov/programs/watershed/index.html</a>
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. <a href="http://www.usace.army.mil/howdoi/where.html">www.usace.army.mil/howdoi/where.html</a> <a href="http://cfpub.epa.gov/fedfund/program.cfm?prog_num=104">http://cfpub.epa.gov/fedfund/program.cfm?prog_num=104</a>
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. <a href="http://www.epa.gov/owow/wetlands/initiative/#financial">http://www.epa.gov/owow/wetlands/initiative/#financial</a>
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. <a href="http://cfpub.epa.gov/safewater/sourcewater/sourcewater.cfm?action=Pprograms">http://cfpub.epa.gov/safewater/sourcewater/sourcewater.cfm?action=Pprograms</a>
FEMA	Flood	National Dam Safety Program	√		√	√		This program provides financial assistance to the states for strengthening their dam safety programs.

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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	
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  <a href="http://www.fema.gov/plan/prevent/floodplain/fema_cap-ssse.shtm">http://www.fema.gov/plan/prevent/floodplain/fema_cap-ssse.shtm</a>
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.  <a href="http://nnsa.energy.gov/emergency_ops/print/1709.htm">http://nnsa.energy.gov/emergency_ops/print/1709.htm</a>
US Department of Transportation Pipeline and Hazardous Materials Administration (Partners with State Emergency Response Commission, 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. The programs include grants to State agencies certified in the Pipeline Safety Program.  <a href="http://www.phmsa.dot.gov/grants-state-programs">http://www.phmsa.dot.gov/grants-state-programs</a>
SERC Partners with local emergency planning	Hazardous Materials	United We Stand State License Plates	√		√	√		The revenue will be disbursed by the State Emergency Response Commission to support state and local first responders in planning, training exercises, and equipment efforts.

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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	
committees								<a href="http://www.serc.nv.gov/">www.serc.nv.gov/</a>
FEMA Partners with Department of Public Safety; SERC	Hazardous Materials	Superfund Amendment and Reauthorization Act (SARA) Title III	√		√	√		SARA, Title III provides funding for training in emergency planning, preparedness, mitigation, response, and recovery capabilities associated with hazardous chemicals. Eligible individuals include public officials, fire and police personnel, medical personnel, first responders, and other tribal response and planning personnel. Funding is available to federally recognized Tribal Nations. <a href="http://www.fema.gov/government/grant/sara.shtm">http://www.fema.gov/government/grant/sara.shtm</a>
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. <a href="http://www.epa.gov/oswer/docs/grants/09-01.pdf">http://www.epa.gov/oswer/docs/grants/09-01.pdf</a>

#### 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, nonprofit organizations such as the Nevada Fire Safe Council 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 Section 5.3.1.1 to 5.3.1.3 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 staffing levels in DEM have remained unchanged since the 2007 plan. 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.

Since the approval of the previous 2007 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 2010, eleven (11) local plans have been approved. These include Carson City, Clark County, Douglas County, Elko County, Lincoln County, Nye County, Storey County, Washoe County, City of Sparks, City of Reno and the Truckee Meadows Water Authority. Two additional communities are in the process of developing their plans, Esmeralda County and Lyon County. Clark County, Carson City and Washoe County are in the process of updating their plans. Washoe County is updating their plan with a multi-jurisdictional and regional plan to include Washoe County, City of Reno, City of Sparks, Tribal entities and the Truckee Meadows Water Authority.

The SHMO and the NHMPC are increasing public awareness by having 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 asked to present the area's demographics, government, geography, economic, and social profile in addition to providing information on the area's hazards and the area Flood Plain Manager presents flood hazard information. The State Geologist presents information regarding the HAZUS-MH runs on earthquakes and the SHMO provides information on the PDM and HMGP grants. This provides to the community increased awareness of the programs and funding 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 PDM and HMGP.

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. PDM Grant Applications

Year	Type	# Submitted	# Approved
PDM 2007	Planning	3	3
	Project	1	1

Table 4-4. PDM Grant Applications

Year	Type	# Submitted	# Approved
PDM 2008	Planning	1	1
	Project	4	1
PDM 2009	Planning	1	0
	Project	4	2
PDM 2010	Planning	4	4
	Project	7	4

The table and figures below provide PDM & HMGP funding by year in Nevada. The increased local awareness combined with the technical assistance are demonstrated by the increased funding each year.

Table 4-5. Mitigation Funding 2001-2010

Year	Funding By Program		Three-year TOTAL	
	PDM (\$)	HMGP (\$)	PDM (\$)	HMGP (\$)
2001				
2002	297,271	0		
2003	198,125	0	198,125.00	0
2004 – SHMP Approved Oct		523,113		
2005	60,063	392,541		
2006	29,115	413,679	89,178	1,329,333
2007 – Update Approved Oct	561,347			
2008	573,173*	489,792		
2009	1,067,995*		2,202,515	489,792
2010	3,504,572*			
<b>Total</b>	<b>\$5,774,024</b>	<b>\$ 1,819,125</b>		

\* Funding amounts reflect selected projects however funding is conditioned on NEPA review.

Figure 4-1. PDM Grant Dollars of Funding per Year

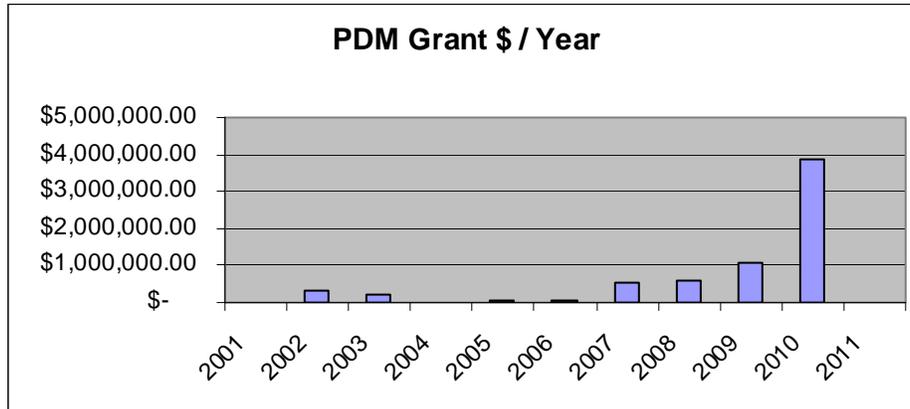
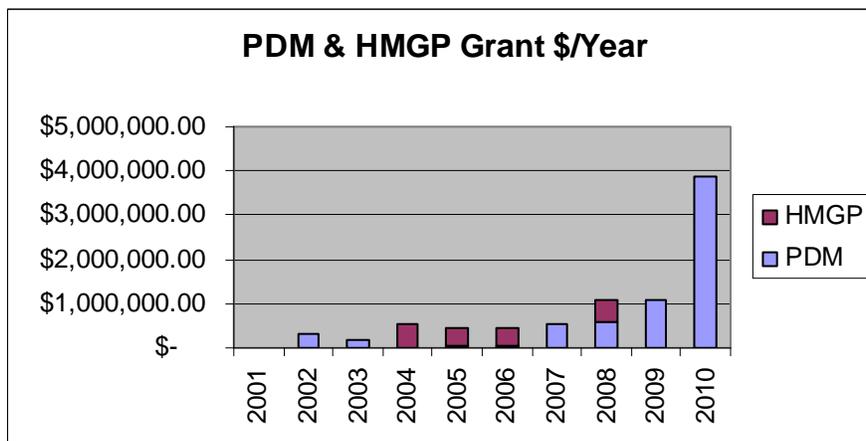


Figure 4-2. PDM and HMGP Grant Dollars of Funding per Year

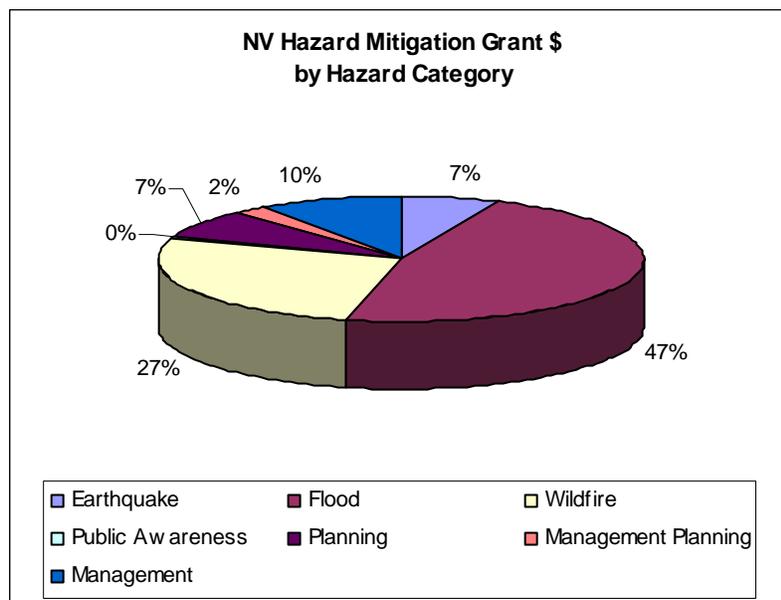


The table and figure below provide the PDM and HMGP funding by hazard type. Earthquake, flood and wildfire are Nevada’s most destructive hazards.

Table 4-6. PDM & HMGP Funding by Hazard Type

Hazard or Grant Type	Amount
Earthquake	\$ 513,262
Flood	\$ 3,637,738
Wildfire	\$ 2,047,138
Public Awareness	\$ 36,310
Planning	\$ 566,991
Management Planning	\$ 178,750
Management	\$ 743,860
Total	\$ 7,724,040

Figure 4-3. PDM & HMGP Funding by Hazard Type Pie Chart



Currently, the Division of Risk Management 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 NHMPC Chair, Jon Price, supported the development of a “Loss-Estimation Modeling of Earthquake Scenarios for Each County in Nevada Using HAZUS-MH” report in 2007 and created a new report with similar data for 35 additional towns and cities with population of 500 or greater in 2009. Dr. Price provided this new information to the Nevada Association of Counties.

The most significant change is the 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 on-going efforts are listed below.

1. Conducting NDEM- and NDWR-coordinated 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. Administering the pass-through of FMA, PDM and HMGP grant funds to counties and municipalities to develop DMA 2000-compliant hazard mitigation plans.
3. Coordinating the Nevada Hazard Mitigation Planning Subcommittee which is directly responsible for assisting NDEM in the development and updating of this plan, evaluating and prioritizing hazard mitigation grant proposals, and advising NDEM in mitigation activities statewide.
4. Improving the level of coordination across state agency programs that share objectives that complement the goals of this plan.
5. Creating the mitigation program’s GIS capability with support from UNR, Nevada Bureau of Mines and Geology’s existing system.
6. Providing and enhancing the risk and vulnerability assessment data for local and Tribal governments.

### 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 policies are shown in the following table. It is expected that their adoption by local jurisdictions 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 Policies Adopted by Locals

Policy	Description	Applicability	Effectiveness
Building Codes	<p>The State has adopted a building code and local governments are required to adopt and enforce this code.</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 – Ability of the State Fire Marshall to recommend changes to building codes to ensure fire safety.</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 codes relates the design and construction of structures to standards established for withstanding wildfires, earthquakes, flooding, dam failure, and high winds.</p>	<p>All structures built after the adoptions comply with the new building code, which includes special provisions for building in the floodplain.</p>
Zoning	<p>Laws and ordinances regulate development by dividing the community into zones and by setting development criteria for each zone.</p>	<p>Zoning can keep inappropriate development out of hazard-prone areas and can designate certain</p>	<p>Some counties have passed open space ordinances that have preserved hazard-prone and environmentally</p>

Table 4-7. Existing State Policies Adopted by Locals

Policy	Description	Applicability	Effectiveness
	<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>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>	<p>sensitive areas (wetlands, aquifer recharge zones, etc.) in the State. These ordinances are based on local land use plans.</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>	<p>Under the local planning legislation, new development can be minimized in identified hazard areas.</p>
Subdivision Regulations	<p>Sets construction and location standards for subdivision layout and infrastructure.</p> <p>NRS 445D – Environmental covenants</p>	<p>Contains standards for such things as storm water management and erosion</p>	<p>New subdivisions in flood hazard-prone areas will be required to cluster homes</p>

Table 4-7. Existing State Policies Adopted by Locals

Policy	Description	Applicability	Effectiveness
	that attach to real property.	control	outside of the floodplain, and will be given more flexibility in using varied densities within the subdivision.
Capital Improvements Planning	Identifies where major public expenditures will be made over the next 5 to 10 years.	Capital Improvement Plans can secure hazard-prone areas for low risk uses, identify roads or utilities that need strengthening, replacement, or realignment, and can prescribe standards for the design and construction of new facilities.	Realigned utilities in highest earthquake risk area.

### 4.3.2 Local Capability General Analysis

At this time nine out of seventeen Nevada counties have FEMA-approved mitigation plans and one is currently being reviewed by FEMA. 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 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				In process of developing a plan

Table 4-8. Local Capabilities General Analysis

County	Effectiveness			Comments
	Legal Regulatory	Administrative Technical	Fiscal	
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 as well as the Fire Safe Council are considering mitigation activities for wildfire. The most current building codes are in place
Douglas	Very Good	Very Good	Very Good	Douglas has legal, regulatory, and fiscal and administrative capability. Coordination and partnerships have improved in the hazard management field.
Elko	Very Good	Very Good	Very Good	Elko County has the foundation in place to enhance current hazard mitigation strategy. Changes in personnel slowed down their progress.
Eureka				Interested in developing a plan
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 and will be enhanced with the possible requests for funding in the future.
Humboldt				Interested in developing a plan
Lander				Interested in 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 will be enhanced with the possible requests for funding in the future.
Lyon				Developing a plan

Table 4-8. Local Capabilities General Analysis

County	Effectiveness			Comments
	Legal Regulatory	Administrative Technical	Fiscal	
Mineral				Interested in developing a plan
Nye	Good	Good	Good	Nye Co. has the ability to adopt regulations. Additional staff and funding for mitigation purposes would help the growing population.
Pershing				Interested in developing a plan
Storey	Very Good	Very Good	Very Good	Plan has been approved, building codes adopted and funding requests for UHMA submitted.
Washoe	Excellent	Excellent	Excellent	Washoe Co. completed a regional hazard mitigation plan to include tribes, and communities have applied for funding.
White Pine				Interested in developing a plan

The Subcommittee will analyze the local jurisdictions' capabilities as their hazard mitigation plans are completed.

#### 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 2007 mitigation 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.

##### **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. STAPLEE Evaluation Criteria for Ranking Mitigation Strategic Action Items

Evaluation Category	Discussion	Considerations
Social	The public support for the overall mitigation strategy and specific mitigation actions.	Community acceptance; Adversely affects population
Technical	If the mitigation action is technically feasible and if it is the whole or partial solution.	Technical feasibility; Long-term solutions; Secondary impacts
Administrative	If the community has the personnel and administrative capabilities necessary to implement the action or whether outside help will be necessary.	Staffing; Funding allocation; Maintenance / operations
Political	What the community and its members feel about issues related to the environment, economic development, safety, and emergency management.	Political support; Local champion; Public support
Legal	Whether the community has the legal authority to implement the action, or whether the community must pass new regulations.	Local, State, and Federal authority; Potential legal challenge
Economic	If the action can be funded with current or future internal and external sources, if the costs seem reasonable for the size of the project, and if enough information is 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	The impact on the environment because of public desire for a sustainable and environmentally healthy community.	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 divided among by the number of members providing input. These results for each of the participating members are shown as a column under the Subcommittee Respondents heading.

A review of the results of the STAPLEE prioritization, revealed a natural break in the total numbers with certain strategic action items receiving more than 80 points and then a large gap with a scattering of action items receiving far fewer than 80 points in the prioritization by members. The committee decided that those actions which scored higher than 80 points were deemed high priority by all subcommittee members. They also eliminated any listed action items which were not considered mitigation strategy actions.

Additionally the Subcommittee members reviewed and discussed all action items in each Goal and agreed that some actions that did not generate a STAPLEE score above 80 should still be considered a high enough priority to be ranked "High" due to a set of other considerations such as high public profile. The resulting high priority actions decided upon by the Subcommittee are listed in Table 4-10, Strategic Action Plan Matrix.

The Subcommittee asked each of the lead agencies to provide the cost and possible funding sources for their highest priority actions. The second table below, 4-9, shows only those highest ranked projects, as well as the lead agency responsible for implementing the actions, the possible funding sources, implementation timeline, economic justification, and priority level. The Subcommittee strongly supports any mitigation action for earthquake, flood, and wildfire - those hazards that are rated Very High and High and that affect all Nevada communities.

The NHMPC members agree the risk and vulnerability assessment of communities as first priority to implement any projects that reduce the risk to hazards. For proposals for project implementation, NHMPC understands that mitigation begins at the local level and each community categorizes hazards differently, it applies the established prioritization criteria found in Section 5.3.1.1 to all submitted proposals. Concurrence with the state high priority activities is determined by comparing the proposals to these. The information is provided to NHMPC by the SHMO along with additional information about the strategy and capability found in each subapplicant's, mitigation plan as well as the history of completion of projects. This method provides NHMPC with an overview of Nevada's mitigation needs.

The State high priority activities are implemented by first establishing which local risk assessments and mitigation strategies are aligned with the State priorities and then by selecting those sub applicants that have identified their ability to successfully reduce risk through their capability assessment and history of completing projects.

# SECTIONFOUR

## Mitigation Strategy

Table 4-10. Strategic Action Plan Matrix

Action Number	Strategic Action Item	Department / Division	Potential Funding Source	Implementation Timeline	Economic Justification	Priority Level
1.A	Improve awareness of the locations, potential impacts and links among hazards, vulnerability and measures to protect life safety and health	DEM, DWR	HMGP, PDM, EMPG, DHS grant, USFS, FMAG, BLM, Emergency Response Commission, Fire Safe Council, Local fees	Ongoing	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
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	HMGP, PDM, EMPG, DHS grant, USFS, FMAG, BLM, Emergency Response Commission, Fire Safe Council, Local fees	Ongoing	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
1.E	Improve communication, collaboration and integration among stakeholders and promote hazard mitigation as an integrated public policy	DEM, DWR	HMGP, PDM, EMPG, DHS grant, USFS, FMAG, BLM, Emergency Response Commission, Fire Safe Council, Local fees	Ongoing	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
1.F	Encourage local governments, special districts and tribal organizations to develop, adopt and implement hazard mitigation plans	DEM, DWR	HMGP, PDM, EMPG	Ongoing	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
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	HMGP, EMPG, USGS, BLM, USFS	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
2.A	Promote local hazard evaluation and mitigation planning and assist in	DEM, DWR	HMGP, PDM, EMPG	Ongoing	Reduce the impact of Hazards on infrastructure and reduce loss of life	H

# SECTIONFOUR

## Mitigation Strategy

Table 4-10. Strategic Action Plan Matrix

Action Number	Strategic Action Item	Department / Division	Potential Funding Source	Implementation Timeline	Economic Justification	Priority Level
	developing local hazard mitigation plans				and injury	
2.B	Provide technical assistance, guidance, resources and tools to local governments for all aspects of local hazard mitigation planning	DEM, DWR	HMGP, PDM, EMPG, BLM, Nevada Division of Forestry, USFS, SERC, Local Fees	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
2.C	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	HMGP, PDM, EMPG	6-9 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
2.D	Develop and maintain a tracking system for local and state government mitigation plans and projects	DEM, DWR	HMGP, PDM, EMPG, CDBG	6-9 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
2.E	Provide training to local governments and state agency staff to clarify mitigation measures from response and recovery and preparedness measures	DEM, DWR	HMGP, PDM, EMPG	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
2.F	Develop 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	HMGP, EMPG, Interoperable Communications, USGS, USFS, BLM, FEMA, BOR	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
2.G	Continue building operational links between hazard mitigation, disaster preparedness and recovery programs with public and private sectors	DEM, DWR	HMGP, PDM, EMPG, Local fees, SERC	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
2.H	Promote understanding by the general public of the benefits of hazard mitigation in reducing casualty and property losses and ensuring continuity	DEM, DWR,	HMGP, PDM, EMPG	6-9 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H

# SECTIONFOUR

## Mitigation Strategy

Table 4-10. Strategic Action Plan Matrix

Action Number	Strategic Action Item	Department / Division	Potential Funding Source	Implementation Timeline	Economic Justification	Priority Level
	of businesses, institutional and government functions					
3.C	Hold workshop on strategies, benefits, risk-reduction opportunities, and challenges associated with the inventory of seismically susceptible buildings	DEM, DWR	HMGP, PDM, EMPG, NHERP, NSF	6-9 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
3.H	Retrofit buildings, building contents and building infrastructure to structurally and seismically withstand the effects of earthquakes	DEM, NESC, BMNG,	HMGP, PDM, EMPG, FEMA,	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
4.F	Assist communities and State with programs to acquire and demolish or relocate repetitive loss structures	DEM, DWR	HMGP, PDM, EMPG, FMA, RFC, local fees	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
4.G	Upgrade State owned or operated infrastructure related to State owned or operated critical facilities to protect critical facilities from flood damages or disruption of essential services	DEM, DWR	HMGP, PDM, EMPG, FMA, RFC	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
4.I	Inventory existing dams and add to the inventory as dams are discovered or constructed.	DEM, DWR	HMGP, PDM, EMPG, FMA	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
4.K	Install early warning weather stations in watersheds with dams above populated areas	DEM, DWR	HMGP, PDM, EMPG, USGS, Interoperable communications, local fees	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
4.M	Encourage local ordinances and regulations to reduce encroachment into flood prone zones resulting from dam impoundment or high (non-failure) releases.	DEM, DWR	HMGP, PDM, EMPG, USGS, FMA, FEMA, local fees	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H

# SECTIONFOUR

## Mitigation Strategy

Table 4-10. Strategic Action Plan Matrix

Action Number	Strategic Action Item	Department / Division	Potential Funding Source	Implementation Timeline	Economic Justification	Priority Level
5.C	Assist local communities in enacting local ordinances for mitigation and fire prevention	DEM, NDF	HMGP, PDM, EMPG, USFS, BLM	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
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	DEM, NDF	HMGP, PDM, EMPG, USFS, BLM, Fire Safe Council, UNR Coop Extension	6-9 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
5.M	Assist communities in fuels reduction projects for areas with extreme or high ratings in Community Wildfire Protections Plan (CWPP) assessments	DEM, NDF	HMGP, PDM, EMPG, USFS, BLM, NDF, Fire Safe Council, Local FD	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
5.U	Work closely with the Tribal communities, local landowners, and the SHPO to obtain clearances and to mark sensitive sites	DEM, NDF	HMGP, PDM, EMPG, USFS, BLM, SHPO, Fire Safe Council	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
5.V	Provide assistance to communities and State in planning and implementing long-term sustainable landscape projects	DEM, NDF	HMGP, PDM, EMPG, USFS, BLM, Fire Safe Council	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
5.AG	Provide public education and outreach to communities affected by wildfire	DEM, NDF	HMGP, PDM, EMPG, USFS, BLM, Fire Safe Council, UNR Coop X	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
5.AJ	Assist in the formulation and dissemination of current information such as Living with Fire documents	DEM, NDF	HMGP, PDM, EMPG, USFS, BLM, NDF, Fire Safe Council, UNR Coop Extension	12-18 Months	Reduce the impact of Hazards on infrastructure and reduce loss of life and injury	H
5.AT	Protect the envelop of buildings from	DEM, NDF	HMGP, PDM, EMPG,	12-18 Months	Reduce the impact of Hazards on	H

Table 4-10. Strategic Action Plan Matrix

Action Number	Strategic Action Item	Department / Division	Potential Funding Source	Implementation Timeline	Economic Justification	Priority Level
	wildfire		USFS, BLM, NDF, Fire Safe Council, Local FD		infrastructure and reduce loss of life and injury	

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. Significant revision 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
- Stormwater 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/floodwall
- Reservoirs
- Diversion, detention, retention

**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 the Planning Subcommittee 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 a governmental entity 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

The following table shows the major funding sources identified by the Subcommittee. 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 capabilities to manage and support mitigation activities. The larger counties, Clark, Carson City, Douglas and Washoe have programs that support mitigation activities, such as paid fire departments, flood control districts and the ability to enforce land use regulations.

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
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
Nevada Earthquake Safety Council	Allocates FEMA money for earthquake mitigation efforts
Nevada Fire Safe Council	Administers state and federal money for wildfire mitigation efforts and promotes a grass-roots movement to protect the built-environment.
Southern Nevada Water Authority	Provides incentives to preserve water
Truckee Meadows Water Authority	Regulates the use of water in the Truckee Meadows
Truckee River Flood Project	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
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.

#### 4.5.2 Potential Funding Sources

In addition to Federal agencies already providing hazard mitigation funding (see Table 4-1 to 4-5, Sections 4.2.1 to 4.2.4), 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
Intermountain Farmers Association, Nevada Cattlemen's Association, etc.	Public awareness and/or mitigating their structures for hazard safety
Nevada Mining Association, Newmont Gold, Barrick Mines, and other individual mining companies.	Donations, public awareness, and/or mitigating their structures for hazard safety
Private Insurance Companies Farmers Insurance, AIG, Allstate, etc.	Public awareness, incentives for mitigation activities, and mitigation training.
Local media	Offering free public safety announcements

### 4.5.3 Sources of Nevada's Mitigation Funding Since 2007

Since 2007, the State of Nevada has used the funding sources shown in the table below for mitigation activities. Local jurisdictions have supplied matching funds and at times fully supported mitigation activities without assistance from Federal or State resources. For additional sources of funding currently available for mitigation activities, see Tables 4-2 through 4-7 in Sections 4.2.1 to 4.2.4.

Table 4-13. Sources of Nevada Hazard Mitigation Funding Since 2007

Funding Source Description	Types of Hazard Mitigation Funding Comments
U. S. Army Corps of Engineers	Design and construction of local flood control projects, riverbank protection, floodplain management, etc.
U. S. Bureau of Land Management	Funded CWPPs and WUIs
U. S. Department of Agriculture	Animal disease, rural development, flood control projects, etc.
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.
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.
U. S. Geological Survey	Earthquake hazard reduction, mapping, etc.
Housing and Urban Development	CDBG
National Science Foundation	Earthquake risk reduction
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.

Programs identified in the capability assessment demonstrate that other state agencies promote mitigation activities funded through sources not included in the tables above.

## 4.6 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*

Section 1361A of the National Flood Insurance Act, as amended (NFIA), 42 U.S.C. 4102a defines a **Severe Repetitive Loss (SRL)** property as a **residential property** that is covered under an NFIP flood insurance policy and:

- (a) That has at least four NFIP claim payments (including building and contents) over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or

(b) For which at least two separate claims payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building.

For both (a) and (b) above, at least two of the referenced claims must have occurred within any ten-year period, and must be greater than 10 days apart.

Existing National Flood Insurance Program data for the State of Nevada indicate that there are currently no Severe Repetitive Loss properties in the State that fulfill 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 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 flood plain managers and FEMA's FMA, RFC, SRL grant programs. 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 3-20 in Section 3.3.7.2 provides a summary of repetitive loss due to flood for each community in Nevada. This section also provides a list of projects Nevada is involved in to reduce repetitive losses from floods.

#### **4.6.4 Mitigation Actions for Repetitive Loss Properties**

Section 4.2.1, Table 4-3, Goal 4, provides actions to reduce the flood hazard in Nevada. These actions would be effective on repetitive loss properties. Specifically, Action 4.F - Assist communities and State with programs to acquire and demolish or relocate repetitive loss structures. The STAPLEE process was used to prioritize actions.

#### **4.6.5 Specific Actions Implemented to Mitigate Repetitive Loss Properties**

See Section 3.3.7.4.2 for examples of actions implemented in Nevada to mitigate repetitive loss properties. In addition the Truckee River Flood Project (TRFP) purchased a parcel that contains repetitive loss structures. Through NDEM, TRFP applied for a PDM 2010 grant to

demolish these structures along the Truckee River and this project has been selected for further review. Using HMGP funds, repetitive loss property located along the Truckee River at the Lockwood Mobile Home Park was purchased thus eliminating repetitive loss structures. In a separate area within the Carson River Special Flood Hazard Area, residences located in flood-prone areas were elevated.

### **4.6.6 Funding for Repetitive Loss Properties**

Sections 4.5.1, 4.5.2, and 4.5.3 identify current and potential sources of Federal, State, local, and private funding to implement mitigation activities for repetitive loss properties.