



Figure 4-1 County Map of Nevada

SECTION FOUR

Mitigation Strategy

While this iteration of the Plan identifies goals for the four high-ranking hazards in the State, 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. No single identified hazard can be overlooked or ignored. This Plan demands that all mitigation efforts be supported 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 2006

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 2006

4.1.1 Hazard Mitigation Goal Overview

During March 2007, the Nevada Hazard Mitigation Planning Committee (NHMPC) reviewed the hazard profiles and the *Nevada Local Hazard Risk Assessment Projections Surveys* as a basis for developing mitigation goals and objectives. Mitigation goals are defined as general guidelines that explain what a community wants to achieve in terms of hazard and loss prevention. Goal statements are typically long-range, policy-oriented statements representing the State of Nevada's community-wide visions. Objectives are statements that detail how the State of Nevada's goals can be achieved. Typically objectives define strategies or implementation steps to attain identified goals. Using the State and county documents as guidelines, the NHMPC developed goals with associated objectives to reduce or avoid long-term vulnerabilities to the identified hazards. The intent of the developed Goals

and Objectives is to guide NHMPC in the selection of mitigation activities at the state level as well as the local jurisdiction level.

All the presented goals, objectives and action (GOA's) items are new. Some of these GOA's re incorporated from other plans, such as the Wildfire GOA's. Those are from the Western States Governor's Association – 10 year strategy for wildfire prevention.

4.1.2 Mitigation Goals, Objectives, and Potential Actions

Listed below are the State of Nevada's specific hazard mitigation goals and objectives as well as related potential actions. For each goal, one or more objectives have been identified for attaining the goal. The Subcommittee requested the representative of the agency, with statutory authority, to act as lead in each of the high-risk hazards to develop and provide the Goals, Objectives, and Actions (GOAs) listed.

The lead is the state agency with regulatory responsibility to address a particular proposed action, or that is willing and able to organize resources, find appropriate funding and oversee implementation, monitoring and evaluation. The NHMPC coordinates all action items. Agencies that may be able to assist in the implementation of a particular proposed action item by providing relevant resources to the lead agency are considered support agencies.

Goal 1. Support local jurisdictions and tribal entities in accomplishing their mitigation goals, objectives, and actions. Lead - DEM

Objective 1.A Support and fund the development of new mitigation plans.

- Action 1.A.1 Provide mitigation planning workshops to the five counties without an approved mitigation plan.
- Action 1.A.2 Provide technical assistance to the eight counties with hazard mitigation plans to encourage and obtain funding for the development of their new hazard mitigation plans.
- Action 1.A.3 Promote coordination between the counties and with private and nonprofit entities during the planning process.

Objective 1.B Promote, support, and fund updates to approved mitigation plans.

- Action 1.B.1 Promote revision of approved mitigation plans with mitigation workshops for the five counties without an approved mitigation plan.
- Action 1.B.2 Provide technical assistance to fund the revision of approved mitigation plans.

Objective 1.C Promote mitigation programs statewide.

- Action 1.C.1 Develop a document showing possible Federal and private funding sources for mitigation activities.
- Action 1.C.2 Provide assistance for structural mitigation measures, updates, and repairs.
- Action 1.C.3 Encourage local ordinances and regulations to reduce encroachment

into risk-prone areas.

Goal 2. Promote disaster-resistant development. – Lead- All agencies, NHMPC

Objective 2.A Ensure the State’s planning tools are consistent with the hazard information identified in the Nevada HMP.

- Action 2.A.1 Sponsor an awareness campaign for elected officials about the importance of meeting the requirements of their Master Plan and Land Use regulations to be consistent with hazard area maps.
- Action 2.A.2 Review NRS 278.160 and other applicable State laws to ensure that they provide a legal foundation for disaster-resistant development.
- Action 2.A.3 Recommend changes to appropriate entities concerning applicable state and local laws for the promotion of disaster-resistant development.
- Action 2.A.4 Encourage enforcement of existing hazard mitigation regulations at the State and local level.
- Action 2.A.5 Promote new hazard mitigation regulations (building codes, flood plain management, etc.) at the state and local level.

Objective 2.B Develop a statewide GIS database to include the most recent hazard data.

- Action 2.B.1 Pursue funding for a statewide GIS database that includes all hazard mitigation planning functions.
- Action 2.B.2 Develop statewide hazard maps with information on hazard areas, critical facilities, and infrastructures.
- Action 2.B.3 Share hazard information with local jurisdictions, public and private organizations, and the general public.

Goal 3. Build and support local capacity to enable the public to prepare for, respond to, and recover from disasters – Lead DEM.

Objective 3.A Improve existing capabilities to warn the public of emergency situations.

- Action 3.A.1 Support and fund emergency evacuation programs for communities in identified hazard-prone areas, including earthquake, dam failure, wildfire, and flood.
- Action 3.A.2 Fund early warning systems for communities at high risk of the hazards identified statewide.

Objective 3.B Educate the public to increase awareness of hazards, emergency response, and recovery.

- Action 3.B.1 Develop a children’s pamphlet to raise awareness of community hazards, and emergency response and recovery.

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- Action 3.B.2 Develop a public information plan to provide Public Safety Announcements (PSAs) about identified high-risk statewide hazards.
- Action 3.B.3 Develop and disseminate public flood hazard information concerning local flood risks, flood hazard areas, National Flood Insurance Program (NFIP) insurance requirements and building standards, flood-proofing methods, and flood safety. Projects can include producing PSAs, advertising on billboards, newspaper and magazine ads, and brochures made available at hardware and building supply stores.
- Action 3.B.4 Notify owners of property located in FEMA identified flood hazard zones about the benefits of and requirements for purchasing and maintaining flood insurance.
- Action 3.B.5 Develop and conduct classes in proper flood-proofing techniques for homeowners, renters and local government officials in those areas with a history of flooding in residential and/or public facilities. Target audiences should also include local building inspectors, engineers, and architects.
- Action 3.B.6 Teach Nevada teachers about earthquake safety in workshops, classes, and teaching curriculum.
- Objective 3.C Support the efforts of local jurisdictions in the development of evacuation plans.
 - Action 3.C.1 In coordination with Nevada Office of Homeland Security, provide technical assistance in developing evacuation plans.
- Objective 3.D Successful Nevada recovery from an earthquake disaster
 - Action 3.D.1 Hold a statewide workshop on earthquake disaster recovery.
 - Action 3.D.2 Develop state and regional earthquake recovery plans that include local jurisdictions details.

Goal 4. Reduce the possibility of damage and losses due to dam failure. – Div of Water Resources

- Objective 4.A Protect existing assets as well as future development from the effects of dam failure
 - Action 4.A.1 Inventory existing dams and add to the inventory as dams are discovered or constructed.
 - Action 4.A.2 Inventory existing dams for structural and hydraulic adequacy and implement operational constraints, if warranted.
 - Action 4.A.3 Develop laws and regulations that ensure reasonable standards of design and work.
 - Action 4.A.4 Develop Emergency Action Plans to ensure swift coordinated response in the event of an emergency.
 - Action 4.A.5 Provide inspection of dams to identify problem areas.

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- Action 4.A.6 Install early warning weather stations in watersheds with dams above populated areas.
- Action 4.A.7 Provide assistance for structural mitigation measures, updates, and repairs to dams.
- Action 4.A.8 Encourage local ordinances and regulations to reduce encroachment into flood prone zones resulting from dam impoundment or high (non-failure) releases.

Goal 5. Reduce the possibility of damage and losses due to earthquakes – Lead NESC, all agencies

Objective 5.A Protect existing assets, as well as future development, from the effects of earthquakes

- Action 5.A.1 Mitigate shaking hazards in Nevada's Emergency Operation Centers, to ensure they are seismically resistant and operational following a strong earthquake.
- Action 5.A.2 Mitigate shaking hazards in Nevada's Emergency Response Facilities (fire stations, police stations, hospitals, etc.) so that they are seismically resistant and operational following a strong earthquake.
- Action 5.A.3 Develop detailed earthquake disaster planning scenarios for Nevada communities.
- Action 5.A.4 Hold workshop on strategies, benefits, risk-reduction opportunities, and challenges associated with the inventory of seismically susceptible buildings.
- Action 5.A.5 Inventory Nevada's seismically susceptible buildings.
- Action 5.A.6 Retrofit, change occupancy to decrease risk, or demolish susceptible public buildings and structures.

Objective 5.B Create planning for "special consideration zones" for Nevada communities.

- Action 5.B.1 Create a local advisory board to help guide projects, make the projects effective, and encourage local jurisdictions to use the products.
- Action 5.B.2 Map faults and create zones in the Reno-Carson City Urban Corridor.
- Action 5.B.3 Map faults and create zones in Rural Nevada Communities.
- Action 5.B.4 Review and upgrade zones in Las Vegas Valley.

Objective 5.C Provide education for the public on earthquake hazard preparedness and mitigation.

- Action 5.C.1 Create the Nevada earthquake internet site.
- Action 5.C.2 Insert "Living With Earthquakes in Nevada" into several Nevada's local newspapers.

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- Action 5.C.3 Provide and teach the "Teacher's Earthquake Workshop."
- Action 5.C.4 Sponsor Community Outreach events.
- Action 5.C.5 Develop a two-day workshop and web-based class on building with seismic resistance.
- Action 5.C.6 Develop a two-day workshop and web-based class on seismic retrofit methodologies.
- Action 5.C.7 Develop a two-day workshop and web-based class workshop on nonstructural hazard mitigation

Objective 5.D Microzonation of earthquakes in Nevada

- Action 5.D.1 Quantification of earthquake hazards by parcel for communities.

Goal 6. Reduce the possibility of damage and losses due to flooding. Lead Div. Of Water Resources

Objective 6.A Protect existing assets, as well as future development, from the effects of flooding

Objective 6.B Update FEMA Flood Insurance Rate Maps (FIRM)

- Action 6.B.1 Identify areas in the State where existing flood hazard mapping is inadequate due to planned and existing significant development.
- Action 6.B.2 Prioritize the areas identified in the State where existing flood hazard mapping is inadequate due to planned and existing significant development.
- Action 6.B.3 Coordinate the FEMA flood mapping process with local communities.
- Action 6.B.4 Provide technical assistance in the Flood Insurance Rate Map (FIRM) conversion from paper to digital.

Objective 6.C Flood Hazard Mapping in Piedmont and Alluvial Fan Environments

- Action 6.C.1 Identify and prioritize piedmont and alluvial fan areas in the State where existing flood hazard mapping is inadequate due to planned and existing significant development.
- Action 6.C.2 Produce detailed surficial geologic maps in piedmont and alluvial fan environments as a base-line for flood hazard assessment.
- Action 6.C.3 Integrate geologic information with hydraulic and hydrologic studies to provide FEMA with the flood risk analyses required to update FIRMs.

Objective 6.D Retrofit State buildings to meet NFIP standards

- Action 6.D.1 Identify state-owned structures, in 100-year flood zone that are noncompliant with NFIP building standards.
- Action 6.D.2 Implement a building improvement program to bring identified structures into compliance with NFIP building standards.

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Objective 6.E Assist communities with flood-proofing programs

- Action 6.E.1 Coordinate with local officials to compile a list of flood-damaged private and public property that could be flood-proofed to prevent or alleviate future damage.
- Action 6.E.2 Assist communities in obtaining mitigation funds to flood-proof public facilities damaged in floods.

Objective 6.F Assist communities to acquire or relocate repetitive loss structures

- Action 6.F.1 Coordinate with local officials to identify homes that have sustained repetitive damage and remain in the FEMA-identified flood hazard areas.
- Action 6.F.2 Coordinate with local officials to identify essential government facilities within FEMA-identified flood hazard areas.
- Action 6.F.3 Coordinate with local officials to notify property owners about the risks of repetitive flood damage and the availability of FEMA mitigation funds for relocation or acquisition.
- Action 6.F.4 Conduct cost/benefit analyses to determine if relocations or acquisitions are cost effective options for FEMA, the owner, and the community when a property owner is ready to consider these options.
- Action 6.F.5 Relocate homes or facilities out of the flood plain or acquire property in the flood plain. Impose the open space deed-restriction on land acquired through at-risk structures or facilities to avoid reconstruction.

Goal 7. Reduce the possibility of damage and losses due to wildfire. Lead Div. Of Forestry

Objective 7.A Protecting existing assets, as well as future development, from the effects of wildfire

- Action 7.A.1 Identify and recommend changes to NRS, NAC and local community ordinances
- Action 7.A.2 Assist local fire department and county commissions in enacting local ordinances for mitigation/fire prevention, as necessary

Objective 7.B Improve Fire Prevention and Suppression by protecting lives and property

- Action 7.B.1 Educate homeowners in the Wildland Urban Interface (WUI) about proper defensible space practices and landscaping for fire resistance.
- Action 7.B.2 In highly motivated communities, focus on activities by individual participation in and maintenance of projects (personal responsibility).
- Action 7.B.3 Keep informed of current standards and regulations for proper practices in defensible space and firefighting.

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- Action 7.B.4 Ensure proper personal protective equipment, apparatus, equipment and training for career staff and seasonal wildland firefighters.
- Action 7.B.5 Assist volunteer fire departments in attaining funds for proper personal protective equipment, apparatus, equipment and training.
- Action 7.B.6 Participate in research and development of interoperability for emergency response communications.
- Action 7.B.7 Coordinate the development of a comprehensive, collaborative program for mutual aid/mobilization of state and local government fire resources.
- Action 7.B.8 Encourage collaboration on all levels with among state, federal and local cooperators, both fire- and resource-related

Objective 7.C Improve Fire Prevention and suppression by increasing public awareness and education.

- Action 7.C.1 Educate homeowners in WUI about proper defensible space practices and landscaping for fire resistance.
- Action 7.C.2 Encourage community involvement in project completion, participation, and maintenance.
- Action 7.C.3 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.
- Action 7.C.4 Encourage collaboration on all levels with state, federal and local cooperators, both fire- and resource-related.

Objective 7.D Reduce hazardous fuels by decreasing the fire potential in Nevada's communities.

- Action 7.D.1 Focus fuels projects in communities with extreme or high ratings in Community Wildfire Protections Plan (CWPP) assessments.
- Action 7.D.2 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.
- Action 7.D.3 Encourage county-level coordination for priority setting and CWPP updating.
- Action 7.D.4 Provide a statewide evaluation process for monitoring community progress, prioritization and participation in the CWPP process.

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Action 7.D.5 Provide and maintain a statewide process for documenting fuels projects progress, completion, success and maintenance.

Action 7.D.6 Focus projects in areas to attain desired forest conditions and coordinate with forest health program activities.

Objective 7.E Preserve of historical, sacred, and natural resources

Action 7.E.1 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.)

Action 7.E.2 Provide training for employees and project managers for on SHPO and cultural resource identification, reporting methods and clearances.

Action 7.E.3 Work closely with the Tribal communities, local landowners, and the SHPO to obtain clearances and to mark sensitive sites.

Action 7.E.4 Collaborate with all cooperators in planning and implementing long-term, sustainable, landscape projects that meet multiple program needs.

Objective 7.F Restore of fire-adapted ecosystems

Action 7.F.1 Restore native and adapted vegetation and work to prevent areas being impacted by non-native or undesirable species conversions through collaborative efforts

Action 7.F.2 Use mechanical and hand treatments as well as prescribed fire to assist in attaining desired forest and rangeland conditions

Action 7.F.3 Provide native and accepted introduced seed species through the Nevada State Seedbank program

Action 7.F.4 Provide training for local cooperators for treatment practices and skill acquisition

Action 7.F.5 Encourage collaboration at all levels with state, federal and local cooperators.

Objective 7.G Post-fire recovery of fire-adapted ecosystems

Action 7.G.1 Participate in Burned Area Emergency Rehabilitation teams when activated and complete fire damage reclamation reports on all NDF jurisdiction fires to provide the best land management practices available for collaborative land rehabilitation.

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- Action 7.G.2 Assess damage to critical watershed and threats to communities domestic water supplies and mitigate those threats through erosion control practices.
- Action 7.G.3 Supply resources for rehabilitation efforts through the State Tree Nurseries in Las Vegas and Washoe Valley, and the Nevada State Seedbank programs.
- Action 7.G.4 Provide training, expertise, and supplies/equipment in a collaborative manner to assist in rehabilitation efforts.
- Action 7.G.5 Provide public education and outreach to communities affected by wildfire.

Objective 7.H Reduce the hazard rating of at-risk communities as identified in a CWPP or equivalent plan.

- Action 7.H.1 Focus fuels projects in communities with extreme or high ratings in CWPP assessments.
- Action 7.H.2 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.
- Action 7.H.3 Assist in the formulation and dissemination of current information such as Living with Fire documents.
- Action 7.H.4 Encourage community involvement in project completion, participation, and maintenance.

Objective 7.I Increase local suppression capacity in at risk communities

- Action 7.I.1 Assist, encourage and provide guidance to county or local authorities 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.
- Action 7.I.2 Provide funding to local firefighters for training and equipment through the State Fire Assistance, and Volunteer Fire Assistance when funded by US Forest Service.
- Action 7.I.3 Provide technical assistance in grant availability and application procedures.

Objective 7.J Increase utilization of woody biomass from fuels/restoration projects.

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- Action 7.J.1 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.
 - Action 7.J.2 Provide technical assistance in the formation of end users of woody biomass to produce heat and/or power (i.e. Fuels in Schools program).
 - Action 7.J.3 Participate in the Nevada State Biomass Working Group, southern Nevada Woody Biomass Collaboration Group, and other state, local, and national biomass committees.
 - Action 7.J.4 Provide ongoing outreach and education as to the societal benefits associated with utilization of biomass in the State of Nevada.
- Objective 7.K Secure funding for qualifying projects through grants, state funds, or non-traditional sources.
- Action 7.K.1 Train employees in grant-writing, screening, and the application process.
 - Action 7.K.2 Comply with all federal regulations in the funding stream to ensure compliance and future competitiveness.
 - Action 7.K.3 Keep apprised of all federal, state, and local regulations.
 - Action 7.K.4 Continue participation in interagency project planning, implementation and monitoring

4.1.3 Goal Assessment and Revision

The Subcommittee discussed the previously approved goals and objectives and agreed to revise the seven goals to fit the current risk assessment results.

The following are the prior goals from the 2004 plan:

1. Reduce loss of lives in property due to hazard events.
 - a. Identify mitigation opportunities for a short and long range planning considerations.
 - b. Identify and implement strategies to lower the risk to Nevada communities from unwanted wildfire.
 - c. Identify and implement mitigation actions to reduce loss of lives and property due to flood.
 - d. Identify and implement mitigation actions to reduce loss of lives and property due to man-made hazards.
 - e. Identify and implement mitigation actions to reduce loss of lives and property due to earthquake.
2. Continuously develop and implement the multi-hazard mitigation plan
 - a. Establish the Earthquake Safety Council and NDEM as an administrative and policy review group.
 - b. Task the Hazard Mitigation Planning Committee and the Ad Hoc Mitigation Plan Subcommittee to support local jurisdictions and to update the plan.
 - c. Organize, train, and maintain an effective State Hazard Mitigation Team to facilitate implementation of the Nevada HMP.
 - d. Support and expand on identified hazard mitigation strategies as set forth in the December 2000 Nevada State Hazard Mitigation Plan (409 Plan).
3. Protect the State's natural, built, historical and cultural assets
 - a. Ensure adequacy of building codes and standards.
 - b. Ensure adequacy of land use regulations and zoning standards.
 - c. Minimize environmental degradation and ensure habitat recovery.
4. Promote sustainable economic development consistent with seismic, floodplain and risk management guidance as developed by the State of Nevada Earthquake Safety Council, State of Nevada Department of Conservation and Natural Resources, Division of Water Planning and the National Flood Insurance Program.
 - a. Assess economic risk and vulnerability associated with multiple hazards.
 - b. Develop small business strategies and contingency plans to help small businesses reopen quickly following a disaster.
 - c. Develop long term recovery plans to ensure rapid and sustainable recovery from disaster.

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5. Develop a comprehensive mitigation program for the State of Nevada
 - a. Support the mitigation efforts of local governments, private citizens, nonprofit organizations and private businesses throughout Nevada.
 - b. Review and update other agencies' programs to identify current and future mitigation goals and objectives in compliance with all state and Federal requirements.
 - c. Establish support of the Governor and the Nevada Legislature for the State Mitigation Program implementation.
6. Develop data to support mitigation strategies for those hazards that are a threat to Nevada.
 - a. Support scientific studies that will improve awareness of risk and vulnerability in Nevada
 - b. Enhance the State's ability to define risks and hazard analyses.
7. Ensure public awareness of risks, vulnerability and value of hazard mitigation to public facilities, public safety and welfare of all Nevadans.
 - a. Develop a comprehensive awareness and outreach program utilizing all the available media, community groups, associations and private sector for all hazards
 - b. Develop an effective public awareness program for flood hazards present in Nevada.
 - c. Develop an effective public awareness program for fire hazards present in Nevada.
 - d. Develop an effective public awareness program for earthquake hazards present in Nevada.

The Subcommittee used the STAPLEE process outlined in FEMA 386-3 to evaluate these goals. In the evaluation process, some of the goals and/or objectives were incorporated in the new State mitigation goals. A few of these goals and/or objectives were no longer valid due to changes in the political, administrative, and economic climate. In addition, some of these goals and /or objectives did not fit with the new risk assessment results.

The following objectives were partially accomplished in the last three years: 2a, 2d, 5a, 5b, 6a, 7a, 7b, 7c, and 7d. See Tables 5-2 through 5-6, in Section 5 for a list of mitigation activities.

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 2006

A comprehensive capability assessment includes an examination of administrative, political, and financial support for the proposed strategies and projects. A partial listing of mitigation and conservation programs available to fund mitigation efforts are in the following tables.

These tables use the following phrases to describe the program's support or relevance to mitigation. The programs are listed as resources that have potential use in the state's mitigation programs.

Effect on Loss Reduction:

- Support:* Provide technical assistance for programs, policies, and funding to implement mitigation goals.
- Facilitate:* Manage, direct, and supervise programs, policies, or technical assistance to implement mitigation goals.

4.2.1 Pre-Disaster Hazard Management

Mitigation programs reduce the vulnerability of citizens, property, and natural resources to the destructive forces of natural events and human actions. Temporary measures are often implemented in emergency situations during a response. Permanent measures use structural and non-structural approaches to reduce hazards.

The programs described in the following tables were created to address specific natural hazards.

**Table 4-1
Pre-Disaster Hazard Management Policies, Programs, and Capabilities**

Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
US Army Corps of Engineers (ACE) Div. of Water Resources	Flood Control Projects	√	√	√	Design and construction of local flood control projects not specifically authorized by Congress. State, political subdivision and other local agencies established within state law with full authority and ability to undertake required legal and financial responsibilities
ACE Nevada Department of Conservation and Natural Resources (NDCNR), Division of Environmental Protection (NDEP), Tribal entities	Aquatic Ecosystem Restoration	√	√	√	Direct support for carrying out aquatic ecosystem restoration projects that will improve the quality of the environment.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
ACE NDCNR, Division of Water Resources (NDWR), Conservation Districts	Riverbank Protection	√	√	√	Design and construction of stream and river bank protection projects to safeguard highways, highway bridges, essential public works, churches, hospitals, schools and other nonprofit public critical facilities endangered by flood-caused erosion. State, political subdivision and other local agencies established within state law with full authority and ability to undertake required legal and financial responsibilities.
ACE NDWR	Flood Control Clearing	√	√	√	Design and construction of snagging and clearing projects for navigable waters and their tributaries to reduce potential flood damage State, political subdivision and other local agencies established within state law with full authority and ability to undertake required legal and financial responsibilities.
ACE NDWR	Floodplain Management	√	√		Technical assistance in identification of flood-prone areas, potential losses and the flood hazard of proposed building sites; guidance in land use management to prevent flood damage. Funding limitations set by the District Office. State, political subdivision and other public organizations
ACE NDWR	Planning Assistance	√			Technical and planning assistance for the preparation of comprehensive plans for the development, utilization, and conservation of water and related land resources.
US Environmental Protection Agency (EPA) NDCNR/NDEP	Clean Water Act Section 319 Grants	√	√	√	Grants to States to implement non-point source programs, including support for nonstructural watershed resource restoration activities.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
NDCNR, Bureau of Water Quality Planning	Wetlands Protection – Development Grants	√	√	√	Grants to support the development and enhancement of State and tribal wetlands protection program.
US Department of Agriculture (USDA) Nevada Division of Forestry (NDF)	State Fire Assistance— National Fire Plan	√	√	√	Fuel reduction on State and private lands throughout the State of Nevada. Technical support to cooperators and home owners. Cost share: 1 to 1 for NDF, 2 to 1 for sub-grantees
USDA Forest Service NDF	Hazardous Fuels Reductions (Stephens Bill)	√	√	√	Fuels reduction on State and private lands adjacent to forest service lands where a project is planned within three years.
USDA Forest Service NDF	Fuels for Schools	√	√		Provide technical assistance in the formation of end users of woody biomass to produce heat and/or power.
USDA Forest Service NDF	Forest Health	√	√		Provide technical assistance to State, private, and federal land owners related to insect, disease, and forest health.
USDA Forest Service NDF	Forest Stewardship	√	√		Promote stewardship on private lands for the establishment, enhancement, and health of trees and other natural resources on rural non-industrial forest lands.
USDA Forest Service	Conservation Education	√	√		Provide science-based education opportunities to Nevada teachers, students, and the general public.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
NDF NDCNR, Watershed Education					
N/A NDF	Native Seed Program/ Nevada Seedbank	√	√		Provide native and accepted introduced seed species for fuels reduction programs.
USDA Nevada Department of State Lands (NDSL), Conservation Districts, NDCNR, Bureau of Safe Drinking Water	Watershed Protection Loans Wellhead protection	√	√	√	Loans to assist local sponsors provide the local share of the cost of watershed improvements for flood prevention, irrigation drainage, water quality management, sediment control, fish and wildlife management, public water supplies and water storage. Sponsoring local organizations such as soil and water conservation districts with authority under state law to obtain, give security for, and raise revenues to repay loans.
USDA/Natural Resources Conservation Service (NRCS) NDCNR, Bureau of Corrective Actions	Emergency Watershed Geographic response plans	√	√	√	Technical services to determine eligibility and to plan needed measures. Financial assistance to construct approved measures. Any state agency, county (or group of counties), municipality, town, soil and water conservation district, flood prevention or control district or any other nonprofit agency with authority under state law to carry out, maintain and operate watershed improvement works.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
USDA/NRCS Nevada General Improvement Districts (GIDs), Clark County	Resource Conservation & Development	√	√	√	Grants and technical assistance to aid public agencies in implementing long-range resource conservation and development programs, including flood-control projects. Public agencies and nonprofit organizations having legal authority to plan, install, operate and maintain community projects benefiting the public.
US Forest Service, Bureau of Land Management (BLM) NDCNR/Divisi on of Forestry (NDF), NDSL	Forest Land Flood Protection	√	√		Technical assistance in planning and application of measures to protect public health and safety, reduce flood hazards and control sedimentation from forest and related lands when existing local, state, and federal programs do not provide adequate facilities and funds for immediate protective action. Also, provides assistance in preparing requests for Section 216 funds for emergency treatment of watersheds impaired by fire, flood, earthquake or other natural disasters.
USDA NDEP, Public Utilities Commission (PUC)	Rural Development Assistance – Utilities	√	√	√	Direct and guaranteed rural economic loans and business enterprise grants to address utility issues and development needs—specifically the safe drinking water program.
USDA/NRCS NDEP, Public Utilities Commission (PUC)	Environmental Quality Incentives program (EQUIP)	√	√		Technical, educational, and limited financial assistance to encourage environmental enhancement.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
USDA/NRCS. Farm Service Agency (FSA) University Nevada-Reno Cooperative Extension (UNR- Cooperative Extension)	Soil Survey	√			Maintains soil surveys of counties or other areas to assist with farming, conservation, mitigation or related purposes.
USDA/APHIS/ Veterinary Services Nevada Dept. of Agriculture (NDAG) NDCNR, Bureau of Safe Drinking Water	Foreign Animal Diseases	√	√	√	Conduct tests for State/Federal program of animal diseases, livestock issues related to food safety, and those animal diseases transmissible to man. Safe Drinking Water Revolving Loan.
USDA/APHIS/ Veterinary Services NDAG	Animal Disaster Program		√		Plan to facilitate sheltering of animals during emergency incidents.
US Department of Commerce/ Alcohol, Tobacco and Firearms (ATF)	Fire Accident Analysis	√	√		Detailed onsite studies of uncontrolled fires or the remains of fires by teams and experienced fire investigators, scientists, and engineers to determine the causes, character of, and ways of avoiding serious fire accidents. Elected or appointed state and local officials concerned with fire disasters and authorized to request such assistance.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
NDF, Insurance Commission					
US Department of Commerce Economic Development Administration	Disaster Mitigation Planning and Technical Assistance	√	√	√	Technical and planning assistance grants for capacity building and mitigation project activities focusing on creating disaster resistant jobs and workplaces.
US Department of Interior (DOI)/US Geological Survey (USGS) NDCNR/ NDWR, Bureau of Water Quality Planning Clark County Regional Flood Control District; other local jurisdictions	Stream gauging and Flood Monitoring Network	√	√	√	Operation of a network of over 7,000 stream gauging stations nationwide that provide data on the flood characteristics of rivers.
US Department of Housing and Urban Development (HUD) County Administered	Community Development Block Grant (CDBG) Entitlement Communities Program	√	√	√	Grants to entitled cities and urban counties to develop viable communities (e.g., housing, a suitable living environment, expanded economic opportunities) principally for low- and moderate-income persons.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
HUD Rural Housing Authority Clark County Regional Flood Control District (CCRFCD), Local Building Codes – County and City	Home Investments Partnership Program	√	√	√	Grants to States, local government, and consortia for permanent and transitional housing (including support for property acquisition and rehabilitation) for low-income persons.
USGS State Mapping Advisory Committee (SMAC)	Mapping Standards Support	√	√		Expertise in mapping and digital data standards to support the National Flood Insurance Program.
USGS State Mapping Advisory Committee (SMAC)	National Digital Ortho- photo Program	√			Develops topographic quadrangles for use in mapping flood and other hazards.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
USGS, FEMA, NIST, and NSF Nevada Earthquake Safety Council (NESC), UNR- Nevada Seismological Laboratory, and Nevada Bureau of Mines and Geology (NBMG)	National Earthquakes Hazards Reduction Program and Landslide Hazard Program	√	√	√	Seismic mapping for the 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
USGS UNR-NBMG NDCNR, Division of Environmental Protection, Bureau of Mining Reg/Rec	Volcano Hazards Program	√	√		Technical Assistance: Volcano hazard warnings and operation of four volcano observatories to monitor and assess volcano hazard risk.
National Institute of Science and Technology (NIST), FEMA, US Department of Interior, USGS, National Science Foundation	National Earthquake Hazards Reduction Program	√	√	√	Training, planning, and technical assistance under grants to States or local jurisdictions.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
(NSF) (NESC), UNR- Nevada Seismological Laboratory, NBMG					
FEMA NDCNR/NDW R, CCRFCD	National Flood Insurance Program (NFIP)	√	√	√	Insurance at a reasonable rate is provided to properties within communities participating in the National Flood Insurance Program. Property owners in communities participating in the National Flood Insurance Program.
FEMA NDCNR/NDW R	Flood Mitigation Assistance (FMA)	√	√	√	FMA may be used both to enhance State mitigation planning, implementation of flood mitigation programs and to directly assist communities to reduce flood losses. State or communities that need support for flood mitigation planning, implementation of flood mitigation projects and technical assistance by states to communities.
FEMA NDCNR/NDW R	Community Assistance Program – State Support Services Element (CAP- SSSE)	√	√	√	Identify, prevent, and resolve floodplain management issues and reduce flood hazards. Communities participating in the National Flood Insurance Program are supported by the state NFIP coordinator's office.
FEMA NDPS/NDEM NDCNR, Division of Environmental Protection	Emergency Management/ Mitigation Training	√	√	√	Training in disaster mitigation, preparedness, and planning. WMD, radiation to Local Emergency Planning Committees
FEMA, BLM, BIA, National	National Dam Safety	√	√	√	Technical assistance, training, and grants to help improve State dam safety programs.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
Park Service (NPS) NDCNR/NDWR	Program				
National Science Foundation (NSF) UNR/ University of Nevada Las Vegas (UNLV)	Hazard Reduction Program	√	√	√	Funding for research and related educational activities on hazards.
National Science Foundation UNR-NBMG, NSL, UNLV	National Earthquake Hazard Reduction program (NEHRP) in Earth Sciences	√	√	√	Research into basic and applied earth and building sciences.
US Department of Health and Human Services (USDHHS) Nevada Department of Health and Human Services (NDHHS), State Health Division (SHD)	Emergency Management/ Mitigation Training	√	√	√	Training in disaster mitigation, preparedness, and planning for Public Healthcare

4.2.2 Disaster Response, Recovery, and Community Preparedness

This section features programs that can improve state and local disaster response capabilities through planning, training, personnel, information, and equipment assistance. The programs are designed to address specific areas to support preparedness for natural disasters and emergency response.

Table 4-2
Disaster Response, Recovery and Community Preparedness

Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
USDA/APHIS/ Veterinary Services NDAG	Animal Disaster Program		√		Facilitate sheltering of animals during emergency incidents.
USDA Forest Service NDF	State Fire Assistance	√	√	√	Provide training, materials, equipment, and expertise in eight initiative areas: Wildland Urban Interface, Wildland Fire Training, Interagency Fire Dispatch and Coordination Centers, Wildland fire equipment procurement and development, Interagency Communications, Shared Protection Resources, Forest Health through Vegetation and Fuel Management, and Interagency Fire Protection Planning.
USDA Forest Service NDF	Volunteer Fire Assistance	√	√	√	Equipment, training, and supplies to rural volunteer fire departments.
N/A NDF	Conservation Camp Program	√	√		Provide training, supplies, and equipment to personnel for responding to incidents.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
US HUD Direct to affected population	Comprehensive Planning Assistance	√	√	√	Grants to strengthen planning and decision-making capabilities of chief executives of state, regional, and local agencies to promote more effective use of natural, economic and physical resources. Disaster mitigation and recovery planning are eligible activities. For state agencies designated by the Governor, counties, cities, regional and local planning agencies, local development districts, economic development districts and localities that suffered a major disaster.
US Department of Transportation (USDOT) State Emergency Response Commission (SERC) NDCNR, Div. of Environmental Protection	Hazardous Materials Emergency Preparedness (HMEP) Grant Program	√	√	√	Planning and training grants to help local governments carry out Emergency Planning and Community Right-to-Know activities (SARA Title III) throughout the state.
FEMA NDCNR/Division of Water Resources	National Dam Safety Program (NDSP):	√	√	√	Grants to reduce the risks to life and property from dam failure through the establishment and maintenance of an effective dam safety program. States with new and existing impoundment structures.
Department of Homeland Security (DHS), FEMA NDPS/NCHS	Disaster Preparedness Improvement Grant (DPIG)	√	√	√	Grants to encourage the maintenance and improvement of disaster preparedness plans and activities. States and local governments

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
Department of Homeland Security (DHS), FEMA NDPS/NDEM NDCNR, Div of Environmental Protection	State and Local Assistance (SLA)	√	√	√	Funding to maintain state and local government plans, facilities, equipments, training, and exercising. For state and local emergency service organizations. WMD local outreach.
FEMA, EPA, US DOT, FHWA SERC, NDEM NDCNR, Bureau of Corrective Actions	Superfund Amendment and Reauthorization Act (SARA), Title III	√	√	√	Support programs that are designed to improve emergency planning, preparedness, mitigation, response, and recovery capabilities with special emphasis on emergencies associated with hazardous materials. For state and local governments and university sponsored programs Superfund sites
NOAA-National Weather Service & National Severe Storms Laboratory (NSSL) Nevada State Climate Office	Forecasts and Warnings	√	√		Public forecasts and warnings of hazardous weather phenomena and floods. Available to agencies and the general public
USDHHS NDHHS/SHD	Disaster Preparedness Improvement Grant (DPIG)	√	√	√	Grants to encourage the maintenance and improvement of disaster preparedness plans and activities. States and local governments
USDHHS NDHHS/SHD and Division of Public Health	Hazardous Materials Health program	√	√	√	Support programs that are designed to improve emergency planning, preparedness, mitigation, response, and recovery capabilities with special emphasis on emergencies associated with hazardous materials. For state and local governments and university sponsored programs

4.2.3 Emergency Response and Disaster Programs

Programs in this section provide special assistance to state and local authorities once an emergency or disaster has occurred. These programs are designed to supplement state and local efforts to protect the public from the effects of an emergency.

**Table 4-3
Emergency Response and Disaster Programs**

Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
US Army Corps of Engineers NDCNR/Division of Water Resources, CCRFCD	Floodplain Management	√	√		Technical assistance in identification of flood-prone areas, potential losses and the flood hazard of proposed building sites; guidance in land use management to prevent flood damage. Funding limitations set by District Office. State, political subdivisions, and other public organizations.
US Department of Energy NDPS/NDEM, Desert Research Institute (DRI), DHHS	Radiological Emergency Assistance	√	√		Provision of specialized services, advisory services, counseling, and dissemination of technical information to assist in responding to incidents involving loss of control of radioactive materials and supporting efforts to protect public health and safety. For any person or organization with knowledge of an incident believed to involve ionizing radiation or radioactive material hazardous to health and safety.
US Department of Health and Human Services NDAG, NCHS	Contaminated Food and Drugs	√	√	√	Through coordinated planning, advice, technical information, assistance and expertise can be provided to establish public health controls and to protect citizens from contaminated and unsafe food and drugs. Assists state and local agencies through the Department of Agriculture and Consumer Services and the Department of Health

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
N/A NDF, DEM	Incident Management		√		NDF Jurisdiction: provide incident management expertise Other Jurisdiction: provide trained personnel to Regional and National Incident Management Teams
N/A NDF	Incident Response: County Fire District (473) Conservation Camp Program		√	√	All risk emergency response
N/A NDF	State of Nevada Fire Mutual Aid Agreement and Plan		√		Provide program development, coordination, and mobilization of local government fire department resources.
N/A NDF	Emergency Support Function 4 under the State Emergency Response Plan		√		Provide technical expertise, coordination, and mobilization of State and local fire resources.
US DHHS, USDA NDAG, NCHS	Vector Control	√	√	√	Advice and technical assistance to prevent the spread of communicable diseases by disease carrying animals or insects in the aftermath of a disaster. State and local public health authorities
Federal Bureau of Investigation (FBI) DPS/NDEM	Victim Identification	√	√		Fingerprint identification of disaster victims. For any authorized state or local law enforcement agency.
FEMA NDCNR/NDWR	National Flood Insurance Program	√	√		Insurance at a reasonable rate is provided to properties within National Flood Insurance Program communities.

4.2.4 Post-Disaster Hazard Management

The programs in this section deal with post-disaster hazard management. These programs are designed to help public and private entities after a federally mandated disaster (Stafford Act).

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

Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
N/A NDF	Incident Management		√	√	NDF Jurisdiction: provide incident management expertise. Other Jurisdiction: provide trained personnel to regional and national Incident Management Teams, Burned Area Emergency Response (BAER), and single resource assistance.
FEMA NDF	Incident Recovery: County Fire District (473)		√		All risk emergency recovery: provide trained personnel and equipment/supplies.
FEMA NDF	Incident Recovery:		√		All risk emergency recovery: provide trained personnel, manpower, and equipment/supplies.
N/A NDF	Emergency Support Function 4 under the State Emergency Response Plan		√		Provide technical expertise, coordination, and mobilization of State and local fire resources.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
American Red Cross, Salvation Army, Nevada Volunteer Organizations Active in Disaster (VOAD) DPS/NDEM, Coalition of Organizations Active in Disaster (COAD) – Clark County	Collection and distribution of donated goods	√	√		Establish and manage centers for receipts and distribution of donated goods such as food, clothing, furniture, medical supplies, building materials, cleaning supplies, bedding, utensils, and tools. This is usually organized with a designated distribution center.
American Red Cross, Salvation Army, Department of Agriculture and Consumer Services, VOAD food banks, Meals-on-Wheels, WIC, USDHHS/ Welfare Division DPS/NDEM, Coalition of Organizations Active in Disaster (COAD) – Clark County,	Food	√	√	√	Food can be provided to disaster victims and workers in several ways. Direct provision of foodstuffs donated by individuals and groups to disaster victims through distribution centers as described above. Direct grants for food purchase or food stamp allotments provided to disaster victims. Meals provided at feeding centers from mobile distributions canteens. Provision of food stocks for emergency mass feeding or distribution to an area suffering from a major disaster or emergency.
ACE UNR-Nevada State Climate Office, Governor's Drought Review and Reporting Committee (GDRCC)	Drought Assistance	√	√		Coordinate the development of drought plans and procedures for lakes and dams within the State.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
USDAG-FSA NDAG, GDRCC, DPS/NDEM	Drought Assistance	√	√	√	Provide assessments of drought damages. Coordinate requests for drought-related Presidential Declaration of Drought Emergency. Recommend federal drought assistance declaration to the Governor through Funding through the Disaster Assistance Account may become available for this purpose.
USDA NDAG, DPS/NDEM	Disaster Assistance	√	√	√	Emergency Conservation program shares with agriculture producers the cost of rehabilitating eligible farmlands damaged by natural disaster. Farm Service Agency provides emergency loans to assist producers recover from production and physical losses due to drought flooding, and other natural disasters or quarantine.
USDA NDHHS/Division of Welfare	Emergency Food Stamp Program	√	√	√	Provides emergency food stamps to disaster victims. Coordinated with state social services.
USDA NDCNR	Emergency Watershed Protection Program	√	√	√	Provides technical and financial assistance for relief from imminent hazards in small watersheds, and to reduce vulnerability of life and property in small watershed areas damaged by severe natural events.
USDOE Office of Energy	Disaster-related Power Outage	√	√	√	Implements emergency related functions under the Federal Response Plan.
USDHHS NDHHS	Emergency Health Assistance	√	√	√	Federal agencies including, but not limited to, the U.S. Public Health Service, provide emergency health care assistance as required.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
US Department of Homeland Security DPS/NDEM	Emergency Management Performance Grants	√	√	√	The Emergency Management Grant assists in the development, maintenance, and improvement of state and local emergency management capabilities. These also include an Urban Search and Rescue and interoperable Communications Grant.
US Department of Homeland Security DPS/NDEM	High Threat Urban Area Grant Program	√	√	√	A discretionary grant program that provides funding to metropolitan areas, including counties and mutual aid partners, to prepare for, prevent and respond to terrorist incidents.
FEMA DPS/NDEM	Community Disaster Loans	√	√	√	Disaster-related expenses during the year of occurrence and the three succeeding fiscal years.
FEMA DPS/NDEM	Community Corps Program	√	√		Citizen corps trains people to respond to emergencies in their own local communities.
FEMA DPS/NDEM, Nevada Hazard Mitigation Planning Committee (NHMPC)	Hazard Mitigation Grant Program	√	√	√	Grants to States and communities for implementing long-term hazard mitigation measures following a major disaster declaration.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
FEMA, HUD, US Small Business Administration (SBA), USDHHS DPS/NDEM- Homeowners Disaster Assistance Program (HDAP)	Individual and Households Assistance Program	√	√	√	Residents within presidentially declared areas are eligible for temporary housing assistance: Home Repair Program: Home repairs may be provided to eligible applicants. Federal law authorizes grants to disaster victims with disaster related expenses and needs that cannot be met through other available governmental disaster assistance programs.
FEMA NDEM	Public Assistance	√	√	√	Preliminary Damage Assessment (PDA): This process is used to determine the magnitude and impact of a disaster.
Local governments, American Red Cross, Salvation Army, VOAD, COAD – Clark County,	Shelter	√	√		Establishment of shelters to protect lives and health of persons forced to evacuate their homes due to an emergency or disaster. Shelters are short-term facilities (a few days to one week. Families are returned to their homes or are placed in temporary housing locations as quickly as possible.
NDHHS-Division of Mental Health and Developmental Services (DMHDS), American Red Cross, VOAD, COAD – Clark County,	Counseling	√	√	√	Crisis intervention counseling designed to assist disaster victims and responders in coping with their situation to avoid serious psychological impairment.
FEMA DPS/NDEM	<i>The Emergency Operations Plan</i>	√	√		Directs emergency operations in response to any large-scale disaster impacting Nevada. It assigns duties and responsibilities to agencies and support organizations for disaster preparedness, response, recovery, and mitigation.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
FEMA DPS/NDEM, NDF	Disaster Recovery Programs	√	√	√	The Nevada Division of Emergency Management (NDEM) is established as an agency responsible for the management and administrations of disaster relief in the State. These programs are coordinated and implemented by NDEM staff.
U.S. Forest Service, FEMA, BLM Nevada Division of Forestry (NDF), Nevada Fire Safe Council (NFSC)	Wildfire Prevention and Suppression	√	√	√	The Division of Forestry provides training and equipment to local fire departments that fight brush and forest fires. NDF also manages fire prevention in the State.
NDHHS/NDH, NDEM, American Red Cross	Medical Assistance	√	√	√	Assist in finding professional medical aid in the treatment of disaster victims.
NDHHS/NDH	Medical Assistance	√	√	√	Direct preparation and exercise of prevention or control of disease.
Local Medical Examiner's Office	Medical Assistance	√	√	√	Coordinate identification of persons killed during an event.
US Rural Development Direct funding to public	Rural Housing Service (RHS) Homeownership Loans	√	√	√	Loans for the purchase, construction, rehabilitation or relocation of a dwelling and related facilities for low or moderate-income persons in rural areas. RHS can help subsidize monthly mortgage payments.
Small Business Administration Direct funding to public	Emergency Loans	√	√	√	The SBA offers three types of loans: Home Disaster Loans for homeowners. Business Physical Disaster Loans are for businesses to repair or replace disaster damages to property. Economic Injury Disaster Loans are working capital loans for small businesses and small agricultural cooperatives.

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Federal Agency State Agency	Programs, Plans, Policies, Regulations, Funding and Practices	Effect on Loss Reduction		Funding	Description
		Support	Facilitate		
VOAD, CCP Medical Reserve Corp and MMRS— exclusive to Carson City, Clark, Washoe, COAD-Clark Co.	Personnel	√	√	√	Provision of personnel to supplement the labor necessary to respond to emergency disaster events, including medical personnel.
VOAD, American Red Cross, COAD- Clark Co., DPS/NDEM-HDAP	Repair of Homes (Individual and Household's Assistance Program)	√	√	√	Aid to homeowners to repair their homes in the absence of or to supplement FEMA's Minimal Repair Program. The ability of the listed agencies to provide assistance may vary for each event and is tied to the income level and demonstrated need of each victim.
Federal Highway Administration, USDOT NDOT	Repair and Maintenance for State Routes, Federal Highways, and Interstates			√	Repairs of State routes, federal highways, and interstates due to disasters.

4.2.5 Policies Related to Development in Hazard Prone Areas

The State of Nevada has not established a statewide land use plan. The state provides guidance in legislating policies related to development in hazard-prone areas. Nevada Revised Statutes present the foundation to build stricter land use codes and regulations for community development in hazard prone areas. However, it is the responsibility of the counties to adopt and enforce building code policies for their jurisdiction. Nonprofit organizations such as the Nevada Fire Safe Council, and regulating state agencies such as the Division of Water Resources, provide a large array of technical assistance, funding and support to 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 “smart growth” policy.

4.2.6 State Funding Capabilities

The Emergency Assistance Account provides support to State Agencies and local jurisdictions during declared emergencies on the State or local level. To receive moneys from the EAA, the applicant must

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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 F 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.

The Disaster Relief Account is a special account 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.

The following grant sources may provide assistance to local governments or other eligible applicants for mitigation projects or planning. The State provides specific funding for immediate hazards that threaten life, safety, and property in the communities. This funding is allocated by the legislature according to high threat levels and is not consistent. The following list is Federal funding passed through State agencies to local jurisdictions.

Hazard Mitigation Grant Program (HMGP)

- Lead Agency: NDEM
- Funding: Varies by disaster
- Funding Formula: 75% federal; 25% non-federal
- Funding Source: FEMA
- Applicants: Public Sector (same as for Public Assistance)
- Project Type: Natural Hazard Mitigation

Pre-Disaster Mitigation Competitive (PDM-C) Grant Program

- Lead Agency: NDEM
- Funding: Annual
- Funding Formula: 75% federal; 25% non-federal
- Funding Source: FEMA
- Applicants: Public Sector (same as for Public Assistance)
- Project Type: Natural Hazard Mitigation, Planning

Flood Mitigation Assistance (FMA) Program

- Lead Agency: NDCNR - Division of Water Resources
- Funding: Annual
- Funding Formula: 75% federal; 25% non-federal
- Funding Source: FEMA
- Applicants: Public Sector (same as for Public Assistance)
- Project Type: Flood Mitigation, Planning

Small Business Administration (SBA) Pre-Disaster Mitigation Loans

- Lead Agency: SBA
- Funding: 5-year renewable
- Funding Formula: Low interest loans (4% or less)
- Funding Source: SBA
- Applicants: Small Businesses
- Project Type: General Natural Hazard Mitigation

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State Fire Assistance – Wildland/Urban Interface (SFA-WUI)

- Lead Agency: NDF
- Funding: Annual
- Funding Formula: 50% federal; 50% non-federal
- Funding Source: Combined Federal Agencies
- Applicants: Public Sector
- Project Type: Wildland fire preparedness, prevention, and fuel reduction

Rural Fire Assistance (RFA)

- Lead Agency: NDF
- Funding: Annual
- Funding Formula: 90% federal; 10% non-federal
- Funding Source: Department of Interior
- Applicants: Fire Departments
- Project Type: Wildland fire education, training, equipment

Volunteer Fire Assistance (FVA)

- Lead Agency: NDF
- Funding: Annual
- Funding Formula: 90% federal; 10% non-federal
- Funding Source: USFS
- Applicants: Volunteer Fire Departments
- Project Type: Organization, training, prevention, equipment

Rural Community Assistance Economic Action Program (RCA EAP)

- Lead Agency: NDF
- Funding: Annual
- Funding Formula: 80% federal; 20% non-federal
- Funding Source: USFS
- Applicants: Public Sector
- Project Type: Utilization of forest products

Forestland Enhancement Program (FLEP)

- Lead Agency: NDF
- Funding: \$100 million over 5 years nationwide
- Funding Formula: 75% federal; 25% non-federal
- Funding Source: USFS
- Applicants: Non-industrial private forest owners
- Project Type: Forest ecosystem health (including fuel reduction)

4.2.7 Hazard Management Capabilities Changes

The staffing levels in DEM have remained unchanged. It is noted that Nevada's mitigation capability has multiplied due to the planning process itself. The process involves coordination with government entities at all levels, including tribal nations. The collaborative approach to mitigation has enabled this to occur. The following paragraphs provide a summary of mitigation activities accomplished since the approval of the last plan.

Since the approval of the previous 2004 plan, more counties and State agencies have become involved in networking which has led to greater awareness of mitigation programs. This has resulted in greater mitigation planning and related activities in the State. This is confirmed by the eight (8) local plans approved since 2004. These include Carson City, Clark County, Lincoln County, Nye County, Washoe County, City of Sparks, City of Reno and the Truckee Meadows Water Authority. Four additional communities are in process of developing their plan, Douglas County, Elko County, Esmeralda County and Storey County. Washoe County will enhance their currently approved plan by creating a multi-jurisdictional plan encompassing the two Cities and Tribal entities within its borders.

In the PDM 2007 cycle, Nevada submitted three planning and one project applications for funding under this source. All four applications were approved. This shows the staff's dedication to this program and the state's commitment to improve its mitigation efforts. This state fiscal year, the SHMO is working closely with fiscal staff to increase our efficiency in distributing funds to subgrantees and to improve our capability for obtaining the cost share requirements. Another improvement to the mitigation program is that the state is now taking advantage of the administrative funds allocated by PDM and HMGP.

During the three years covered by the 2004 plan, the SHMO attended national evaluations during two of the four years of the PDM competitive cycle. Thanks to Region IX staff support, she has represented the state at the Mitigation Stakeholders group which is seeking to bring together all five of the mitigation programs. These events provide an opportunity for increased working relationships with other states and FEMA regional staff giving the SHMO added understanding of the mitigation programs at the national and regional level. The SHMO established an effective working relationship in the mitigation field with neighboring states, Arizona, Utah and California with teleconferenced meetings occurring monthly.

The table below shows the increases in the two FEMA mitigation programs managed by DEM. It depicts PDM and HMGP funding received before and after the approval of the 2004 plan. The increases are moderate, approximately \$ 0.5 M. However, the number of applications submitted to the state increased from an average of 3 to an average of 6. Another improvement is that the state agencies are aware of the mitigation program and submit applications for both the PDM and HMGP funding.

Table 4-5

Year	Mitigation Funding Before Approval of plan in 2004		Mitigation Funding After Approval of plan in 2004	
	PDM (\$)	HMGP (\$)	PDM (\$)	HMGP (\$)
2001				
2002	297,271	0		
2003	198,125	0		
2004 –SHMP Approved Oct		726,514 20,374 Admin		
2005			60,063	533,519 11,975 Admin
2006			29,115	625,497 19,050 Admin
2007			467,790 46,779 Admin	
Total	495,396	726,514	556,968	1,159,016

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.

Also, the SHMO now provides information and technical assistance related to mitigation programs and funding sources to local jurisdictions, specifically to engineering and public works departments. This assistance to local jurisdictions has increased their interest in mitigation activities statewide.

The NHMPC’s “PlanAheadNevada” website created with Mitigation funding, provides important information to the public about other programs such as Firewise, Living with Fire, as well as the NFIP program and FIRMs, earthquake non-structural and structural mitigation. NHMPC’s new link to the Nevada Earthquake Safety Council provides outreach to schools and the public in general. An effort is underway to join the public awareness campaign underway with the investment justification for Community Emergency Response Teams under the Department of Homeland Security’s funding to include a mitigation fragment.

NESC’s Chairman, Jon Price, supported the development of a “Loss-Estimation Modeling of Earthquake Scenarios for Each County in Nevada Using HAZUS-MH” report. NESC did a public awareness campaign about the earthquake hazard in Nevada with this report. Dr. Price then did a presentation through out the State at each county seat in 2005 to present the hazards posed by the possibility/probability of earthquakes in each of respective county. The Nevada Association of Counties was also one of the organizations to which this information was presented.

The most significant change is the commitment of the Nevada DEM, Recovery and Mitigation Section, NHMPC, and the SHMO to a comprehensive mitigation program as evidenced by the

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development of this Plan, the commitment to local mitigation planning, statewide promotion of mitigation, interdepartmental coordination, and the initiation of training and outreach efforts.

Specific examples that have been discussed throughout this plan include:

- a. Conducting regular mitigation management training programs to assist local government with grant administration, hazard mitigation planning and related duties.
- b. Providing PDM grant funds to counties and municipalities to develop DMA200 compliant hazard mitigation plans.
- c. The establishment of the Nevada Hazard Mitigation Planning Subcommittee which is directly responsible for assisting DEM in the development and updating of this plan, evaluating and prioritizing hazard mitigation grant proposals, and advising DEM in mitigation activities statewide.
- d. Improving the level of coordination across state agency programs sharing objectives that compliment the goals of this plan.

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.
2. Development and delivery of mitigation program workshops, specific to Nevada.
3. Create the mitigation program's ability in GIS by supporting enhancements to UNR, Bureau of Mines and Geology's existing system.
4. Provide additional training in e-Grants, BCA, and formulation of applications.
5. DMA 2000 training to increase the understanding of its process and requirements.
6. Enhancing the collaborative efforts with other state agencies, committees/boards, and tribal nations in:
 - a. The creation and enforcement of mitigation codes
 - b. Increasing the mitigation capabilities through leveraging of funding sources
 - c. Improving public awareness of the mitigation program

4.3 LOCAL CAPABILITY ASSESSMENT

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

DMA 2000 REQUIREMENTS: MITIGATION STRATEGY

Local Capability Assessment

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

Element

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

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

Source: FEMA, Standard State Hazard Mitigation Plan Review Crosswalk 2006

4.3.1 Local Capability Description

The Nevada Hazard Mitigation Planning Committee (NHMPC) has been actively working with its local governments to identify those actions most effective 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. Through working with local governments, the NHMPC has identified policies currently in place and their effectiveness with hazard mitigation. The State does provide guidance to the communities by providing model ordinances and example plans, and supports pass-through funds available to communities interested in adopting hazard mitigation actions.

The existing State policies indicated in the following table. It is expected that their adoption by local jurisdictions will make local mitigation more effective.

**Table 4-6
Existing Local Policies**

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>NRS 278.160 – planning and zoning.</p> <p>NRS 278.580—investigation of seismic hazards: fault, fissure, and liquefaction.</p> <p>NRS 410.095 through 410.210 – regulation and restriction of landfills, garbage dumps, and junkyards.</p>	<p>Zoning can keep inappropriate development out of hazard-prone areas and can designate certain areas for such things as conservation, public use, or agriculture. Zoning can also be used to control construction by dedicating areas for cluster development or planned unit development. The State currently works with local governments on implementing these last two policies.</p>	<p>Some counties have passed open space ordinances that have preserved hazard-prone and environmentally sensitive areas (wetlands, aquifer recharge zones, etc.) in the State. These ordinances are based on local land use plans.</p>

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Policy	Description	Applicability	Effectiveness
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 – Firewarden'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>Set construction and location standards for subdivision layout and infrastructure.</p> <p>NRS 445D – Environmental covenants that attach to real property.</p>	<p>Contains standards for such things as storm water management and erosion control</p>	<p>New subdivision in flood hazard areas will be required to cluster homes outside of the floodplain, and will be given more flexibility in using varied densities within the subdivision.</p>

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Policy	Description	Applicability	Effectiveness
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 there are six out of seventeen counties that have FEMA-approved mitigation plans. The Subcommittee will integrate the capabilities from local jurisdictions as soon as their completed plans are FEMA approved. 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 4-7

Local Capabilities General Analysis

County	Effectiveness			Comments
	Legal Regulatory	Administrative Technical	Fiscal	
Carson City	Good	Good	Good	The awareness of mitigation needs to be enhanced through training and public awareness campaigns.

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County	Effectiveness			Comments
	Legal Regulatory	Administrative Technical	Fiscal	
Clark	Very Good	Very Good	Very Good	They have great excellent mitigation 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.
Douglas	Good	Needs Improvement	Good	Douglas has legal, regulatory, and fiscal capability. The administrative and technical ability needs improvement.
Lincoln	Needs Improvement	Needs Improvement	Needs Improvement	Because it is sparsely populated and has a low-tax base, Lincoln Co. has limited resources for these categories. Lincoln relies on Clark Co. to the south for much of its resources.
Nye	Good	Needs Improvement	Needs Improvement	Nye Co. has the ability to adopt regulations. Additional staff and funding for mitigation purposes would help the growing population.
Washoe	Good	Very Good	Good	Washoe Co. needs more mitigation public awareness and training for the staff. Their goals and objectives need to be updated to reflect a more regional approach.

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The Subcommittee will analyze the local jurisdiction's capabilities as their completed hazard mitigation plans are FEMA approved. The following table displays the counties in the process of developing aa hazard mitigation plans as **contains** the counties who have either developing plan or with a pending interest in doing so.

Comment [RM1]: What does this mean?

Table 4-8
Nevada Counties with Developing or Pending HMPs

County	Developing	Pending
Churchill		√
Elko	√	
Esmeralda	√	
Eureka		√
Humboldt		√
Lander		√
Lyon		√
Mineral		√
Pershing		√
Storey	√	
White Pine		√

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 in the new or updated section reflect actions and projects identified in local plans?	
<i>Source: FEMA, Standard State Hazard Mitigation Plan Review Crosswalk 2006</i>	

4.4.1 Cost effective, environmentally sound, and technically feasible mitigation actions

Each lead agency reviewed their proposed action items and based on the risk and vulnerability assessments agreed to select the top high action items in their list. The risk and vulnerability assessment provided the geographical extent of the hazards and the amount of damage estimated due to the scenario of the hazard. The actions were selected based on the costs and benefits, the social benefits to the state and communities, and the least environmental impact. Each lead agency considered their economic, technical and administrative capability as well as the political consequences of the action in the prioritization process. The result of this process is found in Appendix J. The results are listed by hazard as provided by the lead agency. The last table in Appendix J shows the top ranking projects in priority order. The Subcommittee agreed it is difficult to focus only in mitigating one hazard. The risks rated high affect all of Nevada's communities and the Subcommittee strongly supports any mitigation action for wildfire, dam failure, flood, and earthquake. Additionally, specific action items are included for the mitigation program, recovery efforts, and the promotion of disaster resistant development.

The remaining action items, not ranked high by the lead agency, had additional concerns, such as

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political, social and economic criteria and consequently are considered low priority by the Subcommittee.

The Subcommittee will continue to evaluate all the listed 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.

As shown in Section 4.1.2, the goals, objectives and action items are organized by lead agency as follows. For consistency, Appendix J is organized similarly.

1. **DEM & NHMPC:** Support local jurisdictions in mitigation activities
2. **ALL AGENCIES & NHMPC:** Promote disaster-resistant development
3. **DEM:** Recovery activities
4. **DCNR/ DWR:** Dam failure mitigation activities
5. **NESC, DEM & NHMPC:** Earthquake mitigation activities
6. **DCNR/ DWR:** Flood mitigation activities
7. **DCNR/NDF:** Wildfire mitigation activities

Appendix J contains the final table, sample shown in Table 4-9, with the all the high ranked actions.

4.4.2 Evaluation of actions and activities

The Subcommittee asked each of the lead agencies to provide the cost and possible funding sources for their high priority action items. Each lead agency worked independently using the STAPLEE process, see Appendix J for results of each lead agencies process, then submitted what they considered the top high priority action items. These top high priority items were then reassessed by the Subcommittee using STAPLEE and reprioritized. The Subcommittee agreed to use the lead agencies recommended top high priority action items only in the final prioritization, as the lead agencies will have the responsibility of implementing the actions. Appendix J contains; the full listing of action items in a STAPLEE worksheet; the individual lead agency prioritized action items; and a final table with the high action items ranked in priority order.

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

The Subcommittee considered the risk and capability assessments as well as the categories listed below in the evaluation and prioritization of the action items.

Prevention: These 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 Prioritization of actions and activities

The Subcommittee used the STAPLEE process described by FEMA's How-to Guide 386-3 to prioritize the action items. The agencies developing and responsible for implementing the actions items were asked to prioritize the activities they proposed. Each agency provided the top high ranking prioritized activities. The agencies used the STAPLEE process to develop the list of the top activities to the Subcommittee. Those not presented are considered low priority. The Subcommittee used the same STAPLEE process to complete a table similar to Table 4-9 shown below with the final prioritized action items for the State. The completed table is found in Appendix J.

**Table 4-9
Prioritized Mitigation Actions**

Prioritized Mitigation Projects									
Goal	Objective	Action	Statewide or County Specific	Project Description	Hazard	Lead/Support Agency	Budget	Funding Source	Rank
1	A	1	State Repetitive Loss Reduction Program	Comprehensive loss reduction program involving acquisition, elevation, relocation, and floodproofing of structures	Flooding	State Dept. of Emergency/ State Dept. of Public Works/Local Planning Agencies	\$50 Million	PDM/ HMGP	H

4.4.4 Contribution of activities to the overall mitigation plan

Table J-9 in Appendix J lists the finalized priority of all actions, the goals they help to accomplish as well as the priority, lead agency, funding source and the hazard it mitigates. Some actions contribute to mitigate multiple hazards.

4.4.5 Actions and Projects in Local Plans

The following tables reflect actions and projects identified in approved local hazard mitigation plans. The analysis column links the goals, objectives, and actions to the specific State's goals and objectives as described above in Section 4.1.2 of the NHMP. Local plans receive an initial review by the SHMO at DEM while in draft form before they are submitted to FEMA for a formal adoption review. It is common for local government to submit individual pieces of their plan for review as it is drafted allowing DEM to play a role in minor course corrections when necessary, early in the planning process. Some local action items link well with actions proposed in the NHMP, others have a narrow focus and do not apply to the State

Table 4-10
Mitigation Action/Activities Planning

CARSON CITY STANDARD MULTI-HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Multi-Hazard	Goal 1: Promote disaster-resistant future development Objective 1: Facilitate the development or updating of general plans and zoning ordinances to limit development in hazard areas.	Action 1: Update General Plan every 10 years Action 2: Attract and retain qualified, professional and experienced staff. Action 3: Identify high hazard areas.	Goal 2 Objective 2.A
Multi-Hazard	Objective 1A: Facilitate the adoption of building codes that protect existing assets and restrict new development in hazard areas.	Action 4: Review Codes every 3 years. Action 5: Establish emergency review procedures for codes.	Goal 1
Multi-Hazard	Objective 2: Facilitate consistent enforcement of general plans, zoning ordinances, and buildings codes.	It is currently being done by the Planning and Development Division of Planning Services.	Goal 1

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CARSON CITY STANDARD MULTI-HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Multi-Hazard	Objective 3: Limit future development in hazardous areas.	Action 1: Development should be in harmony with existing topography. Action 2: Development patterns should respect environmental characteristics. Action 3: Development should be limited in areas known for geologic hazards. Action 4: Development in floodplains shall be limited to protect lives and property. Action 5: High fire hazard areas shall have adequate access for emergency vehicles.	Goals 2, 3, 4, 5, 6, 7 Objectives 2A, 3A, 4A, 5A, 6A, 7A
Multi-Hazard	Objective 4: Address identified data limitations regarding the lack of information about new development and build-out potential in hazard areas.	Action 1: Coordinate existing GIS capabilities to identify hazards throughout the County. Action 2: Develop the data sets that are necessary to test hazard scenarios and mitigation tools (HAZUS MH) Action 3: Utilize the Internet as a communication and educational tool.	Goal 2 Objective 2B Goal 3 Objective 3B
Multi-Hazard	Objective 5: Increase public understanding, support and demand for hazard mitigation for new developments.	Action 1: Gain public acceptance for avoidance policies in high hazard areas.	Goal 3 Objective 3B
Multi-Hazard	Goal 2: Increase public understanding and support for effective hazard mitigation. Objective 1: Educate the public to increase awareness of hazards and opportunities for mitigation actions.	Action 1: Publicize and encourage the adoption of appropriate hazard mitigation actions. Action 2: Provide information to the public on the City website. Action 3: Heighten public awareness of hazards using the City Media & Public Relations Office. Action 4: Gain public acceptance for avoidance policies in high hazard areas.	Goal 3 Objective 3B
Multi-Hazard	Objective 2: Gain public interest by supporting already existing public programs.	Action 1: Identify hazard specific issues and needs. Action 2: Help create demand for hazard resistant construction and site planning.	Goal 3 Objective 3B
Multi-Hazard	Objective 3: Promote partnerships between state, neighboring counties, and tribal governments to identify, prioritize, and implement mitigation actions.	Action 1: Develop, maintain, and improve lasting partnerships. Action 2: Support the County Fire Safe Council. Action 3: Promote cooperative vegetation mManagement programs that incorporate hazard mitigation.	Goals 1, 6, 7 Objectives 6A, 7A

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CARSON CITY STANDARD MULTI-HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Multi-Hazard	Objective 4: Promote hazard mitigation in the business community.	Action 1: Utilize BICEP to increase awareness and knowledge of hazard mitigation principles and practices. Action 2: Encourage businesses to develop and implement hazard mitigation actions. Action 3: Identify hazard-specific issues and needs.	Goal 3 Objective 3B
Multi-Hazard	Objective 5: Monitor and publicize the effectiveness of mitigation actions implemented countywide.	Action 1: Use the Carson City Fire Department Emergency Management site to publicize mitigation actions. Action 2: Utilize existing risk data and create marketing campaign. Action 3: Establish budget and identify funding sources for mitigation outreach. Action 4: Develop and distribute brochures, CDs, and other publications.	Goal 3 Objective 3B
Multi-Hazard	Objective 6: Provide education on hazardous conditions.	Action 1: Support public and private sector symposiums. Action 2: Coordinate production of brochures, informational packets, and other handouts.	Goal 3 Objective 3B
Multi-Hazard	Goal 3: Enhance hazard mitigation coordination and communication with Federal, State, local, and tribal governments. Objective 1: Establish and maintain closer working relationships with State agencies, local, and tribal governments.	Action 1: Develop multi-jurisdictional/multi-functional training and exercises to enhance hazard mitigation.	Goal 3 Objective 3B
Multi-Hazard	Goal 4: Enhance hazard mitigation coordination and communication with Federal, State, local, and tribal governments. Objective 1: Encourage other organizations to incorporate hazard mitigation activities.	Action 1: Leverage resources and expertise that will further hazard mitigation efforts. Action 2: Update the County multi-hazard mitigation plan on a regular basis. Action 3: Encourage all local governments and tribal governments to formulate a multi-hazard mitigation plan. Action 4: Establish and maintain lasting partnerships through existing county organizations and the County Emergency Management Council. Action 5: Streamline policies to eliminate conflicts and duplication of effort where feasible.	Goal 1 Objectives 1B, 1C

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CARSON CITY STANDARD MULTI-HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Multi-Hazard	Objective 2: Improve the County's capability and efficiency in administering pre- and post-disaster mitigation.	Action 1: Maintain coordination, communication and cooperation with the State administering recovery programs. Action 2: Continue to exchange resources and work with local and regional partners.	Goal 3 Objective 3A
Multi-Hazard	Objective 3: Utilize the County Operational Area to coordinated recovery activities while restoring and maintaining public services.	No Action Items	Goal 3
Multi-Hazard	Objective 4: Utilize the Carson City Business Continuity Plan to prioritize the restoration and maintenance of City/County services.	No Action Items	Goal 3
Catch Basin or Dam Failure	Goal 5: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to catch basin or dam failure. Objective 1: Develop a comprehensive approach to reducing the possibility of damage and losses due to dam failure.	Action 1: Update inundation maps every 10 years as feasible. Action 2: Participate in community awareness meetings when feasible. Action 3: Develop and distribute printed publications to the communities concerning hazards. Action 4: Identify hazard-prone structures.	Goal 4 Objective 4A
Catch Basin or Dam Failure	Objective 2: Coordinate with and support existing efforts to mitigate dam failure.	Action 1: Incorporate and maintain valuable wetlands in open space preservation programs. Action 2: Review and revise, when appropriately, sediment and erosion control regulations.	Goal 4 Objective 4A
Flood	Objective 3: Protect floodplains from inappropriate development.	Action 1: Strengthen existing development regulations to discourage land uses and activities that create hazards. Action 2: Plan and zone for open spaces, recreational, agricultural, or other low-intensity uses within floodway fringes.	Goals 1, 6 Objective 6A
Drought	Goal 6: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to drought. Objective 1: Develop a comprehensive approach to reducing the possibility of damage and losses due to drought.	Action 1: Encourage and require water conservation where ever feasible. Action 2: Explore the development of new water resources. Action 3: Encourage the recharge of underwater aquifers. Action 4: Encourage the Federal government to complete the decontamination of all underground water resources currently identified as Superfund sites.	Goal 1 The State considers drought as a special hazard. Future iterations of this plan will consider local jurisdictions' concerns about this hazard if necessary.

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CARSON CITY STANDARD MULTI-HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Drought	Objective 2: Encourage citizen participation in drought mitigation strategies.	Action 1: Implement public information programs on water conservation and drought resistant landscaping.	Goal 1 The State considers drought as a special hazard. Future iterations of this plan will consider local jurisdictions' concerns about this hazard if necessary.
Earthquakes	Goal 7: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to earthquakes. Objective 1: Develop a comprehensive approach to reducing the possibility of damage and losses due to earthquakes.	Action 1: Maintain building codes to reflect current earthquakes standards. Action 2: Encourage and participate in community awareness meetings. Action 3: Distribute printed publications to the communities concerning hazards.	Goals 2, 3, 5 Objectives 3B, 5A
Earthquakes	Objective 2: Protect existing assets with the highest relative vulnerability to the effects of earthquakes.	Action 1: Identify hazard-prone structures through GIS modeling. Action 2: Build critical facilities to ensure that they function after a major earthquake. Action 3: Encourage and continue the study ground motion, landslide, and liquefaction.	Goals 2, 5 Objectives 2B, 5A
Earthquakes	Objective 3: Coordinate with and support existing efforts to mitigate earthquake hazards.	Action 1: Identify projects for pre-disaster mitigation funding. Action 2: Design and implement an ongoing public seismic risk assessment program. Action 3: Collaborate with Federal, State, university, and local agencies' mapping efforts.	Goal 5 Objective 5A
Earthquakes	Objective 4: Address identified data limitations regarding the lack of information about the relative vulnerabilities of assets from earthquakes.	Action 1: Assess countywide utility infrastructure with regard to earthquake risk, including public and private utilities. Action 2: Encourage the public to prepare and maintain a 3-day preparedness kit for home and work for all hazards.	Goals 3, 5 Objectives 3B, 5A
Landslide	Goal 8: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to landslide. Objective 1: Develop a comprehensive approach to reducing the possibility of damage and losses due to landslide.	Action 1: Identify potential areas based upon historical data. Action 2: Participate in community awareness meetings. Action 3: Develop and distribute printed publications to the communities concerning hazards.	Goal 3 Objective 3B The State considers landslide as a low risk hazard. Future iterations of this plan will consider local jurisdictions' concerns about this hazard if necessary.

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CARSON CITY STANDARD MULTI-HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Landslide	Objective 2: Protect existing assets with the highest relative vulnerability to the effects of landslide.	Action 1: Study and improve storm drains for landslide-prone areas. Action 2: Develop, adopt and enforce effective building codes and standards. Action 3: Seek pre-disaster mitigation funding for landslides prevention projects.	Goal 3 Objective 3B The State considers landslide as a low risk hazard. Future iterations of this plan will consider local jurisdictions' concerns about this hazard if necessary.
Landslide	Objective 3: Coordinate with and support existing efforts to mitigate landslide.	Action 1: Review and update plans that would include coordination with cities, special districts, and county departments. Action 2: Streamline policies to eliminate conflicts and duplication of effort. Action 3: Develop and publish evacuation procedures to the public.	Goal 1, 3 Objective 3C The State considers landslide as a low risk hazard. Future iterations of this plan will consider local jurisdictions' concerns about this hazard if necessary.
Landslide	Objective 4: Address identified data limitations regarding the lack of information about the relative vulnerability of assets from landslide.	Action 1: Identify hazard-prone structures through GIS modeling. Action 2: Develop and implement hazard awareness program.	Goal 2 Objective 2B The State considers landslide as a low risk hazard. Future iterations of this plan will consider local jurisdictions' concerns about this hazard if necessary.
Floods	Goal 9: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to floods. Objective 1: Develop a comprehensive approach to reducing the possibility of damage and losses due to floods.	Action 1: Review and compare existing flood control standards, zoning and building requirements. Action 2: Identify and update flood-prone areas by using GIS. Action 3: Adopt or update policies that discourage growth in flood-prone areas.	Goals 2, 6 Objectives 2A, 2B, 6A
Floods	Objective 2: Protect existing assets with the highest relative vulnerability to the effects of floods within the 100-year floodplain.	Action 1: Assure adequate funding where feasible to restore damaged facilities to 100-year flood design. Action 2: Update storm water system plans and improve storm water facilities in high-risk areas. Action 3: Ensure adequate evacuation time in case of major hazard event.	Goals 1, 3, 6 Objectives 3C, 6A
Floods	Objective 3: Coordinate and support existing efforts to mitigate floods.	Action 1: Develop a flood control strategy that ensures coordination with Federal, State, and local agencies. Action 2: Improve hazard warning and response planning.	Goals 3, 6 Objectives 3A, 6A

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CARSON CITY STANDARD MULTI-HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Floods	Objective 4: Minimize repetitive losses caused by flooding.	Action 1: Identify those communities that have repetitive losses. Action 2: Develop project proposals to reduce flooding and improve control in flood-prone areas. Action 3: Seek pre-disaster mitigation funding.	Goal 6 Objective 6A
Floods	Objective 5: Address identified data limitations regarding the lack of information about the relative vulnerability of assets from flooding.	Action 1: Encourage the public to prepare and maintain a 3-day preparedness kit for home and work. Action 2: Increase participation and improve compliance with the National Flood Insurance Program (NFIP). Action 3: Maintain, develop, and implement hazard awareness program.	Goals 2, 3 Objectives 2A, 3B
Flooding and Erosion	Goal 10: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to flooding and erosion. Objective 1: Develop a comprehensive approach to reducing the possibility of damage and losses due to storms/erosion.	Action 1: Coordinate with adjacent cities to develop a comprehensive plan. Action 2: Participate in community awareness meetings as feasible. Action 3: Distribute printed publications to the communities concerning hazards.	Goals 2, 3 Objectives 2A, 3B
Flooding and Erosion	Objective 2: Protect existing assets with the highest relative vulnerability to the effects of storms/erosion.	Action 1: Seek pre-disaster mitigation funding for erosion projects.	Goals 2, 6 Objectives 2A, 6A
Flooding and Erosion	Objective 3: Coordinate with and support existing efforts to mitigate severe storms/erosion.	Action 1: Review and update plans that would include coordination with adjacent counties and cities, special districts, and city departments. Action 2: Streamline policies to eliminate conflicts and duplication of effort. Action 3: Develop and publish evacuation procedures to the public.	Goals 2, 3 Objectives 2A, 3C
Flooding and Erosion	Objective 4: Address identified data limitations regarding the lack of information about the relative vulnerability of assets from storms/erosion.	Action 1: Identify hazard-prone structures through GIS modeling. Action 2: Incorporate information and recommendations from communities into the hazard mitigation plan.	Goal 2 Objective 2A, 2B

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CARSON CITY STANDARD MULTI-HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Structural Fire/Wildfire	Goal 11: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to structural fire/wildfire. Objective 1: Develop a comprehensive approach to reducing the possibility of damage and losses due to structural fire/wildfire.	Action 1: Update the Carson City Fire Code every three years. Action 2: Update Carson City model Weed Abatement and Fuel Modification Ordinances. Action 3: Utilize GIS and the Internet as information tools.	Goals 2, 7 Objectives 2A, 2B, 7A
Structural Fire/Wildfire	Objective 2: Protect existing assets with the highest relative vulnerability to the effects of structural/wildfire.	Action 1: Enforce Standardized Defensible Space Clearance distances. Action 2: Establish community-based groups to promote chipping programs. Action 3: Research options to provide low cost insurance to cover landowners who allow prescribed burning on their lands.	Goal 7 Objective 7A
Structural Fire/Wildfire	Objective 3: Coordinate with and support existing efforts to mitigate structural/wildfire.	Action 1: Establish a continuing wildland fire technical working group. Action 2: Develop partnerships for a countywide vegetation management program. Action 3: Report annually to the Board of Supervisors on the progress of fire mitigation strategies.	Goal 7 Objective 7A
Structural Fire/Wildfire	Objective 4: Address identified data limitations regarding the lack of information about the relative vulnerability of assets from structural/wildfire.	Action 1: Continue to identify and update Urban/wildland fire interface areas. Action 2: Use GIS to map fire risk areas. Action 3: Implement public education program to address fire dangers and corrective measures.	Goals 2, 3, 7 Objectives 2B, 3B, 7A

CLARK COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Multi-Hazard	Goal 1: Promote disaster-resistant future development. Objective 1: Encourage and facilitate the development or updating of comprehensive and master plans, and zoning ordinances to limit development in hazard areas.	Action 1: Review existing county/city's comprehensive and master plans, and zoning ordinances to determine how these documents limit development in hazard areas. Recommend modifications with additional guidelines, regulations, and land use techniques as necessary with limits of state statutes, while also respecting private property rights. Action 2: Establish periodic monitoring and review of the County/City's comprehensive and master plans, as well as zoning ordinances to determine effectiveness at preventing and mitigating hazards.	Goals 2, 4, 5, 6, 7 Objectives 2A, 4A, 5A, 6A, 7A Clark County has an extensive GIS system.

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Mitigation Strategy

CLARK COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Multi-Hazard	Objective 2: Encourage and facilitate the adoption of building codes that protect existing assets and minimize new development in hazard areas.	Action 1: Review existing building codes to determine if they adequately protect new development in hazard areas. Recommend modification of codes to help mitigate hazards imposed on such development, within the limits of state statutes, while also respecting private property rights. Action 2: Involve all organizations, to include private businesses, throughout the planning area in mitigation planning particularly during plan review and/or preparation of grant application.	Goal 2 Objective 2A
Multi-Hazard	Objective 3: Promote consistent enforcement of comprehensive and master plans, zoning ordinances, and building codes.	Action 1: Support distribution of all development master plan, zone change and subdivision applications to all applicable entities for review to ensure consistency with the adopted hazard mitigation plan. Action 2: Each jurisdiction's Office of Emergency Management will provide training to applicable County/City staff of the adopted hazard mitigation plan and its requirements. Action 3: Continue Coordination between each jurisdiction's Office of Emergency Management and their county/city departments to identify and mitigate hazards associated with new development.	Goal 2 Objective 2A
Multi-Hazard	Goal 2: Promote public understanding, support and demand for hazard mitigation. Objective 1: Promote partnerships between Federal, State, county, local tribal governments, public sector, private industry, civic and nonprofit groups to identify, prioritize, and implement mitigation actions. Publicize implemented mitigation actions.	Action 1: Proactively promote availability of pre-disaster mitigation and hazard mitigation grant program funds. Action 2: Encourage and seek regional mitigation planning and projects. Action 3: Educate county/city departments how to explore variety of funding sources.	Goal 1, 3 Objective 1C
Multi-Hazard	Goal 3: Build and support local capacity to warn the public about emergency situations and assist in their response. Objective 1: Improve upon existing capabilities to warn the public of emergency situations.	Action 1: In coordination with Clark County Office of Emergency Management, test the ability of each jurisdiction's Office of Emergency Management to activate the Emergency Alert System (EAS) and emergency notification systems.	Goal 3 Objective 3A

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CLARK COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Multi-Hazard	Objective 2: Develop a program to enhance the safety of the residents of the planning area during an emergency.	Action 1: Develop an evacuation strategy for the County and each city to include Regional Transportation Commission (RTC), Clark County School District as well as Nevada Department of Transportation (NDOT). Action 2: Develop a shelter-in-place education program for the county and each city.	Goal 3 Objectives 3B, 3C
Multi-Hazard	Objective 3: Educate the public to increase awareness of hazards and opportunities for mitigation actions.	Action 1: Clark County Flood Control District (CCRFCD) will increase their outreach program of public school curriculum materials to include a four-page teacher guide, an eight-page student activity book and a flood safety video (there is one school district for all of Clark County; more than 16,000 elementary-aged students participated in 2003/2004). Action 2: CCRFCD will increase its education program focused towards children regarding the dangers of playing in the washes and other flood control facilities. Action 3: Create or supplement public information sheets on natural hazards to include suggested mitigation actions for each jurisdiction's Office of Emergency Management. Action 4: Add mitigation actions to each jurisdiction's website. Action 5: Announce approval of plan with suggested mitigation actions through a variety of media outlets. Action 6: Develop a mitigation brochure.	Goal 3 Objective 3B
Infestations and Disease	Goal 4: Reduce the possibility of damage and losses due to infestations and disease. Objective 1: Protect existing county/city assets, as well as new development, from the effects of infestations and diseases.	Action 1: (Planning Area) Support the efforts of the CCHD to enforce Health-related regulatory requirements through on-going inspections of a variety of permitted establishments and implementation of electronic surveillance and enforcement programs. (Programs are listed in the Multi-Jurisdictional Plan). Action 2: (Planning Area) Support increased surveillance and development of more stringent requirements at high-risk facilities (day-care centers, hospitals, nursing homes, schools, restaurants, hotels/resorts and casinos on "the strip.") Action 3: (Planning Area, CCHD) Participate and seek joint ventures and activities with multiple county/city departments and neighboring jurisdictions to develop exercises, training components and response procedures related to communicable disease outbreaks and vector infestations, such as a mass release of tularemia, annual flue season, or mosquitoes carrying West Nile virus.	Goals 1, 3 Objectives 1C, 3B

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CLARK COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Drought	<p>Goal 5: Reduce the possibility of damage and losses due to drought.</p> <p>Objective 1: Protect existing county/city assets and new development from the effects of drought.</p>	<p>Action 1: (Planning Area) Support efforts by the Southern Nevada Water Authority (SNWA) to implement the drought response measures as defined in the SNWA Drought Plan 2005.</p> <p>Action 2: (Planning Area) Support and encourage local developers to follow the SNWA and Southern Nevada's Builders Association Water Smart Home Program guidelines to include Water Smart Home, Water Smart neighborhood, and Water Smart Builder.</p> <p>Action 3: (Planning Area) Where appropriate, mandate the use of xeriscaping or desert landscaping at County/City facilities and projects.</p>	<p>Goals 1, 2</p> <p>Objectives 1C</p> <p>The State considers drought as a special hazard. Future iterations of this plan will consider local jurisdictions' concerns about this hazard if necessary.</p>
Earthquake	<p>Goal 6: Reduce the possibility of damage and losses due to earthquake.</p> <p>Objective 1: Develop a comprehensive approach to reducing the possibility of damage and losses due to an earthquake.</p>	<p>Action 1: (Clark County, City of Las Vegas) In coordination with appropriate agencies, local, State, and Federal obtain site-specific studies to ascertain the zoning has been brought in-line with the hazard, and how the building stock, old and new, might fare if a credible earthquake were to occur with specific attention to lifelines: transportation, corridors, buildings, and pipelines.</p> <p>Action 2: (Clark County) Continue coordination and support to UNLV for their research into the earthquake hazard and risks in the Las Vegas Valley. The outcomes will better prepare the valley's citizens and infrastructure for the threat of an earthquake.</p>	<p>Goal 5</p> <p>Objective 5A</p> <p>Nevada Seismological Laboratory and Nevada Bureau of Mines and Geology work closely with UNLV.</p>
Earthquake	<p>Objective 2: Educate the public regarding earthquake hazards and risks, and the steps that can be taken to minimize their effects.</p>	<p>Action 1: (Planning Area) Develop a comprehensive and multi-educational level outreach program that meets stated objectives.</p> <p>Action 2: (Planning Area) Encourage interest by presenting site-specific information and history of earthquakes in Southern Nevada in an easy to read and understandable format.</p>	<p>Goal 3</p> <p>Objective 3B</p>
Earthquake	<p>Objective 3: Encourage and facilitate broad and open technical interchange regarding earthquake safety in Southern Nevada and efforts to inform citizens of earthquake hazards and mitigation opportunities.</p>	<p>Action 1: (Planning Area) Teach the general public how to prepare their households in the event of an earthquake by presenting preparedness information and attractive hands-on displays.</p> <p>Action 2: (Planning Area) Interface with public agencies within the State to optimize public awareness of earthquake hazard and mitigation activities.</p> <p>Action 3: (Planning Area) Promote, coordinate, schedule, implement, and conduct outreach activities to increase knowledge about earthquakes and enhance earthquake preparedness of the general public in Southern Nevada.</p>	<p>Goal 3</p> <p>Objectives 3B, 3D</p>

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CLARK COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Earthquake	Objective 4: Protect existing county/city assets, and new development from the effects of earthquake.	<p>Action 1: (Planning Area) Continue to enforce the Uniform Building Code (UBC) provisions pertaining to grading and construction relative to seismic hazards.</p> <p>Action 2: (Planning Area) Continue to enforce UBC requirements for addressing liquefaction potential in the design of structures.</p> <p>Action 3: (Planning Area) Develop and provide managers of mobile home parks with information on how to improve the seismic performance of mobile homes.</p> <p>Action 4: Encourage utility companies to evaluate the seismic risk to their high-pressure transmission pipelines and implement mitigation measures, such as automatic shut-off valves.</p>	<p>Goals 1, 2, 3, 5</p> <p>Objectives 1C, 2C, 3B, 5A</p>
Flood and Flash flooding	<p>Goal 7: Reduce the possibility of damage and losses due to flood and flash flooding.</p> <p>Objective 1: Protect existing county/city assets and new development from the effects of floods within the 100-year floodplain.</p>	<p>Action 1: (Planning Area) Encourage the maximum use of natural drainage ways and discourage the disruption of natural flowage patterns.</p> <p>Action 2: (Planning Area) Require engineered floodplain and hydrologic analysis to be prepared for new development projects within or directly adjacent to 100-year floodplains.</p> <p>Action 3: (Planning Area) Limit uses in floodways to those tolerant of occasional flooding, including but not limited to agriculture, outdoor recreation, and natural resource areas.</p> <p>Action 4: (Clark County) Maintain and continue to develop the CCRFCD's Flood Safety Advertising Campaign that warns motorists about the dangers of flash flooding through advertising on billboards, flood safety messages airing on radio traffic reports, television commercials, and newspaper and magazine advertisements.</p>	<p>Goals 2, 3, 6</p> <p>Objectives 2C, 3B, 6A</p> <p>CCRFCD has a very aggressive program to avoid future development within identified flash flood areas.</p> <p>CCRFCD has done and continues to plan extensive flash flood control projects in the Las Vegas Valley.</p>
Flood and Flash flooding	Objective 2: Minimize repetitive losses caused by flooding.	<p>Action 1: (Clark County Public Utility: Moapa Valley Water District) Clark County Public Works and the Moapa Valley Water District will work in concert to improve flood control measures within and adjacent to the unincorporated community of Moapa Valley, NV.</p> <p>Action 2: (City of Henderson Public Utility) The City of Henderson Department of Utility Services will work to implement flood control measures to eliminate or limit the risk of flood damage to potentially vulnerable sewer and reclaimed water lines within its jurisdiction.</p>	<p>Goals 2, 6</p> <p>Objectives 2C, 6A</p>

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CLARK COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Wildfire	<p>Goal 8: Reduce the possibility of damage and losses due to wildfire.</p> <p>Objective 1: Protect existing county/city assets, and future developments from the effects of wildfires.</p>	<p>Action 1: (Clark County) Continue existing intergovernmental agreement between county and the Fire Management Division of the State Land Department for assistance in the provision of emergency services within each other's jurisdictions.</p> <p>Action 2: (Clark County, Cities of Boulder City, Henderson, North Las Vegas, and Mesquite) Establish a standard safety zone of 30 feet around county/city owned structures that are vulnerable to the effects of wildfire. Encourage private and commercial property owners to adopt the same.</p> <p>Action 3: (Cities of Boulder City, Henderson, North Las Vegas, and Mesquite) Cities in the county will enter into intergovernmental agreements for wildfire prevention/control with State and Federal land management agencies that adjoin or are within their jurisdictions.</p>	<p>Goal 7</p> <p>Objective 7A</p> <p>Clark Co has four extreme rated communities (see 3-97).</p>

LINCOLN COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Multi-Hazard	<p>Goal 1: Promote disaster-resistant development.</p> <p>Objective 1: Ensure that the City and County's planning tools be consistent with the hazard information identified in the HMP.</p>	<p>Action 1: Ensure the <i>City of Caliente Master Plan</i> and the <i>Lincoln County Master Plan</i> are consistent with the hazard area maps, goals, objectives, and implementation strategies developed in the HMP.</p>	<p>Goal 2</p> <p>Objective 2A</p>
Multi-Hazard	<p>Objective 2: Develop a GIS database to include the most recent hazard area.</p>	<p>Action 1: Develop County-wide GIS hazard maps with information on hazard areas, and critical facilities and infrastructure.</p> <p>Action 2: Seek new data from other government, academic, and private organizations that can be used for hazard mitigation and emergency response.</p> <p>Action 3: Share hazard information between City and County, private and public organizations, and the general public.</p> <p>Action 4: Develop a database with an inventory of hazard areas that can be used for passive recreation.</p>	<p>Goal 2</p> <p>Objective 2B</p> <p>Lincoln County is moving towards starting a county-wide GIS program.</p>
Multi-Hazard	<p>Objective 3: Pursue available grant funding to implement mitigation measures.</p>	<p>Action 1: Review FEMA grant applications and establish internal procedures to streamline the application process.</p> <p>Action 2: Apply for Pre-Disaster Mitigation (PDM) and Hazard Mitigation Grant Program (HMGP) grants to fund mitigation actions identified in this HMP.</p>	<p>Goal 1</p> <p>Objective 1C</p> <p>Administrative, technical, and economic constraints limit Lincoln County's efforts with this objective.</p>

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LINCOLN COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Multi-Hazard	<p>Goal 2: Build and support local capacity to enable the public to prepare for, respond to, and recover from disasters.</p> <p>Objective 1: Educate the public to increase their awareness of hazards, emergency response, and recovery.</p>	<p>Action 1: Establish a budget and identify funding sources for mitigation outreach.</p> <p>Action 2: Work with school districts to develop a public outreach campaign that teaches children how to avoid danger and behave during an emergency.</p> <p>Action 3: Support the efforts and education of people with disabilities to prepare for disasters.</p> <p>Action 4: Develop a joint-City-County public outreach campaign about hazard risks and hazard mitigation efforts that homeowners can initiate and implement to enhance natural hazard safety in their own community.</p>	<p>Goals 1, 3</p> <p>Objectives 1C, 3B</p> <p>Administrative, technical, and economic constraints limit Lincoln County's efforts with this objective</p>
Drought	<p>Goal 3: Reduce the possibility of damage and losses due to drought.</p> <p>Objective 1: Protect existing assets and future developments from the effects of drought.</p>	<p>Action 1: Develop and adopt a water conservation ordinance that may stipulate landscaping requirements, hours for irrigation, retro-fitting hotels and households with low-flow toilets and showers, and penalties for wasting water.</p> <p>Action 2: Pursue the creation of a water conservation and public awareness program.</p> <p>Action 3: Develop and implement incentive programs to promote outdoor conservation, including drought-resistant landscaping programs.</p>	<p>Goals 1, 2, 3</p> <p>Objectives 1C, 2C, 3B</p> <p>The State considers drought as a special hazard. Future iterations of this plan will consider local jurisdictions' concerns about this hazard if necessary.</p>
Earthquakes	<p>Goal 4: Reduce the possibility of damage and losses due to earthquakes.</p> <p>Objective 1: Protect existing assets and future developments from the effects of earthquakes.</p>	<p>Action 1: Continue to enforce the UBC provisions pertaining to grading and construction relative to seismic hazards.</p> <p>Action 2: Continue to enforce UBC requirements for addressing liquefaction potential in the design of structures.</p> <p>Action 3: Implement an Unreinforced Masonry (URM) building program that determines the structural safety of critical facilities and retrofit buildings, if necessary.</p> <p>Action 4: Develop and provide managers of mobile home parks with information on how to improve the seismic performance of mobile homes.</p> <p>Action 5: Encourage utility companies to evaluate seismic risk to their high-pressure transmission pipelines and implement mitigation measures, such as automatic shut-off valves.</p>	<p>Goals 1, 2, 3, 5</p> <p>Objectives 1C, 2C, 3B, 5A</p>

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LINCOLN COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Floods	<p>Goal 5: Reduce the possibility of damage and losses due to floods.</p> <p>Objective 1: Protect existing assets and new developments from floods</p>	<p>Action 1: Work with Lincoln County, the City of Caliente, and FEMA to update outdated FIRMS into new DFIRMS.</p> <p>Action 2: Discourage the disruption of natural flowage patterns and encourage the maximum use of natural drainage ways.</p> <p>Action 3: Require engineered floodplain and hydrologic analysis to be prepared for new large development projects within the 100-year floodplain in the City limits.</p> <p>Action 4: Ensure that the mobile home parks are not located within the 100-year floodplain within city limits.</p> <p>Action 5: Designate all floodways as Open Space, as it is done in Alamo.</p>	<p>Goals 1, 2, 6</p> <p>Objectives 1C, 2A, 2C, 6A</p> <p>The majority of Lincoln County does not have existing FIRM maps.</p>
Wildland Fires	<p>Goal 6: Reduce the possibility of damage and losses due to wildland fires.</p> <p>Objective 1: Protect existing assets and new developments from wild land fires.</p>	<p>Action 1: Ensure that adequate fuels reduction treatments are in place and that all new development meets National Fire Code and Standards.</p> <p>Action 2: Improved street and address signage so that firefighters can easily locate at risk homes or areas in each of the unincorporated communities of low visibility during a wildland fire event.</p> <p>Action 3: Develop and adopt defensible space measures for new master planned communities and subdivisions.</p> <p>Action 4: Develop and adopt defensible space measures for any development within County-zoned RR Rural Residential Districts.</p> <p>Action 5: Develop a public outreach campaign of the extreme wildland fire dangers and steps that can be taken to reduce these dangers.</p> <p>Action 6: Develop an annual free curb-side weed removal pick-up program.</p> <p>Action 7: Work with the BLM and the US Forest Service to conduct fuel reduction project on federal property surrounding the City of Caliente and each community within the County.</p>	<p>Goals 1, 2, 3, 7</p> <p>Objectives 1C, 2A, 2C, 3B, 7A</p> <p>Lincoln County has two extreme rated communities.</p> <p>Mt. Wilson</p> <p>Pioche/Caseltan Heights</p>
Windstorms	<p>Goal 7: Reduce the possibility of damage and losses due to windstorms.</p> <p>Objective 1: Protect existing assets and new developments from windstorms.</p>	<p>Action 1: Develop restrictions on planting large or rapidly-growing trees near power lines and major arterials.</p> <p>Action 2: Develop a program to assist property owners in selecting trees that are power line friendly.</p> <p>Action 3: Improve the safety and reliability of overhead lines through improved design, maintenance, right-of-way management, and inter-utility cooperation.</p> <p>Action 4: Adopt prescriptive high-wind design standards for new critical facilities.</p>	<p>Goals 1, 2, 3</p> <p>Objectives 1C, 2A, 2C, 3B</p> <p>The State considers windstorms as a moderate hazard. Future iterations of this plan will consider local jurisdictions' concerns about this hazard if necessary.</p>

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Mitigation Strategy

NYE COUNTY HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Multi-Hazard	Goal 1: Promote disaster-resistant development. Objective 1: Ensure that the County's planning tools be consistent with the hazard information identified in the HMP.	Action 1: Update the <i>Pahrump Regional Planning District Master Plan and Nye County Title 17</i> to be consistent with the hazard area maps and implementation strategies developed in the HMP.	Goals 1, 2 Objectives 1C, 2A
Multi-Hazard	Objective 2: Develop a GIS database to include the most recent hazard area.	Action 1: Develop County-wide GIS hazard maps with information on hazard areas, and critical facilities and infrastructure. Action 2: Seek new data from other government, academic, and private organizations that can be used for hazard mitigation and emergency response. Action 3: Share hazard information with nearby jurisdictions, private and public organizations, and the general public.	Goal 2 Objective 2B Nye County has a limited county-wide GIS program.
Multi-Hazard	Objective 3: Pursue available grant funding to implement mitigation measures.	Action 1: Review FEMA grant applications and establish internal procedures to streamline the application process. Action 2: Apply for PDM and HMGP grants to fund mitigation actions identified in this HMP.	Goal 1 Objective 1A Administrative, technical, and economic constraints limit Nye County's efforts with this objective
Multi-Hazard	Goal 2: Build and support local capacity to enable the public to prepare for, respond to, and recover from disasters. Objective 1: Improve upon existing capabilities to warn the public of emergency situations.	Action 1: Develop emergency evacuation programs for neighborhoods in flood-prone areas and wildland fire areas.	Goal 3 Objective 3A, 3C
Multi-Hazard	Objective 2: Ensure that County officials and emergency response personnel are informed of and familiar with existing emergency preparedness procedures and their associated specific responsibilities and roles.	Action 1: Annually review the County's Emergency Operations Plan and identify needed plan updates. Action 2: Conduct a minimum of one disaster drill each year with relevant County agencies.	Goal 3 Objective 3A

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NYE COUNTY HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Multi-Hazard	Objective 3: Educate the public to increase their awareness of hazards, emergency response, and recovery.	Action 1: Establish a budget and identify funding sources for mitigation outreach. Action 2: Work with school districts to develop a public outreach campaign that teaches children how to avoid danger and behave during an emergency. Action 3: Support the efforts and education of people with disabilities to prepare for disasters. Action 4: Distribute appropriate public information about hazard mitigation programs and projects at County-sponsored events.	Goal 3 Objective 3B
Drought	Goal 3: Reduce the possibility of damage and losses due to drought. Objective 1: Protect existing assets and future developments from the effects of drought.	Action 1: Develop and adopt a water conservation ordinance that may stipulate landscaping requirements, hours for irrigation, retro-fitting hotels and households with low-flow toilets and showers, and penalties for wasting water. Action 2: Pursue the creation of a water conservation and public awareness program as suggested by the Nye County Water Resources Plan. Action 3: Develop and implement incentive programs to promote outdoor conservation, including drought-resistant landscaping programs. Action 4: Support legislation to update and secure new water rights for Nye County.	Goal 2 Objective 2C The State considers drought as a special hazard. Future iterations of this plan will consider local jurisdictions' concerns about this hazard if necessary.
Earthquakes	Goal 4: Reduce the possibility of damage and losses due to earthquakes. Objective 1: Protect existing assets and future developments from the effects of earthquakes.	Action 1: Continue to enforce the UBC provisions pertaining to grading and construction relative to seismic hazards. Action 2: Continue to enforce UBC requirements for addressing liquefaction potential in the design of structures. Action 3: Implement an Unreinforced Masonry (URM) building program that determines the structural safety of critical facilities and retrofit buildings, if necessary. Action 4: Develop and provide managers of mobile home parks with information on how to improve the seismic performance of mobile homes. Action 5: Encourage utility companies to evaluate seismic risk to their high-pressure transmission pipelines and implement mitigation measures, such as automatic shut-off valves.	Goals 2, 5 Objectives 3C, 5A
Floods	Goal 5: Reduce the possibility of damage and losses due to floods. Objective 1: Protect existing assets and new developments from floods	Action 1: Construct basins, including Carpenter Canyon Basin, which would reduce storm water runoff entering the Pahrump Valley. Action 2: Discourage the disruption of natural flowage patterns and encourage the maximum use of natural drainage ways. Action 3: Require engineered floodplain and hydrologic analysis to be prepared for new large development projects within the 100-year floodplain.	Goals 2, 6 Objectives 6A

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NYE COUNTY HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Hazardous Materials Events	<p>Goal 6: Reduce the possibility of damage and losses due to hazardous materials events.</p> <p>Objective 1: Protect existing assets and new developments from hazardous materials events.</p>	<p>Action 1: Require businesses that use, store, or transport hazardous materials to ensure that adequate measures are taken to protect public health and safety.</p> <p>Action 2: Work with Nevada Department of Transportation to require all transport of hazardous materials follow approved routes.</p> <p>Action 3: Use the County's website to pool information regarding the safe handling and disposal of household chemicals.</p>	<p>Goals 2, 3 Objective 3B</p> <p>Yucca Mountain is located in Nye County's jurisdiction making nuclear waste one of their concerns. The State of Nevada Nuclear Waste Project Office manages activities in Yucca Mountain. Additionally, DOE through NDEM funds infrastructure for nuclear waste transportation.</p>
Land Subsidence	<p>Goal 7: Reduce the possibility of damage and losses due to land subsidence.</p> <p>Objective 1: Protect existing assets and new developments from land subsidence.</p>	<p>Action 1: Develop and adopt setbacks from mapped faults to help mitigate future fissure losses.</p> <p>Action 2: Support an ordinance that will ensure effective withdrawal of groundwater that will not precede or exacerbate land subsidence.</p>	<p>Goal 2 Objective 2C</p> <p>This hazard is rated high by Nye County.</p> <p>The State rates land subsidence as low. Future iterations of this plan will consider local jurisdictions' concerns about this hazard if necessary.</p>
Thunderstorms	<p>Goal 8: Reduce the possibility of damage and losses due to thunderstorms.</p> <p>Objective 1: Protect existing assets and new developments from thunderstorms.</p>	<p>Action 1: Install/maintain lightning detection systems for public outdoor venues.</p> <p>Action 2: Develop an annual free curb-side dead tree and branch removal pick-up program to protect structures from a thunderstorm event.</p> <p>Action 3: Install lightning rods near public outdoor venues and critical facilities to carry the electrical charge of lightning bolts safely to the ground.</p>	<p>Goals 2, 3 Objective 3B</p>
Wildland Fires	<p>Goal 9: Reduce the possibility of damage and losses due to wildland fires.</p> <p>Objective 1: Protect existing assets and new developments from wild land fires.</p>	<p>Action 1: Enforce the current versions of the Urban-Wildland Interface Code.</p> <p>Action 2: Continue to conduct current fuel management programs (weed abatement programs) and investigate and apply new and emerging fuel management techniques.</p> <p>Action 3: Develop and adopt defensible space measure for new master planned communities and subdivisions</p> <p>Action 4: Develop a public outreach campaign of the extreme wildland fire dangers and steps that can be taken to reduce these dangers.</p> <p>Action 5: Develop an annual free curbside dead tree and weed removal pick-up program.</p> <p>Action 6: Work with BLM and USFS to conduct fuel reduction project on federal property surrounding each community.</p>	<p>Goals 2, 5 Objectives 2C, 5A</p> <p>Nye County has two extreme rated communities Lone, and Manhattan.</p>

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Mitigation Strategy

NYE COUNTY HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Windstorms	<p>Goal 10: Reduce the possibility of damage and losses due to windstorms.</p> <p>Objective 1: Protect existing assets and new developments from windstorms.</p>	<p>Action 1: Develop restrictions on planting large or rapidly-growing trees near power lines and major arterials.</p> <p>Action 2: Develop a program to assist property owners in selecting trees that are power line friendly.</p> <p>Action 3: Improve the safety and reliability of overhead lines through improved design, maintenance, right-of-way management, and inter-utility cooperation.</p> <p>Action 4: Adopt prescriptive high wind design standards for new critical facilities.</p>	<p>Goal 2 Objective 2C</p> <p>The State rates windstorms as moderate. Future iterations of this plan will consider local jurisdictions' concerns about this hazard if necessary.</p>
Winter Storms	<p>Goal 11: Reduce the possibility of damage and losses due to winter storms.</p> <p>Objective 1: Protect existing assets and new developments from winter storms.</p>	<p>Action 1: In areas of risk to winter storms, retrofit public buildings to withstand snow loads and prevent roof collapse.</p> <p>Action 2: Develop a storm water management plan for snow melt.</p> <p>Action 3: Develop a public outreach campaign that teaches people how to winterize a house, barn, shed, or any other structure that may provide shelter for family members, neighbors, livestock, or equipment.</p>	<p>Goals 2, 3 Objectives 2C, 3B</p> <p>The State rates winter storms as moderate. Future iterations of this plan will consider local jurisdictions' concerns about this hazard if necessary.</p>

WASHOE COUNTY MULTI-HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Multi-Hazard	<p>Goal 1: Protect life during and after the occurrence of disaster from identified hazards (Health and Safety)</p> <p>Objective 1: Support collection, study and analysis of all hazard data within the jurisdiction.</p>	<p>Action 1: Earthquake-Support UNR to study and analyze the Reno-Carson City urban corridor on earthquake hazards.</p>	<p>Goals 3, 5 Objective 5B</p>
Multi-Hazard	<p>Objective 2: Review and research possible enhancement of existing local code, regulations and statutes.</p>	<p>Action 1: Drought-Promote incentives and identify additional funding sources for water conservation.</p> <p>Action 2: Flood-Assess flood-plain development policies.</p> <p>Action 3: Wildfire-Identify and target high-risk neighborhoods.</p>	<p>Goals 2, 6 Objectives 2C, 6A</p>

SECTION FOUR

Mitigation Strategy

WASHOE COUNTY MULTI-HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Multi-Hazard	Objective 3: Encourage networking of community, civic, and governmental entities.	Action 1: Flood- Support the Washoe County mitigation team for review and prioritization of proposals annually. Action 2: Avalanche- Build snow fence above Crystal Bay. Action 3: Multi-Hazard- Procure equipment to more effectively manage information during events. Action 4: Multi-Hazard- Review and present recommendations for improvement of existing information sharing system. Action 5: Flood- Promote no adverse impact approach to flood-plain management.	Goals 1, 2, 3, 6 Objectives 1C, 2C, 3A, 3B, 6A Washoe County has an excellent GIS program.
Multi-Hazard	Objective 4: Support redundant energy systems for critical facilities.	Action 1: Energy- Identify critical facilities with need of redundant energy systems.	The State considers energy emergencies as a result of extreme hazard or national economic event. Future iterations of this plan will consider local jurisdictions' concerns about this emergency if necessary.
Multi-Hazard	Goal 2: Protection of emergency response capability Objective 1: Seek funding for training of first responders for all hazards.	Action 1: Terrorism- Seek funding for terrorism responders. Action 2: Hazmat- Exercise current regional LEPC Haz Mat plan. Action 3: Hazmat- Train first responders on Hazmat at operations level. Action 4: Multi-Hazard - Train first responders to an ICS-300 level.	Goals 1, 3 Objectives 1C, 3A
Multi-Hazard	Objective 2: Conduct frequent exercises to include all first responder disciplines and neighboring communities (Triad group).	Action 1: Bio-agriculture - Develop a plan for public health response to bio-agricultural hazards.	The State considers bio-agriculture under infestations and rates this hazard as low. Future iterations of this plan will consider local jurisdictions' concerns about this hazard if necessary.
Multi-Hazard	Objective 3: Update all hazard emergency plans.	Action 1: Earthquake- Support UNR to study and analyze the Reno-Carson City urban corridor on earthquake hazards. Action 2: Civil Disorder- Develop a plan to mitigate civil disorder during special events. Action 3: Nuclear Waste- Develop contingency plans for transportation of low-level nuclear waste. Action 4: Severe Storm- Analyze existing snow and ice removal plans and recommend solutions to shortcomings.	Goals 2, 5 Objectives 2C, 5A The State of Nevada Nuclear Waste Project Office manages activities in Yucca Mountain. Additionally, DOE through NDEM funds infrastructure for nuclear waste transportation.

SECTION FOUR

Mitigation Strategy

WASHOE COUNTY MULTI-HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
Multi-Hazard	<p>Goal 3: Protection of residences, businesses, industry and public property.</p> <p>Objective 1: Educate the public about health and safety precautions for all hazards.</p>	<p>Action 1: Avalanche-Public Awareness for Incline Village and Crystal Bay areas.</p> <p>Action 2: Earthquake-Public awareness and education about non-structural mitigation and earthquakes.</p> <p>Action 3: Earthquake-Plan regional meetings and workshops in Washoe County.</p> <p>Action 4: Flooding - Public awareness training of flooding dangers and mitigation in conjunction with TMWA.</p> <p>Action 5: Severe Storm - Continuing public awareness through the "Storm Ready Community" campaign with NOAA.</p> <p>Action 6: Drought - Promote water conservation.</p> <p>Action 7: Hazardous Materials - In conjunction with LEPC and HazMat Triad develop PSAs on Hazmat dangers.</p> <p>Action 8: Terrorism - Conduct four workshops annually to educate the public on responding to terrorism activities.</p> <p>Action 9: Wildfire - Develop and coordinate PSAs on wildfire risks.</p> <p>Action 10: Bio-agriculture - Public awareness of health safety for bio-agricultural events.</p> <p>Action 11: Volcanic Eruption - Develop brochures on potential hazards about volcanic activity and evacuation routes.</p> <p>Action 12: Energy - In coordination with State government and utilities, develop PSAs for conservation of energy during high peak periods.</p>	<p>Goals 2, 3, 5</p> <p>Objectives 2C, 3B, 5A</p>

SECTION FOUR

Mitigation Strategy

WASHOE COUNTY MULTI-HAZARD MITIGATION PLAN			
Hazard	Goal/Objective	Action Items	Analysis
	Objective 2: Promote structural and non-structural mitigation activities through incentive based programs	Action 1: Earthquake - Promote non-structural mitigation for five hospitals. Action 2: Earthquake - Provide basic non-structural mitigation for eighty-eight schools. Action 3: Wildfire - Create an incentive program to mitigate fire hazards. Action 4: Earthquake - Promote nonstructural mitigation for senior centers. Action 5: Drought - Coordinate with UNR Agricultural Department in support of water conservation programs for farming communities.	Goal 5 Objective 5A
	Objective 3: Emphasize requirements for special needs population.	Action 1: Energy - Work with utility partners to identify special needs population.	Goal 1 Objective 1C
	Goal 4: Ensure the efficient use of public funds. Objective 1: Use volunteer and civic groups to enhance response to all hazards.	Action 1: Wildfire - Promote local fire safety chapters.	Goals 1, 5 Objectives 1C, 5A
	Objective 2: Use existing Washoe County Hazard Mitigation Team to prioritize mitigation projects.		
	Objective 3: Use the FEMA STAPLEE process to ensure that benefits exceed costs for proposed projects.		Goal 1 Objective 1C

The tribal entities have chosen to develop mitigation plans as a governmental entity at the State level. Their planning process did not include a review by the State of Nevada. They received their funding directly from FEMA. Therefore Nevada provides technical assistance to tribal entities only when requested.

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 2006

4.5.1 Current Funding Sources

The following table shows the major sources of 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

Description	Comments
FEMA	For pre-disaster and post-disaster mitigation and emergency funding
Army Corps of Engineers (ACE)	Mitigation and emergency funding for any navigable river, stream, or waterway
BLM	Funding for plans and projects for wildfire and urban-wildfire interface
Nevada Fire Safe Council	Administers state and federal money for wildfire mitigation efforts
Nevada Earthquake Safety Council	Allocates FEMA money for earthquake mitigation efforts
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's portion of the National Earthquake Hazard Reduction program.
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

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 for mitigation activities. This table will be updated as the Subcommittee discovers new potential funding sources for implementing mitigation activities.

Table 4-12
Potential Funding Sources

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	Donations, public awareness, and/or mitigating their structures for hazard safety

Private Sources	Comments
companies.	
Private Insurance Companies Farmers Insurance, AIG, Allstate, etc.	Public awareness, incentives for mitigation activities, and mitigation training.

4.5.3 Sources of Nevada's Mitigation Funding Since 2004

Since 2004, the State of Nevada has used the following funding sources for mitigation activities. Table 4-13 provides a list of the major sources of funding currently identified since 2004. 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 4-6 in Sections 4.2.1 to 4.2.4.

Table 4-13
Sources of Nevada Hazard Mitigation Funding Since 2004

Funding Source Description	Types of Hazard Mitigation Funding Comments
US Army Corps of Engineers	Design and construction of local flood control projects, riverbank protection, floodplain management, etc.
Bureau of Land Management	Funded CWPPs and WUIs
US Department of Agriculture	Animal disease, rural development, flood control projects, etc.
US Department of Energy	Stream gauging, flood monitoring, disaster mitigation planning and technical assistance, disaster resistance jobs and workplaces, etc.
US Department of Health and Human Services	Medical emergency management and mitigation, training and preparedness, etc.
US 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.
US Geological Service	Earthquake hazard reduction, mapping, etc.
Housing Urban Development	CDBG
National Science Foundation	Earthquake risk reduction

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