

This section demonstrates the extent to which this plan is integrated with other State and regional programs as well as with FEMA programs and initiatives. It describes current mitigation program management capabilities and discusses how mitigation efforts can be better integrated with those programs via legislative, policy, institutional, substantive, functional, and financial perspectives. Included is an analysis of mitigation actions and effective use of funds and a system and strategy for monitoring the effectiveness of mitigation efforts and updating the SHMP in the future. It also addresses FEMA criteria for qualifying the 2013 plan as an enhanced plan. *Updates to this section include the revision to reflect the management of all HMA grants by NDEM, updates in the HMA review, ranking and review process due to NHMPC streamlining, NDEM modified terminology for the damage assessment teams. Of note, is the escalation of local and tribal planning activities due to increased awareness during the local planning process. This results in continued implementation of plans.*

8.1 INTEGRATION WITH OTHER PLANNING INITIATIVES

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

DMA 2000 REQUIREMENTS: PLAN MAINTENANCE PROCESS

Integration with Other Planning Initiatives

Requirement §201.5(b)(1): [An Enhanced Plan must demonstrate] that the plan is integrated to the extent practicable with other State and/or regional planning initiatives (comprehensive, growth management, economic development, capital improvement, land development, and/or emergency management plans) and FEMA mitigation programs and initiatives that provide guidance to State and regional agencies.

Element

Does the **new or updated** Enhanced Plan demonstrate how it is integrated to the extent practicable with other State and regional planning initiatives (comprehensive, growth management, economic development, capital improvement, land development, and/or emergency management plans)?

Does the **new or updated** Enhanced Plan demonstrate how it has been integrated to the extent practicable with FEMA mitigation programs and initiatives that provide guidance to State and regional agencies?

Source: FEMA, Enhanced State Hazard Mitigation Plan Review Crosswalk 2007

8.1.1 Integration with Other Planning Initiatives

Sections 2.1.2 and 2.1.3 of the 2013 SHMP provide a legal, institutional, and policy framework that allows the State to readily integrate advances in hazard mitigation practice in Nevada and provide a framework for the local and tribal communities to do the same. Tables 2-1 and 2-2 of Section 2 identify emergency management and hazard mitigation responsibilities of over thirteen different state agencies, one tribal agency and two local agencies who are involved in the Nevada Hazard Mitigation Planning Committee. Table 2-7 in Section 2.3.1 provides a detailed listing of the integration of the State plan with more than 15 other major state hazard planning efforts, most of which bear on the highest ranked natural hazards in the State – earthquake, flood, and wildfire. Through the efforts of the NHMPC members, other stakeholders

are, at minimum, made aware of the state hazard mitigation planning process and vice versa; members bring to the table the policies and plans developed by other entities outside of state government. One example of this is the participation of some NHMPC members in the Nevada Earthquake Safety Council which in turn works closely with the Western States Seismic Policy Council. Their policies are discussed at length at the NESC meetings and presented at the NHMPC meetings for consideration at the state level through common membership. These policies provide guidance in the earthquake mitigation strategy for the state. A sample of these policies can be found in Appendix O.

A second example is the participation of the Nevada Division of Forestry (NDF) on the NHMPC. NDF staff provide assistance in the development of local and tribal hazard mitigation and contribute to the State plan in the areas of risk assessment, history, and development of goals and objectives for wildfire hazard. NDF also works closely with federal agencies who manage much of Nevada's land when planning wildfire mitigation strategies. The wildfire strategies found in the state plan are based on the regional 10-Year Comprehensive Strategy Implementation Plan developed by the Western States Governor's Association, updated in 2006, which can be found at the following website:

<http://www.fs.fed.us/news/2006/releases/12/10-year-strategy-december-2006.pdf>

Another example is the partnership with Division of Water Resources in RiskMap resilience activities in coordinating meetings with communities to discuss the risks of flood with customized portfolios showing potential flash flooding locations.

Local planning efforts, such as the Truckee River Flood Management Authority's Living River Plan, which can be found at http://truckeeflood.us/55/living_river_plan.html, are integrated into the Washoe County's Regional Hazard Mitigation plan. Both plans address activities to mitigate flooding in all communities situated along the Truckee River. The County's plan is integrated into the state plan. Additionally, the Carson Water Subconservancy District (CWSD) works closely with local, state and tribal agencies to preserve the Carson River watershed and reduce flooding using a regional approach. The CWSD developed a plan for the watershed drafted in conjunction with mutual members of the NHMPC and CWSD.

8.1.2 Integration with FEMA Programs

Table 2-7 lists FEMA mitigation programs and initiatives, the pertinent hazards, a brief statement of the mechanism for integration of the Nevada State plan and local plans with the FEMA program. The pertinent goals and strategic actions are fully outlined in Table 4-2.

Additional efforts to integrate hazard mitigation planning with different planning mechanisms at the local level are demonstrated by NHMPC holding its meetings in rural communities and bringing awareness of risks and activities that enhance the resiliency of each individual community visited. It is also notable that the NHMPC membership includes a representative whose responsibility is implementing one or more of the FEMA mitigation programs. As the Subcommittee expands to include more stakeholders in the process of updating the state plan, so grows its integration with other planning mechanisms and the FEMA mitigation programs.

These stakeholders in turn bring to the planning process their vast network of working relationships with other local, tribal, state and federal agencies that promote integration of mitigation plans and FEMA's programs. During this update process the Subcommittee acquired new representatives from the Washoe Tribes, Nevada Division of Insurance, Nevada State Hospital Association, Safety Specialist Consultants, Nevada Threat Assessment Center, and the State Public Works Board. The resulting plan is used as a guide by other agencies and communities in Nevada in the development of their mitigation strategies and plans. The Nevada Bureau of Mines and Geology is assisting in the development of a web-based, all-hazard risk assessment guide called MyPlan that will greatly enhance our ability to provide aid to the counties and other entities.

In coordination with the FEMA RiskMap program, mitigation staff developed a new program integration activities by partnering with the Floodplain Manager and Division of Water Resources to implement Table Top Exercises for the review and evaluation of currently approved hazard mitigation plans.

Table 4-3 in Section 4.2.1 presents the state's capability to mitigate the hazards described in Section 3 and demonstrates pre-and post-disaster hazard management policies, programs, and capabilities. It also presents the state's funding capabilities for hazard mitigation projects - whether it can support, facilitate, or fund such projects. Support implies that the state manages federally-funded programs. The state facilitates mitigation programs by providing technical assistance to local, tribal, and other entities. The last column provides details of each listed program or agency and its policies and capabilities to mitigate hazards in the state. Even a brief perusal of this chart reveals that there are dozens of available programs, mostly at the federal level, which the State of Nevada and locals are eligible to apply for to support and facilitate hazard mitigation projects for all types of hazards in the state.

8.2 PROJECT IMPLEMENTATION CAPABILITY

DMA 2000 REQUIREMENTS: PLAN MAINTENANCE PROCESS

Project Implementation capability

Requirement §201.5(b)(2)(i): [An Enhanced Plan must document] the State's project implementation capability, identifying and demonstrating the ability to implement the plan, including:

- established eligibility criteria for multi-hazard mitigation measures.
- A system to determine the cost effectiveness of mitigation measures, consistent with OMB Circular A-94, guidelines and Discount Rates for Benefit-Cost analysis of Federal Programs, and
- [A system] to rank the measures according to the State's eligibility criteria..

Element

Does the **new or updated** Enhanced Plan demonstrate that the State has established eligibility criteria for multi-hazard mitigation measures? **Does the updated Plan describe changes, if any, to those criteria?**

Does the **new or updated** Enhanced Plan describe the State's system for determining the cost effectiveness of mitigation measures, consistent with OMB circular A-94? **Does the updated Plan describe changes, if any, to this system?**

Does the **new or updated** Enhanced Plan describe the State's system to rank the measures according to the State's eligibility criteria, **including a process to prioritize projects between jurisdictions and between proposals that address different or multiple hazards?**

Source: FEMA, Enhanced State Hazard Mitigation Plan Review Crosswalk 2007

Since 2012, NDEM administers all of the five federal hazard mitigation grant programs in the Unified Hazard Mitigation Assistance program, each of which is addressed in this section:

- Hazard Mitigation Grant Program (HMGP)
- Pre-Disaster Mitigation Grants (PDM)
- Flood Mitigation Assistance Grants (FMA)

(In the last iteration, DEM administered only two of these programs, with the others administered by the Nevada Division of Water Resources)

Each of these programs requires applications for proposed activities (usually planning and project activities) and is reviewed for the following:

1. Consistency with federal and state eligibility criteria (Section 5.3)
2. Consistency with state mitigation priorities (Table 4-10)
3. Rank based on state ranking criteria (Section 5.3.1.1 and Figure 8-1 below)

8.2.1 Establishing Eligibility Criteria for Multi-Hazard Mitigation Measures

Before forwarding applications to FEMA, NDEM, DWR and NHMPC review proposed activities to ensure consistency with federal and state criteria. DEM documents the review and keeps a record of it. Figure 8-1 is an excerpt from the currently approved HMA Administrative Plan showing the eligibility criteria used by both DEM and DWR in reviewing applications for funding of mitigation activities under the HMA programs.

The first step in the eligibility review is done when the Notice of Intent (NOI) is submitted by the possible subapplicant. The SHMO and the Floodplain Manager jointly review these notices against the current guidelines and the eligibility criteria found in Figure 8-1 to ensure that both the subapplicant and the proposed project are eligible. A formal notification about the eligibility of each NOI is forwarded to each submitting entity stating the eligibility of the proposed activity. This is done prior to the NHMPC review to ensure that eligibility criteria are met prior to the subapplicant's investment of time in the benefit cost analysis and completion of the remaining required documentation such as commitment letters.

Next, the applications are reviewed by the NHMPC to provide feedback to eligible subapplicant and to ensure the application is feasible, cost effective, and is a long-term solution to the risk.

Any recommended revisions are formally presented to the subapplicant to revise. The subapplicants have several weeks to make the recommended revisions and enhance the application prior to a final review by the SHMO, Floodplain Manager (FM), and Mitigation Specialist who work with the subapplicant in making revisions to comply with the recommendations made by the NHMPC members.

Next, applications are prioritized by NHMPC using a numerical scoring process for clarity, consistency, and accuracy. This is done at open meetings where the scores from each NHMPC member are tabulated, added and averaged with the highest scoring proposals rating higher in priority. Immediately after prioritization, the SHMO and/or FM notify all participating subapplicants of the prioritization results and submit all applications to FEMA.

For HMGP funding, applications are submitted to FEMA in order of the priority assigned with consideration to the amount allocated to the state. Applications may be submitted out of order to ensure the use of all funding allocated.

Ranking and Selection of Applications

1. The NHMPC will be the review, ranking and selection panel for the Hazard Mitigation Assistance (HMA) program funding sources listed below.
 - a. Hazard Mitigation Grant Program (HMGP),
 - b. Pre-Disaster Mitigation Competitive (PDM),
 - c. Flood Mitigation Assistance (FMA),
 - d. Repetitive Flood Claim (RFC), and
 - e. Severe Repetitive Loss (SRL) grant programs.
2. Each application will be reviewed for eligibility. It is the function of the NHMPC to review, prioritize and select projects for submission to FEMA for approval and funding.
3. Prioritization Criteria for HMA Applications

Any application for mitigation funding must include all necessary data to allow the NDEM, NDWR and the NHMPC to evaluate the project in terms of the criteria listed below.

The NHMPC will use the "NHMPC Prioritization Form" as a tool to help prioritize applications. The form uses the Prioritization Criteria for HMA Applications, Section I-3 "a" through "h" as applicable (weighted 40 percent) and the Additional Selection Criteria in Section I-4 "a" through "h" (weighted 60 percent) to prioritize applications submitted for funding under the HMA programs. Life safety issues shall be the primary consideration during evaluation of an application.

- a. Community Population Affected. The percent of the population benefiting, which equals the number of individuals directly benefiting divided by the community population.
- b. Public Perception of Need. The application will be evaluated in terms of satisfying the public's desire to see their money spent on "worthwhile" activities and the public's perception of the need.
- c. Emergency Access and Public Inconvenience. **Project** applications will be evaluated to determine its impact on the access of emergency vehicles including police, ambulance, and fire vehicles to their respective substation, hospital or station. The evaluation will include an assessment of the project's contribution to the accessibility to isolated residences, businesses, and public facilities created by the hazard. **For planning applications**, the application demonstrates the performance of plan maintenance and implementation of mitigation activities.
- d. Benefit Cost Analysis (BCA). The cost effectiveness of the **project** resulting in a BCA ratio equal to 1. **For planning applications**, the thoroughness of the scope of work demonstrating an understanding of the planning process and a methodology for completing the proposed mitigation plan.
- e. Availability of Other Funding Sources. This includes an evaluation of the potential for funds from other grants, and other public and private interests. Low score if other funding is available.

- f. Timing and Implementation. All aspects of timing and implementation will be considered under this item including, but not limited to, the ability to administer, begin, and complete a project or plan within the performance period.
 - g. Environmental Enhancement. Evaluation of this criterion, for **project** applications, includes benefits derived from improving or mitigating the threat to public health. It also includes, if applicable, information on the project's enhancement of habitat, recreational opportunities, and water quality.
 - h. A **project's** resilience, sustainability and maintenance plan. Resilience is the ability to recover after an event. Sustainability is the environmental, social and economic concerns. The designation of a responsible party, schedule and funding for continued maintenance during the life expectancy of the project. For planning applications, the description of unique or innovative outreach activities appropriate to the planning process that advance mitigation and/or serve as a model for other communities.
4. Additional Prioritization Considerations

The NHMPC will evaluate and prioritize all eligible applications using the criteria in 3 above and the considerations (a-h) below. See NHMPC Prioritization Form following this section. This ranking will be in accordance with the criteria in 44 CFR Section 206.

 - a. Requests for funding must be consistent with the State and Local Hazard Mitigation Plans.
 - b. Measures that, if not taken will have a detrimental impact on the subgrantee, such as potential loss of life, loss of essential services, damage to critical facilities, or economic hardship on the community.
 - c. Measures that have the greatest potential impact on reducing future disaster losses (Repetitive Loss Properties).
 - d. Measures designed to mitigate multiple hazards and/or accomplish multiple objectives including damage reduction, environmental enhancement, and economic recovery.
 - e. Measures that optimize the total amount of funding available, including overmatching of Federal funds with non-Federal funds when developing this ranking.
 - f. NHMPC will also consider the level of interest and demonstrated degree of commitment of each subgrantee.
5. The NHMPC makes the final decision on applications the State submits to FEMA .
6. When submitting more than one application to the State , the subgrantees must provide an internal ranking to the NHMPC.

PRIORITIZATION EVALUATION

Application Prioritization Criteria Section I-4 "a" through "h" (weighted 40 percent) and the Additional Selection Criteria in Section I-5 "a" through "g" (weighted 60 percent) will be rated by the NHMPC's Proposal Review Subcommittee on a scale of zero (0) through ten (10). The Subcommittee will use the total point values in the **PRIORITIZATION FORM** below as a guide to the overall evaluation.

Figure 8-1. Review, Ranking, and Selection Process

NHMPC Prioritization Form	
Subgrantee: _____ Activity Name: _____	
Ranking and Selection of Applications:	
Application Prioritization Criteria (I-3)	Assigned Value (0 - 10)
a. Population Affected	_____
b. Public Perception of Need	_____
c. Emergency Access and Public Inconvenience	_____
<i>For planning applications: Performance of current plan maintenance activities & Implementation of mitigation activities.</i>	_____
d. Cost Effectiveness of the Project (BCA=1) (10 pts)	_____
<i>For planning applications: (15 pts) Understanding of the planning process and a methodology for completing the proposed mitigation plan.</i>	_____
e. Availability of Other Funding Sources	_____
f. Timing and Implementation	_____
g. Environmental Enhancement (10 pts)	_____
<i>For planning applications: (0 pts)</i>	_____
h. Resilience, Maintenance & Sustainability of Project (10 pts)	_____
<i>For planning applications: (15 pts) The description of unique or innovative outreach activities</i>	_____
Subtotal Prioritization Criteria (I-3, a thru h)	_____
Subtotal Criteria - (80-Point Maximum)/2 =	_____
Additional Prioritization Considerations (I-4)	
a. Consistent with State & Local Mitigation Plan	_____
b. Detrimental Impact if Not Taken	_____
c. Greatest Impact to Reduce Future Disaster Losses	_____
d. Mitigate Multiple Hazards and/or Accomplish Multiple Objectives	_____
e. Optimize Total Funds Available	_____
f. Local Level of Interest & Degree of Commitment to Project	_____
Additional Considerations Combined (I-4, a thru f)	_____
(Max. 60 points)	_____
Total Criteria + Considerations	_____
	(Max. 100 points)

Figure 8-2. NHMPC Application Prioritization Form

8.2.2 System to Determine the Cost Effectiveness of Mitigation Measures

FEMA-funded proposed activities must meet the criteria described in OMB Circular A-94 Guidelines. NDEM uses the most current version of FEMA's Mitigation Benefit-Cost Analysis (BCA) Toolkit, presently found in the portal at www.BCAhelpline.com which incorporates the discount rate and present day value in the B/C ratio calculations. Grant sub-applicants perform the benefit-cost analysis for each project application. Currently DEM provides basic benefit-cost training to potential applicants as part of the application workshops, allowing the applicants to perform their own analysis and request assistance from the helpline for complex questions. Advanced BCA courses are offered by FEMA, although not regularly in Nevada. DEM makes an effort to notify possible Nevada subgrantees about neighboring states venues where FEMA conducts such training. FEMA provided a training class on the newest version of its benefit cost analysis software this at the end of March 2013 in Carson City. At the state level, all proposed mitigation activities must be cost-effective as stated in criterion 3-d of Figure 8-1.

8.2.3 System to Rank the Measures According to the State's Eligibility Criteria

A task force of the NHMPC developed the criteria described in Figure 8-1 when the Pre-Disaster Mitigation competitive grant program was initiated in 2003. These criteria are now used to prioritize mitigation activities for all HMA programs that are managed by NDEM. NHMPC members are very knowledgeable about Nevada's communities, their risks, vulnerabilities, capabilities, and mitigation strategies. Together, the group has combined expertise in the identified and profiled highest-risk hazards for Nevada giving them the necessary professional background to address the proposals for all hazards and to allow competitiveness among a set of very diverse rural and urban communities.

PRIORITIZATION EVALUATION

Application Prioritization Criteria Section I-3 "a" through "h" (weighted 40 percent) and the Additional Selection Criteria in Section I-4 "a" through "f" (weighted 60 percent) will be rated by the NHMPC on a scale of zero (0) through ten (10). The Committee will use the total point values in the **PRIORITIZATION FORM** in Figure 8-2 below as a guide.

SUBMISSION OF SELECTED PROJECTS TO FEMA

1. The SHMO will prepare a project package for submission to FEMA containing:
 - a. A narrative describing the anticipated project benefits, justification for recommendation and rationale for project selection;
 - b. A certification that the project meets all eligibility requirements;
 - c. The grantee and subgrantee must review the information submitted for content and make sure all documentation (such as maps, etc.) are included so FEMA can complete a NEPA review; Compliance with the National Environmental Protection Act (NEPA) is a FEMA responsibility.
 - d. A completed SF 424, Application for Federal Assistance, signed by the GAR;
 - e. All projects and supplements must be submitted to FEMA no later than one year from the declaration date or upon approval for extension.
2. The NHMPC will review, approve and prioritize selected projects for submission to FEMA.
3. Upon FEMA project approval, the SHMO will notify the NHMPC and subgrantees of which projects have been approved. A packet containing the following information will be provided to the approved subgrantees:
 - a. Reporting requirements;
 - b. Requesting funds;
 - c. Eligible administrative costs;
 - d. State-Local Disaster Agreement;
 - e. State and Federal Assurances;
 - f. Eligible administrative costs;
 - g. State-Local Disaster Assistance Agreement;
 - h. State and Federal Assurances
4. Upon FEMA disapproval of a project, the SHMO will advise subgrantees of the appeal process as outlined in 44CFR part 206.440.

Nevada is a small state and presidentially declared disasters tend to be sporadic and small in comparison to other states in Region IX. Thus applications for the HMGP program are not submitted in great numbers mostly due to the very limited funding this program brings. Historically all HMGP applications have been submitted to FEMA with a clear prioritization, several funded projects were not feasible due to the local economic conditions during the last three years. In the last three years, Nevada was among the hardest hit states economically. The hazard mitigation program currently has a library of proposed activities not funded under PDM

or FMA for consideration when HMGP or any funding source is available.

Applications not funded by FEMA are subsequently enhanced by the subgrantees using the NHMPC recommendations, and are resubmitted for funding under any funding source when available.

Below is a list of presidential disaster declarations in Nevada for the last decade and the amount allocated for mitigation for each declared disaster.

Table 8-1. Mitigation Funding Under Presidential Disaster Declarations		
Year	Hazard Type	Mitigation Allocation
2012-2013	Drought	**
2008	Flood	\$475,538
2006	Flood	\$652,497
2005	Flood	\$533,519
2004	Wildfire	\$726,941

** Federal funding for drought relief is provided directly to the affected entity and thus is not tracked by the NDEM.

8.3 PROGRAM MANAGEMENT CAPABILITY

DMA 2000 REQUIREMENTS: PLAN MAINTENANCE PROCESS

Program Management Capability

Requirement §201.5(b)(2)(iii A-D): [An Enhanced Plan must demonstrate] that the State has the capability to effectively manage the HMGP as well as other mitigation grant programs, [and provide] a record of the following:

- Meeting HMGP and other mitigation grant application timeframes and submitting complete, technically feasible, and eligible project applications with appropriate supporting documentation;
- Preparing and submitting accurate environmental reviews and benefit-cost analysis;
- Submitting complete and accurate quarterly progress and financial reports on time; and
- Completing HMGP and other mitigation grant projects within established performance periods, including financial reconciliation.

Element

Does the **new or updated** Enhanced Plan describe the State's capability to effectively manage the HMGP as well as other mitigation grant programs?

Does the **new or updated** Enhanced Plan provide a record for meeting HMGP and other mitigation grant application timeframes and submitting complete, technically feasible, and eligible project applications with appropriate supporting documentation?

Does the **new or updated** Enhanced Plan provide a record for submitting complete and accurate quarterly progress and financial reports on time?

Does the **new or updated** Enhanced Plan provide a record for completing HMGP and other mitigation grant projects within established performance periods, including financial reconciliation?

Source: FEMA, Enhanced State Hazard Mitigation Plan Review Crosswalk 2007

8.3.1 Effective Management of HMA Programs

NDEM now administers all of the five federal hazard mitigation grant programs in the Unified HMA program. Both the SHMO and the FM continue to work very closely to implement all applicable mitigation programs. NDEM uses the established application review process shown in Figure 8-3 to ensure timely and adequate implementation of the HMA programs.

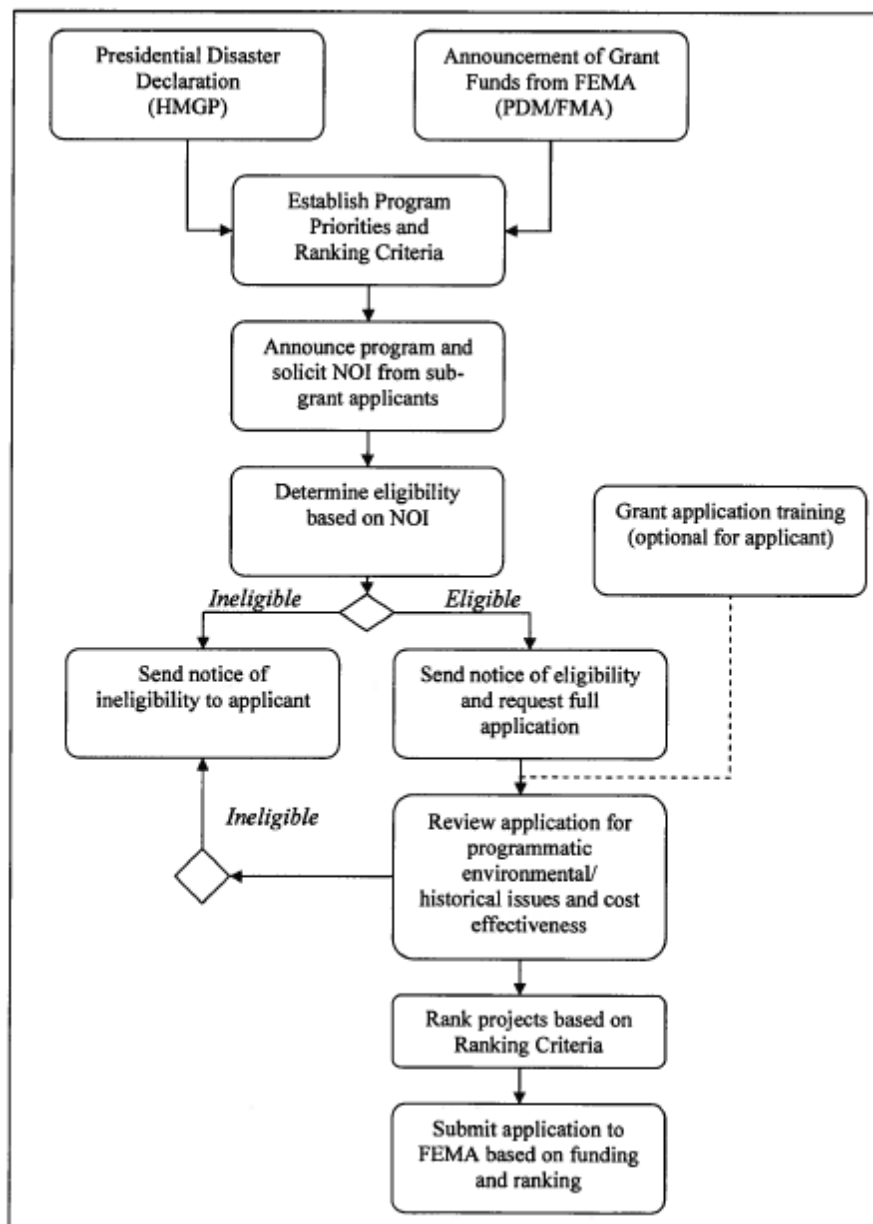


Figure 8-3. Mitigation Activities Review Process

The functions of the SHMO include the following:

1. Working with communities to develop appropriate grant applications for the HMA programs.
2. Fiscal management of grants when received.
3. Grant close-outs.

Based on the number of awards in the 2010-2013 period, NDEM has a successful record of meeting mitigation grant application timeframes and submitting complete, technically feasible, and eligible proposed activity applications with appropriate supporting documentation.

When the new federal guidelines for HMA funding are available, the SHMO and the FM hold intensive application training workshops at least once per year to increase the quality of applications. These training workshops cover specific grant programs, how to prepare an application, how to conduct a BCA, how to use the E-Grant system, and how to meet all basic requirements of each grant category. Before each new grant cycle or award, the SHMO reviews scoring criteria and considers FEMA changes to grant requirements and criteria. The SHMO notifies the NHMPC and potential subapplicants quickly if any modifications affect the criteria or process. This ensures that NDEM procedures are up-to-date and consistent with federal direction in hazard mitigation.

During the 2010-2013 period, NDEM has successfully processed 13 hazard mitigation awards under HMA programs one of which was an FMA project. All applications submitted were reviewed and the sub-applicants were provided feedback about proper documentation and the environmental questionnaire. Feedback and cooperation with the subgrantees occupy the available time of the State Hazard Mitigation Officer and one NDEM part-time staff member. Nevada exceeded its funding minimum allocation of \$500,000 in the PDM program in 2010 through 2013. A listing of open, closed and pending awards is maintained by the SHMO in a spreadsheet format that tracks expiration date, quarterly reporting, closure and balances. This information is provided to the NHMPC and the public on a quarterly basis.

Program and financial reports for each award are reviewed by mitigation staff for completeness, content and appropriate programmatic responses. Mitigation staff, SHMO or Mitigation Specialist, will record any discrepancy or concern found in this initial review in the appropriate file, request a technical assistance meeting with the subgrantee to discuss the issue and note any corrective actions in the report for reference. Follow-up calls, emails and, if necessary, visits, are made to ensure the corrective actions are completed. Fiscal staff will accompany mitigation staff occasionally or depending on the corrective action.

Upon completion of the review by mitigation staff, the reports are forwarded to fiscal staff who audits them for consistency, accuracy, and eligibility of expenditures. Fiscal staff process reimbursement of funding based on quarterly report audits. Fiscal staff also maintain grant reconciliation reports showing balances and expenditures per grant by calendar year. A declining balance report for each HMA award is maintained allowing for consistent tracking of

balances. Mitigation staff members use these reports to manage the awards and to update NHMPC at quarterly meetings. A sample of the Monthly Reconciliation report is shown below in Figure 8-4.

PRE-DISASTER MITIGATION FFY-7
MANAGEMENT COSTS - PROJECT # 9701887
MONTHLY RECONCILIATION

9701887

GRANT AWARD				CLAIMS							Award Less Claims BALANCE	GRANT CLOSED	REIMB. OF INVOICES	INVOICES REPORTED	Unreported Inv. BALANCE
PLANNING JURISDICTION	AWARD	Deobligated	Additional	TOTAL	1ST QTR.	2ND QTR.	3RD QTR.	4TH QTR.	5TH QTR.	TOTAL CLAIMS					
DEM Mngt Costs	\$ 52,106.65			\$ 52,106.65						\$ -	\$ 62,108.65				\$ -
	\$ 52,106.65	\$ -	\$ -	\$ 62,108.65	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 62,108.65		\$ -	\$ -	\$ -

JOB # 9701887	PROOF
	Fed AWARD
	Less Subgrants
	Unallocated \$ -
AWARD AMOUNT =	Locals Balance \$ 52,106.65
Less Claims: \$ -	
GRANT BALANCE: -	Balance \$ 62,108.65

RECONCILIATION OF EXPENDITURES VS CLAIMS		
08/02/08	DAWN 74.0 3873 Expenditures \$FY08:	-
08/02/08	DAWN 74.0 3874 Expenditures \$FY08:	-
08/31/10	DAWN 74.0 3873 Expenditures \$FY10:	-
08/31/10	DAWN 74.0 3874 Expenditures \$FY10:	-
08/03/10	DAWN 74.0 3873 Expenditures \$FY11:	-
08/03/10	DAWN 74.0 3874 Expenditures \$FY11:	-
	Outstanding:	-
	TOTAL EXPENDITURES:	-
	Less Total Claims:	-
	DIFFERENCE:	-

reconciled on 09/10/10 me

Figure 8-4. Sample Award Tracking Report

8.3.2 Environmental Review and Benefit-Cost Analysis

The SHMO ensures that all applicants have provided all required environmental information and benefit-cost analysis information in the application, including required documentation for all data sources and thorough description of calculations and assumptions. The SHMO and FM rely on the staff of FEMA Region IX, to conduct environmental reviews for construction projects seeking hazard mitigation grant funding from the HMA Programs. Before FEMA approval of a hazard mitigation grant, the project activities must comply with all applicable federal, state, and local codes and standards including the National Environmental Policy Act (PL 91-190, as amended) and all federal laws covered within the act, and for securing the necessary permits and approvals. Nevada does not provide funds to cover environmental reviews.

8.3.3 Quarterly Progress Report and Monitoring

The SHMO submits complete and accurate quarterly progress and financial reports on time. Quarterly reports based on measurable outcomes are generated by the sub-grantee and reported to NDEM. NDEM compiles the reports, assesses the programmatic and financial components, and sends the reports to FEMA. The reports include the following:

- Percent completion of the project
- Progress on milestones identified in the original schedule
- Overall assessment of the schedule
- Adherence to budget (including overruns and underruns)

If subgrantees do not submit timely and accurate quarterly reports or the reports indicate problems associated with the above components, NDEM will provide technical assistance and suggest corrective action. The SHMO requires the subgrantee to submit a plan for corrective action in writing. If the plan of action is not carried through, then payment processing is suspended.

The SHMO monitors the progress by reviewing the Quarterly Progress Report (see Figure 6-2 in Section 6, pages 6-9 and 6-10) and may, at any time, contact the subgrantee to review the project. Subgrantee quarterly reports are received both electronically and as hard copy; packaged by program; filed; and sent to the applicable FEMA Region IX staff. HMGP reporting is provided to FEMA via email and a hard copy via USPS. All other grant reporting is done through the eGrants system.

The success of the reporting and monitoring process is documented by two mileposts:

1. We have successfully tracked the progress and money trail of each of each subgrantee's project through completion and closure.
2. Subgrantees have generally adhered to budget.

One obstacle noted was that the great diversity in the type of projects presents a wide variety of issues to deal with; sometimes a new one with each project; it is a constant learning process.

Despite these challenges, the monitoring and reporting process is working well.

8.3.4 Mitigation Activities Completion and Closeout

The State of Nevada completes all mitigation grant activities within established performance periods, including financial reconciliation. The SHMO is responsible for HMA closeout procedures. Since the approval of the last plan in 2010, NDEM has successfully disbursed and closed out (or is in the close-out process) approximately 8 HMA individual grants and 2 complete HMGP programs.

The Hazard Mitigation Grant Program (HMGP) closeout procedures are initiated when the subgrantee informs the SHMO that the project has been completed and all expenditures are reimbursed. As part of the closeout procedure, the subgrantee is required to submit a final Quarterly Financial Report and cost documentation. The Pre-Disaster Mitigation (PDM) grant closeout procedure is initiated when:

1. The subgrantee informs NDEM that the project is completed, or
2. The performance period for the grant will expire.

As part of the closeout procedure, the subgrantee is required to submit a final Quarterly Financial Report and closeout documentation. For projects, the SHMO performs a site visit prior to closeout to confirm that the project has been completed as stated in the approved scope of work.

Nevada has no SRL properties and our goal is to keep that number at zero.

For each grant program, the SHMO ensures that quarterly reports and closeout documents are submitted on time. NDEM currently has a dedicated auditor position who performs fiscal site audits of subgrantee grant files.

If a project is not close to completion and its performance period is about to expire, first the SHMO evaluates specific details of the project with the subgrantee. The subgrantee is required to submit a plan of action for completion of the work on the project. Usually a request for time extension is sufficient to complete the project goals and objectives. In some cases the subgrantee's agency may provide additional matching funds necessary to complete work on a project. Other innovative approaches may be implemented depending upon the circumstances and the details of the specific project.

8.4 ASSESSMENT OF MITIGATION ACTIONS

DMA 2000 REQUIREMENTS: PLAN MAINTENANCE PROCESS

Assessment of Mitigation Actions

Requirement §201.5(b)(2)(iv): [The Enhanced Plan **must** document] the system and strategy by which the State will conduct an assessment of the completed mitigation actions and include a record of the effectiveness (actual cost avoidance) of each mitigation action.

Element

Does the **new or updated** Enhanced Plan describe the system and strategy by which the State will conduct an assessment of the completed mitigation actions?

Does the **new or updated** Enhanced Plan include the record of the effectiveness (i.e., actual cost avoidance) of each mitigation actions, **including how the assessment was completed?**

Source: FEMA, Enhanced State Hazard Mitigation Plan Review Crosswalk 2007

8.4.1 System and Strategy for the Assessment of Completed Mitigation Actions

Since 2003, NDEM has maintained a database that contains all HMA project files, from initial funding through project completion. This is made up of over 52 projects, 14 of which have been added since 2010. The database provides information on the scope of the projects, local contacts and it also provides examples to other communities of mitigation activities that could be done in their areas.

The database is structured such that in the event of a disaster occurring in the State, the SHMO may check the database to determine if a mitigation project has been funded in the immediate vicinity of that disaster area. Existing project files include locations, project particulars, and local contact people. Local contact is made by the SHMO to request a field report on the effectiveness of the mitigation project, with local participants making a determination of cost-avoidance. This process should provide quality assessment information of the effectiveness of local mitigation projects from the local level. Also, when an event occurs, field-gathered information is used in developing a state emergency proclamation and in requesting a federal disaster declaration. To date, since the implementation of the database, there has not been a disaster occurrence that correlates to a mitigation project type (i.e. earthquake, flood or wildfire) within the affected area of a completed mitigation project to test the effectiveness of the project.

8.4.2 Effectiveness of Mitigation Actions (Loss Reduction)

NDEM currently manages approximately 45 volunteers who participate in State Technical Assistance Response Teams (START), which assess damage after an incident. The START volunteers include representatives from the following agencies and professional groups:

- American Institute of Architects of Nevada
- Clark County School District
- Clear Result Consulting
- Nevada Bureau of Mines & Geology, UNR
- Nevada Department of Administration
- Nevada Department of Business & Industry/Insurance Division
- Nevada Division of Enterprise & Information Technology Services
- Nevada Division of Risk Management
- Nevada Department of Public Safety/Fire Marshal
- Nevada Department of Public Safety/Parole & Probation
- Nevada Department of State Budget
- Nevada Department of Transportation

- Nevada Department of Wildlife
- Nevada Division of Emergency Management
- Nevada Division of Forestry
- Nevada Division of Motor Vehicles
- Nevada Division of Records & Technology
- Nevada Division of Water Resources
- Nevada Public Utilities Commission
- Nevada State Public Works Board
- North Lake Tahoe Fire Protection District
- Northern Nevada Mental Health Services
- Storey County

as well as other members of the private sector.

A complete listing of current START members may be found in Appendix B. This wide range of professional expertise and backgrounds allows the START Teams to work efficiently to assess damage. START volunteers are coordinated by the Public Assistance Officer. Training and meetings of volunteers take place quarterly.

START training sessions have included:

- ATC-20 Post Earthquake Safety Evaluation of Buildings,
- Earthquake hazard mitigation for hospitals
- Calculation of square footage,
- Acquiring latitude and longitude,
- Photographing of damages,
- Use of communication equipment,
- Proper safety procedures
- Media management.
- Incident Command System
- National Incident Management System
- Benefit cost analysis

The SHMO is coordinates with the Public Assistance Officer and FEMA to provide this group with formal training, which in turn allows these volunteers to assess damage, capture data, and prepare reports necessary to complete the studies for losses avoided on completed hazard mitigation projects.

The START teams participate in drills and training provided by emergency management personnel in the state. The table below highlights the major drills which required full activation of the START teams. The group is divided into teams of 3 to 5 members. Each team at minimum is assigned a team leader, public information officer, safety officer, and scribe. Assigned tasks vary with each drill to ensure that everyone is proficient in each and every task.

Table 8-2. START Training Sessions in the 2010-2012 Update Period	
March 15, 2010	START Structural Damage assessment training at NDEM
May 3-4, 2010	ATC 20/FEMA 154
July 2010	Virginia City Earthquake Drill. Assessed damage to 3 city streets with the assumption of a 6.7 magnitude earthquake. Included historical structure evaluation. Provided START to Storey County.
August 18, 2010	"FireStorm" START joint exercise with Virginia City
Nov.,2010	FEMA preliminary damage assessment training –Carson City EOC
August 12, 2011	Classroom and NDEM site training on flood damage assessment and identification and marking of High Water Marks
November 26, 2011	Mexican Dam" exercise- Structural damage and mitigation assessment
February 14, 2012	FEMA E-74 Earthquake Damage Webinar
April 18, 2012	Fire Behavior and PPE training
July 26, 2012	ATC 20 and FEMA 154 refresher class
August 31, 2012	Recovery pocket guide training

The process requires that trained members of the START volunteer program provide a professional assessment of completed mitigation projects and establish a record of the effectiveness (actual cost avoidance) of the mitigation actions. This approach provides statewide coverage to NDEM and provides the support of trained personnel through partnerships with cooperating organizations.

START teams are activated when any disaster event occurs and the affected local jurisdiction requests the assistance of the state in assessing damages, whether there is a Presidential

declaration or not. The assessment process consists of three phases: information gathering; site visit and damage assessment; and reporting of data to NDEM.

1. **Information gathering:** NDEM staff members retrieve files on funded mitigation projects in the immediate area based on location coordinates required for all such projects. This information along with the appropriate START assessment forms for the type of event (earthquake, flood, wildfire) and a summary of the project background are provided to the START team.
2. **Site visit and damage assessment:** The assembled information and forms are provided to the START team, which is then sent to the disaster location(s) to contact appropriate local agencies and conduct assessments of previously funded mitigation projects with a primary focus on estimating loss avoidance. This process was used in the Wells earthquake by the NBMG staff and worked well in gathering information from local affected stakeholders (government, utilities, residents, businesses, etc.)
3. **Reporting of data to NDEM:** Once the START team completes the physical site examination, they compile the START report and send it back to NDEM where the SHMO analyzes it in terms of the project's BCA and other factors such as avoidance of injury, loss of life, or environmental degradation.

For example, if the funded project was a structural retrofit to a URM building and an earthquake occurs, then the loss avoidance would be calculated as the construction cost to rebuild the building along with any loss of life or injury of those working in the building at the time of the event.

START reports and studies from preliminary damage assessment of recent events in Nevada include:

Report on the December 2012 northern Nevada severe winter storm from:

Pyramid Lake Paiute Tribe

Mineral County

Report on the August 2012 Clark County flash flood

Report on the May 2012 Topaz Ranch Estates Fire

Report on Jan. 2012 Washoe Drive fire

Report on Dec. 2011 Caughlin fire

Reports by START teams to NDEM following disaster incidents are provided to the NHMPC for their use in prioritizing proposed projects. These reports will also form part of the vulnerability assessment for the community and the state plan updates.

Nevada's long-term strategy is to create a risk reduction portfolio of all HMA type projects as well as to promote activities (such as building code adoption and resilient land use planning) to reduce risks over time. These findings can be used in determining the most effective or the highest priority mitigation projects for Nevada.

As previously mentioned, to date there has not been a disaster occurrence that correlates to a mitigation project type (i.e. earthquake, flood or wildfire) within the affected area of a completed mitigation project to test the effectiveness of the projects.

8.5 EFFECTIVE USE OF AVAILABLE MITIGATION FUNDING

DMA 2000 REQUIREMENTS: PLAN MAINTENANCE PROCESS

Effective Use of Available Mitigation Funding

Requirement §201.5(b)(3): [The Enhanced Plan **must** demonstrate] that the State effectively uses existing mitigation programs to achieve its mitigation goals.

Element

Does the new or updated Enhanced Plan document how the State has made full use of funding available from FEMA mitigation grant programs, and if the State has not made full use of this funding, does the plan explain the reasons why?

Does the **new or updated** Enhanced document how the State is effectively using existing programs to achieve its mitigation goals?

Source: FEMA, Enhanced State Hazard Mitigation Plan Review Crosswalk 2007

8.5.1 Effective Use of Available Mitigation Funding

Nevada uses many funds and programs to mitigate against injury, loss of life, and damage to property. Some of the major mitigation programs of the state are the federally funded HMA programs which are administered by NDEM.

Over the 2010- 2012 period, 14 FEMA grants are either approved and funded or under environmental review under the HMA programs in Nevada. The primary goal of the NHMPC is to ensure that every community in Nevada develops a hazard mitigation plan. The NHMPC believes that the planning process is the first step in awareness of the risk and vulnerability posed by the hazards and provides the communities with a method to "do something about the risk." This goal includes the updating of existing plans and enhancing the data available for locals to use in the update process. To date, every plan needing an update has acquired funding through the application process, and, where needed, communities have joined together to develop regional plans. Since the previous plan was approved in 2010, funding received for planning has allowed one county to develop a new plan and four to update their current plans, and five counties are developing two separate regional plans.

As a result, Nevada has reached its goal of all communities developing or updating hazard mitigation plans by 2013.

Planning funds have been “shared” by more than one community in the past. For example, in 2012, Humboldt, Lander and Pershing counties are developing a regional plan under the approved PDM 2011 funding. This leveraging of grant monies to develop regional plans is a very cost-effective way for rural communities to work together to become covered by a mitigation plan.

Nevada will use the plan maintenance process found in Section 6 to enhance its collection of data about locally funded mitigation projects to demonstrate the commitment of communities to the reduction of risk. Other funding sources such as the National Earthquake Hazard Prevention program have been used by the NBMG to enhance risk assessment tools and awareness of earthquake statewide, also need to be documented and presented in this plan. Private mitigation activities include the comprehensive seismic retrofit of churches in the City of Reno, and historic Virginia City. Another example of recent private/public partnership in mitigation occurred in Yerington where Circle Bar N Ranch owner Tom Reviglio came up with a river-dredging system idea based on similar successful projects in the Midwest. The City of Yerington was awarded a \$1.2 million grant from the National Fish and Wildlife Foundation (NFWF), for the Walker River Basin Restoration Project. The centerpiece of that project is the \$468,510 Walker River Dredging Project situated at the Circle Bar N Ranch site.

Local chapters of the Fire Safe Council, a coalition that is spearheaded by homeowners, the University of Nevada Cooperative Extension (UNCE), the Bureau of Land Management, the U.S. Forest Service, along with many state agencies, all work closely to coordinate a WUI Summit. The Summit’s sole purpose is to provide homeowners and local government entities information about the wildfire mitigation activities, and possible sources for funding that can be done to protect life and property. Until 2012, the Summit occurred in September with up to 200 attendees from rural, urban, and “frontier” communities. Beginning in 2013, UNCE created a customized workshop for rural communities and will assess changes in risk since the writing of their community wildfire protection plans (CWPP). UNCE also developed a web-based application to update CWPPs. The computer application is an interactive tool involving stakeholders such as community members and local fire prevention professionals with a vested interest in wildfire mitigation activities.

Many agencies have spearheaded a variety of hazard mitigation projects that have been completed or are under way since the last iteration of the plan. These include the following:

- Clark County Regional Flood Control District completed 44 flood-control projects totaling \$225.3 million from 2010 to early 2013.
- Truckee River Flood Management Authority has a long list of accomplishments in flood mitigation, restoration, prevention, public awareness education and outreach since 2009.
- Carson River Water Subconservancy District

Details of these projects are listed in Appendix P.

Many county-funded projects were completed. These investments in mitigation are located in the major disaster risk areas of Nevada according to the GIS modeling maps of local plans. FEMA mitigation funds allocated are closely linked to the state and applying community's plan goals. Prevention or significant reduction of loss of life and injuries is the state's primary goal.

The criteria used by DEM and NHMPC to solicit, select, and rank projects are clear and linked to maximizing project impacts that support the state plan goals. The DEM objective is to expend all funds in each grant program. DEM attempts to maximize local opportunities for receiving federal mitigation funding by establishing a project waiting list of HMA applicants from previous grant cycles from which to identify, prioritize and submit potential mitigation projects.

8.5.2 Nevada's Effective Use of Existing Programs to Achieve Mitigation Goals

A number of HMA programs fund multi-hazard mitigation planning activities at the local or multi-jurisdictional level. In addition to the FEMA support funding shown in Table 8-3, Nevada communities augment mitigation funds with those provided through many other sources. Some of these local and private sources that partner with the state are listed in Tables 4-11, 4-12, and 4-13. Partnering with local and private groups in mitigation planning and projects promotes increased awareness and participation in mitigation activities on a local level. For example, the City of Yerington has partnered with the National Fish and Wildlife Foundation, and the Circle Bar N Ranch on a project under the federally-funded Walker Basin Restoration Program.

<http://www.nfwf.org/Pages/walkerbasin/home.aspx>

Another example is Nevada Wildfire Awareness Week, an annual event that builds awareness and encourages action to reduce the wildfire threat to Nevada homes and communities. It is a partnership among federal and state agencies, community members and private entities. A listing of all sponsors may be found at this link:

<http://www.livingwithfire.info/wp-content/uploads/2013/03/NWAW-2013-Planning-Group-Contacts.pdf>

The Great Nevada ShakeOut is another example of a partnership between State and federal agencies, Universities, casinos, and other community members, in earthquake hazard mitigation activity. It is a earthquake drill that is broadcast simultaneously throughout the state.

More information on the 2013 Great Nevada ShakeOut is available at this website:

<http://www.shakeout.org/nevada/>

Table 8-3. 2005 to 2012 FEMA-Supported Grant Activities in Nevada

HMGP

Disaster Number	Selected	Obligated	Expended	Deobligated	Status
1540	\$ 726,541.00	\$ 726,541.00	\$ 519,877.54	\$ 206,663.46	Closed
1583	\$ 533,519.00	\$ 533,519.00	\$ 392,541.00	\$ 140,978.00	Closed
1629	\$ 625,497.00	\$ 625,497.00	\$ 624,552.07	\$ 944.93	Pending subawards closure
1738	\$ 475,537.56	\$ 71,092.56	\$ 44,906.23		Pending awards
Total	\$2,361,094.56	\$1,956,649.56	\$1,581,876.84	\$ 348,586.39	

PDM

Funding Year	Selected	Obligated	Expended	Deobligated	Status
2004-2005	\$ 60,063.50	\$ 60,063.50	\$ 60,063.50	\$ -	Closed
2006	\$ 29,115.00	\$ 29,115.00	\$ 29,115.00	\$ -	Closed
2007	\$ 467,586.75	\$ 467,586.75	\$ 420,112.49	\$ 47,474.26	Closed
2008	\$ 521,066.92	\$ 521,066.92	\$ 111,058.51		In process
2009	\$ 970,905.00	0	\$ -		Pending awards
2010	\$3,182,907.31	\$1,806,991.31	\$ 326,015.97		Pending awards
2011	\$ 823,476.59	\$ 60,006.59	\$ 17,709.23		Pending awards
2012	\$2,362,335.27	\$ 501,986.52	\$ 5,754.95		Pending awards
Total	\$8,328,277.84	\$3,446,816.59	\$ 909,766.15	\$ 47,474.26	

FMA

Funding Year	Selected	Obligated	Expended	Deobligated	Status
2012	1,930,138.27				Pending awards

RFC

Funding Year	Selected	Obligated	Expended	Deobligated	Status
-	0	0	0	0	0

Table 8-3 is a summary of the status of all FEMA grant funds for hazard mitigation activities received between 2005 and 2012. All mitigation activities associated with the grant awards have been completely implemented according to the grants scopes of work. The information found on Table 8-3, regarding HMA awards includes 4 disaster declarations beginning in 2004 ending in 2008. Nevada has not received a presidential disaster declaration since 2008. Note the following items on Table 8-3.

- The HMGP difference between the obligated and expended funds is due to cost savings on 2 projects awarded in the 2004 and 2005 disasters. During these two disasters,

subapplicant awareness of the hazard mitigation program was limited and the state received only enough applications to cover the amount awarded by FEMA. Since 2005, increased subapplicant awareness of the program has built up an inventory of mitigation on-the-shelf projects that are available for submission when events occur or funding sources become available, allowing the state to utilize all awarded funds when cost-savings occur.

- For Disaster #1629, the \$944.93 in the Deobligated column is cost savings from subgrantee in travel costs and the expiration of the performance period.

For PDM 2007, the \$47,474.26 in the Deobligated column results from the project coming in under budget due to changes in the economy. Grant restrictions do not allow the transfer of these funds to another project.

- The discrepancy between Selected and Obligated amounts arises because there are projects pending obligation.
- The dollar difference the “Selected” and “Obligated” columns of Table 8-3 is a result of the sluggishness of FEMA’s National Environmental Policy Act compliance review process for all HMA selected projects.
- For PDM awards, the difference between the obligated and expended funds is due to pending submission of expenditures by the subgrantee for activities that fall within the performance period.
- FMA funding has increased to one funded project due to the currently less restrictive nature of program guidelines. Prior to 2010, the requirement of 50-percent-insured structures hindered submission of otherwise strong mitigation activity applications.
- The elevated value of homes in the last update period resulted in a low Benefit Cost Ratio (BCR) that inhibited submission of proposals under the RFC (Repetitive Flood Claims) program. Recent lower home values due to the current economic conditions may result in increased submission of proposals under the RFC program in Nevada if funds become available.

Nevada has been proactive in addressing repetitive flood property such as the following program targeted at the flood-prone areas of the Truckee Meadows. The Truckee River Flood Management Authority continues to actively support the Living River Plan - a flood management plan for the Truckee River under which repetitive flood properties have been acquired, including the following:

- UNR's Mill and McCarran Property (60 acres)
- 85 N. Edison Way (1 acre)

- 105 N. Edison Way (1 acre)
- 195 N. Edison Way (1 acre)
- Monday Property (17 Lockwood - 1 acre)
- Excel Property (8 acres)
- Catholic Diocese Property (14 acres)
- Ferrari Property (22 acres)
- 102 Ranch (128 acres)
- A portion of UNR Farms (60 acres), a portion of Butler Ranch (800 acres), and 5 other properties.

Nevada's mitigation program has successfully accomplished its planning goal of developing hazard mitigation plans for all Nevada counties (all are at least in the planning process). The State has successfully developed relationships among agencies and brought awareness to communities about their risk and the State will continue to assist rural communities with mitigation plans to apply for funding to reduce risks. This has been addressed by continuing to hold NHMPC meetings in local communities, which has both heightened awareness of hazard risks and successfully encouraged application for grant funding available to develop local plans to combat these risks. The mitigation staff has also developed a TableTop Exercise (TTX) that is performed at each community's LEPC meeting where an approved hazard mitigation plan exists to help with continued plan maintenance.

8.6 COMMITMENT TO A COMPREHENSIVE MITIGATION PROGRAM

DMA 2000 REQUIREMENTS: PLAN MAINTENANCE PROCESS

Commitment to a Comprehensive Mitigation Program

Requirement §201.5(b)(4)(i-vi): [An Enhanced Plan **must** demonstrate] that the State is committed to a comprehensive state mitigation program, which might include any of the following:

- A commitment to support local mitigation planning by providing workshops and training, State planning grants, or coordinated capability development of local officials, including Emergency Management and Floodplain Management certifications.;
- A Statewide program of hazard mitigation through the development of legislative initiatives, mitigation councils, formation of public/private partnerships, and/or other executive actions that promote hazard mitigation;
- The State provides a portion of the non-Federal match for HMGP and/or other mitigation projects.
- To the extent allowed by State Law, the State requires or encourages local governments to use a current version of a nationally applicable model building code or standard that addresses natural hazards as a basis for design and construction of State sponsored mitigation projects.;
- A comprehensive, multi-year plan to mitigate the risks posed to the existing buildings that have been identified as necessary for post-disaster response and recovery operations.;
- A comprehensive description of how the State integrates mitigation into its post-disaster recovery operations.

Element

Does the **new or updated** Enhanced Plan demonstrate that the State is committed to a comprehensive State mitigation program?

Does the updated Enhanced Plan demonstrate progress in implementing a comprehensive State mitigation program, including new mitigation initiatives developed or implemented by the State?

Source: FEMA, Enhanced State Hazard Mitigation Plan Review Crosswalk 2007

8.6.1 Commitment to Support Local Mitigation Planning

The SHMO works closely with the State Floodplain Manager (FM) to provide workshops, training, and technical assistance to the local emergency, tribal, and floodplain managers, government officials, firefighters, grant managers, and private sector consultants. The ultimate goal of these workshops is to assist each community in reaching its goal of having an approved local hazard mitigation plan (LHMP). The current status of LHMP is shown in Figure 8-3 below. Details of local and tribal plan status are located in Tables 5-1 and 5-2 of Section 5 of the plan.

- The FM sponsors 2 to 4 annual workshops for floodplain managers providing information on the NFIP National Flood Insurance Program. These workshops include education about the Community Rating System (CRS) which is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements by reducing their flood insurance premiums. Another workshop presentation is the Risk Map program, which increases public awareness and leads to action that reduces flood risk to life and property.

- Annually the FM and the SHMO jointly coordinate and present two grant application workshops for potential subgrantees to the HMA funding programs.
- During the LHMP update process mitigation staff attends planning meetings
- SHMO staff schedules an annual visit to each community with an approved LHMP where it performs a Table Top Exercise (TTX) that it has developed to help them with continued plan maintenance.
- In addition, the FM provided a comprehensive week-long L273 workshop to Floodplain Manager statewide that covered building codes, elevations, insurance, FEMA policies, etc. This may be repeated on an as-needed basis.
- The Nevada State Mapping Advisory Committee (SMAC) provides critical technical assistance to local, state and tribal entities. SMAC was established to advise the U.S. Geological Survey (USGS) on state priorities for map products and to inform map users about the status of mapping programs and the availability of map products. Membership in SMAC and its subcommittees is open to anyone interested in mapping in Nevada. Two subcommittees are currently active: one for geographic information systems (GIS) and one for geologic mapping. Participants include representatives of numerous local, state, and federal agencies, community colleges and universities, and the private sector. Additional data about SMAC is available at this website:
<http://www.nbmq.unr.edu/smac/smac.htm>
- The Nevada Earthquake Safety Council (NESC) educates the public about earthquake hazards and promotes earthquake awareness activities such as the Great Nevada Shake Out that help save lives, reduce property loss, and speed recovery from earthquakes. NESC assists local and state agencies in preparing for post-earthquake response and recovery, and promotes earthquake resistance in new and existing structures.
- Silver Jackets is a partnership among federal (USACE, NOAA, FEMA, USGS, NRCS), state (NDEM, NDWR, NDOW,) and local agencies and non-profits formed to reduce the risks associated with flooding and other natural hazards in Nevada. It provides a formal and consistent strategy for an interagency approach to planning and implementing measures. Involvement from other regional, local, and tribal groups within this program will improve and increase flood risk communication with a unified interagency message and help collaboration on flood mitigation, response, and recovery.

NDEM and NDWR staff continue to maintain positive working relationships with local governments through phone, e-mail, conference calls, and meetings providing technical assistance, support, and information as needed.

8.6.2 Statewide Programs Promoting Hazard Mitigation

Sections 2, 3, 5 and Section 8.1.1 have already detailed many of Nevada's statewide hazard mitigation programs including legislative initiatives and executive actions that promote hazard mitigation. Some of the higher profile statewide programs dealing with Nevada's highest ranked hazards are summarized below:

- **Nevada Earthquake Safety Council (NESC)** is a statewide body representing a partnership of the public and private sectors that uses its professional expertise and community knowledge to make earthquake safety recommendations within the public and private sectors, and serve as the advisory body for State seismic safety policy. The current membership of NESC is listed in Appendix B. Their website includes policy statements, strategic plans, meeting minutes and annual reports, located at this link: <http://www.nbmg.unr.edu/nesc/>

Living With Fire Program is managed by University of Nevada Cooperative Extension, and is a collaborative effort involving many organizations to help make communities more likely to survive a wildfire. Together with Nevada's firefighting organizations, they developed a set of consistent wildfire threat reduction recommendations that are shared with schools, homeowners, community groups, and firefighting professionals to help educate and inform those living in fire-prone areas about mitigating Nevada's wildfire threat. Partners include the University of Nevada Cooperative Extension, the Bureau of Land Management, U. S. Forest Service, and Nevada Division of Forestry who promote the development of Fire-Adapted Communities (FACs). Please see additional details found on the website at <http://www.livingwithfire.info/>

- **Silver Jackets** is a partnership among federal (USACE, NOAA, FEMA, USGS, NRCS), state (NDEM, NDWR, NDOW,) and local agencies and non-profits formed to reduce the risks associated with flooding and other natural hazards in Nevada. It provides a formal and consistent strategy for an interagency approach to planning and implementing measures. Involvement from other regional, local, and tribal groups within this program will improve and increase flood risk communication with a unified interagency message and help collaboration on flood mitigation, response, and recovery.

Listed below are some statewide programs that involve partnering among State, local and/or private sector groups to achieve specific local mitigation planning efforts.

- NDEM partners with the Nevada Insurance Pool and NBMG through PDM grants to develop information such as HAZUS run data for earthquake and flood for each county. This data is distributed to local jurisdictions for their use in loss estimation and mitigation planning. Additionally, NDEM has worked with UNR through an HMGP grant to develop a statewide report of geocoded potential URM building locations (by county) published as *Preliminary Assessment of Potentially Unreinforced Masonry Buildings: Nevada Bureau of Mines and Geology Report 54*,

available free online. Another NDEM grant-supported NBMG product under way is a GIS inventory of ditches in the northwest part of the state.

- FEMA has provided funds for NBMG to develop a “MyPlan” website to assist local planning professionals in the data collection necessary to address the risk and vulnerability assessment information required for hazard mitigation planning in their communities. Gary Johnson at NBMG is the project lead on this and has been conducting informational presentations both to the NHMPC, NHMP subcommittee as well as to the local LHPCs to familiarize them with this resource available to help them in development of their mitigation plans, and to inspire them to provide more raw data to enter into it to make it a more valuable tool. The website has many participating partners across state lines including California Emergency Management Agency in California, NDEM, NDOT, and NBMG in Nevada, with NBMG acting as the lead in this project. The format is standardized with California’s and the website provides local counties and tribes with information and mapping of local hazards and for counties to upload hazard/risk data. This allows local counties and Nevada a database that can be improved upon over time when additional data becomes available. It is designed to allow local and tribal communities to overlay the hazards layers upon their built environment for a full risk and vulnerability assessment. Providing a more detailed risk assessment to local communities will improve their hazard mitigation planning efforts and allow a better project identification and prioritization process.
- NBMG continues to update the HAZUS database with current building inventory and posting Open File Reports online with HAZUS flood data on major rivers as well as earthquake data for more than 37 rural communities in Nevada.
- The University of Nevada collaborated with local building officials in southern Nevada to develop a microzonation of soil types that will enhance the ability of the officials to develop and enforce building codes according to the soils found in the area. The soil type can affect the stability of the foundations as a result of liquefaction during earthquakes and because of swelling clays common in the region. The only portion remaining to be mapped in the greater Las Vegas Valley is the city of North Las Vegas.
- The NHMPC continues to meet in locations statewide with wide and great acceptance by local communities. The meetings provide awareness of mitigation and resiliency successfully as shown by the completion of local hazard mitigation plans statewide and the increase in applications for projects for all identified natural hazards.

8.6.3 State Provision of a Portion of the Non-Federal Match for Mitigation Projects

Although there is no provision for any portion of the State to provide a match for mitigation projects, there are other potential sources of State funding that may be used to match federal grants for specific projects. Some examples follow:

- State NRS 414, Emergency Management, provides the Disaster Relief Fund and the Emergency Assistance Account which can be used by the state to match projects in qualifying communities for post-disaster costs including hazard mitigation.
- UNR continues to provide the match on planning activities such as HAZUS earthquake and flood runs.

8.6.4 Promotion of Nationally Applicable Model Building Codes.

Since 1981, the State of Nevada has adopted a series of nationally applicable model building-related codes that local governments (with the exception of Clark County) are required to enforce. The existing State codes are shown in Table 8-4. Local governments may also adopt these codes with amendments that are more restrictive than the state adoption, but may not be less restrictive. Adoption of these codes by local jurisdictions will make local mitigation more effective. NHMPC takes into consideration the adoption of the State building codes when prioritizing proposals by the communities applying for hazard mitigation funding. NHMPC identifies those local governments with policies currently in place that include strong hazard mitigation programs and offers them as positive examples to other Nevada communities and local governments in developing their own effective hazard mitigation plans and ordinances. The State provides guidance to these communities, and supports pass-through funds available to communities interested in adopting hazard mitigation actions.

Table 8-4. Existing State Model Codes Promoted for Adoption by Local Governments		
Policy	Description of Model Codes	Applicability
Building and Fire Codes	<p>The State has adopted a building code and local governments are required to adopt and enforce this code with the exception of Clark County.</p> <p>NRS 278.580 – Amend building codes to include seismic provision of the International Building Code.</p> <p>NRS 461.170 – Manufactured buildings required to use the various uniform codes.</p> <p>NRS 477.030 (1)–Requires the State Fire Marshal to adopt minimum fire and building codes to ensure fire safety.</p> <p>NRS 477.030 (12)–Provides an exception requested by Clark County where the state codes do not apply in that county</p> <p>NRS 514.040(3) – Nevada Bureau of Mines and Geology to apply geologic engineering principles to construction, etc.</p> <p>NRS 623 – Architecture, Interior Design and Residential Design.</p>	The adoption and enforcement of building and fire codes relates the design and construction of structures to standards established for withstanding wildfires, earthquakes, flooding, dam failure, and high winds.
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>	Zoning can keep inappropriate development out of hazard-prone areas and can designate certain areas for such things as conservation,

Table 8-4. Existing State Model Codes Promoted for Adoption by Local Governments		
Policy	Description of Model Codes	Applicability
	<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>public use, or agriculture. Zoning can also be used to control construction by dedicating areas for cluster development or planned unit development. The State currently works with local governments on implementing these last two policies.</p>
Land Use Planning	<p>Comprehensive land use planning provides a mechanism to prevent development in hazardous areas or allows development in a manner that minimizes damage from hazards. Land use planning gives local governments "the big picture" of what is happening in their jurisdiction.</p> <p>NRS 278.02521 – Protecting environmentally sensitive areas</p> <p>NRS 278.160 – Planning and zoning.</p> <p>NRS 278.580—Investigation of seismic hazards: fault, fissure, and liquefaction.</p> <p>NRS 321.640 through 321.770 – Laws to govern growth and use of lands which could impact emergencies.</p> <p>NRS 324 – Regulates use of water and reclamation of water projects.</p> <p>NRS 376A – Taxes for development of open space land.</p> <p>NRS 472 – Fire warden's duties to include preservation of forest and vegetation cover.</p> <p>NRS 528 – Regulation of forest practice and reforestation.</p> <p>NRS 534 – Planning and development of water resources and management of water resources.</p>	<p>Local governments can use land use planning to identify those areas subject to damage from hazards and work to keep inappropriate development out of those areas. Land use planning can also be used for more regional approach when local governments work together.</p>
Subdivision Regulations	<p>Sets construction and location standards for subdivision layout and infrastructure.</p> <p>NRS 445D – Environmental covenants that attach to real property.</p>	<p>Contains standards for such things as storm water management and erosion control</p>
Capital Improvements Planning	<p>Identifies where major public expenditures will be made over the next 5 to 10 years.</p>	<p>Capital Improvement Plans can secure hazard-prone areas for low risk uses, identify roads or utilities that need strengthening, replacement, or realignment, and can prescribe standards for the design and construction of new facilities.</p>

Table 8-5 below provides the current status of adoption of different building codes by local governments in Nevada.

Table 8-5. Code Adoption by Jurisdiction, as of February 2013									
JURISDICTION	IBC	IRC	UPC	UMC	NEC	IECC	IFC	OTHER	AMENDMENTS
CARSON CITY	2012	2012	2012	2012	2011			2012 International Mechanical Code 2012 International Fuel Gas Code 2012 IPMC 2012 IEBC 2012 USPSHT	2012 Northern NV Amendments 2011 Northern NV Energy Code Amendments
CLARK COUNTY SCHOOL DIST	2006		2006	2006	2008	2009	2006	NV STATE FIRE MARSHAL NRS 477.030 (12)(6)	YES
CLARK COUNTY BLDG DEPT	2009	2009	2009	2009	2008	2009	2009	2009 SO NV POOL CODE	YES
CITY OF LAS VEGAS	2009	2009	2009	2009	2008	2009		2010 AMUSEMENT RIDE CODE 1997 Uniform Administrative Code	
BOULDER CITY	2009	2009	2009	2009	2008	2009		2009 SO NV POOL CODE	YES
CITY OF NO LAS VEGAS	2009	2009	2009	2009	2008	2009	2009	2009 SO NV POOL CODE	YES
DOUGLAS COUNTY	2006	2006	2006	2006	2005	2006	2006		
STATE OF NV (NAC 477.281)	2006	N/A	2006	2006	N/A	N/A	2006	2009 IUWIC	YES(NAC 477.283)
CITY OF SPARKS (PENDING ADOPTION)	2012	2012	2012	2012	2011	2009		2012 IEBC 2012 ISPSC 2012 IWUIC 2012 IGCC NFPA 58 & 54	YES
WASHOE COUNTY (PENDING)	2012	2012	2012	2012	2011	2009		2012 IEBC 2012 ISPSC 2012 IWUIC	

SECTION EIGHT

Enhanced Plan Criteria Achievements Program

Table 8-5. Code Adoption by Jurisdiction, as of February 2013

JURISDICTION	IBC	IRC	UPC	UMC	NEC	IECC	IFC	OTHER	AMENDMENTS
ADOPTION)								2012 IGCC NFPA 58 & 54	
CITY OF RENO (PENDING ADOPTION)	2006	2006	2006	2006		2009			YES
LYON COUNTY	2006	2006	2006	2006	2005	2006	2006		
ELKO COUNTY	2009	2009	2009	2009	2008	2009	2009	1997 UAC 2003 IEBC 2003 IMC & IPC for reference only	YES
NYE COUNTY	2006	2006	2006	2006	2005	2006	2006	2006 IPMC 2006 USPSHT	

NOTES:

Lyon County will be adopting the 2012 I codes and UPC/UMC, as well as 2011 NEC in a few months.

IEBC – International Existing Building Code

ISPSC – International Swimming Pool and Spa Code

IWUIC – International Wildland-Urban Interface Code

IGCC – International Green Construction Code

UAC – Uniform Administrative Code

IPMC – International Property Maintenance Code

USPSHT – Uniform Swimming Pool, Spa & Hot Tub Code

Elko County is currently reviewing the 2012 I-codes

Nevada State Public Works Division – Pertinent to State-owned buildings only-2012 editions of the code.

Nevada L_P Gas Board – NFPA S4 (2009 edition) and NFPA S8 (2008 edition) – applies statewide.

Nevada Division of Industrial Relations –Elevator Codes A17-1, A17-3 and others -2007 editions.

8.6.5 Post-Disaster Mitigation of Building Risks

Through partnerships with the Nevada Earthquake Safety Council, the Nevada Fire Safe Council, the State Floodplain Manager, and other groups, the state has begun a comprehensive, multi-year effort to mitigate risks posed to existing buildings identified as necessary for post-disaster response and recovery operations.

Buildings identified as necessary for post-disaster response and recovery operation include:

- facilities used by first responders
- buildings used as evacuation centers, such as schools
- water facilities needed by communities
- critical communication infrastructure
- hospitals and clinics
- major utility sources

NBMG has recently completed a project in which all potential URM buildings in the state were identified and geotagged with GPS coordinates in a user-friendly database. This database provides a starting place for field-checking to verify which ones are definitely URMS. The next step in completion of this project will be developing a grant that includes a funding request for field verification of the potential URMs statewide with particular reference to identifying which are critical facilities and schools. Once this is complete, a subset of critical state and local buildings will be compiled and mapped providing vulnerability assessment information for mitigation activities as well as information for the response effort. This database will be expanded to include additional critical facilities and structures as they are identified and located. This will help mitigate the risks posed to these structures essential to post-disaster response and recovery operations. Also as part of the RiskMap program, NDWR and NDEM work together in the development and update of local plans to provide risk data for communities to bring awareness of the location of the hazard in reference to the current building inventory with the development of flood depth grids as data (mostly locally funded LiDar) becomes available.

8.6.6 Integration of Mitigation with Post-Disaster Recovery

Hazard mitigation is an integral part of Nevada's post-disaster recovery operations. When a Presidentially declared disaster occurs, a joint field office is opened and operated by FEMA. The State Hazard Mitigation Officer is co-located with the recovery Public Assistance Officer who manages the public assistance program. Staff members from several other state agencies such as NDOT, NDF, NBMG as well as local stakeholders may also be situated here, allowing for the identification of a wide spectrum of mitigation elements in recovery, repair, and restoration projects. Mitigation and public assistance program staff jointly conduct applicant briefings to discuss mitigation opportunities through both public assistance and hazard mitigation grant programs. The SHMO quickly disseminates letters of intent and information on

the HMGP, and provides technical assistance to potential applicants. The SHMO coordinates with NHMPC members and with FEMA staff to develop a strong hazard mitigation strategy that includes the following elements:

- Technical services
- Support to 406 mitigation
- Hazard Mitigation Planning
- Hazard Mitigation Grant Program (HMGP) Technical Assistance
- Community Education and Outreach

The intent of Nevada's HM program is to increase the resiliency of communities in Nevada. As always, more work in outreach can be done to bring additional programs to partner in hazard mitigation efforts. In Nevada, the Threat Hazard Identification and Risk Assessment (THIRA) program is a good example of a new program integrating hazard mitigation data for response and recovery purposes.