

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 2018 plan as an enhanced plan. *Updates to this section include the revision to reflect the management of all HMA grants by Nevada DEM, updates in the HMA review, ranking and review process due to NHMPC streamlining, and information on disaster recovery framework. Nevada DEM modified terminology for the damage assessment teams. Examples of mitigation activities were also updated.*

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.

ELEMENTS	REQUIREMENTS
<p>E2. Does the plan demonstrate integration to the extent practicable with other state and/or regional planning initiatives and FEMA mitigation programs and initiatives? [44 CFR §201.5(b)(1)]⁴⁰</p> <p><i>Intent: To demonstrate realized integration with other planning initiatives and mitigation programs into ongoing state activities that achieve risk reduction and resilience.</i></p>	<p>a. The Enhanced plan must demonstrate integration with other state and/or regional planning initiatives, including, at a minimum, the following sectors:</p> <ol style="list-style-type: none"> 1. Emergency management; 2. Economic development; 3. Land use development; 4. Housing; 5. Health and social services; 6. Infrastructure; and 7. Natural and cultural resources. <p>Where integration with other state and/or regional planning initiatives representing these sectors is not practicable, the plan must describe the limitations.</p> <p>b. The Enhanced plan must demonstrate integration of FEMA mitigation programs and initiatives, including, if applicable, but not limited to: HMGP, PDM, FMA, NFIP, CRS, Risk MAP, and the National Dam Safety Program, as well as FEMA programs that advance mitigation, such as Threat Hazard Identification and Risk Assessment, Emergency Management Performance Grant Program, and PA C-G. Where integration with FEMA mitigation programs and initiatives is not practicable, the plan must describe the limitations.</p> <p style="background-color: #e0e0e0;">Special Consideration: In evaluating integration, consideration will be given to the inherent differences in governance and capabilities among states, crediting measurable progress towards integration of efforts.</p>

44 CFR §201.5(b)(1): “Demonstration 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.”

8.1.1 Integration with Other Planning Initiatives

Section 2 of the 2018 SHMP provides 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 Subcommittee and update process. Table 2-7 in Section 2.3.3 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. While there are vacant spots within the NHM Planning Subcommittee (housing, health and social services, and economic development sectors) the planning committee continues to reach out and contact individuals specializing in all aspects needed to update the state plan. The subcommittee continues to look for additional stakeholders to help with the planning process. One example of this is the participation of some NHMPC members in the Nevada Earthquake Safety Council (NESC), which in turn works closely with the Western States Seismic Policy Council (WSSPC). 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 N.

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 National Cohesive Strategy (2014), which has largely replaced the 10 Year Comprehensive Strategy. Federal, state, and local agencies are engaged in the Nevada Cohesive Strategy working group. The group has created multi-agency action plans that are facilitating inter-agency task accomplishments in the areas of safe and effective wildland fire suppression, fire adapted communities implementation, and resilient landscape maintenance. The Nevada Forest Action Plan can be found at <http://stateforesters.org/forest-action-plans/nevada>. The National Cohesive Strategy can be found at the following website: <https://www.forestsandrangelands.gov/strategy/documents/strategy/CSPhaseIIINationalStrategyApr2014.pdf>

Another example is the partnership with Division of Water Resources in Risk MAP 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 Project (Flood Project), which can be found at <http://trfma.org/the-project/planning/>, are integrated into the Washoe County's Regional Hazard Mitigation plan (referenced in the Washoe County Plan as the Living River Plan). Project elements from the Flood Project are listed in Appendix O. 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 Nevada Division of Environmental Protection, Nevada Division of Water Resources, National Weather Service, Washoe Tribe (Nevada and California), 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 (NBMG) continues to maintain and update the web-based interactive map, all-hazard risk assessment guide called MyPlan (<https://gisweb.unr.edu/MyPLAN/> and <https://gisweb.unr.edu/MyHAZARDS/>). Data presented in MyPlan, and the public facing MyHazards is used by planners and the public alike to observe risks in their communities.

In coordination with the FEMA Risk MAP program, mitigation staff developed program integration activities by collaborating 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

ELEMENT	REQUIREMENTS
<p>E4. Does the Enhanced plan document capability to implement mitigation actions? [44 CFR 42 §§201.5(b)(2)(i),⁴³ 201.5(b)(2)(ii), and 44 201.5(b)(2)(iv)]</p> <p><i>Intent: To exhibit successful application of a statewide mitigation program to advance risk reduction and resilience toward mitigation goals.</i></p>	<p>a. The Enhanced plan must describe the system to rank the mitigation measures according to established eligibility criteria, including a process to prioritize between funding programs, jurisdictions, and proposals that address different or multiple hazards.</p> <p>b. The Enhanced plan must describe how the state will assess the effectiveness of mitigation actions, including the agencies that are involved as well as the timeline, and use the results to inform the mitigation strategy. Effectiveness may be based on cost factors but may also include other beneficial functions.</p>

⁴²44 CFR §201.5(b)(2)(i): “Documentation of the State’s project implementation capability, identifying and demonstrating the the ability to implement the plan, including: Established eligibility criteria for multi-hazard mitigation measures.”

⁴³44 CFR §201.5(b)(2)(ii): A system “to rank the measures according to the State’s eligibility criteria. A system to determine the cost effectiveness of mitigation measures, consistent with OMB Circular–94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs.”

⁴⁴ 44 CFR §201.5(b)(2)(iv): “A 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.” ⁴⁵44 CFR §201.5(b)(3): “Demonstration that the State effectively uses existing mitigation programs to achieve its mitigation goals.”

Nevada DEM administers the three 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)

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, Nevada DEM, NDWR and NHMPC review proposed activities to ensure consistency with federal and state criteria. Nevada 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 Nevada DEM and NDWR 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 subrecipient, 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 subrecipient.
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 subrecipient

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	
Subrecipient: _____ 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 = _____ (Max. 40 points)	
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. Nevada DEM uses the most current version of FEMA’s Mitigation Benefit-Cost Analysis (BCA) Toolkit, presently found in the portal at <https://www.fema.gov/media-library/assets/documents/128334> , 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 Nevada 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. Nevada DEM makes an effort to notify possible Nevada subrecipients about neighboring states venues where FEMA conducts such training. FEMA provided a training class on the newest version of its benefit cost analysis software during a 3-day training course in Carson City (February 28 – March 2, 2017). Additional trainings took place February 13 – 14, 2018 in Las Vegas. 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 Nevada DEM. 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 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 subrecipient 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 Governor’s Authorized Representative (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 subrecipients of which projects have been approved. A packet containing the following information will be provided to the approved subrecipients:
 - 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 subrecipients of the appeal process as outlined in 44 CFR 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. 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 subrecipients using the NHMPC recommendations, and are resubmitted for funding under any funding source when available.

Below is a list of major 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
2017	Flood	\$2,157,558.25 *
2017	Flood	\$2,689,362.26 *
2014	Flood	\$583,609
2012-2013	Drought	**
2008	Flood	\$475,538

*Estimates

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

8.3 PROGRAM MANAGEMENT CAPABILITY

ELEMENT	REQUIREMENTS
E6. With regard to HMA, is the state maintaining the capability to meet application timeframes and submitting complete project applications? [44 CFR §201.5(b)(2)(iii)(A) ⁴⁶]	<ul style="list-style-type: none"> a. All applications and amendments are submitted by the end of each program’s respective application period. b. All applications are entered into FEMA’s electronic data systems (such as, NEMIS and/or eGrants). c. Eligibility and Completeness Checklist is prepared for all applications. d. All applications are determined to be complete by FEMA within 90 days of submittal or selection for further review. Required environmental and historic preservation reviews and consultations will not be included in the 90-day review timeframe calculation.
E7. With regard to HMA, is the state maintaining the capability to prepare and submit accurate environmental reviews and benefit-cost analyses? [44 CFR §201.5(b)(2)(iii)(B) ⁴⁷]	All applications and amendments are determined to be complete by FEMA within 90 days of submittal or selection for further review, including all data requested by FEMA to support Cost Effectiveness determinations and environmental/historic preservation compliance reviews. Required environmental and historic preservation reviews and consultations will not be included in the 90-day review timeframe calculation.
E8. With regard to HMA, is the state maintaining the capability to submit complete and accurate quarterly progress and financial reports on time? [44 CFR §201.5(b)(2)(iii)(C) ⁴⁸]	<ul style="list-style-type: none"> a. All progress reports must be complete and submitted on time. Information in reports must accurately describe grant activities, including data related to the completion of individual property acquisitions. Incomplete progress reports that do not provide information on all open grants and subgrants or include all information required by the HMA Guidance are not considered on time. b. All Federal financial reports (FFR), Standard Form (SF) SF-425 are submitted on time. Information in reports must accurately describe grant activities, as described in the HMA Guidance. c. State consistently complies with the Financial Management Standard requirements described in 2 CFR §§200.300 to 200.309.

⁴⁶ 44 CFR §201.5(b)(2)(iii)(A): “Demonstration that the State has the capability to effectively manage the HMGP as well as other mitigation grant programs, including a record of the following: (A) Meeting HMGP and other mitigation grant application timeframes and submitting complete, technically feasible, and eligible project applications with appropriate supporting documentation;”

⁴⁷ 44 CFR §201.5(b)(2)(iii)(B): “Demonstration that the State has the capability to effectively manage the HMGP as well as other mitigation grant programs, including a record of the following: (B) Preparing and submitting accurate environmental reviews and benefit-cost analyses;”

⁴⁸ 44 CFR §201.5(b)(2)(iii)(C): “Demonstration that the State has the capability to effectively manage the HMGP as well as other mitigation grant programs, including a record of the following: (C) Submitting complete and accurate quarterly progress and financial reports on time;”

⁴⁹ 44 CFR §201.5(b)(2)(iii)(D): “Demonstration that the State has the capability to effectively manage the HMGP as well as other mitigation grant programs, including a record of the following: (D) Completing HMGP and other mitigation grant projects within established performance periods, including financial reconciliation.”

8.3.1 Effective Management of HMA Programs

Nevada DEM now administers three 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. Nevada DEM uses the established application review process shown in Figure 8-3 to ensure timely and adequate implementation of the HMA programs.

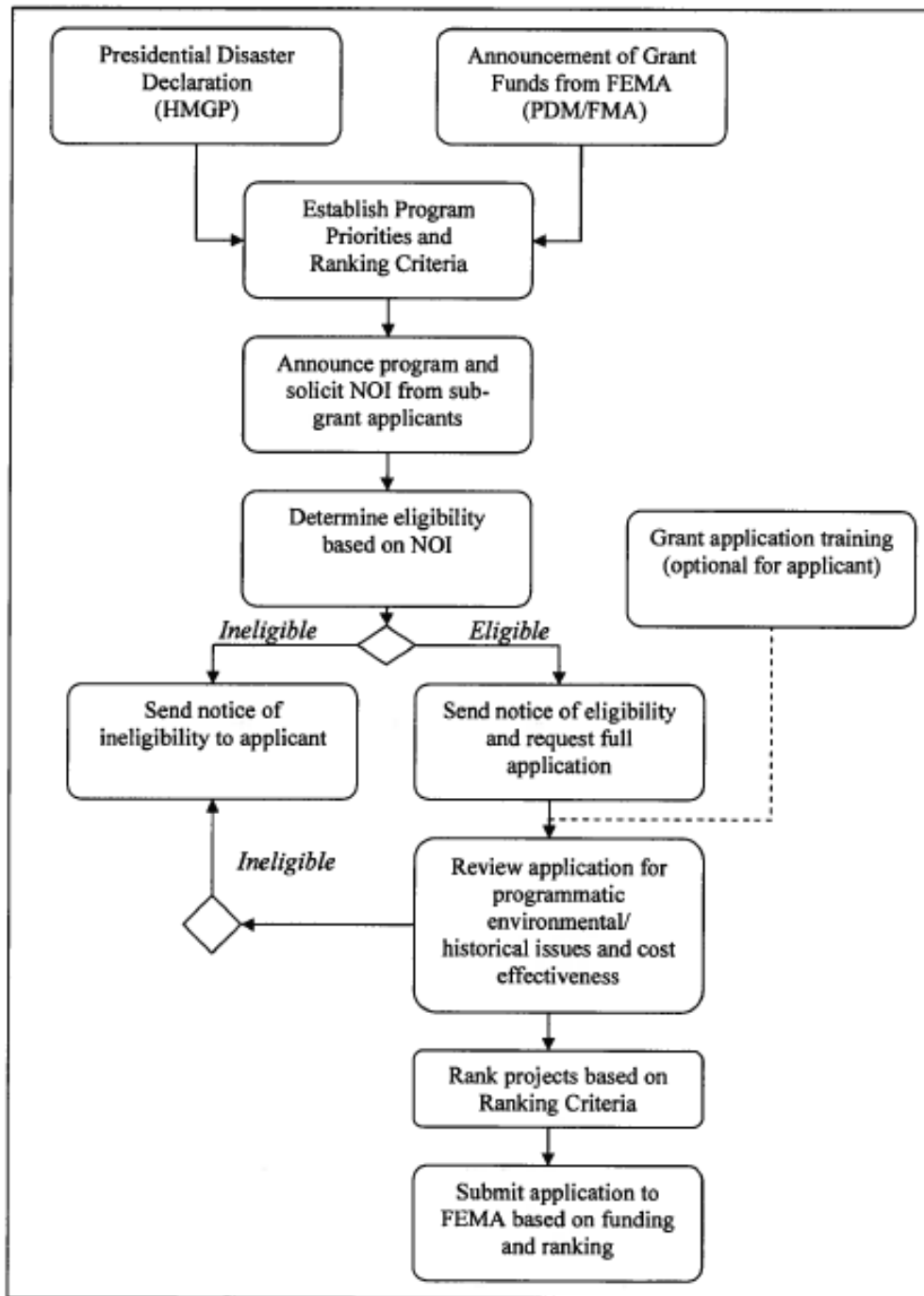


Figure 8-3. Mitigation Activities Review Process

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 2013 - 2018 period, Nevada DEM 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 to increase the quality of applications. The last training workshops were held in May 2017. These training workshops cover specific grant programs, preparing an application, contacting a BCA, using the E-Grant system, and meeting 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 Nevada DEM procedures are up-to-date and consistent with federal direction in hazard mitigation.

During the 2013-2018 period, Nevada DEM has successfully processed 13 hazard mitigation awards under HMA programs, not including PDM 17. All applications submitted were reviewed and the sub-applicants were provided feedback about proper documentation and the environmental questionnaire. Feedback and cooperation with the subrecipient occupy the available time of the State Hazard Mitigation Officer Nevada exceeded its funding minimum allocation of \$500,000 in the PDM program in 2013 through 2018. 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 subrecipient 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 GRANT
2016
MONTHLY RECONCILIATION

EMF-2017-PC-0009

PDM15 9704717-3700

SUBRECIPIENT (AGENCY)	GRANT AWARD				CLAIMS										Award Less Claims BALANCE	GRANT CLOSED
	ORIGINAL	Deobligated	Additional	TOTAL	QFR 1	QFR 2	QFR 3	QFR 4	QFR 5	TOTAL CLAIMS						
JURISDICTION	\$ 154,999.50			\$ 154,999.50	-	-	-	-	-	-	-	-	\$ -	\$ 154,999.50		
TOTALS	\$ 154,999.50	\$ -	\$ -	\$ 154,999.50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 154,999.50		

CAT 23 - RGL 3591	9704717-3700	PROOF		O/S Pmts	9704717-3700
Fed Performance Period:		Fed AWARD	\$ 154,999.50		RECONCILIATION OF EXPENDITURES VS CLAIMS
		Less Subgrants	\$(154,999.50)		02/09/18 3674 DAWN 74.0 EXP SFY18: -
		Unallocated	\$ -		3674 DAWN 74.0 EXP SFY19: -
AWARD AMOUNT =	\$ 154,999.50	Locals Balance	\$ 154,999.50		Outstanding: -
Less Claims: \$	-				TOTAL EXPENDITURES: -
GRANT BALANCE: \$ 154,999.50	=	Balance	\$ 154,999.50		Less Total Claims: -
					DIFFERENCE: -

Reconciled 2.13.18 mad

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 Nevada DEM. Nevada DEM 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 subrecipient do not submit timely and accurate quarterly reports or the reports indicate problems associated with the above components, Nevada DEM will provide technical assistance and suggest

corrective action. The SHMO requires the subrecipient 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) and may, at any time, contact the subrecipient to review the project. Subrecipient 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. 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 subrecipient's project through completion and closure.
2. Subrecipients have generally adhered to budget.

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 continues to work 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 2013, Nevada DEM has successfully disbursed and closed out (or is in the closeout process) approximately 11 HMA individual grants, 5 overall HMA grants, 0 HMGP grants, and 2 complete HMGP programs.

The Hazard Mitigation Grant Program (HMGP) closeout procedures are initiated when the subrecipient informs the SHMO that the project has been completed and all expenditures are reimbursed. As part of the closeout procedure, the subrecipient 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 subrecipient informs Nevada DEM that the project is completed, or
2. The performance period for the grant will expire.

As part of the closeout procedure, the subrecipient 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.

For each grant program, the SHMO ensures that quarterly reports and closeout documents are submitted on time. Nevada DEM currently has a dedicated auditor position who performs fiscal site audits of subrecipient 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 subrecipient. The subrecipient 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 subrecipient'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

ELEMENT	REQUIREMENTS
<p>E4. Does the Enhanced plan document capability to implement mitigation actions? [44 CFR 42 §§201.5(b)(2)(i), 43 201.5(b)(2)(ii), and 44 201.5(b)(2)(iv)]</p> <p><i>Intent: To exhibit successful application of a statewide mitigation program to advance risk reduction and resilience toward mitigation goals.</i></p>	<p>a. The Enhanced plan must describe the system to rank the mitigation measures according to established eligibility criteria, including a process to prioritize between funding programs, jurisdictions, and proposals that address different or multiple hazards.</p> <p>b. The Enhanced plan must describe how the state will assess the effectiveness of mitigation actions, including the agencies that are involved as well as the timeline, and use the results to inform the mitigation strategy. Effectiveness may be based on cost factors but may also include other beneficial functions.</p>

⁴² 44 CFR §201.5(b)(2)(i): “Documentation of the State’s project implementation capability, identifying and demonstrating the ability to implement the plan, including: Established eligibility criteria for multi-hazard mitigation measures.”

⁴³ 44 CFR §201.5(b)(2)(ii): A system “to rank the measures according to the State’s eligibility criteria. A system to determine the cost effectiveness of mitigation measures, consistent with OMB Circular–94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs.”

⁴⁴ 44 CFR §201.5(b)(2)(iv): “A 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.”

8.4.1 System and Strategy for the Assessment of Completed Mitigation Actions

Since 2003, Nevada DEM has maintained a database that contains all HMA project files, from initial funding through project completion. This is made up of over 71 projects, 19 of which have been added since 2013. 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. In addition, when an event occurs, field-gathered information is used in developing a state emergency proclamation and in requesting a federal disaster declaration. Since the implementation of the database, there has been one disaster occurrence that correlates to completed mitigation projects. The 2017 flood in Reno-Sparks required hundreds of residents to evacuate. A storm that brought several inches of rain to the area and the nearby snow-covered mountains, which led to the biggest flood in Northern Nevada in more than a decade. The Lockwood property, owned by Washoe County, was restored following flooding issues in 1997. Structures on the property were demolished, and the area is now a park. The project was completed by The Nature Conservancy (TNC), TRFMA, and other partners. The restoration included: one new river meander, eight riffles, two wetlands, and 28 acres of revegetation. Approximately 0.6 miles of river channel was restored, creating approximately 37 acres of native habitat. This restoration rehabilitates the land and reduces flooding

risks. TRFMA and TNC are continually trying to acquire critical areas along the Truckee River before it is developed and becomes at risk for future flooding. Another example is the City of Reno's Oxbow Park project, which involved restoring the north river bank of the Truckee River, and reestablishing riparian habitat. The river bank was severely eroded due to flooding in 1997 and 2005. The project helps to protect the Truckee River and reduce erosion and sediment loading. FEMA provided a cash match to assist in the Oxbow project.

For information on the Lockwood property and the Oxbow project, see:

- <https://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/nevada/placesweprotect/102-ranch.xml>
- <https://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/nevada/placesweprotect/102-ranch.xml>
- <http://truckeeriverfund.org/projects/truckee-river-bank-stabilization-at-oxbow-park/>

8.4.2 Effectiveness of Mitigation Actions (Loss Reduction)

Nevada DEM currently coordinates volunteers who participate in State Preliminary Damage Assessment (PDA) Teams, which assess damage after an incident. The State PDA volunteers include representatives from the following agencies and professional groups:

- Nevada Attorney General's Office
- Nevada Department of Administration
- Nevada Department of Business & Industry/Insurance Division
- Nevada Department of Transportation
- Nevada Department of Wildlife
- Nevada Division of Emergency Management
- Nevada Division of Forestry
- Nevada Division of Records & Technology
- Nevada Division of Water Resources

as well as voluntary agencies, local governments and other members of the private sector.

This wide range of professional expertise and backgrounds allows the State PDA Teams to work efficiently to assess damage. State PDA Team volunteers are coordinated by the State Recovery Officer. Training and meetings of volunteers take place quarterly and in a just-in-time trainings when disasters strike.

Training sessions have included:

- ATC-20 Post Earthquake Safety Evaluation of Buildings,
- Earthquake hazard mitigation for hospitals Disaster Declaration Process & Data Collection Needs
- Damage Assessment for FEMA Public Assistance Program

- Damage Assessment for FEMA Individual Assistance Programs
- Damage Assessment for SBA Disaster Assistance Programs
- NV Disaster Recovery Framework Training
- FEMA IS-2900 National Disaster Recovery Framework
- ArcGIS Camp Collector app
- Orion Mobile PDA app
- Proper safety procedures
- Media management.
- Incident Command System
- National Incident Management System
- Benefit cost analysis

The SHMO is coordinates with the State Recovery 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 State PDA teams participate in drills and training provided by emergency management personnel in the state.

Table 8-2. State PDA Training Sessions in the 2013-2018 Update Period

June 22nd & 23rd, 2015	Disaster Recovery & Damage Assessment Workshops Carson City
June 24th & 25th, 2015	Disaster Recovery & Damage Assessment Workshops Las Vegas
July 7th & 8th, 2015	Disaster Recovery & Damage Assessment Workshops
May 11, 2016	Disaster Recovery TRAINING Las Vegas
June 22, 2016	Disaster Recovery TRAINING Elko
July 13, 2016	Disaster Recovery TRAINING Reno
Jan 12, 2017	State PDA Team Activation – JIT
Feb 10, 2017	Flood- FEMA IA PDA Training
Feb 13, 2017	FEMA PA Damage Assessment Training
Feb 13, 2017	ArcGIS Camp Collector App for State PDA
June 29, 2017	ATC-20 and FEMA 154 refresher class
Feb 9, 2018	Disaster Declaration Process & Data Collection Needs

State PDA 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 Nevada DEM.

1. **Information gathering:** Nevada DEM mitigation 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 State PDA Team assessment forms for the type of event (earthquake, flood, wildfire) and a summary of the project background are provided to the State PDA team.
2. **Site visit and damage assessment:** The assembled information and forms are provided to the State PDA 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 during the 2017 flooding events in Northern Nevada by NBMG geoscientists. It was also implemented during the 2008 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 Nevada DEM:** Once the State PDA team completes the physical site examination, they compile the State PDA report and send it back to Nevada DEM 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.

State PDA team reports and studies from preliminary damage assessment of recent events in Nevada include:

- Carpenter 1 Fire- August 2013
- Clark County Sept 2014
- Douglas County August 2014
- Moapa Flood – October 2014
- Carlin Winter Storm – November 2015
- Douglas County flash flooding July 2015
- Multi County week long storm – July 2015
- Lyon County 2015
- Nye County Industrial fire – 2015
- Hawthorne EQ 2016
- Little Valley Fire – October 2016

- Lincoln County Panaca explosion – 2016
- Washoe County Virginia Complex Fires – 2016
- 1 October Shooting Las Vegas – October 2017
- February flood event February 2017
- January flood event – January 2017
- Spring Thaw – 2017

Reports by State PDA teams to Nevada DEM 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.

In 2017, a Loss Avoidance Study (LAS) was completed by FEMA, which assessed the efficacy of past mitigation projects where public funding is involved. The study focused on two analysis sites within the declared disaster area of Northwest Nevada (due to flooding in January and February 2017). The LAS addressed two mitigation projects: the Truckee River Flood Project (east Reno) and the Vicee Canyon Basin Expansion Project (northwest Carson City). The Loss Avoidance Study is in Appendix T.

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.

8.5 EFFECTIVE USE OF AVAILABLE MITIGATION FUNDING

ELEMENT	REQUIREMENTS
<p>E5. Is the state effectively using existing mitigation programs to achieve mitigation goals? [44 CFR §§201.5(a) and 45 201.5(b)(3)]</p> <p><i>Intent: To exhibit successful application of a statewide mitigation program to advance risk reduction and resilience toward mitigation goals. Also to demonstrate the effective use of the additional HMGP funds for which the Enhanced state is eligible.</i></p>	<p>a. The enhanced plan must document how the state has fully made use of the funding available through the FEMA assistance programs (for example, PA C-G, HMGP, PDM, and FMA). If the state has not made full use of available funding, the enhanced plan must document the reasons why funding was not used and explain the process to improve this capability.</p> <p>b. The enhanced plan must document how the state effectively uses existing state programs to achieve its mitigation goals.</p> <div style="background-color: #e0e0e0; padding: 5px; margin-top: 10px;"> <p>Special Consideration: Citing limited staff resources is not considered an acceptable reason for not making full use of funding. Further, citing limited staff resources would document the inability to meet the requirement at §201.5(b)(2)(iii), that requires the state to demonstrate HMA grants management capability.</p> </div>

⁴⁵ 44 CFR §201.5(b)(3): “Demonstration that the State effectively uses existing mitigation programs to achieve its mitigation goals.”

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 Nevada DEM.

Over the 2013-2018 period, 13 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 or through the State, and, where needed, communities have joined together to develop regional plans. Since the previous plan was approved in 2013, funding received for planning has allowed six counties (not including four potential updates for 2017 PDM) to update their current plans and five counties are updating two separate regional plans.

As a result, Nevada continues to maintain its goal of all counties updating hazard mitigation plans by 2018.

Planning funds have been “shared” by more than one community in the past. Humboldt, Lander and Pershing counties have developed a regional plan under the approved PDM funding. This regional plan has been approved by FEMA. 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 earthquakes statewide, also need to be documented and presented in this plan. Private mitigation activities include the total repair and seismic retrofit of the Church of Jesus Christ of Latter-day Saints (LDS) Wells Ward Chapel in 2009. The retrofit was completed close to the one year anniversary of the 2008 Wells earthquake. The City of Wells planned a special event for the anniversary, and the church participated in the activities. The University of Nevada, Reno recently completed a seismic retrofit of Lincoln Hall, an 1800’s vintage building that was damaged in the 1914 earthquake. The University of Nevada, Reno has plans to complete a seismic retrofit of Manzanita Hall.

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. Summit workshops and sessions cover three main topics: fire adapted communities, operations and suppression, and wildland fire policy and tools. Until 2012, the Summit occurred in September with up to 200 attendees from rural, urban, and “frontier” communities. The 2018 Summit is scheduled for February, and now has an IAFC WUI mobile app for attendees. The app allows for easy navigation during the event, and allows users to stay organized, take notes and rate presentations, and stay connected with attendees. 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 (CCRFCD) completed 36 flood-control projects from 2013 to 2017. As of June 2017, 14 projects are under construction or about to start. During 2016-2017, 54 square miles were removed from FEMA flood zones. For more information on CCRFCD's accomplishments and future projects, see Appendix O.
- Truckee River Flood Management Authority (TRFMA) has a long list of accomplishments in flood mitigation, restoration, prevention, public awareness education and outreach since 2009. Completed flood risk management projects include: the Virginia Street bridge replacement, the Reno-Sparks Indian Colony levee and floodwall construction, and the North Truckee drain relocation project. Additionally, TRFMA has a home elevation program, in which homeowners are eligible to receive grants from Washoe County and TRFMA. Elevating homes in the approved area (Hidden Valley, Rosewood Lakes, and Eastside Subdivision neighborhoods) makes the properties more resistant to flood damage, and thereby making it more cost-effective to elevate flood-prone homes. Additional information about TRFMA's projects can be found in Appendix O.
- Carson River Water Subconservancy District (CRWSD) has many mitigation accomplishments. Projects include floodplain management and restoration, weed management, updates to local flood regulations, and many more. CRWSD accomplishments are listed in Appendix O.
- Nevada Division of Forestry (NDF) has completed numerous hazardous fuels reduction projects, and have more planned. The Tahoe Fire and Fuels Team (TFFT) has also completed numerous hazardous fuels reduction projects. Projects completed by NDF and TFFT are highlighted in Appendix O.

Many county-funded projects were completed during this plan update period. 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 Nevada DEM and NHMPC to solicit, select, and rank projects are clear and linked to maximizing project impacts that support the state plan goals. The Nevada DEM objective is to expend all funds in each grant program. Nevada 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 the local and private sources that collaborate with the state are listed in Tables 4-11, 4-12, and 4-13. Collaborating 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 Nature Conservancy's (TNC) Truckee River Project

proved to be successful after the major flooding events of 2017. TNC has restored about 10 miles of the Truckee River and its floodplain over the past 14 years. The Truckee River Project has implemented many strategies to restore the Truckee River, including: reshaping the river, reconnecting the river to its floodplain, creating in-stream riffles to provide habitat for native fish, excavating banks to provide habitat, and invasive species management. During the flooding events of 2017, water slowed down and thinly flowed as the floodwaters met the floodplain, protecting life and property. TNC has partnered with numerous agencies on the project, including: City of Reno, Nevada Department of Wildlife, Pyramid Lake Paiute Tribe, Truckee Meadows Flood Management Project, Washoe County, and Nevada Division of Water Resources, and many more. To see a complete list of partners and more information on the Truckee River Project, visit: <https://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/nevada/placesweprotect/truckee-river-project.xml>

The Southern Nevada Water Authority (SNWA) has a Water Smart Landscapes rebate program. SNWA will rebate customers \$2.00 per square foot of grass removed and replaced with native, desert landscaping up to the first 5,000 square feet converted, per property and per year. After the first 5,000 square feet, SNWA will rebate customers \$1.00 per square foot (maximum of \$300,000 in a fiscal year). The program has saved billions of gallons of water, and has upgraded more than 183 million square feet. SNWA is governed by a seven-member board of directors, and has representatives from: Big Bend Water District, City of Boulder City, Clark County Water Reclamation, City of Henderson, City of Las Vegas and North Las Vegas, and the Las Vegas Valley Water District. For more information, please visit: <https://www.snwa.com/rebates/wsl.html>

As noted on Carson City's Open Space Division webpage, "The Open Space Program was created by the Quality of Life Initiative, or Question 18, passed by Carson City voters in 1996. The Quality of Life Initiative included the acquisition, development and maintenance of parks, opens space, trails and recreation facilities through an increase in the sales tax rate of ¼ of 1 percent. Forty percent of the funds are designated for the Open Space Program, which currently results in approximately \$1 million in annual revenue. The Open Space Program does not operate on any revenue from the General Fund." Currently, the Open Space Program manages approximately 6,940 acres, and has acquired over 21 properties, including one 40-year open space protection agreement and one conservation easement. Furthermore, twoTwo properties have been donated to the program since its inception. Lands have also been acquired through a lands exchange with the U.S. Forest Service and the Bureau of Land Management. Furthermore, Carson City owns land not acquired through the Open Space program but through Public Works Utility funds. These lands also include floodplain. Since October 2017, Carson City has 3,890 acres of Special Flood Hazard Area (SFHA), of that amount 60 percent is in open space (City, State, & private). The City's portion is 30% of the 60% or half.

The City of Yerington and Lyon County filed a joint resolution proclaiming the existence of an emergency and/or disaster within their respective jurisdictions with respect to the immediate necessity to clean the Walker River and remove debris and sediment that had built up since the 1997 flood. This was referred to as the Walker River Clean-up project. The Mason Valley Conservation District was the lead for the project with assistance from the Walker River Irrigation District, Federal Water master, City of Yerington, and Lyon County. Approximately 300,000 cubic yards of sediment and debris were removed from the Walker River main channel, including all three primary bridge crossings, increasing channel capacity by nearly twice what it was before the project was completed. The Walker River Clean-up project was completed in December 2015.

The “Big Dig” project was the culmination of a series projects providing local flood mitigation measures on the Carson River near Fallon. The projects were the result of forecasts predicting runoff from the Sierra Nevada into the Carson River that would exceed the capacity of Lahontan Reservoir. To mitigate potential flooding from snowpack runoff, a series of projects were completed with coordination between local, state, and federal partners. A weir was installed to divert flows below Lahontan Reservoir out into the desert and into Carson Lake. The completed “Big Dig” project is a 60-foot wide 17-mile long channel that diverts excess water from Carson Lake to the Stillwater Point Reservoir. It is anticipated that these flood mitigation measures will mitigate flooding in the area for many decades. The “Big Dig” project was completed in May 2017.

The Nevada Division of Environmental Protection’s Bureau of Water Quality Planning (BWQP) 319(h) Nonpoint Source Protection Grant Program is funded through the Clean Water Act. The Grant Program provides funding to qualifying counties, conservation districts, higher education institutions, regional agencies, and nonprofit organizations to improve conditions of Nevada’s watersheds and protect against nonpoint source (NPS) water pollution. Mitigation is inherently a part of protecting the quality of Nevada’s surface waters. Additional examples of NDEP’s mitigation programs and activities are listed in Appendix O.

Nevada Flood Awareness Week is an annual event that builds awareness about the danger of flooding, and how to protect life and property from a flood. Nevada Flood Awareness Week is a Nevada Flood Awareness Committee initiative, and involving many agencies. To see a list of partners and more information about Nevada Flood Awareness Week, please see: <http://www.nevadafloods.org>. 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/faqs/planning-group-contact-information>

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 an earthquake drill that is broadcast simultaneously throughout the state. More information on the 2017 Great Nevada ShakeOut is available at this website: <http://www.shakeout.org/nevada/>

Table 8-3. 2005 to 2017 FEMA-Supported Grant Activities in Nevada

HMGP					
Disaster Number	Selected	Obligated	Expended	Deobligated	Status
4307	\$2,531,731.36				Pending
4303	\$2,128,628.62				Pending
4202	\$583,609.00	\$102,295.00	\$22,836.15		In process
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	Closed
1738	\$475,537.56	\$71,092.56	\$44,906.23		Closed
Total	\$5,073,332.18	\$2,058,944.56	\$1,604,712.99	\$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	\$573,173.43	\$573,173.43	\$565,090.32	\$8083.11	Closed
2009	\$1,067,995.50	\$1,067,995.50	\$229,740.91	\$838,254.59	Closed
2010	\$3,182,907.31	\$1,806,991.31	\$326,015.97		In process
2011	\$905,824.25	\$905,824.25	\$904,242.05	\$143.84	Closed
2012	\$2,532,568.77	\$2,532,568.77	\$2,427,763.62	\$104,805.15	Closed
2013	\$364,650.00	\$364,650.00	\$363,320.93	\$1329.07	Closed
2014	\$2,470,057.87	\$2,470,057.87	\$621,763.66		In process
2015	\$440,000	\$440,000	\$8,304.94		In process
2016	\$1,482,988.45	\$154,999.50	\$0		Pending awards
2017	\$407,635.61				Pending
Total	\$13,984,566.44	\$10,873,025.88	\$5,955,533.39	\$895,284.87	

Table 8-3 is a summary of the status of all FEMA grant funds for hazard mitigation activities received between 2005 and 2018/2016. 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 5 disaster declarations beginning in 2004 ending in 2014. There were two additional disaster declarations that occurred in 2017 that are not added at this time. 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 subrecipient 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.
- For PDM 2009, the \$838,254.59 Deobligated column results from a portion of the project being unable to be completed secondary to limitations in FEMA rules regarding pile burning for the fuels reduction project. Grant restrictions did not allow transfer of these funds to another project.
- For PDM 2012, the \$104,805.15 in the Deobligated column is cost savings from the subapplicant in personnel costs.

- 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 subrecipient for activities that fall within the performance period.
- Homes listed in the Repetitive Flood Claims (RFC) loss listing are included in the home elevation program applications with the Truckee River Flood Management Authority (TRFMA) for PDM 2016 and HMGP 4303. TRFMA’s home elevation program is discussed in section 8.5.1.

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 Flood Project (previously referred to as 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 (many are in the update 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 also continue the Table Top Exercises (TTX), which are 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

ELEMENT	REQUIREMENTS
<p>E3. Does the state demonstrate commitment to a comprehensive mitigation program? [44 CFR §201.5(b)(4)]</p> <p>Intent: Demonstrate commitment to advancing risk reduction and resilience using a wide range of resources.</p>	<p>The plan must describe an existing comprehensive state mitigation program that might include, but is not limited to, examples listed in the mitigation planning regulation at 44 CFR §201.5(b)(4).</p> <p>Comprehensive state mitigation program means a broad range of state-supported initiatives and activities that:</p> <ol style="list-style-type: none"> 1. Targets risk reduction for each of the identified hazards in the state; 2. Is inclusive of various state agencies and sectors with mitigation capabilities and resources; and 3. Is coordinated to increase statewide resilience from the adverse impacts of future hazard events. <p>Initiatives and activities that demonstrate commitment include, but are not limited to, a combination of current training, partnerships, leadership initiatives, funding, technical assistance, codes and ordinances, or other activities that reduce risks.</p> <p>Special Consideration: Descriptions of the various programs and initiatives to meet this requirement do not need to be repeated in a separate section. However, if the documentation to meet this requirement is not a separate section, the Plan Review Tool (refer to Appendix B: State Mitigation Plan Review Tool) should identify where in the plan the descriptions are found.</p>

⁴¹ 44 CFR §201.5(b)(4): “Demonstration that the State is committed to a comprehensive state mitigation program, which might include any of the following:

- (i) 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.
- (ii) 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.
- (iii) The State provides a portion of the non-Federal match for HMGP and/or other mitigation projects.
- (iv) 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.
- (v) A comprehensive, multi-year plan to mitigate the risks posed to existing buildings that have been identified as necessary for post-disaster response and recovery operations.
- (vi) A comprehensive description of how the State integrates mitigation into its post-disaster recovery operations.”

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 (above). 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 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 Mapping, Assessment and Planning (Risk MAP) program, which increases public awareness and leads to action that reduces flood risk to life and property.
- The FM and the SHMO jointly coordinate and present grant application workshops for potential subapplicants 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 Managers statewide that covered building codes, elevations, insurance, FEMA policies, etc. The last course sponsored by the FM was in 2015. 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.nbmj.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. NESC sponsors yearly earthquake training for the public through the National Earthquake Technical Assistance Program (NETAP) which provides various courses with typically one or more courses provided throughout the State on a rotating basis. ATC-20 and FEMA-154 (pre and post earthquake evaluation) is offered on a yearly basis and will be offered in May 2018 in Las Vegas.
- Silver Jackets is a partnership among federal (USACE, NOAA, FEMA, USGS, NRCS), state (Nevada DEM, 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.

Nevada DEM 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 (Nevada DEM, 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. For more information please visit: <https://silverjackets.nfrmp.us/State-Teams/Nevada>

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

- Nevada DEM 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, Nevada DEM 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. A GIS inventory of ditches in the northwest portion of the state was completed by NBMG with grant support from Nevada DEM in 2015.

- FEMA has provided funds for NBMG to develop and maintain the “MyPlan” and “MyHazards” interactive web maps 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. Craig dePolo with NBMG has been conducting informational presentations both to the NHMPC, NHM Planning 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. In late 2017, the Arizona Geological Survey (AZGS) contacted the Cartography and GIS office at NBMG for information regarding the set-up and implementation of the MyHazards web application in order for the AZGS to develop a similar product. The MyPlan and MyHazards websites have many participating partners across state lines including California Emergency Management Agency in California, Nevada DEM, NDOT, and NBMG in Nevada, with NBMG acting as the lead in this project. These web applications provide local counties and tribes with information and mapping of local hazards and for counties to upload hazard/risk data. This provides local counties and Nevada with a database that can be improved upon over time when additional data becomes available. It is designed to allow local and tribal communities to observe multiple hazards layers in their regions 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 for 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 38 rural communities in Nevada.
- 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 that 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 in some instances) 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. (see NRS 477.030 (12)).</p> <p>NRS 278.580 – Building codes: Adoption; fees for permits; applicability to State and Nevada System of Higher Education; authorization of use of materials and technologies that conserve resources in construction and use of solar or wind energy; adoption of seismic provisions and standards</p> <p>NRS 461.170 – Division required to adopt by regulation nationally recognized codes and standards for construction, reconstruction and alteration.</p> <p>NRS 477.030 (1)–Requires the State Fire Marshal to adopt minimum fire and building codes to ensure fire safety, except as otherwise provided.</p> <p>NRS 477.030 (12)- Except as otherwise provided in this subsection, any regulations of the State Fire Marshal concerning matters relating to building codes, including, without limitation, matters relating to the construction, maintenance or safety of buildings, structures and property in this State. Exemptions are provided to a county whose population is 700,000 or more (Clark County, only) and have adopted a code at least as stringent as the <i>International Fire Code</i> and the <i>International Building Code</i>, published by the International Code Council.</p> <p>NRS 514.040(3) – Apply geologic engineering principles to problems of conservation, environment, construction, mineral industry and other scientific matters that may be of importance to the welfare of the State.</p> <p>NRS 623 – Architects, Interior Designers and Residential</p>	<p>The adoption and enforcement of building and fire codes relates the design and construction of structures to standards established for withstanding wildfires, earthquakes, flooding, dam failure, and high winds.</p>

SECTION EIGHT

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	Designers.	
Zoning	<p>Laws and ordinances regulate development by dividing the community into zones and by setting development criteria for each zone.</p> <p>NRS 278.147 – Facilities for use, manufacture, processing, transfer or storage of explosives or certain other substances: Conditional use permit required; application for and issuance of conditional use permit.</p> <p>NRS 278.160 – Elements of the master plan (planning and zoning).</p> <p>NRS 278.580— Standards for the investigation of hazards relating to seismic activity, including, without limitation, potential surface ruptures and liquefaction</p> <p>NRS 410.095 through 410.210 – Regulation and restriction of outdoor junkyards.</p>	<p>Zoning can keep inappropriate development out of hazard-prone areas and can designate certain areas for such things as conservation, public use, or agriculture. Zoning can also be used to control construction by dedicating areas for cluster development or planned unit development. The State currently works with local governments on implementing these last two policies.</p>
Land Use Planning	<p>Comprehensive land use planning provides a mechanism to prevent development in hazardous areas or allows development in a manner that minimizes damage from hazards. Land use planning gives local governments "the big picture" of what is happening in their jurisdiction.</p> <p>NRS 278.02521 – Legislative intent (protecting environmentally sensitive areas and maintaining the economic viability of rural lands).</p> <p>NRS 278.160 – Elements of master plan (planning and zoning).</p> <p>NRS 278.580—Standards for the investigation of hazards relating to seismic activity, including, without limitation, potential surface ruptures and liquefaction. NRS 321.640 through 321,770 – State planning of use of land.</p> <p>NRS 324 – Lands under Carey Act (regulates use of water and reclamation of water projects).</p> <p>NRS 376A – Taxes for development of open space land.</p> <p>NRS 472 – State Forester Fire Warden (management of vegetation, cooperative agreements, rangeland fire protection associations, elimination of fire hazards, etc.).</p> <p>NRS 528 – Forest practice and reforestation.</p> <p>NRS 534 – Underground water and wells</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 (Uniform Act).</p>	<p>Contains standards for such things as storm water management and erosion control</p>
Capital Improvements	<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</p>

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

Table 8-5. Code Adoption by Jurisdiction, as of January 2018									
JURISDICTION	IBC	IRC	UPC	UMC	NEC	IECC	IFC	OTHER	AMENDMENTS
CARSON CITY	2012	2012	2012	2012	2011	2012	2012	2012 International Mechanical Code 2012 International Fuel Gas Code 2012 IPMC 2012 IEBC 2012 USPSHT 2012 ISPSC 2012 WUIC 2009 ICC/ANSI A117.1	2015 Northern NV Amendments 2012 Northern NV Fire Amendments 2012 Northern NV Amendments 2011 Northern NV Energy Code Amendments
CLARK COUNTY SCHOOL DIST	2012		2012	2012	2011	2012	2012	2009 ICC A117.1 Accessibility 2013 NFPA 13 & 72	YES
CLARK COUNTY BLDG DEPT	2012		2012	2012	2011	2012	2012	2014 Clark County Building Administrative Code 2012 ISPSC	YES
CITY OF LAS VEGAS	2012	2012	2011	2012	2011			2012 ISPSC Amendments 2012 Administrative Code ordinance 2012 IBC ordinance 2012 IEBC ordinance 2012 IRC ordinance 2012 UMC ordinance 2012 UPC ordinance NEC Requirement Applicable to Special Events Special Events Permit Guidelines 5152014	YES: Existing Building Code CLV Amendments to the SNV 2012 IBC
BOULDER CITY	2012	2012	2012	2012	2011	2009	2012	2017 BSDAC 2012 ISPSC	YES

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CITY OF NORTH LAS VEGAS	2012	2012	2012	2012	2011	2009		2012 ISPSC Building Policies and Procedures Building Administrative Code ASHRAE ANSI A117. 1-2009 The Blue Book	YES: Southern Nevada Amendments
DOUGLAS COUNTY	2012	2012	2012	2012	2011	2012	2012	2012 IUWIFC for Lake Tahoe area	YES
STATE OF NV (NAC 341.045)	2012	2012	2012	2012	2011	2012	2012	2012 IEBC 2010 SAD	YES(NAC 341.045)
CITY OF SPARKS	2012	2012	2012	2012	2011	2012		2012 IEBC 2012 IMC 2012 IFGC 2012 ISPSC 2012 IGCC NFPA 58 & 54	YES
WASHOE COUNTY	2012	2012	2012	2012	2011	2012	2012	2012 IEBC 2012 IFGC 2012 IMC 2012 ISPSC 2012 IWUIC 2012 IGCC NFPA 58 & 54	YES: Northern Nevada amendments (2012 & 2015)
CITY OF RENO	2012	2012	2012	2012	2011	2012		2012 IFGC 2012 IMC	YES
LYON COUNTY	2012	2012	2012	2012	2011	2009		2012 IFGC	YES
ELKO COUNTY*	2003	2003	2003	2003	2002	2003	2003 (including the NFPA's)	1997 UAC 2003 IEBC	YES
NYE COUNTY	2006	2006	2006	2006	2005	2012	2006	2006 IPMC 2006 USPSHT	

TABLE NOTES:

* Elko County's 2003 IBC with Appendix Chapters B, C, E, G, H, J, & I and 2003 IRC (Building and Electrical Chapters) with Appendix's G, H, & L. The State Fire Marshal's Office adopted the 2012 IBC and Fire Code and the 2012 UMC. Clark County School District will be adopting 2018 ICC series along with the UMC and UPC in late summer or fall of 2018

IBC- International Building Code

IEBC – International Existing Building Code

IECC- International Energy Conservation Code

IFC- International Fire Code

IPMC – International Property Maintenance Code

IRC- International Residential Code

ISPSC – International Swimming Pool and Spa Code

IWUIC – International Wildland-Urban Interface Code

IGCC – International Green Construction Code

NEC- National Electrical Code

UAC – Uniform Administrative Code

UMC- Uniform Mechanical Code

UPC – Uniform Plumbing Code

USPSHT – Uniform Swimming Pool, Spa & Hot Tub Code

Nevada L_P Gas Board – National Fire Protection Act - NFPA 54 (2009 edition)– applies statewide.

Nevada Division of Industrial Relations –Safety Codes for Elevators and Escalators A17.1 (2013 edition), A17.3 (2011 edition) and others.

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 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. Field verification has begun in the Clark County unincorporated areas, Reno, and Carson City. 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 Risk

MAP program, NDWR and Nevada DEM 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.

Nevada had two presidential disaster declarations in 2017. Nevada DEM set a goal of 50% of project worksheets to include 406 Hazard Mitigation funding. Actual 406 mitigation was 47% for the combined disasters.

8.6.7 Disaster Recovery Framework

Recovery and mitigation work closely together with ongoing mitigation planning efforts. Implementation of mitigation projects play a key role in ensuring the state's preparedness to recover. The State Enhanced Hazard Mitigation Plan identifies projects that have direct impacts on long-term recovery activities. This framework recognizes that recovery-planning efforts must work in concert with mitigation planning activities and that there may be an overlap between the two aspects of emergency planning.

Mitigation and Recovery work together with eight Recovery Support Functions (RSF). These RSFs include Community Planning and Capacity Building, Economic Recovery, Health and Social Services, Disaster Housing, Infrastructure Systems, and Natural and Culture Resources. The Recovery Framework brings together many supporting agencies including the Governor's Office of Economic Development, Department of Employment, Training and Rehabilitation, Department of Conservation & Natural Resources, Department of Agriculture, Department of Public Safety, Department of Corrections,

Department of Transportation, Nevada Housing Division, Department of Education, Department of Health and Human Services, Department of Administration – Public Works, Department of Business and Industry, Department of Wildlife, Department of Taxation, Nevada Contractors Association, and the Rural Community and Economic Development Division. Mitigation is woven throughout the Recovery Framework including working together for planning, technical support in identifying recovery and mitigation projects, and monitoring post disaster recovery and mitigation projects to ensure proper oversight. Our goal is to help build accessibility, resiliency, sustainability, and mitigation measures into identified recovery strategies, preparedness, and operational plans.

Executive order 2018-4, Implementation of Nevada’s Statewide Resilience Strategy, discusses the fact that Nevada experienced an unprecedented number of emergencies and disasters during calendar year 2017, which resulted in disruption and tragedy throughout Nevada. It states “Nevada's lessons learned from its unprecedented year, its commitment to recovering fully, and its established policy development and implementation framework through the Nevada Homeland Security Working Group can be combined to build and implement a plan for building statewide resilience”. This executive order outlines the plans and measures that will be taken to recover from these events as well as plan for increased resilience regarding future disasters. Recovery efforts work together with effective mitigation efforts to make Nevada a more resilient state. The executive order in its entirety can be found here: [http://gov.nv.gov/News-and-Media/Executive-Orders/2018/2018-4-Implementation-of-Nevada s-Statewide-Resilience-Strategy/](http://gov.nv.gov/News-and-Media/Executive-Orders/2018/2018-4-Implementation-of-Nevada-s-Statewide-Resilience-Strategy/)