



STATE OF NEVADA MEETING NOTICE AND AGENDA NEVADA HAZARD MITIGATION WORKING GROUP

Name of Organization: Nevada Hazard Mitigation Working Group

Date and Time of Meeting: August 30, 2022, at 10:00 a.m.

Venue Name/Address: Virtual Zoom Meeting

Visual Access: There will be no physical location for this meeting. The meeting can be listened to, or viewed live, over the Internet through the Nevada Division of Emergency Management YouTube channel at:
<https://www.youtube.com/channel/UCFGa6exzrZdlqA6PP55kfqq>

Conference Line Access: Conference line #: (669) 219-2599
Meeting ID# 686 738 8625
When prompted for Participant ID, please press #

Current Voting Membership	
Name	Organization
Lorayn Walser, Chair	Governor's Office of Energy
Stephen Aichroth	NV Division of Housing
Solomé Barton	North Las Vegas Emergency Management
Faith Beekman	NV Health and Human Services
Kathy Canfield	Storey County
Eric Antle	NV Division of Forestry
Craig dePolo	NV Bureau of Mines and Geology
Vacant	Tribal Representation
Vacant	Western Nevada Development District
Clair Ketchum	National Oceanic and Atmospheric Administration (Federal)
Andrew Trelease	Southern NV Regional Flood
Erin Warnock	NV Division of Water Resources
Melissa Whipple	NV Health and Human Services
Current Non-Voting Membership	
Janell Woodward	NV Division of Emergency Management



STATE OF NEVADA MEETING NOTICE AND AGENDA NEVADA HAZARD MITIGATION WORKING GROUP

This meeting will be video or teleconferenced as specified beginning at 10:00 a.m. The Nevada Hazard Mitigation Working Group ("Working Group") may act on items marked "For Possible Action". Items may be taken out of the order presented on the agenda at the discretion of the Chair. Items may be combined for consideration by the Working Group at the discretion of the Chair. Items may be pulled or removed from the agenda at any time.

Please Note: Witnesses wishing to have their complete testimony/handouts included in the permanent record of this meeting should provide a written or electronic copy to the Working Group administrative support staff. Minutes of the meeting are produced in a summary format and are not verbatim.

1. **CALL TO ORDER AND ROLL CALL** – Chair, Lorayn Walser, Governor's Office of Energy.
2. **PUBLIC COMMENT** – (Discussion Only) – No action may be taken upon a matter raised under this item of the agenda until the matter itself has been specifically included on an agenda as an item upon which action may be taken. Public comments may be limited to 3 minutes per person at the discretion of the Chair. Comments will not be restricted based on viewpoint.

To provide testimony during this period of public comment via telephone, please call in any time after 9:30 a.m. on the day of the meeting by dialing (669) 219-2599. When prompted to provide the Meeting ID, please enter 686 738 8625 and then press #. When prompted for a Participant ID, please press #. When asked to provide public comment, please press *6 to unmute your phone and *6 again when your comments are complete.

Please be advised that the YouTube stream will be between 60-90 seconds behind the live meeting. If you would like to present public comment, please call in using the above number to hear the meeting live.

3. **APPROVAL OF MINUTES** -- (Discussion/For Possible Action) – Chair Lorayn Walser. The Working Group will discuss and review the minutes of the March 8, 2022, Working Group meeting. The Working Group will determine whether to approve the meeting minutes.
4. **DROUGHT AMENDMENT TO NV STATE HAZARD MITIGATION PLAN** -- (Discussion/For Possible Action) – Janell Woodward, DEM/HS State Hazard Mitigation Officer, will lead discussion and review of the Drought Amendment approved by FEMA. If approved, the Drought Amendment will be recommended to the DEM/HS Chief for approval. If approved, the Drought Amendment will be recommended to the Governor of Nevada for approval.
5. **PUBLIC COMMENT** – (Discussion Only) – No action may be taken upon a matter raised under this item of the agenda until the matter itself has been specifically included on an agenda as an item upon which action may be taken. Public comments may be limited to 3 minutes per person at the discretion of the Chair. Comments will not be restricted based on viewpoint.

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6. ADJOURNMENT – (Discussion/For Possible Action)

This is a public meeting. In conformance with the Nevada Public Meeting Law, this agenda was posted or caused to be posted on or before **9:00 a.m. on August 25, 2022**, at the following:

Nevada State Emergency Operations Center, 2478 Fairview Drive, Carson City, NV; and

Posted to the following websites:

- Nevada Division of Emergency Management and Homeland Security Public Meeting Notifications/Information Website:
https://dem.nv.gov/DEM/DEM_Public_Meeting_Information/
- Nevada Public Notice Website: www.notice.nv.gov

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- Within the Government Column, click **State**.
- Within the Entity Column, select **Office of the Military – Division of Emergency Management**.
- Within the Public Body column, click on the **Nevada Hazard Mitigation Working Group**; results will populate on the page.

We are pleased to make reasonable accommodations for members of the public who are disabled. If special arrangements for the meeting are necessary, or if there is a need to obtain copies of any supporting meeting materials, please notify Janell Woodward, Division of Emergency Management and Homeland Security, at 775-687-0300. 24-hour advance notice is requested. Thank you.



STATE OF NEVADA MEETING MINUTES NEVADA HAZARD MITIGATION WORKING GROUP

Attendance	DATE	March 8, 2022
	TIME	10:00 a.m.
	METHOD	Zoom
	RECORDER	Janell Woodward

Appointed Voting Member Attendance

Member Name	Present	Member Name	Present	Member Name	Present
Lorayn Walser– Chair	X	Herman Fillmore	ABS		
Steven Aichroth	ABS	Sheryl Gonzales	ABS		
Solome Barton	X	Clair Ketchum	ABS		
Faith Beekman	X	Andrew Trelease	X		
Kathy Canfield	X	Erin Warnock	ABS		
Ryan Shane	ABS	Melissa Whipple	X		
Craig dePolo	X				

Legal/Administrative Staff

Name	Agency	Present
Samantha Ladich – Senior Deputy Attorney General	Attorney General's Office – DEM/HS DAG	X
Janell Woodward – Emergency Management	NDEM/HS	X
Mark Shugart – FEMA FIT	FEMA RIX	X

1. CALL TO ORDER AND ROLL CALL

Chair Lorayn Walser, Governor's Office of Energy, called the meeting to order at 10:00 a.m. Roll call was performed by Janell Woodward, DEM/HS. Quorum was established for the meeting.

2. PUBLIC COMMENT

Chair Walser opened the first period of public comment for discussion. There was no public comment.

3. APPROVAL OF MINUTES

Chair Walser requested a motion to accept the minutes from December 14, 2021. Solome Barton moved to approve the minutes. Craig dePolo seconded the motion. The motion carried unanimously.

4. State Hazard Mitigation Plan Status Update

Janell Woodward, State Hazard Mitigation Officer, DEM/HS, explained that there are three updates from the subject-matter experts and that these updates are in the hazard section, section 3 of the state plan, that were sent to the members ahead of time. Ms. Woodward first discussed the severe storms and extreme snowfall update, indicating that a lot of weather is generally combined into one section. Ms. Woodward informed the group that a sentence was added signifying that a significant portion of the winter snowpack is generated by Pacific, atmospheric, river, winter storms. Ms. Woodward further indicated that there is a requirement for climate change, which falls under all hazards and is not considered a hazard in and of itself. Ms. Woodward explained that the subject-matter expert added three paragraphs to the section regarding individual hazards and how climate change affects those specific hazards.

Jeremy Hynds indicated that in the NRAC meeting a year and a half earlier, a Nevada threats and hazards list was approved and that the vernacular in this is not the same as what was in the approved list. Mr. Hynds explained the importance of remaining consistent given that every jurisdiction is being asked to utilize the same vernacular throughout all the plans in the state and indicated that perhaps the Nevada Threats and Hazards in NRAC need to be reexamined to include additional items such as climate change that are not currently in the list presented today. Mr. Hynds further indicated that the state hazard mitigation document will be used to help write county documents and the hazards are not listed in the state plan but are listed in the county plan, this creates inconsistency and gives the impression of a lack of coordination between state and county.

Janell Woodward asked if on the NRAC list, the different weather was listed out separately.

Jeremy Hynds confirmed that this was the case and indicated that this is something that also needs to be reexamined and updated for clarity given that the list is broken up into categories and subcategories.

Jon Bakkedahl informed the group that he will share the document to which Mr. Hynds is referring with the group and suggested that the document be reviewed by the group, who could then provide input and approval. Mr. Bakkedahl informed the group that the document to which Mr. Hynds is referring was a preparedness document to help get through the THIRA (Threat and Hazard Identification and Risk Assessment) process. Mr. Bakkedahl indicated his understanding that NHMWG is focused on natural disaster but explained that DEM also needs to include man-made and technological. Following the approval of NHMWG, Mr. Bakkedahl indicated that the document could then go to NRAC for review and approval.

Janell Woodward concurred with Jon Bakkedahl's suggestion. Ms. Woodward clarified that the title of the section was combined when the state plan was updated, and at that point is when it was renamed and no longer separate. Ms. Woodward reminded the group that this list was discussed

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at the last quarterly meeting and indicated that it could be re-sent to the members of the committee for feedback and discussion at the next meeting.

Jon Bakkedahl informed the group that the document did go through southern Nevada, rural Nevada, included law enforcement, fire, and received tribal input prior to going to NRAC, who added some additional hazards, like the air-quality component.

Janell Woodward shared the document with the group, specifically pointing out the section to which Mr. Hynds referred regarding severe weather. Ms. Woodward indicated that if the severe weather category is broken down into subcategories, this would be more in line with what the counties are doing throughout the state. Ms. Woodward asked Mr. Hynds to clarify if subcategories under the severe-weather category would mirror the counties or if each should be listed as a separate hazard.

Jeremy Hynds explained that this was a question he intended to direct to NRAC and reiterated that NRAC does need to potentially revise its document in order to make it more user-friendly.

Craig dePolo indicated that some of the severe-weather categories are already broken out into their own sections rather than as subcategories under severe weather. Mr. dePolo concurred with Mr. Hynds' suggestion to include everything.

Janell Woodward indicated that the committee will need to determine what should be included as far as sections, and which of these require greater detail.

Jon Bakkedahl explained that the intent of the document was to be inclusive, but not to the point that each was described as an individual hazard, but rather to be defined in categories for a table of contents so that they could be easily found. Mr. Bakkedahl further indicated that the biggest conflict previously had been the different use of terms among counties for describing the same type of hazard, thus facilitating the need for a more comprehensive document that includes everything and uses the same terminology. Mr. Bakkedahl explained that DEM was trying to encapsulate as much as possible yet still keep it simple by category and terminology.

Janell Woodward explained to the group that she would send everyone the list of threats and hazards and then in the next meeting, a discussion could take place regarding what might need to be changed. Ms. Woodward indicated that she would move on to the other sections under item number 4 and this one would be readdressed at the next meeting.

Janell Woodward next discussed extreme heat, indicating that the state climatologist suggested the changes. Ms. Woodward indicated that this particular subject is especially important to the south, the Clark County and Nye County areas, where the heat can get exceptionally high. Ms. Woodward indicated that the weather fatalities for 2020 were updated as well as the mitigation actions, which Ms. Woodward explained were not typically added in that particular section but could easily be relocated to the other sections that discuss mitigation.

Jeremy Hynds indicated that the 2010 census was the one that had been used and questioned if this would be updated to reflect current census numbers.

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Janell Woodward indicated that she would note that and request that the information be updated.

Jon Bakkedahl explained that the census information should be accurate and available.

Jeremy Hynds asked if HAZUS would be redone now that the new data for the census is available.

Janell Woodward confirmed that HAZUS would be updated for the plan. Ms. Woodward explained that DEM does have a GIS person on staff who has plans to do this.

Jeremy Hynds asked about a timeframe for the HAZUS update.

Janell Woodward explained that there is not yet a timeframe in place but anticipated that HAZUS would be addressed within the next six months or so.

Janell Woodward returned to the updates to the extreme heat section of the hazards plan, informing the group that three areas had been listed as high-hazard category areas to include mitigation actions. Ms. Woodward explained that when things are not expanded out to further actions, DEM is unable to apply for mitigation project grants. Ms. Woodward informed the group of a couple of areas where DEM is currently working to expand out mitigation actions, including drought and pandemic/epidemic response.

Kathy Canfield discussed the section on providing subsidies or other programs to help people offset the cost of home cooling and/or weatherization and pointed out the concerns following the wildland fires such as smoke and air-quality issues. Ms. Canfield suggested that some of these perhaps have cross-purposes and should be additionally addressed as topics with mitigation.

Janell Woodward confirmed that this is a discussion that has been had within DEM, specifically in the drought section. Ms. Woodward further indicated that DEM has met with EPA and received some help regarding the multi-category benefit.

Craig dePolo indicated the importance for everyone to look at the list and ensure that something that has been discussed within a county but is not included be added. Mr. dePolo suggested emailing Ms. Woodward directly regarding additions to this list.

Janell Woodward echoed Mr. dePolo's request that members reach out to her directly with requests for additions.

Craig dePolo requested that some of the figures in the report be enlarged for easier viewing.

Janell Woodward indicated that this could be done. Ms. Woodward next addressed the final update on drought, indicating that the mitigation actions were pretty general, which falls right in line with what DEM wants. Ms. Woodward explained that if mitigation efforts are too specific, then a project can only be done in that certain way and as such, a bit more generality allows for more flexibility.

Jeremy Hynds asked if the section on water stored in Tahoe was vague enough or perhaps too specific.

Janell Woodward clarified that the mitigation actions rather than the narrative itself should be vaguer.

Jeremy Hynds next asked why Lake Tahoe is mentioned but not Lake Mead.

Janell Woodward indicated that she did not know the answer but would note that as a question. Ms. Woodward next indicated that the history, location, and severity are noted by the expert as well as the impacts to both rural and urban areas. However, Ms. Woodward pointed out, there is nothing specific entered about climate change under the mitigation actions, something that needs to be added to the section. Ms. Woodward informed the group that she would ask the subject-specific experts to attend the June meeting for a more robust discussion and indicated that she would send the noted items back for additional editing.

Craig dePolo indicated that the numbers in section 3 were somewhat out of order and suggested that the group revisit that section. Mr. dePolo reiterated Jon Bakkedahl's suggestion from earlier in the meeting to add some quick-reference things upfront in order for people to find something quickly.

5. Mitigation Grants Update

Janell Woodward, State Hazard Mitigation Officer, DEM/HS, explained that four total applications were submitted for the BRIC program, one of which was a repeat of a submission from last year from State Public Works on the Hobart Dam area water system, a grant application equaling approximately \$10 million. Ms. Woodward indicated there were three other planning type applications that hit the \$500,000 planning cap in DEM's set aside. Ms. Woodward explained that the set aside was actually for \$1 million, but some different agencies that were going to submit did not end up doing so and as a result, \$500,000 was left on the table. Ms. Woodward clarified that part of the issues with those submissions that ultimately chose not to submit were issues with BRIC, including building code issues, which are not adopted at a statewide level in Nevada. Ms. Woodward explained that in Nevada, 97 percent of the population is covered by the latest building codes, three counties have no building codes adopted, and a couple of counties have earlier codes that were adopted. Ms. Woodward indicated the other big issue with submissions was that 2020 BRIC has not yet been funded due to the FEMA-GO system not yet being ready to make any amendments for additional grants. Ms. Woodward explained that as a result, when the first grant of the year is funded, the clock starts ticking on the period of performance. As such, Ms. Woodward explained that FEMA Region IX decided not to start with funding by that one grant that can be funded and to hold off until the FEMA-GO issue is resolved so as not to penalize any of the states or territories in Region IX.

Janell Woodward next discussed two options for available grant funding, beginning with the HMGP Post-Fire Fire Management Assistance Grant (FMAG) declaration that triggers mitigation funding. Ms. Woodward explained that the first obligation is to the counties to do some type of a fire grant and that there is still approximately \$2.3 million available for that. As such, Ms. Woodward indicated the importance of generating projects and the use of advanced assistance, which uses seed money, to put together a project. Ms. Woodward explained that this application does not

have to go to FEMA, and that this is what generates shelf-ready projects so that when the funding does come along, the application is ready to go. Ms. Woodward next discussed HMGP from COVID funding for \$13.5 million that came as a result of COVID. Ms. Woodward explained that the \$16 million number provided by FEMA includes management costs for both the local level that applied for a grant and the state. Ms. Woodward said that these grants are available on a first-come, first-serve basis and encouraged everyone to get grant applications in as soon as possible as the sooner the applications are approved, the sooner the projects can be funded. Ms. Woodward explained that it is easier to fund HMGP grants because they are in a different system and are not yet tied to FEMA-GO. Ms. Woodward informed the group that paper applications have been posted on the DEM website and all the documentation can be downloaded for submission. Ms. Woodward indicated that the same \$10 million project applied for the HMGP from COVID but explained that DEM is holding back that particular application for the moment to see what other submissions come in. Ms. Woodward explained the importance of getting in applications so as not keep giving back the funds that have been allocated to the state for spending due to a lack of submissions; Ms. Woodward further explained that if the money routinely is returned because it can't be spent, the federal government may ultimately decide that the state does not need it. Ms. Woodward encouraged members to reach out to her or to Ryan Gerchman with any questions or concerns. Ms. Woodward informed the group that the deadline for the HMGP Post-Fire to FEMA is May 31 and that the deadline for the HMGP from COVID is June 30.

6. Public Comment

Chair Walser opened the second period of public comment.

Rebecca Bodnar explained that she is updating the hazardous materials 3.3.11 and questioned whether the section on hazardous materials being left over in neighborhoods following forest fires would go under hazard materials, forest fires, or both.

Janell Woodward indicated that she could add a few sentences addressing the effects seen from climate change on hazardous materials in her section, but explained that it would also be addressed in the wildfire section.

7. Adjournment

Chair Walser asked for a motion to adjourn. Solome Barton moved to adjourn the March 8, 2022 Nevada Hazard Mitigation Working Group meeting. Craig dePolo seconded the motion. The motion carried unanimously.

SECTION FOUR

Mitigation Strategy

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

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

For the 2018 iteration of this plan, the NHM Planning Subcommittee made the following revisions (no significant changes were made to Tables 4-1, 4-2, 4-11, and 4-12):

- *In 2022, an amendment was made to Table 4-1 and 4-2 identifying drought as a High Risk hazard for the state.*
- *Table 4-3 of hazard management policies, programs, and capabilities was updated with new web links.*
- *Tables 4-4, 4-5, 4-6 and Figures 4-1, 4-2, 4-3 relating to hazard mitigation grant funding were revised to reflect additional program management capability and funding received since the last plan iteration.*
- *Table 4-7 of State Model Codes was updated to reflect changes in revised statutes since the last plan iteration.*
- *Table 4-8 Local Capabilities General Analysis was updated to reflect changes in local and plan status and changes to capabilities since the last plan iteration, and approved tribal plans were added.*
- *New Social, Technical, Administrative, Political, Legal, Economic, Environmental (STAPLEE) prioritization of Strategic Actions was done by the NHM Planning Subcommittee and used to update Table 4-10, Strategic Action Plan Matrix.*

The requirements for mitigation strategy are described below:

ELEMENT	REQUIREMENTS
S8. Does the mitigation strategy include goals to reduce long-term vulnerabilities from the identified hazards? [44 CFR §201.4(c)(3)(i)¹⁸] <i>Intent:</i> To guide development and implementation of hazard mitigation actions. Goals are statements of the vision for the future.	- The plan must identify hazard mitigation goals representing what the state seeks to accomplish through mitigation plan implementation. - The goals must be consistent with the hazards and vulnerabilities identified in the risk assessment. - The goals must address reducing the vulnerability of jurisdictions within the state as well as the vulnerability of state-owned or operated buildings, infrastructure, and critical facilities. - If the state is interested in an increased Federal cost share under the FMA program, the plan must include goals to address RL and SRL properties. (See RL2 in Section 3.8 Repetitive Loss Strategy.) <i>Goals</i> are broad, long-term policy and vision statements that explain what is to be achieved by implementing the mitigation strategy.

¹⁸ 44 CFR §201.4(c)(3)(i): “A description of State goals to guide the selection of activities to mitigate and reduce potential losses.”

4.1 HAZARD MITIGATION GOALS

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

ELEMENT	REQUIREMENTS
S8. Does the mitigation strategy include goals to reduce long-term vulnerabilities from the identified hazards? [44 CFR §201.4(c)(3)(i)¹⁸] <i>Intent:</i> To guide development and implementation of hazard mitigation actions. Goals are statements of the vision for the future.	- The plan must identify hazard mitigation goals representing what the state seeks to accomplish through mitigation plan implementation. - The goals must be consistent with the hazards and vulnerabilities identified in the risk assessment. - The goals must address reducing the vulnerability of jurisdictions within the state as well as the vulnerability of state-owned or operated buildings, infrastructure, and critical facilities. - If the state is interested in an increased Federal cost share under the FMA program, the plan must include goals to address RL and SRL properties. (See RL2 in Section 3.8 Repetitive Loss Strategy.) <i>Goals</i> are broad, long-term policy and vision statements that explain what is to be achieved by implementing the mitigation strategy.

ELEMENT	REQUIREMENTS
S7. Was the risk assessment revised to reflect changes in development? [44 CFR §201.4(d)¹⁷] <i>Intent:</i> To ensure that the mitigation strategy addresses the risk and vulnerabilities to existing and potential development, and takes into consideration possible future conditions that can impact statewide vulnerability.	The plan must provide a summary of the changes in development that have occurred or are projected to occur in hazard prone areas based on the state, local, and tribal, as applicable, risk assessments, specifically: a. Changes in land use and the built environment; b. Changes in population demographics that may affect vulnerability to hazard events; and c. Changes to the vulnerability of state-owned or operated buildings, infrastructure, and critical facilities. <i>Changes in development</i> means recent development, potential and projected land use and development, or conditions that may affect risk and vulnerability to the state and jurisdictions within the state, such as changes in population demographics.

¹⁸ 44 CFR §201.4(c)(3)(i): “A description of State goals to guide the selection of activities to mitigate and reduce potential losses.”

¹⁷ 44 CFR §201.4(d): “Review and updates. Plan must be reviewed and revised to reflect changes in development, progress in statewide mitigation efforts, and changes in priorities and resubmitted for approval to the appropriate Regional Administrator every 5 years.”

4.1.1 Hazard Mitigation Goal Assessment Overview

The NHM Planning Subcommittee members were asked to review and assess the 2013 goals for the 2018 Enhanced Plan based on the revised hazard rankings that resulted from the Subcommittee’s hazard categorization and assessment work presented earlier in Section 3 that identified earthquake, flood, and wildfire as the High Risk hazards in the state. Specific feedback was requested from those Subcommittee members from the lead agencies for each of the major profiled high-risk hazards – earthquake, flood, and wildfire. The five previous 2013 goals were found to still be valid for 2018 without modifications. In 2022, Drought was identified as a fourth High Risk hazard for the state by the Nevada Hazard Mitigation Working Group. These goals and the lead agencies that assessed them are shown in Table 4-1. The lead agency for each goal is the state agency with regulatory responsibility to address a particular proposed action, or which is capable and willing to organize resources, find appropriate funding, oversee implementation, monitor and evaluate the goal’s activities. Agencies that may be able to assist in the implementation of a particular proposed action item by providing added resources to the lead agency are also listed. The intent of these goals is to guide NHMPC in the selection of mitigation activities at the state level as well as the local jurisdiction level in accomplishing these goals.

Table 4-1. 2018 Goals and Lead Agencies

2018 Goals	2018 Lead Agencies
Goal 1: <i>Reduce the loss of life and injuries.</i>	<i>Nevada Division of Emergency Management and Nevada Hazard Mitigation Planning Committee</i>
Goal 2: <i>Improve local hazard mitigation plans -technical assistance.</i>	<i>Nevada Division of Emergency Management and Nevada Hazard Mitigation Planning Committee</i>
Goal 3: <i>Reduce the possibility of damage and losses due to earthquakes.</i>	<i>Nevada Bureau of Mines and Geology), Nevada Seismology Laboratory, Nevada Earthquake Safety Council, Nevada Division of Emergency Management, Nevada Hazard Mitigation Planning Committee</i>
Goal 4: <i>Reduce the possibility of damage and losses due to flooding.</i>	<i>Nevada Division of Water Resources), Nevada Hazard Mitigation Planning Committee</i>
Goal 5: <i>Reduce the possibility of damage and losses due to wildfire.</i>	<i>Nevada Division of Forestry</i>
Goal 6: <i>Reduce the possibility of damage and losses due to drought.</i>	<i>Nevada Division of Emergency Management, Nevada Division of Water Resources, Nevada Division of Environmental Protection, Nevada Hazard Mitigation Working Group</i>

4.1.2 Mitigation Goals and Strategic Actions

The NHM Planning Subcommittee members and specifically the lead agencies for each of the 2018 profiled High-Risk hazards were asked to review and assess all 2013 strategic actions for the 2018 Enhanced Plan. No significant changes were made to Table 4-2 in this iteration of the plan. The intent of the Strategic Actions is to guide NHMPC in the selection of mitigation activities at the state level as well as the local jurisdiction level to accomplish the goals. Since these goals and actions were developed through the contribution of state and local agencies, they are a guide to the mitigation activities that are needed in Nevada. Each action provides a framework for the NHMPC members to advise, review, and direct resources of the state to projects that will address hazard mitigation. NDWR staff, including the State Floodplain Manager and the Dam Safety Officer, developed the flood action items. NDF provided the Wildland Fire actions. NBMG working with NESC and the Seismo Lab developed the Earthquake actions. NDWR provided the drought actions.

Table 4-2. Mitigation Goals and Strategic Actions

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

SECTION FOUR

Mitigation Strategy

Table 4-2. Mitigation Goals and Strategic Actions

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

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
Goal 2	2.E	Develop Maintain a system to allow state agencies with hazard mitigation programs and plans to make recommendations about how local governments can incorporate these in support of the state’s mitigation program efforts.	Deleted word “Develop” and added “Maintain” because NHMPC is this system that has been implemented and requires only maintenance
Goal 2	2.F	Continue to build operational links between hazard mitigation, disaster preparedness and recovery programs with public and private sectors	
Goal 2	2.G	Promote understanding by the general public of the benefits of hazard mitigation in reducing casualty and property losses and ensuring continuity of businesses, institutional and government functions	
Goal 2	2.H	Promote coordination among state agencies, local governments and tribal organizations of regional hazard mitigation activities	
Goal 2	2.I	Identify, enhance and integrate public education efforts by state and local agencies that have programs directed to hazard mitigation	
Goal 3 Reduce damage and losses from earthquakes <i>NBMG, Nevada Seismology Laboratory, NESC, Nevada DEM, NHMPC</i>	3.A	Protect existing assets, as well as future development, from the effects of earthquakes by providing setback criteria for building and development.	Goal 3 was modified to better integrate the strategic actions of the NESC 2013 Strategic Plan. Strategic Action 3A was modified to match strategies of NESC.

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
Goal 3	3.B	Mitigate shaking hazards in communities' and State critical facilities so that they are seismically resistant and operational following a strong earthquake.	Deleted. Integrated into 3F and G
Goal 3	3.B	Hold workshops on strategies, benefits, risk-reduction opportunities, and challenges associated with the inventory of seismically susceptible buildings.	
Goal 3	3.C	Assist communities and State to retrofit, change occupancy to decrease risk, or demolish susceptible buildings and structures.	
Goal 3	3.D	Create planning for "special consideration zones" for Nevada communities.	
Goal 3	3.E	Create microzonation of earthquake hazards in Nevada.	
Goal 3	3.G	Improve the threshold of detection and accuracy of location for earthquakes throughout Nevada	Deleted. Covered by #3S and 3Y
Goal 3	3.F	Encourage seismic retrofit of deficient essential structures and infrastructure of community and State critical facilities (economic and lifeline-utilities) to structurally and seismically withstand the effects of earthquakes.	modified to match strategies of NESC
Goal 3	3.G	Encourage seismic retrofit of public safety and critical facilities (both community and State) (such as 911 communications, hospitals, fire, law enforcement and ambulance facilities, etc.)	Added to match strategies of NESC
Goal 3	3.H	Develop lesson plans or activities for teachers to increase awareness about Nevada's earthquake hazard that tie into the existing science curriculum and align with the science standards for the state.	Added to match strategies of NESC.
Goal 3	3.I	Increase media involvement by networking with partners from all media types such as print, radio, TV, and social media.	Added to match strategies of NESC.
Goal 3	3.J	Provide Applied Technology Council (ATC) training and develop formalization of the process.	Added to match strategies of NESC.
Goal 3	3.K	Expand earthquake awareness in educational sites such as regional science fairs, and speakers.	Added to match strategies of NESC.

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
Goal 3	3.L	Develop earthquake hazard information programs targeting public safety, emergency managers, local government executives, and business and industry.	Added to match strategies of NESC.
Goal 3	3.M	Promote the Great Nevada Shakeout and earthquake drills throughout the state.	Added to match strategies of NESC.
Goal 3	3.N	Promote training of volunteer community emergency response teams (CERT) about earthquake risks and possible mitigation activities.	Added to match strategies of NESC.
Goal 3	3.O	Promote training of hospital staff about earthquake risks and possible mitigation activities.	Added to match strategies of NESC.
Goal 3	3.P	Improve integration of the emergency management system at all levels of the community bringing forth the “whole community” approach.	Added to match strategies of NESC.
Goal 3	3.Q	Provide publications and workshops to promote the exchange of technical information relating to earthquakes among professionals, managers and the citizens of Nevada.	Added to match strategies of NESC.
Goal 3	3.R	Promote a post-earthquake technical clearinghouse through planning and established practices.	Added to match strategies of NESC.
Goal 3	3.S	Give planning and special consideration to developing a “Fault Map of Nevada” and identifying all active faults and seismic sources near major urban areas in Nevada.	Added to match strategies of NESC.
Goal 3	3.T	Establish a “lifelines and transportation” workgroup.	Added to match strategies of NESC.
Goal 3	3.U	Enhance implementation of nonstructural remediation.	Added to match strategies of NESC.
Goal 3	3.V	Create earthquake planning scenarios (Las Vegas and rural areas).	Added to match strategies of NESC.
Goal 3	3.W	Determine potential fault rupture characteristics and maximum earthquakes.	Added to match strategies of NESC.

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Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
Goal 3	3.X	Continue to inventory and field-verify unreinforced masonry buildings in Nevada and make this data publicly available to planners and emergency response staff in communities statewide.	Added to match strategies of NESC.
Goal 3	3.Y	Promote coordination among private and public entities to improve statewide earthquake monitoring capabilities.	Added to match strategies of NESC.
Goal 3	3.Z	Identify potential funding sources for earthquake mitigation strategic actions not only at the Federal and State levels but also from private funding and community partnerships.	Added to match strategies of NESC.
Goal 3	3.AA	Develop a set of model codes and regulations that would be presented after a major earthquake occurs in Nevada.	Added to match strategies of NESC.
Goal 3	3.AB.	Develop an Earthquake Early Warning System for Nevada.	
Goal 4 Reduce damage and losses from floods <i>NDWR, NHMPC</i>	4.A	Protect existing assets, as well as future development, from the effects of flooding.	
Goal 4	4.B	Identify and prioritize areas in the State where existing flood hazard mapping is inadequate due to planned and existing significant development and conduct flood hazard mapping in those areas.	
Goal 4	4.C	Conduct flood hazard mapping in piedmont and alluvial fan environments.	
Goal 4	4.D	Retrofit State buildings to meet NFIP standards.	

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Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
Goal 4	4.E	Assist communities and State with programs to elevate, dry-flood proof or wet-flood proof identified structures to obtain NFIP compliance and/or mitigate repetitive loss structures and severe repetitive loss structures.	Added SRL structures
Goal 4	4.F	Assist communities and State with programs dealing with repetitive loss structures and severe repetitive loss structures; these programs may involve acquisition and demolition; relocation; elevation or other mitigation strategies.	Added SRL structures and broadened possible mitigation strategies to deal with them.
Goal 4	4.G	Upgrade State-owned or operated infrastructure (e.g. servicing roads, culverts, bridges, channels, and structures) related to State-owned or operated critical facilities to protect critical facilities from flood damages or disruption of essential services.	
Goal 4	4.H	Protect existing assets as well as future development from the effects of dam failure	
Goal 4	4.I	Inventory existing dams and add to the inventory as dams are discovered or constructed.	
Goal 4	4.J	Inventory and inspect existing dams for structural and hydraulic adequacy and implement operational constraints, if warranted.	
Goal 4	4.K	Install early warning weather stations in watersheds with dams above populated areas.	
Goal 4	4.L	Assist communities and State in structural mitigation measures, updates, repairs and maintenance to dams, ditches, and canals.	Added the words “maintenance, ditches, and canals” to incorporate mitigation activities for canals and ditches.
Goal 4	4.M	Encourage local ordinances and regulations to reduce encroachment into flood-prone zones resulting from dam impoundment or high (non-failure) releases.	
Goal 4	4.N	Identify hazards of flooding from man-made structures, such as irrigation ditches and canals, and integrate these into local zoning ordinances.	

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
Goal 4	4.O	Develop laws and regulations that ensure reasonable standards of design and construction to reduce flood hazards.	
Goal 4	4.P	Develop Emergency Action Plans to ensure swift coordinated response in the event of an emergency.	
Goal 5 Reduce the possibility of damage and losses due to wildfire. <i>NDF</i>	5.A	Protect existing assets, as well as future development, from the effects of wildfire.	
Goal 5	5.B	Identify and recommend changes to State NRS, NAC and communities' ordinances and regulations.	
Goal 5	5.C	Assist local communities in enacting local ordinances for mitigation and fire prevention.	
Goal 5	5.D	Provide public education and outreach to educate homeowners in the WUI about proper defensible space practices and landscaping for fire resistance and encourage community involvement in project completion, participation, and maintenance.	
Goal 5	5.E	In highly motivated communities, focus on activities by individual participation in and maintenance of projects (personal responsibility).	
Goal 5	5.F	Educate and train State and communities in current standards and regulations for proper practices in defensible space and firefighting.	
Goal 5	5.G	Ensure proper personal protective equipment, apparatus, equipment and training for career staff and seasonal wildland firefighters.	

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
Goal 5	5.H	Assist volunteer fire departments in attaining funds for proper personal protective equipment, apparatus, equipment and training.	
Goal 5	5.I	Participate in research and development of interoperability for emergency response communications.	
Goal 5	5.J	Coordinate the development of a comprehensive, collaborative program for mutual aid/mobilization of state and local government fire resources.	
Goal 5	5.K	Encourage collaboration on all levels among state, federal and local cooperators, both fire- and resource-related.	
Goal 5	5.L	Continue to improve fire prevention programs statewide through partnerships with Fire Prevention Association of Nevada, State Fire Marshal's Office, University of Nevada Cooperative Extension, and any other cooperators.	
Goal 5	5.M	Assist communities in fuels-reduction projects for areas with extreme or high ratings in updating CWPP assessments.	
Goal 5	5.N	Provide funding and service forestry technical assistance through the State Fire Assistance and Hazardous Fuels Reduction programs to reduce fuels on state and private property.	
Goal 5	5.O	Provide assistance to counties for priority setting and CWPP updating.	
Goal 5	5.P	Provide a statewide evaluation process for monitoring community progress, prioritization and participation in CWPP.	
Goal 5	5.Q	Provide and maintain a statewide process for documenting fuels projects progress, completion, success and maintenance.	
Goal 5	5.R	Focus projects in areas to attain desired forest conditions and coordinate with forest health program activities.	

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Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
Goal 5	5.S	Ensure that all projects have an approved fuels/forest health/stewardship plan that includes all aspects of service forestry (State Historic Preservation Officer (SHPO) (threatened and endangered species, prescriptions, actions, etc.).	
Goal 5	5.T	Provide training for employees and project managers on SHPO and cultural resource identification, reporting methods and clearances.	
Goal 5	5.U	Work closely with the Tribal communities, local landowners, and the SHPO to obtain clearances and to mark sensitive sites.	
Goal 5	5.V	Provide assistance to communities and State in planning and implementing long-term sustainable landscape projects.	
Goal 5	5.W	Restore native and adapted vegetation and work to prevent areas being impacted by non-native or undesirable species conversions through collaborative efforts.	
Goal 5	5.Y	Use mechanical and hand treatments as well as prescribed fire to assist in attaining desired forest and rangeland conditions.	
Goal 5	5.Z	Provide native and accepted introduced seed species through the Nevada State seed bank program.	
Goal 5	5.AA	Provide training for local cooperators for treatment practices and skill acquisition.	
Goal 5	5.AB	Encourage collaboration at all levels with state, federal and local cooperators.	
Goal 5	5.AC	Assist communities and State in Burned Area Emergency Rehabilitation, and complete fire damage reclamation reports and public education and outreach to provide the best land management practices available for collaborative land rehabilitation.	
Goal 5	5.AD	Assess damage to critical watershed and threats to communities' domestic water supplies and mitigate those threats through erosion control practices.	
Goal 5	5.AE	Supply resources for rehabilitation efforts through the State Tree Nurseries in Las Vegas and Washoe Valley, and the Nevada State seed bank programs.	

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Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
Goal 5	5.AF	Provide training, expertise, and supplies/equipment in a collaborative manner to assist in rehabilitation.	
Goal 5	5.AG	Provide public education and outreach to communities affected by wildfire.	
Goal 5	5.AH	Focus fuels projects in communities with extreme or high ratings in CWPP assessments.	
Goal 5	5.AI	Assist with the development of and the participation in a comprehensive program by which current CWPP or equivalent assessments are updated as projects are completed, ratings change or new at-risk communities arise.	
Goal 5	5.AJ	Assist in the formulation and dissemination of current information such as Living with Fire documents.	
Goal 5	5.AK	Encourage community involvement in project completion, participation, and maintenance.	
Goal 5	5.AL	Assist, encourage and provide guidance to communities in the development of the appropriate fire service organization for their community (i.e. a legally constituted fire protection district or fire department) according to NRS 472.040.	
Goal 5	5.AM	Assist in acquiring funding for local firefighters for training and equipment through the State Fire Assistance, and Volunteer Fire Assistance when funded by USFS.	
Goal 5	5.AN	Assist in the planning for and removal of biomass waste on fuels reduction and forest health projects, as well as following wildland fires, flooding and other catastrophic natural event.	
Goal 5	5.AO	Provide technical assistance in the formation of end users of woody biomass to produce heat and/or power (i.e. Fuels in Schools program) and provide ongoing outreach and education as to the societal benefits associated with utilization of biomass in the State of Nevada.	Action no longer valid due to federal funding cutbacks.
Goal 5	5.AP	Participate in the Nevada State Biomass Working Group, southern Nevada Woody Biomass Collaboration Group, and other state, local, and national biomass committees.	Program closed by Dept. of Corrections; Action deleted

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Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
Goal 5	5.AO	Comply with all federal regulations in the funding stream to ensure compliance and future competitiveness.	
Goal 5	5.AP	Keep apprised of all federal, state, and local regulations.	
Goal 5	5.AQ	Participate in interagency project planning, implementation and monitoring.	
Goal 5	5.AR	Protect the envelope of buildings from wildfire.	
Goal 6 Reduce the possibility of damage and losses due to drought. NDEM, NDWR, NDEP, NHMWG	6.A	Maintain and expand intergovernmental and interagency stakeholder collaboration and networking opportunities to leverage scarce resources, reduce duplication of efforts, and enhance progress towards state-wide drought resiliency.	
	6.B	Provide support to strengthen collaboration between stakeholder agencies for drought education and outreach efforts at the state, regional, and local levels to increase public awareness of drought.	
	6.C	Assist in reducing drought impacts to the State's economy, people, state assets, cultural resources, and environment by encouraging vulnerability and risk assessments, planning, and mitigation activities.	
	6.D	Encourage water system improvements that increase drought resiliency.	
	6.E	Assist in identifying funding opportunities for projects associated with increasing water system drought resiliency.	
	6.F	Assist in identifying funding opportunities for projects associated with wastewater and stormwater treatment facilities and collection systems that improve drought resiliency.	

Table 4-2. Mitigation Goals and Strategic Actions

Goal/Lead Agency	#	Strategic Action	Changes and reason for (a) modification, or (b) deletion
Goal 6, 4	6.G	Assist communities and the State in structural mitigation measures, updates, repairs and maintenance to dams, ditches, and canals.	
Goal 6, 4	6.H	Encourage water conservation to reduce water demand by promoting indoor and outdoor conservation of water. Provide educational materials and information to the public about beneficial conservation measures and effective irrigation management techniques.	
Goal 6	6.I	Improve water availability monitoring.	
	6.J	Encourage and provide technical assistance for local level drought planning.	
	6.K	Increase monitoring, data collection, and assessment of drought impacts.	
Goal 6	6.L	Evaluate changes in drought frequency and severity related to climate change as a planning issue and incorporate into relevant plans.	
Goal 6	6.M	Increase or maintain surveillance and monitoring activities for drought-specific public health issues.	
Goal 6	6.N	Integrate State drought planning with other statewide planning efforts.	
Goal 6	6.O	Encourage more efficient municipal irrigation systems, including State-owned properties.	
Goal 6	6.P	Promote Green Infrastructure and Best Management Practices in drought planning and mitigation projects.	
Goal 6	6.Q	Develop approaches and encourage agricultural modifications to help farmers adapt to and lessen the impacts of drought.	
Goal 6	6.R	Provide support to maintain momentum for drought awareness, preparedness, and mitigation regardless of drought conditions. Continued support is important to achieving long-term drought resiliency goals.	

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

4.2 STATE CAPABILITY ASSESSMENT

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

ELEMENT	REQUIREMENTS
S12. Does the plan discuss the evaluation of the state's hazard management policies, programs, capabilities, and funding sources to mitigate the hazards identified in the risk assessment? [44 CFR §201.4(c)(3)(ii) ²²] <i>Intent:</i> To identify and build the state's capabilities to reduce risk and increase resilience.	The plan must describe existing state pre- and post- disaster hazard management policies, programs, and capabilities to mitigate the hazards in the state, including: a. An evaluation of state laws, regulations, policies, and programs related to hazard mitigation, as well as to development in hazard-prone areas, to include the state's administration of the: 1. National Flood Insurance Program (NFIP) and Community Rating System (CRS); and 2. Risk Mapping, Assessment, and Planning (Risk MAP) program. b. A discussion of state funding capabilities for hazard mitigation projects, including: 1. A general description of how the state has used its own funds for hazard mitigation projects; and 2. A general discussion of how the state has used FEMA mitigation programs and funding sources, including but not limited to: a. HMGP, PDM, and FMA; and b. PA C-G. c. A general summary of: 1. Obstacles and challenges; and 2. Changes since the previous plan approval.

²² 44 CFR §201.4(c)(3)(ii): "A discussion of the State's pre and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including: an evaluation of State laws, regulations, policies, and programs related to hazard mitigation as well as to development in hazard-prone areas; a discussion of State funding capabilities for hazard mitigation projects; a general description and analysis of the effectiveness of local mitigation policies, programs, and capabilities."

4.2.1 Pre- and Post- Disaster Hazard Management Capability

Table 4-3 below presents the state's capability to mitigate the hazards described in Section 3 and demonstrates pre-and post-disaster hazard management policies, programs, and capabilities. It also presents the state's funding capabilities for hazard mitigation projects - whether it can support, facilitate, or fund such projects. Support implies that the state manages federally funded programs. The state may also facilitate mitigation programs by providing technical assistance to local, tribal, and other entities. The last column provides details of each listed program or agency and its policies and capabilities to mitigate hazards in the state. In the 2018 iteration of the plan, there were no new programs added to Table 4-3.

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

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
U. S. Housing and Urban Development (HUD)	All Hazards	Community Development Block Grants (CDBG)	√	√	√	√		Grants to develop viable communities, principally for low and moderate income persons. CDBG funds available through Disaster Recovery Initiative. Contingent upon Presidential Disaster declaration https://www.hud.gov/program_offices/comm_planning/communitydevelopment/programs
HUD	All Hazards	Disaster Recovery Assistance		√	√	√		Disaster relief and recovery assistance in the form of special mortgage financing for rehabilitation of impacted homes. https://www.hud.gov/hudprograms/disaster-recovery
HUD	All Hazards	HUD Sustainable Communities	√		√	√		This program supports multi-jurisdictional regional efforts that integrate housing, economic development, transportation, water infrastructure and environmental planning, and assists regional entities and consortia of local governments with integrated decision-making.

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			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
		Planning Grant Program						https://www.hud.gov/program_offices/economic_development/sustainable_communities_regional_planning_grants
HUD	All Hazards	HOME Investment Partnerships Program	√	√	√	√		HOME provides formula grants to States and localities that communities use, often in partnership with local nonprofit groups, to fund a wide range of activities that build, buy, and/or rehabilitate affordable housing for rent or home ownership or provide direct rental assistance to low-income people. The construction is up to standard hazard-resistant building codes. https://www.hud.gov/program_offices/comm_planning/affordablehousing/programs/home/
USDA	All Hazards	Smith-Lever Special Needs Funding	√		√	√		Grants to State Extension Services at 1862 Land-Grant Institutions to support education-based approaches to addressing emergency preparedness and disasters. https://nifa.usda.gov/funding-opportunity/smith-lever-special-needs-competitive-grants-program
USDA	All Hazards	Community	√		√	√		This program provides an incentive for commercial lending tool develop essential community facilities,

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
		Facilities Guaranteed Loan Program						such as fire stations, police stations, and other public buildings. https://www.rd.usda.gov/programs-services/community-facilities-guaranteed-loan-program
USDA	All Hazards	Community Facilities Direct Loans Community Facilities Direct Grants	√		√	√		This program provides direct loans for essential community facilities. https://www.rd.usda.gov/programs-services/community-facilities-direct-loan-grant-program
USDA	All Hazards	Community Facilities Direct Grants	√		√	√		This program provides grants to develop essential community facilities. https://www.rd.usda.gov/programs-services/community-facilities-direct-loan-grant-program

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
USDA Farm Service Agency	All Hazards	Farm Service Agency (FSA) Disaster Assistance Programs		√	√	√		This program provides emergency funding and technical assistance for farmers and ranchers to rehabilitate farmland and livestock damaged by natural disasters. https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/index?utm_source=landing&utm_medium=spotlight&utm_content=spot3&utm_campaign=fsadisasters
U.S. Department of Health & Human Services	All Hazards	Disaster Assistance for State Units on Aging (SUAs)		√	√	√		This program provides disaster relief funds to those SUAs and tribal organizations who are currently receiving a grant under Title VI of the Older Americans Act. https://www.acl.gov/grants/disaster-assistance-state-units-aging-suas-and-tribal-organizations-national-disasters
U.S. Economic Development Administration (EDA)	All Hazards	Economic Development Administration Investment	√	√	√	√		These programs provide grants that support public works, economic adjustment assistance, and planning. Certain funds are allocated for locations recently hit by major disasters. https://www.eda.gov/programs/eda-programs/

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
		Programs						
U.S. Small Business Administration	All Hazards	Small Business Administration Loan Program		√	√	√		This program provides low-interest, fixed rate loans to small businesses for the purpose of implementing mitigation measures. Also available for disaster-damaged property. http://www.sba.gov/services/financialassistance/index.html
USDA/APHIS/ Veterinary Services	All Hazards	Animal Disaster Program	√	√		√		This program plans and facilitates sheltering of animals during emergency or disaster incidents.
FEMA	All Hazard	Hazard Mitigation Grant Program (HMGP)		√	√	√		This program provides grants to implement long-term hazard mitigation measures after a major disaster declaration. https://www.fema.gov/hazard-mitigation-grant-program
FEMA	All Hazard	Pre-Disaster Mitigation Grant Program (PDM)	√		√	√		This program provides funds for hazard mitigation planning

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
								and implementation of mitigation projects prior to a disaster event. https://www.fema.gov/pre-disaster-mitigation-grant-program
FEMA	All Hazard	Hazard Mitigation Funding Under Section 406 (Stafford Act)		√	√	√	√	This FEMA program provides funds for the repair of disaster-damaged facilities that directly reduce the potential of future, similar damages to the repaired facility by subsequent disaster events.
FEMA	All Hazard	Emergency Management Performance Grant	√		√	√	√	This program assists in the development, maintenance and improvement of state, tribal and local emergency management capabilities
Nevada DEM	All Hazard	Disaster Relief Fund		√	√	√	√	This fund provides required matching funds for federal grants for local governments.
Nevada DEM	All Hazard	Emergency Assistance Account		√	√	√	√	This account provides required matching funds for federal grants local governments.

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
US Department of Commerce, Economic Development Administration	All Hazard	Disaster Mitigation Planning and Technical Assistance	√		√	√		This provides technical and planning assistance grants for capacity building and mitigation project activities focusing on creating disaster resistant jobs and workplaces.
USDA NRCS	All Hazard	Watershed Program	√		√	√		Through the Watershed Programs NRCS provides technical and financial assistance to States, local governments and Tribes (project sponsors) to plan and implement authorized watershed project plans for the purpose of: watershed protection, flood mitigation, water quality improvements, soil erosion reduction, rural, municipal and industrial water supply, irrigation, water management, sediment control, fish and wildlife enhancement, wetlands and wetland function creation and restoration, groundwater recharge, easements, wetland and, floodplain conservation, hydropower, watershed dam rehabilitation. http://www.nrcs.usda.gov/programs/watershed/index.html
USDA NRCS	All Hazards	Emergency Watershed		√	√	√		The EWP Program assists sponsors, landowners, and operators in implementing emergency recovery measures

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
		Protection Program						for runoff retardation and erosion prevention to relieve imminent hazards to life and property created by a natural disaster that causes a sudden impairment of a watershed. http://www.nrcs.usda.gov/programs/ewp/
National Science Foundation (NSF)	All Hazards	Decision, Risk, and Management Sciences Program (DRMS)	√		√	√		This program provides grants for small-scale, exploratory, high-risk research having a severe urgency with regard to natural or anthropogenic disasters and similar unanticipated events. http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5423&org=SES
DHS, FEMA, NDCNR BCA, Nevada DEM	All Hazards	Homeland Security Grant Programs	√		√	√	√	These programs provide funding to assist state, tribal, and local governments to maintain and improve plans, facilities and equipment. They also fund disaster preparedness exercises and training for emergency services.
NBMG	All Hazards	GIS and HAZUS support	√	√	√	√		NBMG provides expertise in HAZUS loss estimation modeling to support mitigation planning efforts and disaster training.

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
NSF	All Hazards	Hazard Reduction Program			√	√	√	NSF provides funding for research and related educational activities on hazards.
US Department of Health and Human Services (USDHHS) (partners with Nevada Department of Health and Human Services (NDHHS) and State Health Division (SHD))	All Hazards	Emergency Management/ Mitigation Training	√		√	√		This program provides training in disaster mitigation, preparedness, and planning for Public Healthcare http://www.cdc.gov/about/business/funding.htm
USACE, USDA-FSA	Drought	Drought Assistance	√	√	√	√		NDA coordinates requests for disaster declarations related to drought. The state's Disaster Assistance Account funding may become available for drought declaration assistance.
DCNR, Division of Water Planning	Drought	Nevada Drought Plan	√		√	√		This document establishes a system for determining drought severity and establishes an administrative coordinating system among agencies to help mitigate

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

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
								http://www.fsa.usda.gov/Internet/FSA_File/haying_and_grazing_july2012.pdf
Southern Nevada Water Authority, Truckee Meadows Water Authority	Drought	Several water conservation and drought mitigation programs	√		√	√	√	Local government and state agencies and consortia have authority to place restrictions on water use and to implement programs for drought mitigation. TMWA offers information on water conservation at https://tmwa.com/our-environment/water-conservation/ SNWA offers incentive programs and information to encourage water conservation. https://www.snwa.com/
EPA	Drought and Flood	Clean Water Act Section 319 Grants	√		√	√	√	This program provides grants to state agencies to implement non-point source programs, including support for nonstructural watershed resource restoration activities. https://www.epa.gov/nps/319-grant-program-states-and-territories

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
EPA Bureau of Water Quality Planning (BWQP) may have a grant from EPA to fund this type of program/project in NV)	Drought and Flood	Clean Water Act Section 319 Grants	√		√	√	√	This program provides grants to state agencies to implement non-point source programs, including support for nonstructural watershed resource restoration activities. Error! Hyperlink reference not valid.
National Institute of Science and Technology (NIST); FEMA; USDHHS; Department of Interior, USGS; NSF (Partnering with UNR-NBMG, Seismo Lab, UNLV)	Earthquake	National Earthquake Hazard Reduction program (NEHRP) in Earth Sciences	√		√	√		NEHRP Provides grants for seismic mapping for U.S. HAZUS loss-estimation modeling, fault-hazard identification, liquefaction-hazard identification, landslide-hazard identification, probabilistic seismic hazard analysis, ground-shaking microzonation, basin-effect analysis, earthquake process research. http://www.nehrp.gov/contracts/solicitations.htm
CDC, USD	Epidemic	Programs for prevention of epidemic disease	√	√	√	√		CDC Provides funding for preparation for and prevention and control of diseases. http://emergency.cdc.gov/

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
USDA/Animal and Plant Health Inspection Service/ Veterinary Services (Partners with NDA)	Epidemic	Animal diseases	√		√	√		USDA conducts tests for State/Federal program of animal diseases, livestock issues related to food safety, and those animal diseases transmissible to man. https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/!ut/p/z1/04_iUIDg4tKPAFJABpSA0fpReYllmemJJZn5eYk5-hH6kVFm8T7-Js6GTsEGQNrVycDRNcjc19XV08ggvEjfSz8Kv4KC7EBFANjvecc!/ Error! Hyperlink reference not valid.
EPA (NDEP has a grant from EPA to manage a Safe Drinking Water Revolving Loan Fund)	Epidemic	Safe Drinking Water Revolving Loan.	√		√	√		This program provides funds to communities, tribes, individuals and others to finance infrastructure improvements to drinking water systems with an emphasis on providing funds to small and disadvantaged communities and to programs that encourage pollution prevention as a tool for ensuring safe drinking water. https://www.epa.gov/drinkingwatersrf
USDHHS	Epidemic	The Hospital Preparedness Program (HPP)	√	√	√	√		This program enhances the ability of hospitals and health care systems to prepare for and respond to bioterrorism and other public health emergencies.

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

Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
								https://www.phe.gov/Preparedness/planning/hpp/Pages/default.aspx
FEMA (Partners with NDWR, Tribes, local and individuals)	Flood	NFIP	√	√	√	√		This program enables property owners to purchase insurance as a protection against flood losses in exchange for state and community floodplain management regulations that reduce future flood damages. https://www.fema.gov/national-flood-insurance-program
FEMA (Partners with NDWR, Tribes, local and individuals)	Flood	Flood Mitigation Assistance	√		√	√		This program provides funding to implement measures to reduce or eliminate the long term risk of flood damage. https://www.fema.gov/flood-mitigation-assistance-grant-program
FEMA (Partners with NDWR, Tribes, local and individuals)	Flood	Repetitive Flood Claims	√		√	√		This program provides funds to assist States and communities reduce flood damages to insured properties that have had one or more claims to the National Flood Insurance Program (NFIP). https://www.fema.gov/repetitive-flood-claims-grant-program-fact-sheet

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
EPA (Partners with NDWR, Tribes, local and individuals)	Flood	Wetlands Program Development Grants	√		√	√		This program provides funds for projects that promote research, investigations, experiments, training, demonstrations, surveys, and studies relating to the causes, effects, extent, prevention, reduction and elimination of water pollution. https://www.epa.gov/wetlands/wetland-program-development-grants
USACE (Partners with Tribes, NDWR, CWSD, Truckee River Flood Project (TRFP), Tribes)	Flood	Planning Assistance to States	√		√	√		This program provides funding for the development of plans to conserve water resources, dam safety, flood damage reduction, and flood plain management. https://planning.erdc.dren.mil/toolbox/library/FactSheets/PAS_FS_June2017.pdf
USACE (Partners with Tribes, TRFP, NDWR, Clark County Flood Control Project)	Flood	Flood Plain Management Services	√		√	√		This program provides technical support for effective flood plain management. http://www.nae.usace.army.mil/Missions/Public-Services/Flood-Plain-Management-Services/
USACE (Partners with	Flood	USACE Environmental						This program provides guidance for implementing environmental programs as ecosystem restoration and

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
Tribes, locals, NDWR)		Laboratory						reuse of dredged materials. http://www.erdc.usace.army.mil/Locations/EL.aspx
USDA	Flood	Emergency Watershed Protection Support Services		√	√	√		This program provides funds for implementing emergency measures in watersheds in order to relieve imminent hazards to life and property created by a natural disaster. https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/ewpp/
USDA	Flood	Watershed and Flood Prevention Operations	√		√	√		This program provides funding for soil conservation, development, utilization and disposal of water, and conservation as well as the proper use and conservation of land. https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/wfpo/
USACE, EPA	Flood	Aquatic Ecosystem Restoration	√		√	√		The purpose of the program is the development of aquatic ecosystem restoration and protection projects that improve the quality of the environment, are in the public interest, and are cost effective.

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
								http://www.nae.usace.army.mil/Missions/Public-Services/Continuing-Authorities-Program/Section-206/
EPA (Partners with DCNR, BWQP)	Flood	Wetlands Protection and Development	√		√		√	This Federal grant program supports State, Tribal, and local efforts to protect wetlands by providing funds to enhance existing programs or develop new programs. http://www.epa.gov/owow/wetlands/initiative/#financial
EPA (Partners with DCNR, BSDW, Dept. of State Lands)	Flood	Source Water Protection	√		√	√		This program provides funding to states, local and tribes for activities to protect drinking water. http://cfpub.epa.gov/safewater/sourcewater/sourcewater.cfm?action=Programs
FEMA	Flood	National Dam Safety Program	√		√	√		This program provides financial assistance to the states for strengthening their dam safety programs. https://www.fema.gov/national-dam-safety-program
FEMA (Partners with NDWR, Tribes,	Flood	Community Assistance Program - State	√		√	√		This program provides funding to States to provide technical assistance to communities in the NFIP and to evaluate community performance in implementing NFIP

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
local communities)		Support Services Element						floodplain management activities https://www.fema.gov/community-assistance-program-state-support-services-element
U.S. Department of Energy Partners with Nevada DEM, Desert Research Institute, and NDHHS	Hazardous Materials	DOE's Radiological Assistance Program (RAP)	√		√	√		RAP provides resources (trained personnel and equipment) to evaluate, assess, advise, isotopically identify, search for, and assist in the mitigation of actual or perceived nuclear or radiological hazards. The RAP is implemented on a regional basis, with coordination between the emergency response elements of state, local, and federal agencies. https://nnsa.energy.gov/aboutus/ourprograms/emergencyoperationscounterterrorism/respondingtoemergencies/firsresponders-0
U.S. DOT's Pipeline and Hazardous Materials Administration (Partners with SERC, tribes and local emergency	Hazardous Materials	Hazardous Materials Emergency Preparedness (HMEP) Grant Program	√		√	√		The HMEP program provides financial and technical assistance as well as national direction and guidance to enhance State, Territorial, Tribal, and local hazardous materials emergency planning and training. https://www.phmsa.dot.gov/grants/hazmat/hazardous-materials-grants-program

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
planning committees)								
SERC Partners with local emergency planning committees and state agencies	Hazardous Materials	Superfund Amendment and Reauthorization Act (SARA) Title III	√		√	√	√	Filing fees for reports submitted pursuant to SARA, Title III provide funding for planning, training and equipment activities in emergency preparedness, prevention, mitigation and response capabilities associated with hazardous chemicals. Eligible applicants include LEPCs and state agencies. Funding is available to public officials, fire and police personnel, medical personnel, first responders and tribal personnel through the LEPCs. http://serc.nv.gov/
EPA Partners with Tribes	Hazardous Materials	Hazardous Waste Management grant program	√		√	√		This program supports projects designed to develop and implement hazardous waste management programs that improve the applicant's ability to properly identify, manage, or dispose of hazardous waste. All hazardous waste management activities that address the RCRA Subtitle C "cradle to grave" approach are eligible. https://www.epa.gov/grants/fy-2017-hazardous-waste-management-grant-program-tribes

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
NDEP	Hazardous Materials	Nevada Brownfields Program		√	√	√	√	The Nevada Brownfields Program currently operates a \$2 million dollar revolving loan fund intended to help property owners or developers cover the costs associated with the cleanup of sites with environmental contamination. https://ndep.nv.gov/environmental-cleanup/brownfields
NDEP	Hazardous Materials	Nevada Brownfields Revolving Loan Fund Program		√	√	√	√	The Nevada Brownfields Program currently operates a \$900,000 dollar revolving loan fund to help property owners or developers cover the costs associated with the cleanup of sites that are hindered for redevelopment due to environmental contamination and have no viable responsible party. https://ndep.nv.gov/environmental-cleanup/brownfields/funding/revolving-loan-fund
NDEP	Hazardous Materials	Nevada 128(a) Brownfields Program		√	√	√	√	The Nevada 128(a) Brownfields Program provides funding to municipalities and non-profit organizations when there are no viable responsible parties for the assessment and characterization of sites that are abandoned or under developed due to the perception of contamination.

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
								https://ndep.nv.gov/environmental-cleanup/brownfields
EPA	Hazardous Materials	104(k) Brownfields Program		√	√			EPA provides a wide-range of funding opportunities to municipalities and non-profit organizations that may be used to mitigate potential hazards on eligible Brownfields sites. EPA Region IX also may provide Targeted Site Assessment services with their federal monies for Brownfields projects in the State of Nevada http://www.epa.gov/brownfields/
NDEP	Hazardous Materials	Nevada Petroleum Fund		√				This fund provides reimbursement to the qualified storage tank owner/operators for corrective action costs associated with cleaning up petroleum product releases. https://ndep.nv.gov/environmental-cleanup/petroleum-fund

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
NDEP	Hazardous Materials	Nevada Voluntary Cleanup Program		√				This program provides relief from liability to owners who undertake cleanups of contaminated properties under the oversight of the NDEP. https://ndep.nv.gov/environmental-cleanup/brownfields/voluntary-clean-up-program-vcp/voluntary-cleanup-brownfields
USDA FSA	Multiple: drought, infestation, flood	Noninsured Crop Disaster Assistance Program (NAP)		√	√	√	?	Provides financial assistance to producers of non-insurable crops when low yields, loss of inventory or prevented planting occur due to a natural disaster. http://www.fsa.usda.gov/Internet/FSA_File/nap_august_2011.pdf

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Funding Agency (Federal, State, Local, Private)	Hazard	Program	Type of Hazard Management Capability		State Involvement			Description of Program, Policy, Regulation; links
			Pre- Disaster	Post- Disaster	Support	Facilitate	Funds	
USDA FSA	Multiple: drought, infestation, flood	Supplemental Revenue Assistance Payments (SURE) Program		√	√	√	?	is authorized by the 2008 Farm Bill to provide assistance to producers suffering crop losses due to natural disasters. SURE is available for crop losses due to natural disasters occurring through Sept. 30, 2011. http://www.fsa.usda.gov/Internet/FSA_File/sure_2011.pdf

4.2.2 Policies Related to Development in Hazard-Prone Areas

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

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

4.2.3 State Funding Capabilities

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

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

4.2.4 Hazard Management Capabilities Changes

With the loss of long-time temporary staff since the 2013 plan, Nevada DEM has been challenged by the inability to replace temporary staff in the short-term. The collaborative approach to mitigation has enabled Nevada’s mitigation capability to multiply, since the process involves coordination among government entities at all levels, including tribal nations. The following paragraphs provide a summary of mitigation activities accomplished since the approval of the last plan.

FEMA’s unification of the hazard mitigation programs provided an excellent platform for Nevada DEM and NDWR to join forces in the management of the five programs in Nevada. During the update of this plan, the State Flood Plain Manager and the SHMO have worked together to promote

all five programs and provide additional technical assistance to local and tribal government resulting in added number of and improved quality of applications. This resulted in increased funding for the state. In 2012, NDWR ceded the management of the three flood programs to Nevada DEM while maintaining a close working relationship for Unified Hazard Mitigation Assistance Programs (HMA) programs. This remains in effect with this plan update.

Since the approval of the previous 2013 plan, more counties and State agencies have become involved in the planning process. This has promoted networking which has led to a greater awareness of existing mitigation programs. This has resulted in better mitigation planning and related activities in the State. In 2004, five counties and three cities had approved plans. Since the previous state plan was approved in 2013, all counties have maintained a FEMA-approved plan (with the exception of Clark County, which has a completed plan awaiting approval by FEMA). The following counties are in the process of updating plans: Eureka-White Pine (regional plan), Douglas, Washoe, Pershing, Humboldt, and Lander (regional plan), and Nye. The State has promoted the cost effectiveness as well as other benefits of a regional planning approach. Washoe and Clark Counties updated their plans with multi-jurisdictional and regional plans to include incorporated cities, school districts, and tribal nations. Nye County updated their 2013 plan to include the Duckwater Shoshone Tribe of the Duckwater Reservation as an additional jurisdiction. Churchill County included the City of Fallon and the Paiute-Shoshone Tribe of the Fallon Reservation and Colony in its multi-jurisdictional plan. Mineral County included Walker River Paiute Tribe of the Walker River Reservation in their 2016 update. Elko County included the following cities in their 2014 update: Wells, West Wendover, Carlin, and Elko. Lincoln County included the City of Caliente in their 2016 update. Additionally, White Pine and Eureka as well as Pershing, Humboldt and Lander counties are regional areas with low populations but similar topography and hazards, that have joined together to develop regional multi-jurisdictional plans. This has allowed the state to better manage the planning process including training and support with limited state resources.

The SHMO and the NHMPC are increasing public awareness by convening the NHMPC quarterly committee meetings at locations around the state where the local community stakeholders are invited to participate. This process has been challenging due to the two 2017 presidentially declared disasters in northwest Nevada, which have placed more demands on a limited mitigation staff. At these meetings, local community leaders are invited to give presentations on the area's demographics, government, geography, economic, and social profile. Local emergency managers provide specifics on the area's hazards and capabilities or needs and the area Flood Plain Manager presents local flood hazard information and capabilities if known. The State Geologist or representative presents information regarding the HAZUS-MH runs on earthquakes and the SHMO provides information on the Pre Disaster Mitigation (PDM) and Hazard Mitigation Grant Program (HMGP) grants. NBMG provides MyPlan information and data access details. This provides to the community increased awareness of the programs and funding opportunities and provides the NHMPC information to help with their evaluation of applications. The SHMO continues working closely with fiscal staff to increase efficiency in distributing funds to subgrantees and to improve capability for obtaining the cost share requirements. The SHMO continues to take advantage of the administrative funds allocated by HMA programs.

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

Table 4-4. HMA Grant Applications			
Year	Type	# Submitted	# Approved
PDM 2007	Planning	3	3
	Project	1	1
PDM 2008	Planning	1	1
	Project	4	1
PDM 2009	Planning	1	0
	Project	4	2
PDM 2010	Planning	4	4
	Project	7	4
PDM 2011	Planning	4	1
	Project	3	1
FMA 2011	Planning	0	0
	Project	1	1
PDM 2012	Planning	2	2
	Project	3	1
PDM 2013 – Accepted by NHMPC but not submitted to FEMA because PDM 2013 remains unfunded.	Planning	1	0
	Project	2	0
PDM 2014	Planning	4	4
	Project	1	1
PDM 2015	Planning	1	1
	Project	1	1
PDM 2016	Planning	1	1
	Project	2	2
PDM 2017	Planning	4	4
	Project		

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

Table 4-5. Mitigation Funding 2001-2018

Year	Funding by Program			Five-Year Total		
	PDM (\$)*	HMGP (\$)	FMA (\$)	PDM (\$)	HMGP (\$)	FMA (\$)
2001						
2002	297,271	0				
2003	198,125	0		198,125	0	
2004 – SHMP Approved Oct		523,113				
2005	60,064	392,541				
2006	29,115	413,679		89,178	1,329,333	
2007 – Update Approved Oct	561,347					
2008	573,173	489,792				
2009	1,067,996			2,202,515	489,792	
2010	3,515,777					
2011	905,822		1,930,138			
2012	2,598,569			7,020,168	0	1,930,138
2013	355,650.00					
2014	2,255,125	583,609				
2015	400,000					
2016	1,379,989					
2017	407,635.61	4,866,012.26		4,798,399.61	5,449,621.26	
Sub-Total	14,250,008.61	7,268,746.26	1,930,138	14,308,385.61	7,268,746.00	1,930,138.00
Total	\$23,448,892.87			\$23,507,269.61		

*Funding amounts reflect selected projects. Funding is conditioned on NEPA review. Flood Mitigation Assistance (FMA)

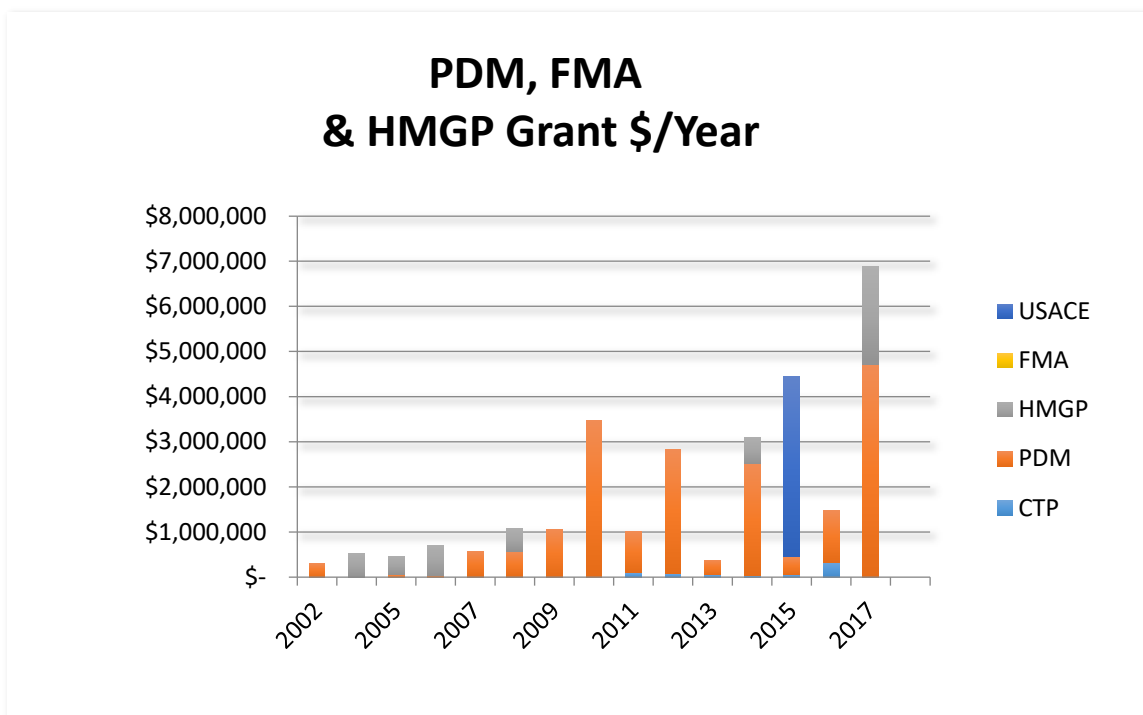


Figure 4-1. PDM, FMA and HMGP Grant Dollars of Funding per Year

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

Hazard or Grant Type	Amount
Earthquake	\$ 888,262.00
Flood	\$ 17,994,126.55
Wildfire	\$ 1,547,138.50
Public Awareness	\$ 36,310.00
Local Planning	\$ 1,580,152.71
NHMPC & State Plan	\$ 1,558,602.95
Management	\$ 1,442,152.88
Total	\$ 25,046,745.60

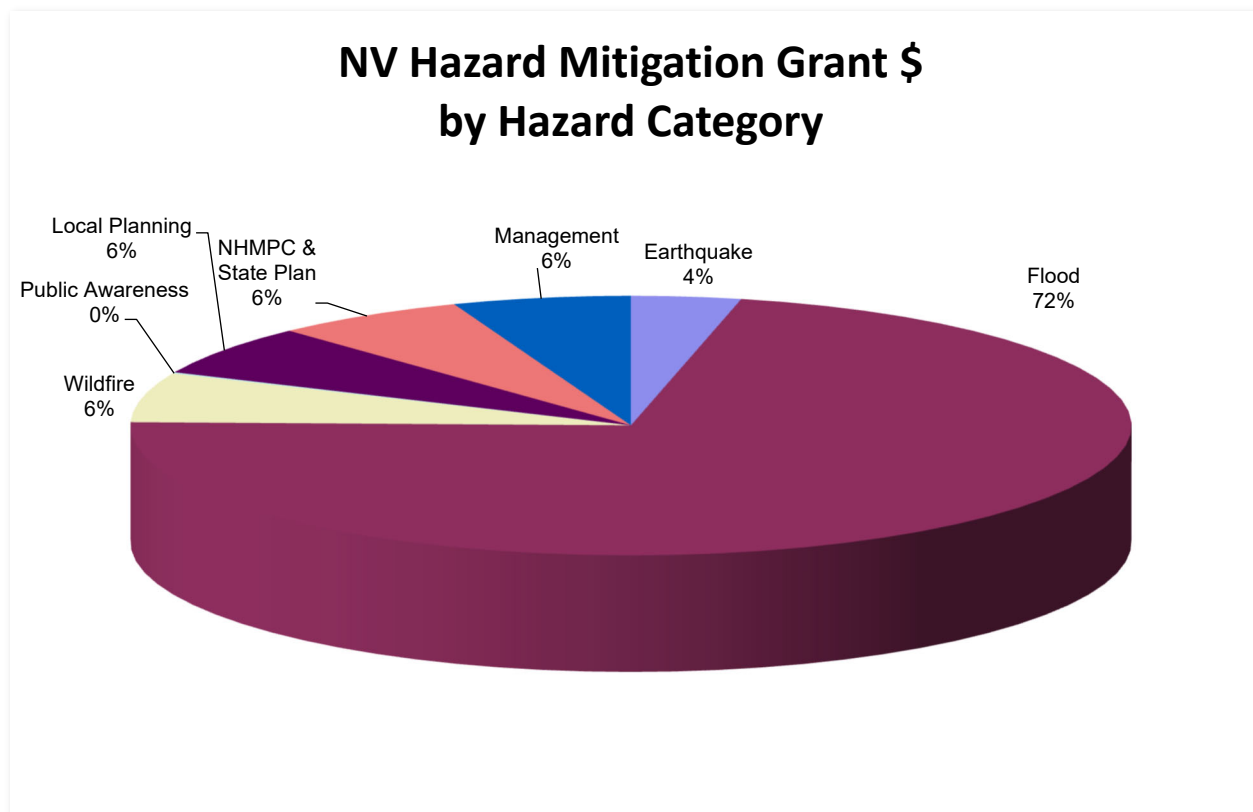


Figure 4-2. PDM, FMA & HMGP Funding by Activity Type

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

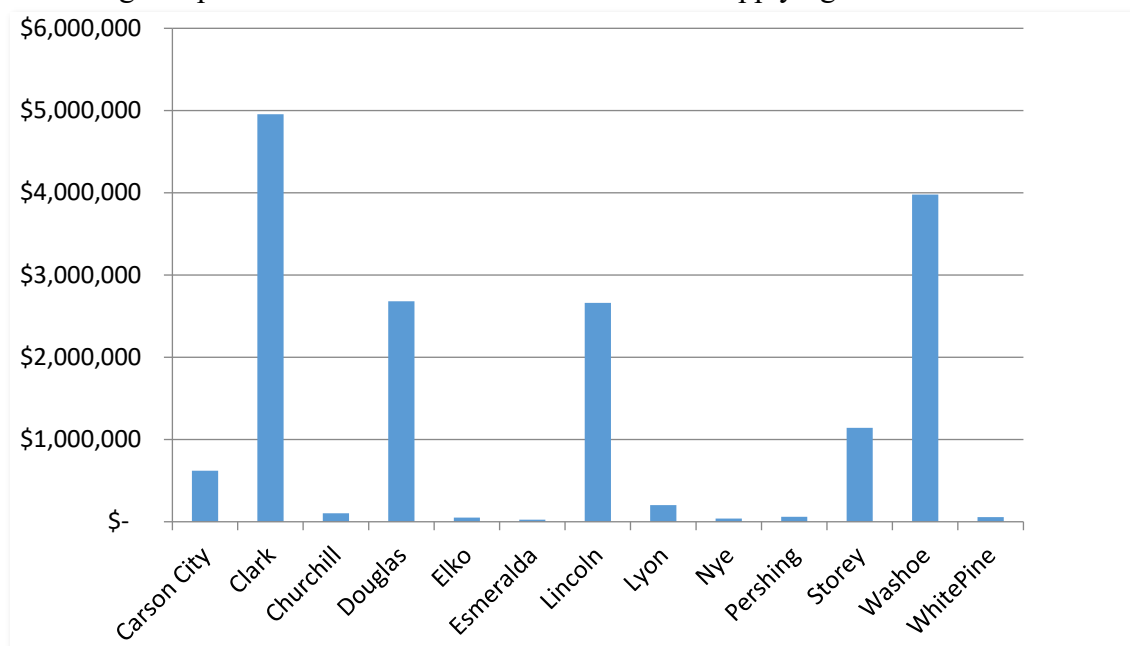


Figure 4-3. Bar Graph of HMA Funding by County

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

NBMG first ran HAZUS "Loss-Estimation Modeling" earthquake scenarios for each county in Nevada in 2007 and created an updated report with similar data for 38 communities across the state in 2014. That series of models also incorporates ShakeMap data provided by the Seismo Lab. The results are summarized in this report, available in detail in the NBMG publication Open-file 14-5, and is linked up online within the MyHazards and MyPlan websites.

There is continued commitment of the Nevada DEM, NDWR, and NHMPC to a comprehensive mitigation program as evidenced by the development of this Plan, the commitment to local mitigation planning, statewide promotion of mitigation, interdepartmental coordination, and the continuation of training workshops, technical assistance and outreach efforts. Examples of these ongoing efforts are listed below.

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

4.3 LOCAL CAPABILITY ASSESSMENT

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

ELEMENT	REQUIREMENTS
S13. Does the plan generally describe and analyze the effectiveness of local and tribal, as applicable, mitigation policies, programs, and capabilities? [44 CFR §201.4(c)(3)(ii)] <i>Intent:</i> <i>To ensure the state understands the local and tribal, as applicable, jurisdictions' capabilities to accomplish hazard mitigation, particularly as capability varies across jurisdictions.</i>	a. The plan must provide a general summary of current local and tribal, as applicable, policies, programs, and capabilities of jurisdictions to accomplish hazard mitigation. b. The plan must describe the effectiveness of local and tribal, as applicable, mitigation policies, programs, and capabilities, including: 1. Challenges to implementing local and tribal, as applicable, mitigation policies, programs, and capabilities. 2. Opportunities for implementing mitigation actions through local and tribal, as applicable, capabilities. c. <i>If the state is interested in an increased Federal share under the FMA program, the plan must include RL and SRL properties in the analysis of effectiveness. (See RL5 in Section 3.8 Repetitive Loss Strategy.)</i>

4.3.1 Local Capability Description

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

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

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

Policy	Description of Model Codes	Applicability
Building and Fire Codes	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)). 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 NRS 461.170 – Division required to adopt by regulation nationally recognized codes and standards for construction, reconstruction and alteration. NRS 477.030 (1)–Requires the State Fire Marshal to adopt minimum fire and building codes to ensure fire safety, except as otherwise provided. 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. 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. NRS 623 – Architects, Interior Designers and Residential Designers.	The adoption and enforcement of building and fire codes relates the design and construction of structures to standards established for withstanding wildfires, earthquakes, flooding, dam failure, and high winds.
Zoning	Laws and ordinances regulate development by dividing the community into zones and by setting development criteria for each zone. NRS 278.147 – Facilities for use, manufacture, processing, transfer or storage of explosives or certain other substances: Conditional use permit required;	Zoning can keep inappropriate development out of hazard-prone areas and can designate certain areas for such things as conservation, public use,

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

Policy	Description of Model Codes	Applicability
	application for and issuance of conditional use permit. NRS 278.160 – Elements of the master plan (planning and zoning). NRS 278.580— Standards for the investigation of hazards relating to seismic activity, including, without limitation, potential surface ruptures and liquefaction NRS 410.095 through 410.210 – Regulation and restriction of outdoor junkyards.	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.
Land Use Planning	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. NRS 278.02521 – Legislative intent (protecting environmentally sensitive areas and maintaining the economic viability of rural lands). NRS 278.160 – Elements of master plan (planning and zoning). 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. NRS 324 – Lands under Carey Act (regulates use of water and reclamation of water projects). NRS 376A – Taxes for development of open space land. NRS 472 – State Forester Fire Warden (management of vegetation, cooperative agreements, rangeland fire protection associations, elimination of fire hazards, etc.). NRS 528 – Forest practice and reforestation. NRS 534 – Underground water and wells	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.
Subdivision Regulations	Sets construction and location standards for subdivision layout and infrastructure. NRS 445D – Environmental covenants (Uniform Act).	Contains standards for such things as storm water management and erosion control

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

Policy	Description of Model Codes	Applicability
Capital Improvements Planning	Identifies where major public expenditures will be made over the next 5 to 10 years.	Capital Improvement Plans can secure hazard-prone areas for low risk uses, identify roads or utilities that need strengthening, replacement, or realignment, and can prescribe standards for the design and construction of new facilities.

4.3.2 Local Capabilities General Analysis

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

Table 4-8. Local and Tribal Capabilities General Analysis

County	Effectiveness			Comments
	Legal Regulatory	Administrative Technical	Fiscal	
Carson City	Excellent	Excellent	Excellent	Plan was approved. Carson City continues to adopt and enforce the most current building codes. They remain strong in their desire to incorporate mitigation projects as well as training and public awareness campaigns.
Churchill	Excellent	Very Good	Very Good	Plan approved. Actively working to implement flood mitigation activities and accomplished quite a bit of flood mitigation during the 2017 January and February flood events.

Table 4-8. Local and Tribal Capabilities General Analysis

Clark	Excellent	Excellent	Excellent	Plan going through update process. They have excellent mitigation actions in flood awareness and prevention. Currently, they are researching earthquake mitigation actions, but already have regulations dealing with faults and fissures. One community is rated extreme for wildfire risk. The County, State, and Federal agencies implement mitigation activities for wildfire. The most current building codes are in place
Douglas	Very Good	Very Good	Very Good	Plan is approved. Douglas continues with legal, regulatory, and fiscal and administrative capability. Coordination and partnerships have improved in the hazard management field.
Duckwater Shoshone Tribe of the Duckwater Reservation	Very Good	Good	Good	Plan is approved under the Nye County plan.
Elko	Very Good	Very Good	Very Good	Plan is approved. Elko County has the foundation in place to enhance current hazard mitigation strategy. Implementing local mitigation activities.
Esmeralda	Good	Good	Good	Plan approved. Coordination among its agencies improved through the planning process.
Eureka	Good	Good	Good	Plan approved. Currently working on an update in conjunction with White Pine County.
Humboldt	Good	Good	Good	Plan approved as a tri-county regional plan with Pershing and Lander Counties.
Lander	Good	Good	Good	Plan approved as a tri-county regional plan with Humboldt and Pershing Counties.

Table 4-8. Local and Tribal Capabilities General Analysis

Lincoln	Very Good	Very Good	Very Good	Plan approved. Coordination among its agencies improved through the planning process and implementing a strategy.
Lyon	Good	Good	Good	Plan approved. Currently working on their plan update. The county remains part of a superfund site and this limits some of the flood mitigation available for the county.
Mineral	Very Good	Good	Very Good	Plan approved. The county also did a lot of flood mitigation with the 2017 flood events.
Nye	Good	Good	Good	Plan approved. Nye Co. has the ability to adopt regulations. Additional staff and funding for mitigation purposes would help the growing population. The county will have a turnover in staff with their emergency manager in 2018.
Pershing	Good	Good	Good	Plan approved as a regional tri-county plan with Humboldt and Lander counties. As a rural county, Pershing is limited in staff to increase mitigation efforts.
Pyramid Lake Paiute Tribe of the Pyramid Lake Reservation	Good	Very Good	Good	Developed an approved plan in conjunction with Washoe County.
Reno-Sparks Indian Colony	Good	Good	Very Good	Developed an approved plan in conjunction with Washoe County.
Shoshone-Paiute Tribes of the Duck Valley Reservation	Good	Good	Good	Plan continues in the update process.
Storey	Very Good	Very Good	Very Good	Plan approved. Storey County has successfully applied for HMA funding and has a current HMGP project pending,

Table 4-8. Local and Tribal Capabilities General Analysis

Te-Moak Tribe of Western Shoshone Indians of Nevada – Elko Band	Very Good	Very Good	Very Good	Plan remains in update process. They have been challenged by staff turnover.
Washoe	Excellent	Excellent	Excellent	Washoe Co. completed a regional hazard mitigation plan to include tribes, and communities have applied for funding to implement strategy.
Washoe Tribe (Nevada and California)	Excellent	Excellent	Excellent	Plan is currently in the update process. The tribe has been challenged by turnover in staff working on the plan update. They will work to accomplish their update along with state technical assistance.
White Pine	Good	Good	Good	Plan approved as a regional plan with Eureka County.

The NHM Planning Subcommittee will continue to track and analyze the local jurisdictions' capabilities as approved plans enter the update process (all county plans are approved or are in the process of updating their approved plans).

4.4 MITIGATION ACTIONS

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

ELEMENT	REQUIREMENTS
S9. Does the plan prioritize mitigation actions to reduce vulnerabilities identified in the risk assessment? [44 CFR §§201.4(c)(3)(iii)¹⁹ and (iv)²⁰] <i>Intent:</i> To establish specific hazard mitigation actions that will be implemented to reduce the vulnerabilities identified in the risk assessment. This is the heart of the mitigation plan, and is essential to leading statewide mitigation programs to reduce risk.	a. The plan must identify actions based on the current risk assessment to reduce the vulnerability of jurisdictions within the state as well as the vulnerability of state- owned or operated buildings, infrastructure, and critical facilities. b. The plan must describe the process used by the state to evaluate and prioritize actions that are cost effective, environmentally sound, and technically feasible. c. The plan must describe how each action contributes to the hazard mitigation goals. d. The plan must describe how the local and tribal, as applicable, mitigation strategies are linked with the state mitigation strategy. e. <i>If the state is interested in an increased Federal cost share under the FMA program, the plan must address RL and SRL properties in the risk assessment. (See RL3 in Section 3.8 Repetitive Loss Strategy.)</i>
S11. Was the plan updated to reflect progress in statewide mitigation efforts and changes in priorities? [44 CFR §201.4(d)] <i>Intent:</i> To evaluate progress in implementing the mitigation strategy and to ensure the plan reflects current conditions, including financial, legal, and political realities and post-disaster conditions.	a. The plan must describe the status of hazard mitigation actions in the previous plan by identifying those that have been completed or not completed. For those actions not completed, the plan must provide a narrative describing the status (for example, is the action relevant or will it be included in the plan update). b. The prioritization of mitigation actions and activities must be updated based on the updated analysis of risks, capabilities, and progress.

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

²⁰ 44 CFR §201.4(c)(3)(iv): “Identification of current and potential sources of Federal, State, local, or private funding to

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

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

To identify strategic actions, we first reviewed the 2013 mitigation strategic actions and projects and requested input from Subcommittee members on any needed additions deletions or changes to the list or any that had been accomplished. Completed mitigation activities are listed in Appendix O.

4.4.2 Evaluation and Prioritization of Strategic Actions and Activities

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

Table 4-9. STAPLEE Evaluation Criteria for Ranking Mitigation Strategic Action Items		
Evaluation Category	Discussion topics	Considerations
Social	Is there public support for the overall mitigation strategy and specific mitigation actions?	Community acceptance; any adverse effects on population
Technical	Is the mitigation action technically feasible and is it a whole or partial solution?	Technical feasibility; long-term solutions; secondary impacts
Administrative	Does the community have the personnel and administrative capabilities necessary to implement the action or will outside help be necessary?	Staffing; funding allocation; maintenance/operations
Political	What do the community and its members feel about issues related to the environment, economic development, safety, and emergency management aspects of the action?	Political support; local champion; public support
Legal	Does the community have the legal authority to implement the action, or must the community pass new regulations?	Local, state, and federal authority; potential legal challenges
Economic	Can the action be funded with current or future internal and external sources? Do the costs seem reasonable for the size of the project, and is enough information available to complete a FEMA Benefit-Cost Analysis?	Benefit/cost of action; contributes to other economic goals; outside funding required; FEMA Benefit-Cost Analysis
Environmental	What is the impact on the environment? Does the action promote a desirable, sustainable and environmentally healthy community for the public?	Effect on local flora and fauna; consistent with community environmental goals; consistent with local, state, and federal laws.

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

A review of the results of the STAPLEE prioritization shows that the 102 strategic action items received scores of between 233 and 326 points each from Subcommittee members; The top 25% scoring 305 and above were ranked as “High” priority strategic action items. The second quartile (scoring 290 to 304) were ranked as “Medium” priority strategic action items and the lower half receiving less than 289 points in the STAPLEE rating process were ranked as “Low” priority strategic action items.

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

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

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

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

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	proper practices in defensible space and firefighting				reduce loss of life and injury	
5.AO	Comply with all federal regulations in the funding stream to ensure compliance and future competitiveness	NDF	NDF	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
4.B	Identify and prioritize areas in the State where existing flood hazard mapping is inadequate due to planned and existing significant development and conduct flood hazard mapping in those areas	NDWR, NDEM	Repetitive Flood Claims (RFC), SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
4.G	Upgrade State owned or operated infrastructure (e.g. servicing roads, culverts, bridges, channels, and structures) related to State owned or operated critical facilities to protect critical facilities from flood damages or disruption of essential services	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.AG	Provide public education and outreach to communities affected by wildfire	NDF	USDA, BLM, USFS, NRCS, UNCE, Living With Fire Program, FEMA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.L	Continue to improve fire prevention programs statewide through partnerships with Fire	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and	HIGH

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

	Prevention Association of Nevada, State Fire Marshal's Office, University of Nevada, Reno Cooperative Extension, and any other cooperators.				reduce loss of life and injury	
5.G	Ensure proper personal protective equipment, apparatus, equipment and training for career staff and seasonal wildland firefighters.	NDF	FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
4.A	Protect existing assets, as well as future development, from the effects of flooding	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.H	Assist volunteer fire departments in attaining funds for proper personal protective equipment, apparatus, equipment and training	NDF	FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.K	Encourage collaboration on all levels among state, federal and local cooperators, both fire- and resource-related	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
2.H	Promote coordination among state agencies, local governments and tribal organizations of regional hazard mitigation activities	Nevada DEM, NESC, NBMG	HMA, EMPG, FEMA,	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
3.AB	Earthquake Early Warning System for Nevada	Seismo Lab	USGS, FEMA, Earthquake	Near future	Reduce injuries and losses from	HIGH

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

			Hazard Program (EHP)		earthquakes by forewarning people, agencies, and industry that imminent shaking is about to occur allowing safety, economic, and operational measures to be taken	
5.AF	Provide training, expertise, and supplies/equipment in a collaborative manner to assist in rehabilitation	NDF	USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.AB	Encourage collaboration at all levels with state, federal and local cooperators	NDF	USDA, BLM, USFS, Living With Fire Program	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.AJ	Assist in the formulation and dissemination of current information such as Living with Fire documents	NDF	USDA, BLM, USFS, NRCS, UNCE, Living With Fire Program, FEMA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
3.X	Continue to inventory and field-verify unreinforced masonry buildings in Nevada and make this data publicly available to planners and emergency response staff in communities statewide.	NESC, Seismo Lab, NBMG	HMA, NEHRP, EMPG, locals	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

5.J	Coordinate the development of a comprehensive, collaborative program for mutual aid/mobilization of state and local government fire resources	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
4.J	Inventory and inspect existing dams for structural and hydraulic adequacy and implement operational constraints, if warranted.	NDWR, Nevada DEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.AP	Keep apprised of all federal, state, and local regulations	NDF	NDF	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
5.AQ	Participate in interagency project planning, implementation and monitoring	NDF	USDA, BLM, USFS, NRCS, UNCE, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
3.M	Promote the Great Nevada Shakeout and earthquake drills throughout the state.	NESC, Seismo Lab, NBMG	HMA, NEHRP	ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
4.P	Develop Emergency Action Plans to ensure swift coordinated response in the event of an emergency	NDWR, Nevada DEM	RFC, SRL, PDM, HMGP, FMA, EMPG, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH

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4.I	Inventory existing dams and add to the inventory as dams are discovered or constructed.	NDWR, Nevada DEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
2.F	Continue to build operational links between hazard mitigation, disaster preparedness and recovery programs with public and private sectors	Nevada DEM, DWR,	HMA, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	HIGH
2.A	Provide technical assistance, guidance, resources and tools to local governments and tribal entities to promote hazard mitigation planning	Nevada DEM, DWR	HMA, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
4.H	Protect existing assets as well as future development from the effects of dam failure	NDWR, Nevada DEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.AN	Assist in the planning for and removal of biomass waste on fuels reduction and forest health projects, as well as following wildland fires, flooding and other catastrophic natural event.	NDF	USDA, BLM, USFS, NRCS, UNCE, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.AC	Assist communities and State in Burned Area Emergency Rehabilitation, and complete fire damage reclamation reports	NDF	USDA, BLM, USFS, NRCS, USACE, UNCE	Ongoing	Reduce economic impact of hazards on infrastructure and	MEDIUM

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

	and public education and outreach to provide the best land management practices available for collaborative land rehabilitation				reduce loss of life and injury	
5.AL	Assist, encourage and provide guidance to communities in the development of the appropriate fire service organization for their community (i.e. a legally constituted fire protection district or fire department) according to NRS 472.040	NDF	USDA, BLM, USFS, NRCS, UNCE, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
4.K	Install early warning weather stations in watersheds with dams above populated areas	NDWR, Nevada DEM	NWS, NOAA, USGS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
3.G	Encourage seismic retrofit of public safety and critical facilities (both community and State) (such as 911 communications, hospitals, fire, law enforcement and ambulance facilities, etc.)	NESC, Seismo Lab, NBMG	HMA, EMPG, USFS, BLM, NDF, Local Fire Department	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.AH	Focus fuels projects in communities with extreme or high ratings in CWPP assessments	NDF	USDA, BLM, USFS, NRCS, UNCE, Living With Fire Program, FEMA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

5.C	Assist local communities in enacting local ordinances for mitigation and fire prevention	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.N	Provide funding and service forestry technical assistance through the State Fire Assistance and Hazardous Fuels Reduction programs to reduce fuels on state and private property	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS, locals	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
3.N	Promote training of volunteer CERT about earthquake risks and possible mitigation activities.	NESC, Seismo Lab, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
2.B	Provide specialized training and exercises to state agency staff and local governments concerning local hazard mitigation planning and the local hazard mitigation plan program	Nevada DEM, NDWR	HMA, EMPG, CDBG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.AK	Encourage community involvement in project completion, participation, and maintenance.	NDF	USDA, BLM, USFS, NRCS, UNCE, Living With Fire Program, FEMA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.E	In highly motivated communities, focus on activities by individual	NDF	HMA, EMPG, FMAG, USDA,	Ongoing	Reduce economic impact of hazards on infrastructure and	MEDIUM

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

	participation in and maintenance of projects (personal responsibility)		BLM, USFS, UNCE		reduce loss of life and injury	
5.AD	Assess damage to critical watershed and threats to communities' domestic water supplies and mitigate those threats through erosion control practices	NDF	USDA, BLM, USFS, NRCS, USACE	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
4.L	Assist communities and State in structural mitigation measures, updates, and repairs to dams	NDWR, Nevada DEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
3.F	Encourage seismic retrofit of deficient essential structures and infrastructure of community and State critical facilities (economic and lifeline-utilities) to structurally and seismically withstand the effects of earthquakes.	NESC, Seismo Lab, NBMG	HMA, EMPG, USFS, BLM, UNCE	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.Y	Use mechanical and hand treatments as well as prescribed fire to assist in attaining desired forest and rangeland conditions	NDF	USDA, BLM, USFS, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
1.D	Promote the modification of structures to meet life safety standards	Nevada DEM, NDWR	HMA, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

4.N	Identify hazards of flooding from man-made structures, such as irrigation ditches and canals, and integrate these into local zoning ordinances	NDWR, Nevada DEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
3.S	Give planning and special consideration to developing a “Fault Map of Nevada” and identifying all active faults and seismic sources near major urban areas in Nevada.	NESC, Seismo Lab, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.U	Work closely with the Tribal communities, local landowners, and the SHPO to obtain clearances and to mark sensitive sites	NDF	USDA, BLM, USFS, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.V	Provide assistance to communities and State in planning and implementing long-term sustainable landscape projects	NDF	USDA, BLM, USFS, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
4.O	Develop laws and regulations that ensure reasonable standards of design and construction to reduce flood hazards	NDWR, Nevada DEM	RFC, SRL, PDM, HMGP, FMA, EMPG, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.AI	Assist with the development of and participation in a comprehensive program by which current CWPP or equivalent assessments are updated as projects are	NDF	USDA, BLM, USFS, NRCS, UNCE, Living With Fire Program, FEMA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

	completed, ratings change or new at-risk communities arise.					
5.Z	Provide native and accepted introduced seed species through the Nevada State Seedbank program	NDF	USDA, BLM, USFS, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
5.AM	Assist in acquiring funding for local firefighters for training and equipment through the State Fire Assistance, and Volunteer Fire Assistance when funded by US Forest Service.	NDF	USDA, BLM, USFS, NRCS, UNCE, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
4.H	Protect existing assets as well as future development from the effects of dam failure	NDWR, Nevada DEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	MEDIUM
1.A	Improve awareness of the locations, potential impacts and links among hazards, vulnerability and measures to protect life safety and health	Nevada DEM, NDWR	HMA, EMPG, DHS grant, USFS, FMAG, BLM, Emergency Response Commission, Local fees	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
1.G	Develop a hazard communication system that can be used to rapidly detect and provide early warning for multiple hazards, including earthquakes and wildfires	Nevada DEM, NDWR	HMA, EMPG, BLM, NDF, USFS, SERC, Local Fees	12-18 Months	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

3.Z	Identify potential funding sources for earthquake mitigation strategic actions not only at the Federal and State levels but also from private funding and community partnerships.	NESC, Seismo Lab, NBMG	HMA, NEHRP, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.L	Develop earthquake hazard information programs targeting public safety, emergency managers, local government executives, and business and industry.	NESC, Seismo Lab, NBMG	HMA, EMPG, USFS, BLM, NDF, Local FD	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
1.E	Improve communication, collaboration and integration among stakeholders and promote hazard mitigation as an integrated public policy	Nevada DEM, NDWR	HMGP, EMPG, USGS, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
4.D	Retrofit State buildings to meet NFIP standards	NDWR, Nevada DEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.P	Improve integration of the emergency management system at all levels of the community bringing forth the “whole community” approach.	NESC, Seismo Lab, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
1.C	Encourage the incorporation of mitigation measures into repairs, major alterations, new	Nevada DEM, NDWR	HMA, EMPG, DHS grant, USFS, FMAG, BLM, Emergency	Ongoing	Reduce economic impact of hazards on infrastructure and	LOW

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

	development and redevelopment practices		Response Commission, Local fees		reduce loss of life and injury	
5.B	Identify and recommend changes to State NRS, NAC and communities ordinances and regulations	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.O	Provide assistance to counties for priority setting and CWPP updating	NDF	HMA, EMPG, FMAG, USDA, BLM, USFS, locals	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
1.F	Encourage local governments, special districts and tribal organizations to develop, adopt and implement, maintain and update hazard mitigation plans	Nevada DEM, NDWR	HMA, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
2.G	Promote understanding by the general public of the benefits of hazard mitigation in reducing casualty and property losses and ensuring continuity of businesses, institutional and government functions	Nevada DEM, NDWR	HMA, EMPG, NHERP, NSF	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
1.B	Provide current information about hazards, vulnerabilities, mitigation processes and technical assistance for planning and grant availability and application procedures to State and local agencies	Nevada DEM, NDWR	HMA, EMPG, DHS grant, USFS, FMAG, BLM, Emergency Response Commission, Local fees	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

4.E	Assist communities and State with programs to elevate, dry-flood proof or wet-flood proof identified structures to obtain NFIP compliance and/or mitigate repetitive loss structures and severe repetitive loss structures.	NDWR, Nevada DEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
4.M	Encourage local ordinances and regulations to reduce encroachment into flood prone zones resulting from dam impoundment or high (non-failure) releases.	NDWR, Nevada DEM	RFC, SRL, PDM, HMGP, FMA, EMPG, NRCS, USDA	Ongoing	Reduce the impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.Q	Provide publications and workshops to promote the exchange of technical information relating to earthquakes among professionals, managers and the citizens of Nevada.	NESC, Seismo Lab, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
2.C	Maintain a tracking system for local and state government mitigation plans and projects	Nevada DEM, NDWR	HMA, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
2.I	Identify, enhance and integrate public education efforts by state and local agencies that have programs directed to hazard mitigation	Nevada DEM, NDWR	HMA, EMPG, FMA, RFC, local fees	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

4.C	Conduct flood hazard mapping in piedmont and alluvial fan environments	NDWR, Nevada DEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA, USGS	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.B	Hold workshop on strategies, benefits, risk-reduction opportunities, and challenges associated with the inventory of seismically susceptible buildings	Nevada DEM, NDWR	HMA, EMPG, FMA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.W	Restore native and adapted vegetation and work to prevent areas being impacted by non-native or undesirable species conversions through collaborative efforts.	NDF	USDA, BLM, USFS, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.A	Protect existing assets, as well as future development, from the effects of earthquakes by providing setback criteria for building and development	Nevada DEM, NDWR	HMA, EMPG, FMA, RFC	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.P	Provide a statewide evaluation process for monitoring community progress, prioritization and participation in CWPP	NDF	locals?	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.K	Expand earthquake awareness in educational sites such as regional science fairs, and speakers	NESC, Seismo Lab, NBMG	HMA, EMPG, USFS, BLM, NDF, UNR Coop Extension	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

3.I	Increase media involvement by networking with partners from all media types such as print, radio, TV, and social media.	NESC, Seismo Lab, NBMG	HMA, EMPG, USFS, BLM,	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.AE	Supply resources for rehabilitation efforts through the State Tree Nurseries in Las Vegas and Washoe Valley, and the Nevada State Seedbank programs.	NDF	NDF	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.Y	Promote coordination among private and public entities to improve statewide earthquake monitoring capabilities.	NESC, Seismo Lab, NBMG	HMA, NEHRP, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.E	Create microzonation of earthquake hazards in Nevada	NESC, Seismo Lab, NBMG	HMA, EMPG, USFS, BLM	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
4.F	Assist communities and State with programs dealing with Repetitive Loss and Severe Repetitive Loss structures; these programs may involve acquisition and demolition; relocation; elevation or other mitigation strategies.	NDWR, NDEM	RFC, SRL, PDM, HMGP, FMA, EMPG, USACE, NRCS, USDA	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.O	Promote training of hospital staff about earthquake risks and possible mitigation activities.	NESC, Seismo Lab, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and	LOW

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

					reduce loss of life and injury	
2.D	Provide training to local governments and state agency staff to clarify mitigation measures from response and recovery and preparedness measures	Nevada DEM, NDWR	HMGP, EMPG, Interoperable Communications, USGS, USFS, BLM, FEMA, BOR	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.R	Focus projects in areas to attain desired forest conditions and coordinate with forest health program activities	NDF	USDA, BLM, USFS, locals	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.V	Create earthquake planning scenarios (Las Vegas and rural areas).	NESC, Seismo Lab, NBMG	HMA, NEHRP, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.W	Determine potential fault rupture characteristics and maximum earthquakes.	NESC, Seismo Lab, NBMG	HMA, NEHRP, EMPG	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.C	Assist communities and State to retrofit, change occupancy to decrease risk, or demolish susceptible buildings and structures	Nevada DEM, NDWR	HMA, EMPG, USGS, Interoperable communications, local fees	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
2.E	Maintain a system to allow state agencies with hazard mitigation programs and plans to make recommendations	Nevada DEM, NDWR	HMA, EMPG, Local fees, SERC	Ongoing	Reduce economic impact of hazards on infrastructure and	LOW

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

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

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

	documenting fuels projects progress, completion, success and maintenance				infrastructure and reduce loss of life and injury	
3.U	Enhance implementation of nonstructural remediation.	NESC, Seismo Lab, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.AA	Provide training for local cooperators for treatment practices and skill acquisition	NDF	USDA, BLM, USFS, locals, private	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.T	Establish a “lifelines and transportation” workgroup.	NESC, Seismo Lab, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.R	Promote a post-earthquake technical clearinghouse through planning and established practices.	NESC, Seismo Lab, NBMG	HMA, NEHRP	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
3.J	Provide Applied Technology Council (ATC) training and develop formalization of the process	NESC, Seismo Lab, NBMG	HMA, EMPG, USFS, BLM, UNCE	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW
5.T	Provide training for employees and project managers on SHPO and cultural resource	NDF	BLM, USFS	Ongoing	Reduce economic impact of hazards on infrastructure and	LOW

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Table 4-10. Strategic Action Plan Matrix; 2018 NHMP Prioritization of Strategic Actions

	identification, reporting methods and clearances				reduce loss of life and injury	
3.D	Create planning for "special consideration zones" for Nevada communities	Nevada DEM, DWR	HMA, EMPG, USGS, FMA, FEMA, local fees	Ongoing	Reduce economic impact of hazards on infrastructure and reduce loss of life and injury	LOW

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

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

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

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

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

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

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

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

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

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

Emergency Services: These activities are generally not considered as mitigation techniques, but they minimize the impact of a hazard on people and property.

- Warning system
- Evacuation planning and management

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

- Outreach and education
- Training
- Public service announcement

4.4.3. Actions in Local Plans & State Mitigation Strategy

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

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

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

4.5 FUNDING SOURCES

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

ELEMENT	REQUIREMENTS
S10. Does the plan identify current and potential sources of funding to implement mitigation actions and activities? [44 CFR §201.4(c)(3)(iv)] <i>Intent:</i> For the responsible entity to take action to complete activities and projects as funding opportunities to implement them arise.	a. Each mitigation action or project must include the identification of current and/or potential sources of Federal, state, local, tribal, as applicable, or private funding for implementation. b. At a minimum, the plan must identify FEMA mitigation funding sources, including, if applicable, but not limited to HMGP, PDM, FMA, and PA C-G.²¹ c. If the state is interested in an increased Federal cost share under the FMA program, the plan must address identify current and potential sources of funding with respect to RL and SRL properties. (See RL4 in Section 3.8 Repetitive Loss Strategy.)

²¹ [Stafford Act](#), §406(e) Repair, Restoration, and Replacement of Damaged Facilities and 44 CFR §206.226 Restoration of damaged facilities. [FEMA Recovery Policy 9526.1 "Hazard Mitigation Funding Under Section 406 \(Stafford Act\)"](#), dated March 30, 2010.

4.5.1 Current Funding Sources

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

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

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

4.5.2 Potential Funding Sources

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

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

Table 4-12. Potential Funding Sources for Strategic Mitigation Activities

Private Sources	Comments
U. S. Bureau of Land Management	Funded CWPPs and WUIs
U. S. Geological Survey	Earthquake hazard reduction, mapping, etc.

4.6 REPETITIVE LOSS AND SEVERE REPETITIVE LOSS

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

ELEMENT	REQUIREMENTS
RL. Did the state develop a Repetitive Loss Strategy? [44 CFR §201.4(c)(3)(v)] <i>Intent:</i> Describe how the state intends to reduce the number of repetitive loss properties (which must include severe repetitive loss properties).	1. RL1. Did Element S6 (risk assessment) address RL and SRL properties? [44 CFR §§201.4(c)(2)(ii), 201.4(c)(2)(iii), and 201.4(c)(3)(v)] 2. RL2. Did Element S8 (mitigation goals) address RL and SRL properties? [44 CFR §§201.4(c)(3)(i) and 201.4(c)(3)(v)] 3. RL3. Did Element S9 (mitigation actions) address RL and SRL properties? [44 CFR §§201.4(c)(3)(iii) and 201.4(c)(3)(v)] 4. RL4. Did Element S10 (funding sources) address RL and SRL properties? [44 CFR §§201.4(c)(3)(iv) and 201.4(c)(3)(v)] 5. RL5. Did Element S13 (local and tribal [as applicable] capabilities) address RL and SRL properties? [44 CFR §§201.4(c)(3)(ii) and 201.4(c)(3)(v)] 6. RL6. Did Element S15 (prioritizing funding) address RL and SRL properties? [44 CFR §§201.4(c)(4)(iii) and 201.4(c)(3)(v)] <i>Special Consideration:</i> 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.

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

- a. Is covered under a contract for flood insurance made available under the NFIP and
- b. Has incurred flood-related damage
 - i. For which four or more separate claims made available under flood insurance coverage with the amount of each such claim exceeding \$5,000, and the cumulative amount of such claims payments exceeding \$20,000; or

- ii. For which at least 2 separate claims payments have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the insured structure.

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

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

Existing NFIP data for the State of Nevada indicate that there is currently one SRL and two RL properties in the State that fulfill the criteria defined above.

The NHM Planning Subcommittee will continue to monitor data from the NFIP to identify any SRL properties in the State. The goal is to address any repetitive flood structure to avoid it becoming an SRL. Should the State develop any additional SRL properties in the future, the following strategy will be followed to mitigate such SRL occurrences.

4.6.1 Goals that Support Mitigation Activities for Repetitive Loss Properties

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

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

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

4.6.3 Repetitive Loss Properties in Risk Assessment

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

4.6.4 Mitigation Actions for Repetitive Loss and Severe Repetitive Loss Properties

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

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

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

4.6.5 Specific Actions Implemented to Mitigate Repetitive Loss Properties

See Section 3.3.7.3.3 and Appendix O for examples of actions implemented in Nevada to mitigate repetitive loss properties. In addition, TRFMA is using 2017 HMGP funds on a home elevation project of two repetitive loss structures. Through Nevada DEM, TRFMA utilized PDM 2015 and PDM 2016 grants to demolish structures along the Truckee River, which is still in progress as of February 2018.

The TRFMA is utilizing PDM 2016 and HMGP funds to elevate flood-prone residences in the Hidden Valley area of Washoe County, making the properties more resistant to flood damage.

In a separate area within the Carson River SFHA, residences located in flood-prone areas were elevated.

Nevada has applied for FMA funding but has not yet been selected for further review.

4.6.6 Funding for Repetitive Loss Properties

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