

Minutes of the
Nevada Hazard Mitigation Planning Committee
7 February 2012

The Nevada Hazard Mitigation Planning Committee (NHMPC) met from 9:34 a.m. until 1:45 p.m. on Tuesday, February 7, 2012 at the Carson City Fire Department, 777 S. Stewart St., Carson City, Nevada. These minutes and related documents are posted on the Web site for the committee (<http://www.nbmng.unr.edu/nhmpc/nhmpc.htm>).

Attendees included:

Elizabeth Ashby, Nevada Division of Emergency Management (DEM)
 Craig dePolo, Nevada Bureau of Mines and Geology
 Rick Diebold*, City of Las Vegas, Office of Emergency Management
 Mike Dondero*, NV Division of Forestry
 Gary Dunn*, Carson City of Emergency Management
 Robert Fellows*, Carson City Public Works
 Terri Garside, Nevada Bureau of Mines and Geology
 Stacey Giomi, Carson City Fire Chief
 Juliette Hayes, FEMA, Region IX
 Stephanie Hicks, RO Anderson
 Daphne LaPointe, Nevada Bureau of Mines and Geology
 Ron Lynn*, Department of Development Services, Clark County Building Department
 Lee Plemel, Carson City Planning Director
 Robert Martinez, Nevada Division of Water, who held the proxy for Kim Davis*, Division of Water Resources
 Jonathan Price*, Nevada Bureau of Mines and Geology
 Jim Reagan*, NV Energy
 Eric Smith, Nevada Division of Water Resources
 Ryan Turner*, Henderson Emergency Management
 Andrew Trelease*, Clark County Regional Flood Control District
 Jim Walker*, Nevada Department of Transportation
 Richard Wiggins, Nevada State Office of Energy

* indicates a member of the Board of Directors.

Members of the Board of Directors of the Committee who were unable to attend include:

Ed Atwell*, University of Nevada Police Department
 Joe Curtis*, Storey County Emergency Management

WELCOME AND INTRODUCTIONS

Jon Price chaired the meeting. Attendees introduced themselves. A quorum (a majority of the 13 members of the Board of Directors) was present. Jon explained that the NHMPC meeting was being held in Carson City to allow the Committee members to meet the local officials and to receive insight into the City / County's hazards.

PUBLIC COMMENTS

No public comments were received.

APPROVAL OF MINUTES FROM NOVEMBER 10, 2011

The minutes of the November 10, 2011, meeting of the committee were unanimously approved. Minutes of the committee are posted on the NHMPC Web site at www.nbmng.unr.edu/nhmipc/nhmipc.htm.

ECONOMIC AND SOCIAL PROFILE, AND FUTURE DEVELOPMENT OF CARSON CITY

Lee Plemel gave an overview of Carson City's demographics and growth. Carson City is a consolidated municipality, meaning that it is both a county and a city.

Carson City encompasses approximately 146,000 square miles; 15% of which is developable.

The 2010 census reported that Carson City has 55,274 residents.

The first planner started laying out the plans for what is now Carson City in 1858.

Carson City has been proactive to ensure that the flood-prone areas are maintained as undeveloped land.

CARSON CITY PRESENTATION ON THE DEMOGRAPHICS, GOVERNMENT, GEOGRAPHY, AND FIRE HAZARD

Stacey Giomi reported that the Carson City Hazard Mitigation Plan was adopted in March 2011.

The hazards and their rankings in the Carson City Hazard Mitigation Plan are identified as:

Wildland Fires – high	Utility loss – moderate
Earthquake – high	Haz mat – moderate
Floods – high	Volcanic activity – moderate
Epidemic – high	Drought – moderate
Severe weather – high	Avalanche – low
Terrorism – high	Seiche – low
	Landslide – low

All except two of the department heads of the state's agencies are located in Carson City.

Wildland fire mitigation efforts include a "You call – we haul" program, where the fire department provides a free trailer for use in filling with hazardous fuel (brush, etc.), which is then taken to the landfill and dumped free of charge.

Annually, Carson City has about 2,000 acres burned by wildland fires.

The 2004 Waterfall fire destroyed 17 homes; 1 business; 52 vehicles; and 12 outbuildings. It cost \$8 million to fight; \$10 million for rehabilitation; and caused \$12 million in damages.

The largest wildland fire in 2011 consumed about 300 acres on December 30th.

EARTHQUAKE HAZARDS IN CARSON CITY

Jon Price reported that earthquake faults occur throughout Nevada. The Nevada Bureau of Mines and Geology recently released the map *Quaternary Faults in Nevada* (NBMG Open-File Report 09-9, available at www.nbmng.unr.edu). The online version of the map is searchable, which allows for finding the large and potentially active faults in the area of a specific address. The map is to be used for approximate fault locations and should not be used as a definitive location of faults. If planning to build in one of the zones shown on the map, it is wise to hire a geological consultant to precisely locate faults and

determine their frequency of movement. By using the information icon, and clicking on a specific fault, the known information on the fault appears. The faults can be viewed on base maps showing aerial photographs or topography and roads.

Due to extension, Nevada is acquiring approximately 0.2 acres of area per year. Salt Lake City and Reno are moving apart about a centimeter a year.

Jon distributed Nevada Bureau of Mines and Geology's Open-File Report 09-8, *Estimated Losses from Earthquakes near Nevada Communities*, available at www.nbmng.unr.edu/dox/of098/Scenarios/OpenFileReport09-8.pdf. The report contains HAZUS runs for 38 communities in Nevada, essentially all towns with a population of at least 500. The report contains runs for magnitudes 5, 5.5, 6, 6.5, and 7 earthquakes. The runs were compiled using a fault on the Quaternary fault map that is closest to the center of the community. The fault depth is run at 10 km (the average depth of earthquakes in the Great Basin).

According to the U.S. Geological Survey, the probability of a magnitude 6.0 earthquake within the next 50 years occurring near (within 31 miles or 50 kilometers) Carson City is approximately 70%. The total economic loss from a magnitude 6 earthquake in Carson City is estimated at \$650 million.

HAZUS is an excellent tool that city and county managers, emergency managers, and planners should use in hazard mitigation, planning, and emergency response and recovery exercises.

The consequences of earthquakes can be huge in Nevada, particularly if individuals are not prepared.

The Nevada Bureau of Mines and Geology was contracted by the Nevada Division of Emergency Management, using funding from FEMA and the Nevada Public Agency Insurance Pool, to compile a database of all potential un-reinforced masonry buildings (URM) in Nevada. Using data supplied by County Assessors and State Public Works, it was determined that Nevada has 23,597 potential URMs (total does not include federally-owned building). Of the total in the state, Carson City has approximately 734 potential URMs. Because a large number of the URMs are historic buildings, the issue is to how to retrofit them to make them safe. With URMs being mostly +50 years old, many may have suffered damage from previous earthquakes.

The best thing that can be done to prevent building damage and loss of life or injury is to be prepared to respond; mitigate structural risks, largely through having current building codes; and mitigate nonstructural risks.

Jon's PowerPoint presentation on "Earthquake Hazards in Carson City" is available online at http://www.nbmng.unr.edu/Geohazards/Earthquakes/Presentations/Earthquake_Hazards_in_Carson_City_7February2012.pdf

Jim Reagan reported that today is the 200 anniversary of the New Madrid earthquake. To commemorate the earthquake, the Great Central U.S. ShakeOut was held on February 7, 2012 at 10:15 a.m.

CARSON CITY FLOOD HAZARDS

Rob Fellows reported that the Carson Valley water shed is approximately 52 square miles.

The drainage flows off the western range front and into Carson City, then flows through a narrow channel out to the Carson River.

Carson City is working with FEMA to remap the flood zones.

There are about 4,000 acres of flood hazard areas in the City, of that, 2,000 acres are open space. Approximately 1,430 structures are in the flood zone.

The peak 100-year flows put the Carson River at 36,000 cfs and Eagle Valley at 8,922 cfs; revised down from 13,000 cfs.

Carson City currently has 642 flood policies; \$161,544 in covered property; and \$499,260 in premiums.

To prevent flooding, a pipeline could be installed, which would pipe flood water from the range front to the river. However, this would not be a viable solution because that would prevent the groundwater from being recharged.

The flood water retention basins accumulate sediment buildup. The sediment is clay-rich so water doesn't percolate down into the groundwater so it is removed. The sediments dredged from the retention basins are full of nutrients so it is spread along the range front, and provides needed nutrients to the plants.

PLANNING SUBCOMMITTEE REPORT

Jim Walker reported that the subcommittee works throughout the year to keep the State's Hazard Mitigation Plan updated. They meet in person quarterly. Jim distributed Section Four, Mitigation Goals and Strategic Actions, and requested that Committee members review the handout and provide feedback.

There are five goals in the Plan:

- Goal 1, Reduce loss of life and injuries
- Goal 2, Improve local hazard mitigation plans technical assistance
- Goal 3, Reduce the possibility of damage and losses due to earthquakes
- Goal 4, Reduce possibility of damage of losses due to flooding
- Goal 5, Reduce the possibility of damage and losses due to wildfire

ACTION ITEM: Elizabeth Ashby will provide a worksheet to Committee members for keeping track of any completed mitigation activities done in the state. The mitigation activities will be included in the next Plan update.

Juliette Hayes complimented the Subcommittee's efforts, and said that Nevada serves as an example to other states.

FEMA'S "LEVEE INCLUSIVE METHOD' AND WHAT THAT MEANS TO NEVADA

Robert Martinez reported that there are 232 hydrographic basins in the state.

In order for a levee to be accredited by FEMA and shown on a FIRM (Flood Insurance Rate Map) as providing protection from the base flood, the levee must first be certified by a Professional Engineer (PE) or a Federal Agency that designs levees.

Levees are accredited when levee owners, communities, or others provide a registered P.E. certification demonstrating compliance with 44 CFR 65.10 in the following five areas: General Criteria, Design Criteria, Operation Plans and Criteria, Maintenance Plans and Criteria, and Certification Requirements.

Four levees have been accredited in Nevada; three are in Clark County. Washoe County's accredited levee is considered the I-80 corridor and includes the Sparks Marina.

FEMA is revising its levee analyses and mapping approach.

There are four main layers of mapping:

- Natural valley
- Interior drainage
- Landslide hazard
- Flooding source

“No single raindrop believes it is responsible for the flood.”

More information can be found at <http://water.nv.gov> .

PROPANE TANK SAFETY PRESENTATION

No presentation

REPORT ON THE STATUS OF GRANTS

Elizabeth Ashby reported on the status of the following funded projects:

Hazard Mitigation Grant Program (HMGP)

- HMGP1540, Waterfall Fire funding – Closed
- HMGP 1583, S. Nevada 2005 Floods – Closed
- HMGP 1629, N. NV Flood – mostly completed, with an extension request by UNR for the Planning Subcommittee support.
- HMGP 1738, Fernley Floods – Lyon Co. plan consultant hired and on schedule; Dant Wash improvement Phase I Engineering awarded and on schedule; URM Inventory – on schedule; Ely Conservation seismic retrofit – application in process.

PDM (Pre-Disaster Mitigation) Grant Program

- PDM 07, awards for plans for Storey, Esmeralda, and Washoe Counties and the Henderson Sewer Project; all the plans are completed; the Henderson Sewer Project is in the construction phase.
- PDM 08, Sky Tavern Wildfire water storage tank, Carson City Mitigation Plan Update – in process.
- PDM 09, Funding requests from Douglas County Emergency Management are under FEMA NEPA Review.
- PDM 10, City of Reno (Congressional earmark) – application in process; Lincoln Co. Plan Update, Churchill/Mineral County Plan' and Nye County Plan Update – submitted to FEMA; White Pine County Plan awarded, no activity; Douglas Co. – US 395 Culvert Project, TRFP – Demo Edison Way and Storey – 6 Mile Canyon – awarded.
- Special Projects, My Plan Nevada, project started
- PDM 2011, Elko County HMP Update, Douglas County HMP Update, Douglas St. Route 88 Culvert Project, UNR Seismological Laboratory – funding pending. City of Caliente Flood, Pershing/Lander/Humboldt HMP, NV State Parks Ft. Churchill – selected for further review.
- FMA 2011, Washoe County Marlin Channel Detention – selected for further review.
- Nevada Special Projects, MyPlan Nevada– funded and project started.

Funding for the awards for applications submitted the end of 2011 should be announced soon.

DIVISION OF EMERGENCY MANAGEMENT UPDATE

Elizabeth Ashby reported that future funding for the PDMG has been eliminated because Congress has not funded the program. There will continue to be funding for flood-mitigation projects and the HMGP program.

DEM is working with FEMA to secure future funding to continue the Plan updates and updates for Nevada communities.

Elizabeth would like to continue the hazard mitigation proposal process for projects up to \$500,000 each, in case Nevada receives funding from Presidential disaster declarations. With projects ready to go, it will streamline the award process.

ACTION ITEM: Elizabeth Ashby will compile and distribute guidelines for the new grant application process.

The cut to the funding should not impact the NHMPC Committee because there will be funding coming from current PDMC projects.

Ron Lynn asked Juliette if there was a “Best Practices for Mitigation Projects.”

Elizabeth reported on the current status of the action items from the discussion in Elko of the 5-year strategic plan for NHMPC.

DEM and others are progressing on the orientation for new members. One suggestion was to make a short video of current members, introducing the new members to NHMPC, and detailing what the Committee’s mission and goals are.

Elizabeth has met with the Deputy Attorney General regarding the NHMPC bylaws and will distribute the DAG’s comments to the Committee on the suggested bylaw revisions.

Elizabeth distributed a printout of a short presentation available for use to promote hazard mitigation planning. The presentation will be posted on the NHMPC website.

PUBLIC COMMENTS

No public comments were received.

ANNOUNCEMENTS OF FUTURE MEETINGS

Tuesday, May 8, 2012 in Eureka, NV (Board members will travel to Eureka Monday, May 7th)

Thursday, August 9, 2012 - Cancelled

Thursday, November 15, 2012 in Henderson, Nevada

REVIEW OF ACTION ITEMS

Action item remaining from August 25, 2011:

Elizabeth Ashby will invite Stu Townsley to a future meeting to discuss the Silver Jackets Program.

Action items from February 7, 2012:

Elizabeth Ashby will provide a worksheet to Committee members for keeping track of any completed mitigation activities done in the state. The mitigation activities will be included in the next Plan update.

Elizabeth Ashby will compile and distribute guidelines for the new grant application process.

ADJOURN

The meeting adjourned at 1:45 p.m.

Respectfully submitted by Terri Garside, April 2, 2012, 2012.

Nevada Hazard Mitigation Planning Committee
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