Nevada Earthquake Safety Council Meeting Minutes Wednesday, February 12, 2014, 11:00 AM

Great Basin Science Sample and Records Library, Reno, NV

Board Members Present:

Ron Lynn, Chairman

Jim Reagan

Woody Savage - Phone

Wanda Taylor Jim Walker

Jim Werle - Phone

Alan Bennett Wayne Carlson Craig dePolo **Graham Kent** Eric Hubbard Vance Payne

Members absent:

Steve Koenia Ian Buckle Jim O'Donnell Michael Blakely

Staff/Others:

Rick Martin (NDEM)

Janell Woodward (NDEM)

Jennifer Lynette (FEMA) - phone Diane dePolo (Seismology Lab) Annie Kell (Seismology Lab)

Jim Faulds - NBMG

Robert Cullins

Kelly Boyd – Red Cross Gary Hourt - NDOT

Gary Johnson - NBMG

Rick Diebold

Matt Richardson - NBMG Irene Seelye - NBMG Scott Holt – State Farm

Terri Garside

Robert McCord - FEMA

Jeff Lusk – FEMA Katie Gasty – FEMA Henna Rasul - DAG

Greg Moss via GoToMeeting Jeff Hahn – Boyd Gaming

1. CALL TO ORDER, ROLL CALL AND ESTABLISH QUORUM

Chairman, Ron Lynn called the meeting to order at 11 AM. Roll call was taken and a quorum was present.

2. **PUBLIC COMMENT**

Ron Lynn asked for public comment. Gary Johnson, NBMG, stated he is very close to retiring and wanted to introduce Matt Richardson and Irene Seelye to the group as they are taking over the HAZUS for flood and earthquake as well as the MyPlan/MyHazard web applications. Irene is the go-to person from NBMG for running HAZUS for flood and earthquakes. Matt Richardson is in charge of MyPlan/MyHazard.

3. APPROVAL OF THE MEETING MINUTES from August 14, 2013 and November 13, 2013.

Ron Lynn asked whether committee members had a chance to review the minutes for the August 14 and November 13 meetings. Jim Reagan moved to accept the minutes for August 14, 2013 as submitted. Craig dePolo seconded. The minutes were approved as submitted. Craig dePolo moved to approve the November 13, 2013 minutes. Graham Kent seconded. The minutes were approved as submitted.

4. RECENT SEISMICITY IN NEVADA

Graham Kent gave an overview of the recent seismicity in Nevada since the last meeting in November 2013. Graham provided a GoToMeeting link for the presentations of the meeting so that those on the phone could view the presentations on their computer. The biggest earthquake was on the very edge of our network near Lake Almanor, the Canyon Dam earthquake which was a magnitude 5.6 to 5.7. Spanish Springs had a 4.2 earthquake back in August 2013. The Spanish Springs swarm was a precursor to the 4.2 earthquake. This is the value of having a more modern system. There is a lot of activity in the south also. There is a clear potential for larger seismicity in southern Nevada. Graham stated that 2014 is on a pace to hit about 17,500 earthquakes so it is busier than 2013. Virginia City had a short-lived swarm. The bigger issue with the Virginia City area is the mines underneath the city causing greater risk. Caliente had some good-sized earthquakes. Graham is working with Utah regarding the authority for the eastern side of Nevada.

5. REPORT FROM THE SEIMOLOGICAL LABORATORY, UNIVERSITY OF NEVADA

Graham Kent talked about the strategy for dealing with the uneven seismic monitoring coverage of the state of Nevada. They have been deploying strong motion accelerometers in the form of a netquake. These are not continuous recordings but rather report back if they feel something of a certain size. The broadband instruments are the most up-to-date out there right now. Over the next year or so more will be placed. Permitting is a major issue. Private seems to be the best setting at this time. They are trying to work with the USGS for some type of plan to enhance coverage for the Las Vegas area, an area with over 2 million people.

Ron Lynn asked what the Council could do to help? Graham stated they would like to support federal and state funding to help bring networks up to par. We need to move toward an earthquake early warning system. The early warning system is a long-term plan and will take roughly 10 years. This is not something that can be created by simply flipping a switch.

Ron stated he will need something succinct from Graham regarding what he needs from NESC. This can be placed as an agenda item for the next meeting determining how the Council can help facilitate the above-stated ideas.

The three areas to test what can be done include Pioche, Mesquite, and Winnemucca. Graham stated that if someone has a KML type file outline of a property, they can plug that into their software and see if the location would work for them.

Woody Savage made some comments regarding the instrumentation that they will be placing in Las Vegas in the next month in an urban area. Woody asked Graham about their plan for integrating netquakes. Graham stated there was a database issue but that should be worked out soon, allowing the information to be utilized real-time. Woody also asked Graham about what type of process they have set up between the Nevada border with Utah. Graham stated they bring in instrumentation from Utah, Cal-Tech and Berkeley. Woody stated rapid data access is the key to early warning.

Woody also stated that several from the Las Vegas area would like to be included in the development of the plan for Las Vegas referred to by Graham earlier and Graham assured Woody they would definitely be invited to participate. Cecily Wolfe is the contact from USGS.

6. FORESHOCKS TO NEVADA'S MAJOR HISTORICAL EARTHQUAKES

Craig dePolo gave a presentation on foreshocks to Nevada's major historical earthquakes. Foreshocks are typically magnitude 3 or greater and are often what is reported in the newspapers. Records show that there were foreshocks for all the major events that occurred in Nevada. Some of the major earthquakes had sequences which gives more information. Approximately 358 days prior to the Wells earthquake, there was a foreshock exactly at the epicenter of the main earthquake. It was determined that 88-90% of events had foreshocks. However, we can never forget that we can have major seismic events without warning. The implications are that about 47% of these major seismic events could have been given some type of advance warning. People typically prepare inside of a window of opportunity. Sometimes, creating that window provides that window of opportunity. Nevada is the heart of the basin range province. It is not uncommon for Nevada to have multiple earthquakes in the same spot. Craig suggested the need for a manual for earthquake response. A strong aftershock or second earthquake is definitely possible and recovery efforts need to keep this in mind for safety reasons. In summary, Craig stated that magnitude 4.0 events should be treated as windows of opportunity for seismic preparedness. Probability is a useful tool. It is important to teach people what to expect in magnitude 2 to 6.

7. NEVADA DIVISION OF EMERGENCY MANAGEMENT UPDATE

Rick Martin gave the emergency management update. NDEM has worked on EMAP accreditation for the last year and a half. This process brings the entire staff together. This accreditation makes sure that we are within national standards. Rick stated that this process helps work toward putting together the earthquake response manual as Craig dePolo had mentioned. This accreditation is going before the committee and the accreditation will be official soon.

The emergency management preparedness grant (EMPG) should be coming through soon, probably by the end of March. This is the grant that funds NESC. The grant is six months behind but is actually four months ahead of last year. The funding has increased nationally and Rick stated NDEM is hoping that they will get back the money that was lost last year.

NDEM is working on contracts and agreements within the agency. NDEM is also trying to put together recovery programs that are predetermined. Having the resources put together ahead of time is a huge help.

Regarding planning, training and exercise, <u>www.dem.nv.gov</u> has a lot of free training in the north and south and Rick encouraged everyone to check out what is available.

Ron Lynn asked Rick if there was anything in place with EMAC/NEMAC to allow professionals, i.e. building inspectors, etc, to help when events happen. Rick stated NDEM is working on that.

8. REPORT ON THE NATIONAL EARTHQUAKE HAZARD REDUCTION PROGRAM (NEHRP)

NEHRP has not had a meeting for over a year because of lack of money and coordination. They are supposed to meet at some point. The committee is large and diverse and it has been difficult to coordinate. In the past, the committee was largely technical but is now more social scientists. Identification of a rating system for existing buildings has been their major focus. Ron stated the BSSC, Building Seismic Safety Council, did have a meeting and is also a very diverse committee. Some changes have been made and this is because the committee has been open to input from outside professionals.

9. UPDATE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY

Jennifer Lynette gave an update from FEMA. The projects that have been approved include:

- 1. Vulnerable infrastructure assessment.
- 2. HAZUS dataset and shake map input
- 3. 1915 centennial Pleasant Valley earthquake publication
- 4. National earthquake technical assistance program (NETAP) training with 2 courses in Northern Nevada and 2 courses in Southern Nevada.

FEMA is still reviewing the rest of the projects on the list.

In the next week, Jennifer will reach out to Rick Martin, Craig dePolo and Graham Kent to discuss already approved projects and time table for training.

Of note, a list of those who have completed NETAP training does exist. It is recognized that everyone on the list is not necessarily still in Nevada, but there are resources available for emergencies. Professionals are told they are volunteering. However, legally they cannot use that volunteer status as a leg up advantage.

10. WESTERN STATES SEISMIC POLICY COUNCIL (WSSPC) POLICY ADOPTION FROM NOVEMBER JOINT MEETING

WSSPC will have a meeting in July for the 50th anniversary of the great Alaska earthquake which was in 1964. There were no questions or comments. Policies were adopted at the November joint meeting. Graham Kent provided a paragraph for Ron

Lynn to take to WSSPC regarding tsunamis/seiches for consideration as a policy issue. Nevada is not the only state with a lake issue.

Ron Lynn received the lifetime achievement award for 2014 from WSSPC.

11. BYLAWS APPROVAL

There was a change with regard to the definition of majority. The wording was changed from a 2/3 majority to a simple majority to be in line with the open meeting law. A correction needed to be made to the wording of legislature versus elected officials. This was changed in a meeting last year but somehow the incorrect draft was utilized. Jim Reagan moved to adopt the amended version of the bylaws and Graham Kent seconded. The motion passed unanimously.

12. DISCUSSION AND ESTABLISHMENT OF NESC SUBCOMMITTEES

Subcommittees need to adhere to the open meeting laws. Members need to be cautioned with regard to decision making over the phone. Size of subcommittees need to be kept in mind so as to not limit discussion among members. Subcommittees have to answer to the full committee so nothing is ever final until the subcommittee makes a presentation to the full committee. There was a lot of discussion regarding communication with regard to the open meeting law. Deliberating towards making a decision is what constitutes a gathering.

Ron Lynn recommended that everyone work through staff in order to make sure that things are done appropriately.

The DAG stated that the subcommittee can designate a couple of members to work together in order to bring a project to the subcommittee who in turn will take that information to the larger Council.

Ron Lynn stated that NESC established subcommittees in the past. He asked for a recommendation as to the committees that everyone feels is appropriate. He also stated that members could even put names within the state to be parts of those subcommittees. Subcommittee members do not need to be part of the Council. With this information, Ron can then set up subcommittees. Homework assignment is to think about what types of subcommittees would be beneficial and to bring this information to the next meeting. Once the subcommittees are set, they should work through staff, Janell, to make sure these are carried out under the open meeting law.

13. SCHEDULED 2014 CALENDAR YEAR MEETING DATES FOR THE COUNCIL

May 14, 2014 August 13, 2014 November 12, 2014

Graham Kent stated that he has been in contact with NESCs counterpart in California and they are very interested in having a combined meeting, perhaps in August. Graham will work toward coordinating the meeting. Graham stated he could probably get a location up at the Lake that would be free for the facility. Rick Martin

stated that in theory, NDEM could support this meeting. Travel is in question at this point due to funding and grant amounts that will be coming. NDEM will see what funds become available for NESC and go from there.

14. PUBLIC COMMENT

Ron Lynn opened up the meeting for public comment. The AG brought up some questions regarding public comments during meetings. Some discussion ensued and the chair, Ron Lynn, asked for clarification. Wayne Carlson also asked that there be clarification on public comment and what is allowed or disallowed. Does an agenda actually need to be written in the format that allows for public comment with each agenda item? Ron questioned if it is appropriate for the chair to use discretion regarding public comment during each agenda item.

15. ADJOURN

Ron Lynn asked for a motion to adjourn the meeting. Craig dePolo moved and the meeting was adjourned at 2:30 pm.