

H.R. 2512 and H.R. 3479

Witnesses

John Anderson

Seismological Society of America

John Ebel

Director, Weston Observatory, Boston College

Mike Pool

Deputy Director, Bureau of Reclamation

Accompanied by

David Applegate

Associate Director of Natural Hazards, United States Geological Survey

Andy Hafen

Mayor of Henderson, Nevada

Barry Conaty

Holland and Hart, LLP

Subcommittee Members Present

Mark Amodei, Acting Chairman (R-NV)

Rush Holt, Ranking Member (D-NJ)

Glenn Thompson (R-PA)

Gregorio Sablan (D-MP)

Bill Johnson (R-OH)

Full Committee Members Present

Ed Markey, Ranking Member (D-MA)

Other Members Present

Joe Heck (R-NV)

On December 13, 2011, the House Committee on Natural Resources Subcommittee on Energy and Mineral Resources held a hearing to discuss two pieces of legislation. First, the Three Kids Mine Remediation and Reclamation Act (H.R. 2512) was introduced by Congressman Joe Heck (R-NV) and would provide conveyance of the 1,262-acre "Three Kids Mine Project Site" outside of Henderson, Nevada from the federal government to the Henderson Redevelopment Agency. The Henderson Redevelopment Agency would pay the adjusted fair market value of the conveyed land and the federal government would be released from "any and all liabilities or claims of any kind arising from the presence, release, or threat of release of any hazardous substance, pollutant, contaminant, petroleum product (or derivative of a petroleum product of any kind), solid waste, mine materials or mining related features" at the site in existence on or before the date of the conveyance. Second, the Natural Hazard Risk Reduction Act of 2011 (H.R. 3479), introduced by Representative Judy Biggert (R-IL), contains the National Earthquake Hazards Reduction Reauthorization Act of 2011. The National Earthquake Hazards Reduction Program (NEHRP) is a longstanding partnership between the United States Geological Survey (USGS), the National Science Foundation (NSF), the Federal Emergency Management Agency (FEMA) and NEHRP's lead agency, the National Institute for Standards and Technology (NIST). The House Committee on Science, Space, and Technology passed H.R. 3479 in a full committee markup on December 1 though all committee Democrats voted against the bill. Democrats argued that the authorization levels in H.R. 3479 would not provide the necessary funds to implement the essential programs at the four federal agencies. Without sufficient authorization levels, there is concern that resiliency would suffer and future losses would be greater.

The Senate Committee on Commerce, Science, and Transportation passed a Senate version of the measure, the Natural Hazards Risk Reduction Act (S. 646), on May 5, 2011 with higher authorizations that match with the needs of the programs and previous authorizations. The Committee on Natural Resources, since it has jurisdiction over the USGS, will decide whether to hold a markup

on the bill. If both measures are approved by the House and the Senate then the chambers will need to meet in conference to work out the differences between the bills.

Acting Chairman Mark Amodei (R-NV) opened the hearing by describing the two bills and welcoming Representative Joe Heck, the primary sponsor of H.R. 2512 who represents Henderson, Nevada. Referring to H.R. 3479, Amodei called the hearing “an important next step in bringing this legislation to the floor.” Ranking Member Rush Holt (D-NJ) spent more time discussing the potential effects of the lowered authorization level for the USGS in H.R. 3479 in his opening statement. He pointed out the nearly 35% reduction in authorization for the USGS Earthquake Hazards Program and said it would “prevent or delay...the completion of the Advanced National Seismic System.” He continued, “I have serious concerns that reauthorizing the earthquakes hazard program at the level proposed in this bill could reduce research and monitoring of earthquakes and potentially lead to greater costs to taxpayers down the road.”

John Anderson of the Seismological Society of America (SSA) and former director of the Nevada Seismological Laboratory testified that SSA “strongly support[s] the reauthorization of the National Earthquake Hazards Reduction Program.” He mentioned that SSA is “concerned about reductions in the authorization levels of the included NEHRP agencies” and in particular, those of the USGS, but recommended passage even if these differences in authorization levels could not be resolved. Anderson told the committee that funding and completing the Advanced National Seismic System (ANSS) should be a priority as the public expects the best information about earthquake hazards. The more uncertainties ANSS can eliminate, the more refined seismic hazard maps will become, which will lead to a reduction in the costs associated with meeting building codes. The USGS external grants program is another way to reduce uncertainties by providing funding to researchers at universities that work to improve the nation’s seismic hazard maps. Referring to a finding from the 2008-2009 USGS Director’s Scientific Earthquake Studies Advisory Committee, Anderson said that ANSS has been “the highest scoring major information technology capital investment made by the Department of the Interior.” He concluded by requesting the committee to maintain steady investments because a “modest, steady effort is a better approach than a crash program to try to make up for lost time when a large, but foreseeable, earthquake occurs.”

John Ebel made the case for regional earthquake funding by telling the committee how cuts to USGS programs have had implications for his seismic observatory at Boston College and for the safety of New England. The USGS has indicated that it will end funding for regional earthquake monitoring in New England at the Weston Observatory due to an expected decrease in NEHRP funding. He told the committee how modest funding can “reduce the seismic risk in an area of the country that has a population in excess of 14,000,000 people, that has experienced several damaging earthquakes throughout historic time, and that has cities and towns with many old buildings that have little earthquake reinforcement sitting on soils which are highly vulnerable to earthquake shaking.” He finished by calling for the USGS to support local seismologists at regional seismic monitoring networks across the country and asked the committee to increase appropriations for the USGS.

David Applegate, Associate Director of Natural Hazards at USGS, did not deliver a testimony but did submit one for the record, in which he described USGS’s earthquake activities and said the Department of the Interior “strongly supports reauthorization of NEHRP.”

Mike Pool, Andy Hafen, and Barry Conaty all gave their testimonies in support of H.R. 2512 though Pool had some concerns about specific details of the conveyance and other technical details such as a potential conflict with the River Mountains Area of Critical Environmental Concern.

Chairman Amodei began the question and answer period by asking Ebel what percentage of USGS funding goes to external grants. Ebel responded that USGS can provide funding to universities and other researchers through external grants and through regional seismic networks. Amodei wondered if the USGS engages in partnerships with primary users of the national seismic hazard maps to help fund them, particularly the insurance industry. Applegate told Amodei that USGS values its partnership with FEMA, NIST, and NSF but does not currently receive funding for developing national seismic hazard maps from the insurance industry.

Full committee Ranking Member Ed Markey (D-MA) asked Ebel to explain the repercussions of reduced USGS funding levels for Weston Observatory. Ebel again described the benefits of regional earthquake monitoring networks and reminded Markey how continued observation and research can help determine where and how often large earthquakes may occur in the future. Markey shifted focus to the effects of NEHRP and earthquake monitoring on the Nuclear Regulatory Commission’s (NRC’s) regulations. Ebel pointed out that the North Anna Nuclear Generating Station in Louisa County, Virginia experienced twice the amount of shaking it was designed for in the August 2011 magnitude 5.8 Mineral, Virginia earthquake and that NRC’s seismic safety requirements need to be updated to account for new findings made by seismologists and geophysicists over the past few decades. Markey asked whether the NRC should be making 20-year license extensions to plants who have reached their 40-year lifespan or if they should at least be retrofitted for seismic hazards to account for new seismic hazard maps. Ebel agreed that the NRC needed to reassess their seismic safety requirements.

Gregorio Sablan (D-MP) asked several questions relating to the Commonwealth of the Northern Mariana Islands (CNMI) after

praising the USGS's earthquake activities as a program that "saves lives and money." First, he requested Applegate direct the USGS to include territories on its earthquake hazard web site which currently only lists states. Second he asked Applegate the status of CNMI's seismic hazard map which Applegate said is currently in review and should be out in early 2012.

Glenn Thompson (R-PA) asked Applegate about how the USGS used funds from the America Recovery and Reinvestment Act (ARRA, P.L. 111-5). Applegate responded that \$19 million went to installing instruments for ANSS, \$16 million went to the Global Seismograph Network, and \$5 million went to deploying geodetic instruments. Outside of the Earthquake Hazards Program, USGS spent \$15 million of the ARRA funds they were given on installing state-of-the-art and replacing out-of-date volcano monitoring equipment and the rest on retrofitting streamgages, improving Light Detection and Ranging (LIDAR) capability, and on improving various outdated facilities. Thompson asked if the USGS was surprised by the magnitude 5.8 Mineral, Virginia earthquake. Applegate pointed out that the Central Virginia Seismic Zone is shown as having elevated risk on the national seismic hazard map, "so in that sense, it was not a surprise." Thompson and Applegate discussed partnerships the USGS could engage in to help advance the missions of NEHRP, and Applegate told the committee about the successful 2011 Great Central U.S. ShakeOut exercise that involved nearly 100,000 participants. ShakeOut exercises occur in Oregon, California, Guam, Idaho, Nevada, and Utah every year and help educate the public on how to respond to earthquakes and give state and local officials an opportunity to test their response plans.

Representative Bill Johnson (R-OH) asked the witnesses if there is any evidence that earthquakes are getting stronger and more frequent. Applegate told the congressman that while evidence shows there is no indication that earthquakes are stronger or are occurring more frequently, there is an increase in vulnerability at the intersection between natural hazards and the built environment.

Chairman Amodei, Thompson, Heck, Markey, Johnson, and Sablan all had questions for Hafen, Conaty, and Pool about H.R. 2512 in addition to their questions about NEHRP. Chairman Amodei ended the hearing by quipping that, as a nation, "we can run but we can't hide" from earthquakes and asked the USGS to continue to seek out partnerships with industry.

The hearing webcast, opening statement, and witness testimonies can be found on the committee web site.
