

March 28, 2011

Dr. Jeffrey S. Thompson
Dean of the College of Science

University of Nevada/Mail Stop 424
Reno, NV 89557

Dear Dean Thompson:

I am writing in regards to the proposed 52% reduction in the amount of state funding to the Nevada Bureau of Mines and Geology (NBMG). As a Nevada resident, a fourth year PhD student at UNR, and a graduate research assistant supported by the Nevada Geodetic Laboratory that is housed within the NBMG, I can say first hand that the proposed budget cut will cripple the NBMG's ability to protect and educate the public about natural disasters including earthquakes and flash floods. These cuts will simultaneously impede economic growth within state by reducing support for research leading to the discovery and development of Nevada's mineral and geothermal resources.

Nevada is the third most seismically active state in the nation. Historical earthquake records indicate that Nevada experiences a magnitude 7 or greater earthquake on average about once every 30 years. Earthquake forecasts state that the probability of a magnitude 6 or greater earthquake occurring in the Reno/Carson City area within the next 50 years is between 65-70% (NBMG open file report 10-14, <http://www.nbmgs.unr.edu/dox/of1014.pdf>). Scientists at the Nevada Geodetic Laboratory in the NBMG maintain and monitor a dense network of GPS receivers that measure present day deformation of the earth's surface and strain accumulation across Nevada. The accumulated strain will ultimately be released as earthquakes in Nevada. My PhD research centers on modeling the GPS measured strain accumulation as slip (or earthquakes) on active faults. The results of my modeling and similar research by other scientists at the NBMG are used to produce statewide and national seismic hazard maps. These maps become part of NBMG reports widely used for emergency management, response and recovery exercises, and planning by local, state, and federal officials to keep Nevadans safe.

My education and research would not be possible without the existence of a strong NBMG. I am just one of at least eight Department of Geological Sciences graduate students directly and fully supported by the NBMG. NBMG faculty provides expertise in geodesy, earthquake/natural hazard research, and geothermal and mineral resource development that is unparalleled within the NSHE and the country. In addition to their research, these same scientists are teaching and training students, like myself, to continue

serving Nevada. Students trained at NBMG will stimulate economic growth in Nevada through the future discovery and development of new geothermal and mineral resources within the state, while helping to keep the public safe through earthquake and natural hazard preparedness/education. Please support a strong, economically diverse, and safe Nevada by supporting a strong NBMG. Do not slow Nevada's growth by cutting the NBMG budget.

Sincerely,

Jayne Bormann

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Nevada Bureau of Mines and Geology

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