



An institute of Nanyang Technological University

President's Office  
University of Nevada, Reno  
Reno, NV 89557-001

19<sup>th</sup> March 2011

Dear Drs. Glick and Johnson:

I am writing to express my support for the Nevada Bureau of Mines and Geology (NBMG), and my disappointment to hear that NBMG may soon suffer extremely severe budget cuts. In a world that is seeing increasing pressure on our natural resources and energy supplies, and with very clear evidence in today's news of the tragic strength of natural hazards, it is a terrible shame to see funding cuts potentially cripple an organization that researches and disseminates information on these very issues, particularly considering their pertinence to the state of Nevada.

I was a graduate student at UNR between the years of 1999 and 2005, graduating with a PhD in Geophysics in 2005. For the length of my time at UNR I was funded as a Graduate Research Assistant through the NBMG, and worked under the supervision and guidance of Geoff Blewitt and the Nevada Geodetic Laboratory (NGL). This was a dynamic and exciting place in which to study, and I learned a great deal through the unique combination of having a geodesy group paired with experts in the geology of the region. My student peers at the time have all gone on to illustrate that students trained at NBMG pursue successful and varied careers. In my case, I am now an Assistant Professor at the Earth Observatory of Singapore (EOS), home to some of the leading experts on natural hazards in the regions of South and Southeast Asia and an organization (not unlike NBMG) set up with the goal of not only doing science to benefit society, but also to make sure that the science is effectively communicated to the public. I now hold US\$2.8million in research funding, including US\$2.4m obtained through being selected for the prestigious Singapore National Research Foundation Fellowship. (As my alumni university, my selection for this fellowship bought UNR significant name recognition over here.) The funding will be used to carry out critically needed research, using geodesy, on natural hazards and climate change in Southeast Asia.

As a student at NBMG, I was very privileged to study under the guidance of Geoff Blewitt. As I am sure you are aware, he is internationally recognized and respected throughout the geodesy and geophysics communities as one of our leading scientists. Geoff's publication record and list of awards, including being selected for the highest honor in Earth science as a Fellow of the American Geophysical Union, must surely stand as testament to his success. Geoff's broad-reaching curiosity also stands him apart from others – it would be hard to find another geodesist who's studied such a wide range of different topics, and who has spent the length of their career at the very cutting edge of our science.

In my opinion, however, it is Geoff's clear desire to find practical applications for his research that makes his work, and his position at NBMG, so critical. This is also true for the rest of the NGL research group. This group studies scientific topics that directly benefit people in Nevada. They study where, how often, and how large, earthquakes could occur in Nevada. They study where geothermal energy resources may be located in the state. They study issues related to water resources, a topic that will be

a key factor in the future health of this great state. And they study issues related to climate change that can have both local and broad-reaching global implications.

In some cases these research topics are leading to financial benefits to the state. In some cases they put UNR on the map as a leading research institution – NGL, and therefore UNR, is globally recognized as a center for cutting-edge research in geodesy. In others, they are very likely to save lives.

The fact that NGL, and other research groups, are located within NBMG makes their work particularly impactful, since NBMG provides such a direct link to stakeholders, decision-makers, and the public. I am currently a member of the governing council of the American Geophysical Union (a 60k+ scientific member organization for the earth sciences), and was last year a member of their strategic planning task force. These councils have spent a great deal of time considering what it is that makes the most impactful scientific organizations different. We have conducted broad-scale surveys of our stakeholders and members, requesting their feedback on how our science can help meet the great challenges humanity faces in the presence of climate change, depleted natural resources, and increasing devastation from natural disasters as our populations increase. The overwhelming response to our surveys was that there is a desperate need for a clear connection between the scientific research and the public. NBMG provides this type of connection, and in doing so means that UNR has been one of the leaders in what is now a growing trend: Forward-thinking organizations and universities are now actively trying to find this link to the public that UNR has had for so long. It is therefore a tragedy that one of the great, and highly effective, forerunners of this increasing need for “science for society” could be so severely crippled by these budget cuts.

I do understand that the financial situation for UNR is very difficult right now. However, I also believe that NBMG provides an extremely valuable service to the state. NBMG is home to world-class research groups, and provides a unique link between this research and the communities the research is designed to help. The state of Nevada was founded through mines and geology, and will continue to require a very close relationship with its natural environment in order both to stay financially healthy and to protect its people from harmful earthquakes. These budget cuts will serve to sever that necessary relationship, and the future costs of doing so could be severe. I do hope you reconsider your decision.

Yours sincerely,



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