OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

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House Committee on Rural Communities, Land Use and Water
April 7, 2015 Public Hearing on HB 3412
Oregon Department of Geology and Mineral Industries (DOGAMI) testimony

Chair Clem, Vice Chairs Helm and Post, and Committee members, I am Ian Madin, Interim State Geologist and Director of the Department of Geology and Mineral Industries.

Thank you for allowing DOGAMI to comment on HB 3412. This bill would require DOGAMI to establish and carry out a comprehensive landslide hazard mapping and mitigation program for the State. The bill provides for an advisory committee to help the Department set priorities, and emphasizes the importance of lidar topographic data in landslide hazard mapping and mitigation. DOGAMI takes no positon on this bill, but I would like to describe to you Oregon's landslide risk, and how DOGAMI has been addressing it to date.

Oregon is prone to landslides, with annual landslide losses estimated at $10 million. In the winter of 1996-1997, there were over 9,000 landslide reported in the state. Oregon's climate, topography, geology and geologic history of magnitude 9 subduction zone earthquakes combine to make the state one of the most landslide-prone in the nation. The most recent version of DOGAMI's landslide database identifies over 53,000 known landslides, and we know this to be a small fraction of the actual number.

Among the duties listed in DOGAMI's enabling legislation (ORS 515.0330) is the execution of studies and programs to identify and map geologic hazards, to estimate their potential consequences and work with other government agencies to mitigate those hazards.

Since its inception, DOGAMI has mapped landslides in the course of routine geologic mapping, and in the 1970's did more systematic mapping in a series of county environmental geology studies. Since 2005, DOGAMI has been a national leader in the collection of high resolution lidar topographic imagery. This data, collected with an airborne laser scanner, provides unprecedented views of the land surface in vegetated areas, and is a revolutionary tool for landslide mapping. DOGAMI has collected lidar data for areas covering over 90% of Oregon's population, and has developed and published novel methods for using that data to map existing landslides, model areas susceptible to future landslides, and evaluate the risk to communities from future landslide movement.

Over the past 5 years, DOGAMI has completed several comprehensive landslide hazard or hazard and risk studies for a selection of communities or areas, including Astoria, Silverton, parts of Washington, Clackamas, Hood River, Curry, and Columbia Counties, and the Bull Run, North Fork Siuslaw and Big Elk Creek watersheds. These areas were not selected as part of a prioritized statewide plan, but instead were studied because local governments or Federal agencies provided

funds for DOGAMI to do the work. In many cases the funds were only available to the local government as part of the Federal Emergency Management Agency's Hazard Mitigation Grant Program, which awards funds to communities after they have been subject to a Federally-declared disaster.

Oregon has a clear need for a robust landslide mapping and mitigation program. DOGAMI has the authority, the necessary data and technology and the experienced staff needed to carry out such a program. DOGAMI does not currently have dedicated or consistent funding to carry out this work, and our reliance on outside funding means that we are unable to choose priority projects.
In the Governor's Recommended Budget for DOGAMI, Policy Option Package 104 provides new General Funds in the amount of $287,000 to support the development of a systematic landslide hazard mitigation program, including the establishment of an advisory committee, prioritized pilot studies and community involvement. This level of funding would allow DOGAMI to initiate projects, but outside funding partners would still be required.

DOGAMI will continue to form partnerships and seek resources to carry out more of this essential work, so that we can identify hazardous areas and at-risk populations before the next catastrophe.

Thank you again for the opportunity to address this committee. I would be happy to answer any questions you may have.