

Pacific Hydro-Geology Inc.

18487 S. Valley Vista Rd.

Mulino, OR 97042

(503) 632-5016

February 2, 2015

The Honorable Richard Devlin, Co-Chair
Natural Resources Ways and Means Subcommittee
c/o John Terpening, Legislative Fiscal Office
9800 Court Street NE, H-178
Salem, Oregon 97301

RE: Department of Geology and Mineral Industries (DOGAMI) Budget

Dear Honorable Richard Devlin:

This letter is in support of the Department of Geology and Mineral Industry's (DOGAMI) proposed budget. The geologic mapping completed by DOGAMI provides invaluable data for engineering geologists, hydrogeologists, and engineers working in Oregon who prepare reports for state and local agencies. Maps prepared by DOGAMI are important for land-use planning and water right decisions. For example, the geologic maps are used to help evaluate landslide issues for existing and proposed developments, where there is the potential for loss of property and lives. Hydrogeologists use the geologic maps as a part of their investigations to further map and evaluate the availability of water resources for water rights and new development. Therefore, a significant portion of Oregon's ability to grow is tied to DOGAMI's geologic mapping. For, example providing water for drinking, agriculture and industry, and reducing the risk from landslides and earthquakes relies on geologic maps.

DOGAMI has undertaken a massive effort to develop a comprehensive geologic map of the entire State that includes all published geologic work. Integral to the comprehensive map is the mapping at the topographic quadrangle scale. Geologists and engineers primarily work with geologic maps at the quadrangle scale. When the comprehensive map is completed, with all of its underlying data available electronically, anyone will be able to quickly see what the geology is in a specific area and identify potential geologic risks. It is geology that controls which wells in the Eugene/Springfield area have problems with naturally occurring arsenic. It is geology that controls where ground water occurs and how much is available for use. It is geology that controls where landslides occur. It is geology that defines areas with high risks from earthquakes. It is geology that physically defines Oregon, with its volcanoes, coast range, and fertile farm land.

DOGAMI also has the opportunity to obtain Light Detection and Ranging (LIDAR) imaging of the entire State. Having LIDAR for the entire State, especially western Oregon, will greatly help DOGAMI with their land slide and geologic mapping. Additionally, every geologist, engineer, and land use planner (county and private) will be able to use the information provided by LIDAR imaging. The LIDAR will also help expedite many geologic mapping projects, which will save the State money in the long run. Many faults and landslides that are difficult to see on the ground can be easily seen using LIDAR imaging. Faults impact ground water flow and can form isolated basins that are prone to overuse. The 16 ground water restricted areas in the Willamette Valley, established by the Oregon Water Resources

Commission, are evidence of this problem. Both faulting and landslides impact land use planning and development. Landslides like the recent one in Oso, Washington resulted in a significant loss of life, and could have been prevented. The Oso landslide area was easily seen on LIDAR, and the development should have never been allowed. Oregon has several examples of stabilized historic landslides which became re-activated (started to move again) after a subdivision was built on them. The failure of these landslides damages personal property, disrupts family's lives, and has the potential to take human lives like in Oso, Washington.

The passage of Measure 49 has also added an additional burden on evaluating the ground water resources, landslide potential, and earthquake hazards in the State. This is true especially in western Oregon where much of the surface geology is covered with what geologists refer to as the green scourge (blackberries, scotch broom, trees, etc). Many developers with Measure 49 claims seem to be concerned only about the money they are going to make. They are not thinking about the potential impacts their proposed development may have on the water in the area (both surface and ground water) and slope stability. Having LIDAR coverage for at least the western half of Oregon would help everyone from the state to the local level that is dealing with Measure 49 claims or could be impacted by the claims.

DOGAMI's main limitation to mapping the State's geology is funding. They have done an excellent job of finding outside funding and partnering with other agencies and non-governmental entities to help them with their projects. However, many times they are limited because they must find matching funding, and budget cuts have taken away money that they used to have. Therefore, the proposed budget is very important to the development, use, and protection of Oregon's natural resources.

Statement of Qualifications to Testify

I am Registered Geologist and a Certified Water Rights Examiner in Oregon. In addition, I have been serving (currently as Co-Chair) on the DOGAMI Geologic Map Advisory Committee since 2002. I served six years on Oregon's Ground Water Advisory Committee, and I was the chair for two of those years. I am currently serving on a Rules Advisory Committee for the Oregon Water Resources Department. Thus, I have a thorough knowledge of all the water issues facing Oregon, and have first-hand knowledge of what DOGAMI has been doing. I understand DOGAMI's frustration of not being able to meet the State's geologic mapping needs because of a lack of funding. I hope you will consider the importance of providing the funding necessary to support DOGAMI's important role in managing and protecting Oregon's natural resources.

Sincerely,



Malia R. Kupillas, R.G., C.W.R.E.

CC: Ian Madin, Chief Scientist