NEWS RELEASE

Oregon Department of Geology and Mineral Industries
800 NE Oregon Street #28, Suite 965, Portland, OR 97232
503.731.4100 FAX 503.731.4066 WEB http://www.oregongeology.com

NEWS RELEASE

December 10, 2003

CONTACT: James Roddey (503) 731-4100 x242 or on cell phone at (503) 807-8343
For Clackamas County, contact Ron Oberg (503) 650-3554

FOR IMMEDIATE RELEASE
An online version of this release can be found at:
http://www.oregongeology.com/news&events/NewsReleases.htm

Earthquake hazard map and study for Clackamas County published

Portland, Oregon: A new map published by the Oregon Department of Geology and Mineral Industries (DOGAMI) looks at earthquake and landslide hazards for Clackamas County. A study that accompanies the new map poses the question: What would happen in the county if either of two different types of earthquakes occurred?

The relative earthquake hazard map combines the effects of ground shaking amplification, liquefaction and earthquake-induced landsliding to show the earthquake hazard relative to the local geologic conditions. **Open-File Report O-03-09, Relative Earthquake and Landslide Hazards in Clackamas County** incorporates the latest scientific information showing the risk residents in the area face from earthquakes.

Dr. Vicki McConnell, Acting State Geologist notes the importance of this new map. "Damaging earthquakes will occur in Clackamas County. This fact was demonstrated by the 1993 Scotts Mills earthquake (magnitude 5.6) that caused tens of millions of dollars in economic losses from Portland to Salem and seriously damaged Molalla High School. With this map we are attempting to identify those areas in the County that will suffer more damage, relative to other areas, during a damaging earthquake. We hope this map will be used not only by local government, but also by engineers, urban planners, emergency response personnel and the general public as part of an overall effort to reduce earthquake hazards in the County," said McConnell.

The map and study were initiated by Clackamas County with money from Project Impact (a program from FEMA, the Federal Emergency Management Agency) as part of efforts to better address earthquake and landslide hazards. The two main objectives of this study were to develop a set of countywide maps to identify areas of rel-

NEWS RELEASE

atively lower and higher earthquake and landslide hazards, and to improve the county's capability to estimate earthquake damage and losses. The body of the report (**Open-File Report O-03-10, Earthquake and Landslide Hazard Maps, and Future Earthquake Damage Estimates, for Clackamas County, Oregon**) describes the results for these two main components (the relative hazard maps, and the earthquake damage and loss modeling).

One of the earthquake scenarios modeled in **O-03-10** was a magnitude 6.8 earthquake on the Portland Hills Fault. This scenario showed estimates that about 50,000 buildings would be at least moderately damaged. This is almost 40% of the total number of buildings in the county. There are an estimated 4,000 buildings that would be completely destroyed. The model estimates that a total of about 3 million tons of debris will be generated. If the debris tonnage is converted to an estimated number of truckloads, it will require 121,000 truckloads (@25 tons/truck) to remove the debris generated by the earthquake.

The total economic loss estimated for the earthquake is almost 5 billion dollars, which represents over 15% of the total replacement value of the region's buildings. The magnitude 6.8 earthquake model also estimates over 5,000 households would be displaced, and over 100 bridges and schools would be damaged.

"In general, ground shaking amplification and liquefaction hazards are highest in the young, soft alluvial sediments of the Willamette Valley and along other major stream channels," points out McConnell. "Landslide hazards are highest in steep, mountainous terrain and at the base of steep canyons. Together, this new information can be used to identify and evaluate areas where natural hazard information, dissemination, and mitigation activities can be targeted for most efficient use of resources."

Open-File Report O-03-09, Relative Earthquake and Landslide Hazards in Clackamas County and **Open-File Report O-03-10, Earthquake and Landslide Hazard Maps, and Future Earthquake Damage Estimates, for Clackamas County, Oregon** by R. Jon Hofmeister, Carol S. Hasenberg, Ian P. Madin, and Yumei Wang are both available on one CD-ROM for $10.00 from the Nature of the Northwest Information Center, 800 NE Oregon Street #5, Portland, Oregon 97232.

A 3 foot by 5 foot copy of the Relative Earthquake and Landslide Hazards map (**Open-File Report O-03-09**) is available for $15.00 and the printed report (**Open-File Report O-03-10**) is available for $20.00. You may also call (503) 872-2750 or order online at **http://www.naturenw.org**. There is a $3 shipping and handling charge for all mailed items.

Additionally, these items as well as all department maps can be purchased at DOGAMI Field Offices including 5375 Monument Drive, Grants Pass, (541) 476-2496 and 1510 Campbell Street, Baker City, (541) 523-3133.

The Oregon Department of Geology and Mineral Industries is an independent agency of the State, and has a broad responsibility in developing a geologic understanding of

NEWS RELEASE

natural hazards. We then make this information available to communities and individuals to help reduce the risks from earthquakes, tsunamis, landslides, floods and volcanic eruptions. We assist in the formulation of state policy where understanding of geologic materials, geologic resources, processes, and hazards are key to decision-making. The Department is also the lead state regulatory agency for mining, oil, gas and geothermal exploration, production and reclamation.

For more information on upcoming events and current projects, contact James Roddey at 800 NE Oregon St., Portland, OR 97232, (503) 731-4100, ext. 242 or DOGAMI field offices at: 1510 Campbell St., Baker City, (541) 523-3133; 5375 Monument Drive, Grants Pass, (541) 476-2496; and the Mined Land Regulation and Reclamation Program, 229 Broadalbin St. SW, Albany, (541) 967-2039.

--END--