

# OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

Vicki S. McConnell, State Geologist

Proxy Falls in the Three Sisters Wilderness cascades over andesite from volcanic eruptions that occurred about 500,000 years ago.

NEWS RELEASE: July 27, 2010

## New landslide maps of Astoria Quadrangle released

Portland, Oregon: The Oregon Department of Geology and Mineral Industries (DOGAMI) has released four maps in one publication showing historic and pre-historic landslides in the Astoria Quadrangle, which includes portions of Astoria and surrounding areas of Clatsop County:

**Interpretive Map 31 (IMS-31), Landslide Inventory Maps of the Astoria quadrangle, Clatsop County, Oregon by William J. Burns and Katherine A. Mickelson, Oregon Department of Geology and Mineral Industries.**

These new maps use a laser based terrain mapping system called lidar (light detection and ranging). DOGAMI geologists are using the technology to create a new generation of landslide inventory maps that are more accurate and comprehensive than any in the past. Also, the new mapping protocols put in place (Special Paper 42) mean all future landslides maps in Oregon will be consistent and standardized.

In 2005, DOGAMI began a collaborative landslide research program with the U.S. Geological Survey (USGS) Landslide Hazards Program to comprehensively identify and better understand landslides in Oregon. This new mapping program using lidar data has identified up to 200 times the number of landslides in areas where traditional mapping methods have been used in the past.

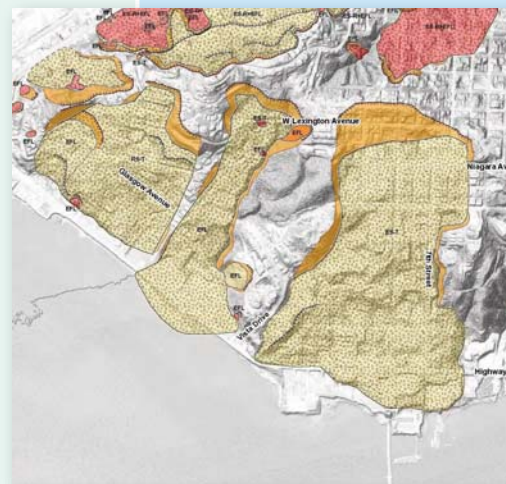
**To learn more about seeing landslide with lidar, go online at:**  
<http://www.oregongeology.org/pubs/Cascadia/CascadiaFall2006.pdf>

### **IMS-31 on CD-ROM includes:**

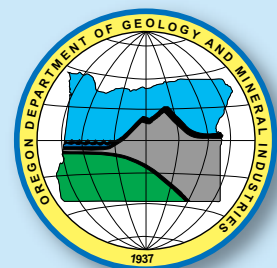
Four separate landslide inventory maps of the northwest, northeast, southwest and southeast quarters of the Astoria Quadrangle, Clatsop County, Oregon; GIS data, a map view of the GIS data, and DOGAMI Special Paper 42; Astoria\_Landslide\_Inventory.gdb: geodatabase containing landslide deposits, head scarps and flanks, and scarps for all four quarter quadrangles; Astoria\_metadata folder: Metadata for GIS data for all four quadrangles;

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This portion of the Astoria Quadrangle Landslide Inventory Maps shows different types of existing landslides in Astoria along Youngs Bay.



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Map plates in pdf format, suitable for high-resolution printing or for onscreen viewing:

- IMS-31\_Astoria\_NW\_LSInventory\_print.pdf
- IMS-31\_Astoria\_NW\_LSInventory\_onscreen.pdf
- IMS-31\_Astoria\_NE\_LSInventory\_print.pdf
- IMS-31\_Astoria\_NE\_LSInventory\_onscreen.pdf
- IMS-31\_Astoria\_SE\_LSInventory\_print.pdf
- IMS-31\_Astoria\_SE\_LSInventory\_onscreen.pdf
- IMS-31\_Astoria\_SW\_LSInventory\_print.pdf
- IMS-31\_Astoria\_SW\_LSInventory\_onscreen.pdf

**Individual quarter quadrangle maps in printed form can be purchased separately for \$25 each. See below for more information.**

These maps are intended to provide users with geologic information regarding landslides within the mapped area. These maps contain useful information to guide site-specific investigations for future development, to assist in regional planning and development, to mitigate existing landslides and slopes, and to prepare for emergency situations, such as storm events and earthquakes.

The maps are not appropriate for site-specific evaluations, however the data contained in the CD-ROM are valuable for regional screening for landslides and selection of appropriate areas on which to focus further site-specific studies. The data are particularly suitable for incorporation and consideration into regional Geographic Information System (GIS) databases for a multitude of purposes, including city and county hillside development ordinances, issuance of building permit conditions, public works planning and operations, and environmental issues.

**IMS-31, Landslide Inventory Maps for the Astoria Quadrangle, Clatsop County, Oregon**, can be purchased on CD-ROM for \$15 each. Individual quarter quad maps of **IMS-31** are available as printed sheets for \$25 each. Please call if you would like printed copies of the maps. All can be purchased from the Nature of the Northwest Information Center (NNW), 800 NE Oregon Street, Suite 965, Portland, Oregon, 97232. You may also call NNW at (971) 673-2331 or order online at <http://www.naturenw.org> (except printed maps). There is a \$4 shipping and handling charge for all mailed items.

***The mission of the Oregon Department of Geology and Mineral Industries is to provide earth science information and regulation to make Oregon safe and prosperous.***

Learn more about Oregon's fascinating geology by going online at:  
<http://www.OregonGeology.org>

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