# OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

Vicki S. McConnell, State Geologist



NEWS RELEASE: December 5, 2011

# New study describes beach and shoreline dynamics near proposed Reedsport wave energy site

Portland, Oregon: The Oregon Department of Geology and Mineral Industries (DOGAMI) has released a publication describing and summarizing baseline observations from monitoring the response of the beach and shorelines along approximately 16 km of the north Umpqua Spit shoreline adjacent to the proposed Ocean Power Technology (OPT) Reedsport wave energy site.

# DOGAMI Open-File Report O-11-17, Baseline observations and modeling for the Reedsport wave energy site, Douglas County, Oregon: Monitoring beach and shoreline morphodynamics, by Jonathan C. Allan, Roger Hart, and Laura L. Stimely

The wave climate offshore the Pacific Northwest (PNW) coasts of Oregon and Washington has been identified as a potential environment for the establishment of wave energy devices that can be used to harness the energy potential provided by ocean waves. Because wave energy arrays by definition will remove a portion of the energy of the waves and will create a shadow region of lower wave energy landward of the devices, there remain concerns about the potential effects such devices may have on the morphodynamics of beaches adjacent to wave energy farms.

To understand the potential effects of wave energy arrays on sediment transport processes, a collaborative team of investigators from Oregon State University (OSU) and the Oregon Department of Geology and Mineral Industries (DOGAMI) initiated a fieldbased monitoring program in May 2009 in order to begin documenting the natural variability of the beach, nearshore, and wave climate adjacent to the proposed Ocean Power Technology (OPT) Reedsport wave energy site, located offshore from the north Umpqua Spit, Douglas County, Oregon.

This report describes and summarizes baseline observations from one component of the observation program focused on monitoring the response of the beach and shorelines along approximately 16 km of the north Umpqua Spit shoreline.

# To learn more about this publication, visit: <u>http://www.oregongeology.org/pubs/ofr/p-O-11-17.htm</u>

DOGAMI Open-File Report O-11-17 can be purchased on CD-ROM for \$15 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

DOGAMI's mission is to provide earth science information and regulation to make Oregon safe and prosperous.

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*http://www.naturenw.org*. There is a \$4 shipping and handling charge for all mailed items.

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 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 an understanding of geologic materials, geologic resources, processes, and hazards is key to decision-making. The Department is also the lead state regulatory agency for mining, oil, gas and geothermal exploration, production and reclamation.

Learn more about Oregon's geology online: http://www.OregonGeology.org



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