

News Release - Oregon Department of Geology and Mineral Industries

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A new study by the Oregon Department of Geology and Mineral Industries (DOGAMI) looks at an innovative and natural way of protecting beach property at Cape Lookout State Park from shoreline erosion.

Simple gravel beaches are one of the most efficient forms of coastal protection, exhibiting a remarkable degree of stability in the face of sustained waves, whether large or small. Because of this, they have been recommended by some as an alternative and more natural form of beach property protection. Such engineered natural structures are variously termed cobble berms, dynamic revetments, or rubble beaches.

There are few examples of dynamic revetments worldwide, but in 1999, with the help of DOGAMI, the Oregon Parks and Recreation Department constructed a dynamic revetment at Cape Lookout State Park following almost three decades of intensive coastal erosion. The Cape Lookout site has provided the first real test of such a structure with respect to Oregon's extreme wave environment. To date, the structure has survived several major storms, including at least four large storm events that resulted in the cobble berm and artificial dune being overtopped by waves. Damage to the structure has been minimal, suggesting that these

types of structures may be a viable alternatives to “hard” engineering solutions like seawalls and rip rap in the Pacific Northwest.



The dynamic revetment or cobble berm and artificial dune at Cape Lookout State park

Learn more in Special Paper 37 - Dynamic Revetments for Coastal Erosion stabilization: A Feasibility Analysis for Application on the Coast by Jonathan C. Allan, Ron Geitgey, and Roger Hart, Oregon Department of Geology and Mineral Industries.

Special Paper 37 is available on CD-ROM for \$10 from the Nature of the Northwest Information Center (NNW), 800 NE Oregon Street #5, Portland, Oregon, 97232 - (503) 872-2750 or order it online at <http://www.naturenw.org>.

There is a \$3 shipping and handling charge for all mailed items. Please allow 2 weeks for delivery. For additional information, please contact the Nature of the Northwest Information Center. Additionally, this item 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 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 the 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.

DOGAMI field offices can also be contacted 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.

You can learn more about the Oregon coast and much more by going online at: <http://www.oregongeology.com>

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