COLUMBIA NEARSHORE PROJECT
2005 DEMONSTRATION

The long-term objective of the Columbia Nearshore Project collaborative team is the potential for using dredged sediments to replenish the eroded littoral zone, and rebuild the nearshore shoals to better protect the south jetty of the Columbia from wouthwest waves.

After consideration of various dispersal methods, the project team agreed to conduct a limited demonstration (30,000 cubic yards) of the enhanced dumping method in September of 2005. This test of the enhanced dumping method was intended to determine the viability of this method and measure per-run ocean-bottom accumulations.

A True Collaborative Effort

The 2005 Demonstration was completed as scheduled in mid-September of 2005. The success in implementing the project required considerable cooperation and coordination among many partners:

The Port of Astoria agreed to be the principal sponsor of this project, including submission of the regulatory documents and contracting for the sediment profile imaging.

The U.S. Army Corps of Engineers agreed to utilize the dredge Essayons to disperse material for this demonstration project, using the "enhanced dumping" methodology.

The following partners provided financial contributions for this demonstration project:

Oregon Department of Land Conservation and Development
Oregon Sea Grant program
U.S. Army Corps of Engineers, Regional Sediment Management program
Oregon Division of State Lands
Oregon Department of Geology and Mineral Industries
Port of Astoria
Columbia River Channel Coalition
Port of Portland
Port of Longview
Port of Vancouver
Port of Kalama

The Oregon Department of Land Conservation and Development served as the agent for the Port of Astoria, assisting with the preparation of technical documents and the design of the monitoring program.

The Institute for Natural Resources took the lead in coordinating the Science/Policy Workshop which led to some changes in design of the 2005 Demonstration.

Regulatory Coordination: One of the most important factors in the success of the 2005 Demonstration was the regulatory approval process. The following agencies participated in meetings to help coordinate the regulatory process for this 2005 Demonstration project:

U.S. Fish and Wildlife Service
Oregon Department of Fish and Wildlife
Washington Department of Fish and Wildlife
Oregon Department of Land Conservation and Development
Oregon Department of Environmental Quality
NOAA Fisheries
U.S. Army Corps of Engineers
Columbia River Estuary Research Taskforce (CREST)

Because of a change in overall regulatory direction late in the process, putting EPA rather than the Corps of Engineers Regulatory Branch in the lead regulatory role, several agencies were required to complete their reviews in a highly expedited manner. In particular, NOAA Fisheries completed their review of both ESA issues and Essential Fish Habitat issues in less than 25 days, a process normally requiring 120 days. U.S. Fish and Wildlife similarly expedited their review and approval.

To give one a sense of the tight timeline, NOAA Fisheries completed their review on Monday, September 12. EPA's Seattle office then signed the permit for the project on Tuesday, September 13. The Demonstration project crew was in Astoria conducting the demonstration on Wednesday, September 14, and Thursday September 15. On Friday, an expected storm hit the Oregon Coast. Had we not begun the project that Wednesday, the project would have been delayed by a year.

Preliminary Results

A final report and analysis will be available by the end of January. However, preliminary results indicate the following:

- Operationally, the project was a success, i.e. the dredge Essayons was able to release the material in an "enhanced" manner, with even distribution of material.

- The sediment profile imagery did not provide the hoped-for clear delineation of bottom-accumulation. The SPI results need to be analyzed with the grab samples taken and the multi-beam bathymetry results.

- From a biological standpoint, the dredged sediments are very similar to the natural in-situ sediments in the nearshore area. This finding, combined with almost immediate re-population of the epi-benthic biological community (small surface critters) is encouraging.