

# **PROGRESS REPORT ON COLUMBIA NEARSHORE BENEFICIAL USE PROJECT**

**Prepared for Lower Columbia Solutions Group**

**May 1, 2008 Meeting**

**Revised April 28, 2008**

## **Background**

The purpose of the Columbia Nearshore Beneficial Use Project is to track deposited sediment movement over time and to determine the extent to which it remains in the littoral zone and helps protect the South Jetty.

The project was initiated in 2005 with a limited Phase I demonstration project of the enhanced dumping method in the nearshore area off the South Jetty. This test of the enhanced dumping method was intended to measure per-run ocean bottom accumulations to verify projected results and help determine the viability of this method. In this demonstration project, 30,000 cubic yards of dredged material was released, creating a layer no deeper than four inches to protect crabs and clams. It is unknown if the material eventually settled in-shore, traveled up the Columbia River, or was pulled out to deeper waters.

In 2007, the Partners Group proposed a Phase II Demonstration Project that would involve the targeted placement of approximately 150,000-300,000 cubic yards of dredged material within the South Jetty site, for the purpose of building a discrete feature on the seabed (berm) which would be monitored to determine the rate and direction of sediment transport. The goal of the Phase II project, as originally conceived, was to apply enough material to determine where it goes.

At its January 10, 2008 meeting, the Partners Group agreed to a redesign of a Phase II Demonstration Project. Instead of proceeding with a larger dredged materials placement project, the group recommended that a sand tracer study be conducted this year (summer 2008), utilizing a \$197,000 South Jetty appropriation to the U.S. Army Corps of Engineers, Portland District (Corps). Although one of the original purposes of a Phase II Demonstration Project was to evaluate alternative dispersal methods and sites, the group feels that it is most critical to determine where the nearshore sediment goes, especially since the prior monitoring demonstrated that a berm would not protect the jetty. Options identified included conducting a sand tracer study by itself or conducting such a study in conjunction with a second dredged materials placement project.

The LCSG oversees the Columbia Nearshore Beneficial Use Project, project management and staffing is provided by the National Policy Consensus Center, and Jim Bergeron has been serving as convener of the Partners Group. The LCSG submitted a FY 2008 appropriation request of \$600,000 for the environmental assessment and regulatory submittals required for the Phase II Demonstration Project, as well as initial monitoring of biological impacts, wave amplification, and sediment transport. That appropriation request has not been funded, but Congress did appropriate \$197,000 in the Corps' Regional Sediment Management budget for 2008 under South Jetty and Clatsop Spit.

## **Status**

### Science Advisory Team

At its January 31, 2008 meeting, LCSG agreed to a proposal by its staff to establish an ongoing science advisory team to provide scientific review and advice on beneficial use projects

associated with the disposal of dredged spoils from the mouth of the Columbia River. On April 24, an initial meeting of a science advisory team was conducted, with the following results:

- Support for the establishment of a standing science advisory team and identification of potential members to represent both the physical and biological sciences (see attached list).
- To help determine the movement of sediment deposited in the nearshore area, support for a sand tracer study, coupled with numerical modeling (to corroborate the tracer study results to the extent feasible), to be conducted in summer 2008.
- Identification of a planning subcommittee to work with the Corps on the design of the sand tracer study and modeling.
- Determination that the group's next meeting be a science-policy workshop in summer 2008 to review the sand tracer study results and address issues related to the Nearshore and Benson Beach projects and permanent disposal site options.

### Sand Tracer Study

As noted above, at its January 2008 meeting, the Partners Group agreed to pursue a sand tracer study in the nearshore area, pending scientific review. Following the science advisory team meeting on May 24, the Partners Group met to respond to science advisory team comments/recommendations and to determine next steps. The Partners Group is recommending that a sand tracer study with collaborative modeling be conducted in summer 2008. Among the key factors considered:

- Availability of adequate funding: The Corps indicates that the money available (\$177,000) through the current South Jetty appropriation, coupled with an additional \$52,000 in reserve in this year's budget, is expected to provide adequate funding for the sand tracer placement. \$250,000 in the President's proposed budget targeted to a tracer study would be expected to finance modeling/analysis costs.
- Ease of regulatory permitting: As a research activity, it is expected that the only permit documentation required would be an Endangered Species Act determination by the Corps of "no effect".
- Ongoing involvement of science advisory team in study monitoring and analysis.

### FY 2009 Congressional Appropriation

A FY 2009 Congressional appropriation request has been submitted for regulatory permitting, environmental assessment and monitoring for a disposal site that can be adaptively managed to protect near-shore fishery habitats, the jetty and coastal beaches from erosion. The specific site location and methods of disposal will be informed by the sand tracer study.

### Convener

The April 24 meeting culminated Jim Bergeron's three years of service as convener of the Partners Group. Patrick Corcoran, Associate Professor with the Oregon State University Sea Grant Extension Program in Astoria, has agreed to assume the convener role. Action by the Governor's Office is pending.

### **LCSG Action Requested**

- Designation of a standing science advisory team to provide scientific review and advice on beneficial use projects associated with the disposal of dredged spoils from the mouth of the Columbia River. (Potential participants are identified on the attached list.)
- Request to the Corps to allocate funding for a sand tracer study and modeling as described above.

- Acknowledgement of Jim Bergeron's service as convener of the Partners Group.

### **Next Steps**

- Develop a modeling study to corroborate sand tracer results.
- Conduct the sand tracer study in summer 2008.
- Following completion of the sand tracer study, organize a science-policy workshop to assess the study results and address issues related to the Nearshore and Benson Beach projects and permanent disposal site options.

### **Contacts**

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