Progress Report on the Columbia Nearshore Beneficial Use Project
Prepared for Lower Columbia Solutions Group
October 10, 2008 Meeting

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 30,000 cubic yards of dredged material, using an enhanced dumping method in the nearshore area off the South Jetty. 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, 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.

Earlier this year, the Partners Group proposed and the Lower Columbia Solutions Group (LCSG) agreed to a redesign of a Phase II Demonstration Project to instead undertake a sand tracer study, utilizing a $197,000 South Jetty regional sediment management (RSM) appropriation. Although one of the original purposes of a Phase II Demonstration Project was to evaluate alternative dispersal methods and sites, participants agree that it is more critical to understand where the nearshore sediment goes, especially since the prior monitoring demonstrated that a berm would not protect the jetty.

Since the last LCSG meeting, the Partners Group has met twice in conjunction with its Southwest Washington counterpart and a Science Advisory Team (SAT) established by the LCSG to advise on both Washington and Oregon beneficial use projects.

The LCSG oversees the Columbia Nearshore Beneficial Use Project, project management and staffing is provided by the National Policy Consensus Center. Patrick Corcoran, Oregon State University Sea Grant Program, recently assumed the role of convener of the Partners Group.

Status

<u>Sand Tracer Study</u>

A sand tracer study with collaborative modeling has been designed and will be implemented beginning in early October, with collection in November-December, 2008 and additional sampling in Spring, 2009. The study is being financed through the current South Jetty RSM appropriation, coupled with additional reserve funds in the Corps' budget. Two different placements will occur, with USGS providing recommendations on placement. Of note:

- Study results will likely not be available before June, 2009.
- Adequate funding appears to be available to complete all anticipated phases of the tracer study, modeling, analysis, and monitoring.
- The SAT has agreed to an ongoing role in study analysis and monitoring.

<u>Research Proposals</u>

As part of the review of the sand tracer study proposal, the need for additional research on the physical system in the nearshore areas north and south of the mouth of the Columbia (MCR) was identified. Among the issues that the Partners Group identified in reviewing the four research proposals received to date:

- The Oregon and Southwest Washington partners groups, with input from the SAT, are an appropriate forum to review and recommend funding of such research proposals.
- Much data has been collected and research completed, but there is no centralized clearinghouse for it.
- The questions that should drive research need to be defined before acting on these or any other proposals. A 10-year forecasting of needed research, with priorities, should be developed based on sequential funding from a variety of funding sources.
- There is a significant amount of physical science research but a lack of biological research.
- A science-policy workshop should be scheduled, focusing on biological research needs for a wide variety of potential disposal locations. This forum could also serve to develop a multi-site disposal program, e.g. use of the Benson Beach project on a three-year cycle.
- Given that most research and data collection has occurred during fair weather periods, the types of winter data/research that could be conducted/is needed should be identified.

The opportunity was identified to include instrumentation to measure nearshore wave heights and current velocities/direction on a new Mouth of the Columbia River (MCR) buoy to be installed to replace one lost in last winter's storms. A case will need to be made to NOAA and the Coast Guard (NANOOS program).

LCSG Action Requested

- Establishment of a centralized research clearinghouse.
- Designation of the Oregon and Southwest Washington partners groups, with input from the SAT, as the forums to review and recommend funding of research proposals.
- Request to SAT to develop a research agenda.
- Sponsorship of a science-policy workshop, focusing on biological research needs for a wide variety of potential disposal locations.
- Request to NOAA and NANU for include instrumentation to measure nearshore wave heights and current velocities/direction on a new MCR buoy to be installed to replace one lost in last winter's storms.

Next Steps

- Develop questions to assist in the review of research proposals and vet with the SAT.
- Work with the SAT to develop a research agenda.
- Organize a science-policy workshop within the next 6-8 weeks.

Contacts

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