PROGRESS REPORT
Regional Sediment Management Planning
Prepared for the Lower Columbia Solutions Group
May 4, 2010 Meeting

STATUS:

Since the last meeting of the Lower Columbia Solutions Group (LCSG) in November, the Regional Sediment Management Planning (RSMP) process has moved forward on several fronts including: drafting four chapters for the RSM plan, developing and submitting a congressional funding request to support basic data collection, and holding two meetings of the RSM policy committee with new leadership.

Technical background chapters

The Lower Columbia River Estuary Partnership staff drafted and revised several technical background chapters for the RSM plan. These chapters include descriptions of the regulatory framework, and sediment-related physical processes and conditions, biological processes and conditions, and toxic contaminant issues. These draft chapters have all received some level of review from technical experts and are available for further review and comment on the Estuary Partnership website: ftp://www.lcrep.org/RSM_planning/ (user: guest, password: guest123). Estuary Partnership staff will be available during July and August 2010 to incorporate comments. Parties that would like to provide feedback should provide feedback over the next few months (prior to July 2010).

Funding request

One of the main take-home messages from the joint meeting of the technical and policy group on October 29th was that we lack the necessary flow and sediment data to develop a robust sediment transport model for the lower Columbia River system. The Estuary Partnership worked with the USGS to develop a budget estimate for some of the basic data collection work needed to inform a sediment model. This estimate was included in both the Estuary Partnership's congressional ask for FY11 and the USGS's request for funding. The RSMP portion of the Estuary Partnership's congressional ask is outlined below:

Columbia River FY 2011 Funding Needs:

Regional Sediment Management Planning **$816,500**

Understanding the sediment budget and sediment transport for the lower Columbia River is crucial for implementing regional sediment management planning. A better understanding of the sediment budget will inform management that maximizes the beneficial use of sediment and reduces contaminant loading. Critical data needs include:

- Continuous or instantaneous flow measurements for sites on the Columbia and Willamette Rivers
- Daily measurements of turbidity
- Total suspended solids (TSS) measured with an autosampler triggered by turbidity changes
- TSS and bedload measured by a field crew during high flow events

In addition to data collection, there is a need for project management, data analysis and modeling of sediment budget and transport based on new data.

Task 1: Continuous flow measurement ($4,000)

- No cost for measurements at The Dalles, Beaver and the Willamette @ Morrison Bridge (supported by current USGS programs).
- Estimation of daily mean flows at Warrendale and Vancouver sites ($4,000)

Task 2: Instantaneous flow measurements ($0 if Task 5 fully funded)

- No cost for measurement at Warrendale and Vancouver sites 5 times a year during bedload measurement trips.

Task 3: Turbidity ($50,000)

- Cost of 1-year record per site ($10,000 x 5 sites)

Task 4: TSS measured with an autosampler triggered by turbidity changes ($250,000)

- Cost of 1-year record per site ($50,000 x 5 sites)

Task 5: TSS and bedload measured by a field crew during high flow events ($117,500)

- Cost of field crew, boat, and lab analyses/trip ($4,700 x 5 sites x 5 trips/year)

Task 6: Project management ($175,000)

- USGS and Estuary Partnership

Task 7: Data analysis and modeling ($220,000)

Total for FY 2011 **$816,500**

***Jobs and economic impact*:**
Three technicians for maintenance and data collection. Three technical experts to incorporate data into sediment budget models. Long-term benefits include increased management efficiency and beneficial use of sediments dredged from the Columbia River navigation channel. These beneficial uses could include nourishment of eroding beaches, protection of navigational jetties, and restoration and creation of fish habitat.

RSM Policy Group Meetings

A meeting was held on March 4th, 2010 with the states serving as co-conveners, with Brian Lynn representing Washington and Mike Carrier representing Oregon. During this meeting the Estuary Partnership staff provided an outline and update on the status of the objectives and tasks outlined for Phase 1 of the RSMP work. This included providing copies of the draft chapters to the group and walking through the major findings of the physical processes chapter and an outline of the toxic contaminants chapter. Mike Ott of the USACE provided an update on the findings of the sand tracer studies and beneficial use work at the Mouth of the Columbia River. One of the purposes of this meeting was to discuss and clarify the goals and objectives for the entire RSM planning process, including the next phase of the work. For more details on the status of specific tasks, please see the powerpoint presentation for the March 4th presentation (available on the Estuary Partnerships's ftp site).

Status of the Estuary Partnership's DOC commitments:

- Facilitate technical committee ✓
- Provide project manager ✓
- Continue development of GIS database (in progress)

- Develop physical conditions & processes chapter (90%) ✓
- Provide support role for economic analysis of sediment usage (Discuss with ports) – Not complete
- Conduct a workshop on methods/policies for beneficial use of sediment (USACE is working on this) – Not complete
- Work to ensure outreach ✓

Additional tasks performed:

- Regulatory framework chapter (90% complete) ✓
- Toxic contaminants chapter (90% complete) ✓
- Biological processes & conditions chapter (80% complete) ✓

At the conclusion of the March 4th meeting, the policy group asked that a sub-committee be formed to develop a one-sentence vision for the effort, as well as goals, objectives, and actions. This sub-committee, consisting of Jane Bacchieri (NPCC), Brain Lynn (WA Ecology), Jennifer Hennessey (WA Ecology), Dale Blanton (OR), Robert Anderson (NOAA), Mike Ott (USACE), Val Brenneis (LCREP), and Catherine Corbett (LCREP), worked to draft this document. This draft was presented at the April 13th meeting of the policy committee for comments and feedback from the larger group. A revised document, incorporating the comments made by the larger policy group during the April 13th meeting is provided below. The purpose of this document is to guide future RSM planning efforts.

4/14/10 DRAFT

Lower Columbia River Regional Sediment Management Planning

Vision

Sediment management decisions in the lower Columbia River region are guided by a coordinated regional sediment management plan to: encourage the beneficial use of sediment; restore healthy ecosystems; protect (coastal) beaches; maintain safe navigation; improve efficiency of decision-making; and rely on scientific data and methods for modeling, monitoring and adaptive management.

Goal

To develop a regional plan that encourages environmentally and economically sustainable sediment management practices to restore or enhance ecosystem functions in the lower Columbia River, nearshore ocean, and beaches.

Objectives

1. Increase understanding of past, current and future conditions and management practices on sediment processes.

2. Evaluate ecosystem effects of alternative sediment management options and practices.

3. Develop a sediment management plan together with monitoring and adaptive management tools.

Actions

- Synthesize information on existing biological, physical and environmental conditions related to sediment transport and management.
- Summarize information on historical and current dredging and disposal activities.
- Describe the existing policy and regulatory framework for sediment management.
- Identify data gaps and needed information for sediment planning and management purposes.
- Identify critical erosion and accretion areas, habitat restoration sites, and sources of sediment, particularly to identify, carry out, and monitor localized, near-term beneficial use projects that fit within the long-term, regional vision of the plan.
- Identify critical areas of contaminated sediment accumulation and develop recommendations for regional approaches to handling these materials.
- Evaluate existing regulatory processes through case studies of various beneficial use projects (e.g., toxics, erosion, habitat creation), including timeline, agency standards and processes.
    - Assess the success or impediments due to the regulatory process.
    - Assess biological outcomes of beneficial use projects.
- Identify actions that improve efficiency and effectiveness of the regulatory process.
- Develop consensus on regional sediment management strategies and recommendations.
- Develop recommendations to achieve integrated federal, state and local adaptive management for current and future beneficial use projects.