DECLARATION OF COOPERATION

REGIONAL SEDIMENT MANAGEMENT PLANNING

January 2008

I. Background

The Lower Columbia Solutions Group (LCSG) is a standing group of local, state, and federal stakeholders interested in and affected by dredge material disposal activities and natural sediment processes in the Lower Columbia River and related sediment processes on the outer coast within the Columbia River littoral cell (CRLC). The LCSG serves as the bi-state clearinghouse to coordinate sediment and dredged material management issues on the lower Columbia River and the open ocean coastal littoral system (i.e. CRLC) since the two environments are inherently linked through the budget of sediments, and the current and future stability of the CRLC is dependent on the wise-use of its sand resource.

Historically, dredged sediment was placed in the most economical locations, which often were on the banks of rivers, or alongside the channel in rivers, bays, and estuaries resulting in submerged features and island formations. More recently, environmental concerns resulted in sediment being put in confined areas both upland and aquatic. In dredging to maintain navigability, an extensive process in the late 1990's was undertaken to resolve concerns over disposal methods and locations. As a result, currently well over one million cubic yards per year of dredged sediment is now put in deeper offshore waters where it is lost to the littoral system. These practices do not necessarily balance what is the best use of sediment from a regional environmental, economic and social perspective.

The goal of regional sediment management (RSM) is to make sure that project decisions are made within the context of a regional plan that maximizes regional benefits (economic, social and environmental) and reduces regional cost. RSM involves the use of a systematic process that is:

- *Comprehensive*. A regional plan will account for many needs and considerations, including economic, biological, chemical, social, navigational safety, coastal geomorphology, permitting, and upland erosion control. The regional information and goals for sediment management will be developed by stakeholders and agencies working collaboratively. The plan will cover the management of all sediment, including disposal of dredged sediment, control of sediment entering the system, beneficial use of sediment deposited artificially or naturally, and contaminated sediments. The plan will consider on-going efforts by governmental, tribal and private entities to restore the river ecosystem and to provide for active uses of the river and the shoreline.

  A plan will also need to accommodate a variety of related issues, such as managing toxic or contaminated sediments, accounting for habitat needs and conditions of aquatic, wetland, and terrestrial species, the comprehensive planning requirements of Oregon and Washington state agencies, maintaining shorelines and protecting coastal communities and infrastructure, navigational safety, and understanding physical shoreline and hydrologic processes.

- *Integrated.* A regional sediment plan would provide a shared, overall framework for reviewing projects. Competition for funding and for sediment would become more cooperative. The plan would not be a regulatory document and would have no legal standing unless adopted in whole or in part by a regulatory agency. The plan would provide guidance to regulatory and planning agencies for their work but would not replace any procedures they must follow by law.

- *Conducive to beneficial use.* The regional sediment plan will recognize and enable the use of millions of cubic yards of sediment per year. Possible uses, depending on regulatory approval, include protecting beaches and jetties, restoring habitat, creating upland sites, and providing sand and gravel for commerce. The plan will examine the impacts of the current least-cost policies and state and federal regulations related to beneficial use of dredge materials.

- *Scientifically based.* Much work has been done on sediment modeling on the river and in the CRLC, and there may be enough information to make many management decisions. However, a comprehensive, unified model has not been developed which would include data on sediment sources and ultimate fates, and how changes in the sediment processes and management practices could impact shoreline stability and longshore transport on the outer coast near the mouth of the Columbia River and habitat forming processes in the lower Columbia River. Such a model would enable the resource agencies to determine how better to integrate natural sediment transport processes with dredging, shoreline protection, and programs to restore littoral drift and habitats. Biological processes in the estuary and along the coast are necessary considerations to ensure that the dredging and placement of sediment supports critical biological processes, especially those related to threatened and endangered species and commercially and recreationally important species.

- *Cooperatively Developed* To ensure broad input, the planning process will include a range of interests, including but not limited to the Lower Columbia River Estuary Partnership, its bi-state public and private members of the Board of Directors and its Science Work Group and the LCSG and its members and constituents.

II. Benefits of Developing a Regional Sediment Management Plan

A regional sediment management plan will provide:

a. A clear, scientifically-based rationale for where dredged sediment should be placed to achieve the highest benefit to the region, consistent with state and federal regulations. This will facilitate the timely issuance of permits by regulatory agencies and minimize conflicts over permits including legal challenges.
b. A detailed understanding of sediment processes – gains and losses by reach and in the littoral cell – to provide a firm basis for dredge planning and ecological restoration and preservation.
c. An understanding of the movement of contaminated sediments and a basis for managing their deposition and disposal.

d. An adaptable plan that can be updated over time as more becomes known about sediment transport and ecological processes in the river and within the CRLC.
e. A basis for more efficient operations for dredging and placement of sediment under existing regulatory frameworks, including potential cost savings.

III. Regional Sediment Management Planning Goals

As a starting point to provide direction for developing a regional sediment management plan, the LCSG's sediment planning subcommittee identified four important goals for the plan and the planning process:

1. To develop a comprehensive regional sediment management plan that is consistent with laws and regulations to guide agency decisions on the removal and placement of sediment in a manner that balances competing needs for sediment resources in the river system and associated coastal littoral cells.
2. To improve and utilize scientific understanding of sediment processes including a refined sediment budget, as well as current management practices, and beneficial use opportunities, as a foundation for the plan.
3. To maximize the beneficial use[1] of sediments for societal uses, while minimizing adverse impacts on biological resources and providing for safe navigation.
4. To develop the community, administrative, regulatory, scientific, economic and logistical support needed to implement the plan.

An important consideration in achieving these goals is the need to improve and maintain a functional, safe navigation system in the lower Columbia River and support water-dependent development in a manner that protects environmental quality.

IV. Regional Sediment Management Planning Tasks

To develop the plan, the following work tasks are proposed to be accomplished over the next three years. These tasks have been designed to fit within the existing funding resources of the signatories to this document, with the understanding that changes in the budgets supporting these organizations may require them to decrease their commitments. The LCSG recognizes that these tasks only provide a beginning to developing a regional sediment management plan and that further work, supported by increased funding, will be needed.

I Overall Project Management

A. Develop Scopes of Work, solicit proposals, select contractors and manage the contracts
B. Develop and maintain a web site for use throughout the project.
C. Develop and work with advisory groups for the technical studies and plan development. Participate in meetings and workshops.
D. Coordinate with other tribal, federal, state and local programs

[1] Beneficial use: one of the important work tasks for development of the Sediment Plan will be agreeing on a clear definition of this term for use in the planning process.

E. Develop an outreach plan to coastal communities and others potentially affected by the plan, utilizing existing organizations to the maximum extent practical to conduct this outreach.

F. Develop Regional Sediment Management Geographic Information System (GIS)
- Identify the data and information types and attributes to be collected
- Establish data quality and format standards for each data type.
- Establish metadata and error analysis standards and procedures.
- Write a Technical Memorandum based on the results of this task.
- Collect data and information
- Prioritize data gaps

II Technical Tasks

A. Physical Processes and Conditions

1. Based on readily available information, characterize the historical and contemporary sediment budget in the lower river and littoral area using existing available literature and expert interviews. Data gaps would be noted, but no new research is included.
2. Identify and characterize physical sediment processes that influence how sediment enters, disperses and ultimately leaves the lower Columbia River using existing available literature and expert interviews. Describe the sources of sediment in the river.
3. Describe the condition of sediment in the lower river including the presence and extent of known contaminants.
4. Develop a database of entities engaged in maintenance dredging, sand and gravel dredging for commercial aggregate supply, and dredged material disposal in the lower Columbia River. Develop a record in the database for each entity that includes the amount of dredged material disposed over each of the past five to 20 years (depending on what information is readily available), location of disposal (reach scale), and the disposal purpose (i.e., land creation, beach nourishment, etc.).
5. Define dredged material disposal purposes. In general, this will include two broad categories: beneficial uses and non-beneficial uses. Within each of these categories, further delineation would be developed. For example, in the non-beneficial use category, it might include deep water disposal and upland disposal (some upland disposal is considered beneficial use; some is contaminated sediments). A definition of "beneficial use" would be used that does not conflict with existing definitions in policy or law.
6. Assign the quantities of dredged materials disposed of in the past five years (or the period noted above) into the categories defined in Task 5. The resulting product will yield a five-year snapshot of how dredged materials are being disposed in the lower river. Results will be characterized in tabular or graphic format along with methods and background information.
7. Evaluate and describe each of the disposal categories identified in Task 5 in terms of economic and/or ecological benefits.
8. Develop a report containing the technical findings on physical processes and conditions.

B. Biological Processes and Conditions
   1. Characterize the historical and contemporary biological conditions in the lower Columbia River using existing available literature and expert interviews, and estimate the ecosystem effects of sediment use. Data gaps would be noted, but no new research is included.
   2. Identify and characterize alterations to biological processes that influence how sediment performs in the lower river (and vice versa) using existing available literature and expert interviews. This process will include result summaries from recent studies. Identify remaining research questions and data needs regarding sediment impacts on biological communities and vice versa.
   3. Develop a database of entities engaged in biological studies and management in the lower Columbia River. Develop a record in the database including any summarized findings.
   4. Develop a report containing the technical findings on biological processes and conditions.

C. Develop a detailed scope of work for completing a sediment budget. Present options and associated resource requirements to the LCSG for decision.

D. Determine the direct income/cost associated with sediment (not a complete list of all income or cost factors; others will be considered, funding permitting).
   - Income from sediment mining
   - Income from tourism and recreation on the river and littoral cell
   - Income from fisheries (recreation, commercial, tribal)
   - Income from shipping through the Lower Columbia River
   - Income from ports (amount of goods passed through or landed at Lower Columbia River ports)
   - Costs of beach nourishment and coastal protection
   - Costs of developing and maintaining natural areas
   - Costs of dredging sediment from shipping channels, ports and harbors and disposal costs
   - Costs of disposal of contaminated sediments

III Master Plan and Implementation Strategy

Prepare a Master Plan that includes the following:

- Context for the Plan
  - Goals and policies of the plan and other related plans
  - Division of responsibilities among agencies, tribes and the private sector
  - Regulatory requirements and issues (including the role of the Federal Standard, also known as the "Least Cost Policy")
  - Funding
- Detailed vision, goals, objectives and principles for the river as a whole and for specific segments (e.g. littoral cell, lower estuary, sediment run-off from the land, etc.)
- Detailed description of sediment and ecological processes influencing the plan

- Recommended action plan by river segment
  - Policies and principles, including whether a precautionary approach should be taken when data gaps are present.
  - Responsibilities for implementation
  - Roadblocks to implementation
  - Priorities and schedule
- Administration, use and implementation of the plan by local, state and federal agencies (i.e. roles and responsibilities)
- Monitoring, plan updating and adaptive management
- Funding of plan actions

V. Declaration of Cooperation and Agreement

This Declaration of Cooperation describes commitments for developing this regional sediment management plan. While not a binding legal contract, the Declaration is evidence to and a statement of the good faith and commitment of the undersigned parties. In order to begin work on a regional sediment plan, the entities agree to undertake the following tasks, while acknowledging the need for additional funding and resources to complete certain tasks that will result in an adequate and robust plan.

Office of Washington Governor Christine Gregoire

Governor Gregoire supports the work of the Lower Columbia Solutions Group to develop a Regional Sediment Management Plan to maximize the beneficial use of sand in the Lower Columbia system to protect and maintain critical community economic and environmental infrastructure. The West Coast Governor's Agreement on Ocean Health, Draft Action Plan, October 2007, calls for the development of a Regional Sediment Management Plan, and the Governor's Office will provide policy-level guidance and assistance to the planning process as it moves forward.

Office of Washington Governor Christine Gregoire

on behalf of Kathleen Drew

Office of Oregon Governor Ted Kulongoski

Governor Kulongoski supports the work of the Lower Columbia Solutions Group to develop a Regional Sediment Management Plan to maximize the beneficial use of sand in the Lower Columbia system to protect and maintain critical community economic and environmental infrastructure. The West Coast Governor's Agreement on Ocean Health, Draft Action Plan, October 2007, calls for the development of a Regional Sediment Management Plan, and the Governor's Office will provide policy-level guidance and assistance to the planning process as it moves forward.

Office of Oregon Governor Ted Kulongoski

Lower Columbia Solutions Group

The LCSG will be the governing board for the development of this regional sediment management plan. While the LCSG has no specific regulatory or governing authority, it is the forum for bringing together the various regulatory agencies that would use the plan in coordinating and implementing their statutory obligations. The LCSG will take on these responsibilities for development of the plan:

- The members of the LCSG will support development of the plan, including, where feasible, sharing resources and expertise, helping seek additional funding, and working on issues that may arise in a collaborative manner.
- Periodically review and approve key components of the plan as it is developed.
- Coordinate the creation of a representative policy subgroup of the Lower Columbia Solutions Group to oversee plan development and to ensure it is integrated with other planning and sediment management activities. The policy subgroup will oversee management issues related to sediment planning.
- Provide a staff person to chair the policy subcommittee and, in coordination with the Estuary Partnership, to set agendas and meeting dates and facilitate meetings.
- Continue to pursue long-term federal funding of sediment management planning.

Lower Columbia River Estuary Partnership

The Estuary Partnership will provide the project management for the development of the plan. For technical aspects of the plan, the Estuary Partnership will use a subgroup of its Science Work Group, including LCSG member representatives, to guide efforts. The Estuary Partnership will facilitate, coordinate, and support the technical subgroup referenced above, seeking guidance and direction from the policy subgroup as appropriate. The Estuary Partnership will work closely with Lower Columbia Solutions Group staff to coordinate policy subgroup meeting agendas and schedules to effectively manage the development of technical and management aspects of the plan. Routine progress reports and key issues will be forwarded to the full LCSG for guidance and approval, as appropriate. Specific tasks to be undertaken by Estuary Partnership include:

- Facilitate, coordinate, and support the technical subgroup by scheduling meetings, establishing agendas, managing meetings, and carrying out staff assignments.
- Provide a project manager for two years to coordinate the work of the various LCSG members, outside agencies, and contractors participating in the development of the plan.
- Continue development of the master GIS data base, drawing from the resources of public and private sources. The GIS data base shall remain the property of the Estuary Partnership but shall be made accessible to the public.
- Develop a description of the physical conditions and processes associated with sediment as a basis for key chapters of the plan.
- Provide a support role in the development of an economic analysis of sediment usage on the river.

- Conduct a workshop on one (or more) reaches to test methods and potential policies on placement of dredge materials, management of pile dikes, enhancement of habitat forming process, etc.
- Work to ensure that members of the LCSG assist in outreach to their constituents and others.

Lower Columbia River Estuary Partnership

National Marine Fisheries Service

- In cooperation with the Estuary Partnership, develop the description of biological and physical conditions and processes in the lower Columbia River and littoral cell, including the Columbia River plume: historical biological and physical conditions, current biological environment and its relations as it relates to sediment transport, habitat forming processes, and potential effects of climate change on oceanic and in-river sediment transport and budgets and associated aquatic fauna, i.e., fishes and epibenthic invertebrates.

National Marine Fisheries Service

Washington Department of Ecology

In cooperation with the Estuary Partnership and USGS, develop a scope of work that assesses various options for developing a sediment budget that builds on improving existing monitoring and modeling work from the outer coast and estuary. This work is a necessary and natural continuation of work by Ecology, USGS, and other partners to improve knowledge of coastal erosion and sediment processes in the estuary. Ecology will conduct the scope of work utilizing existing resources and knowledge of state and federal agencies and universities.

Washington Department of Ecology

Port of Portland

- In coordination with the Estuary Partnership, pursue development of the economics section of the plan. That is, define the direct costs and income associated with sediment. The Port of Portland will consider whether it can fund some of this work to supplement what Estuary Partnership is already doing.
- Explore ways to use its new 12" pipeline dredge in a demonstration project on creation of shallow water habitat.

Port of Portland

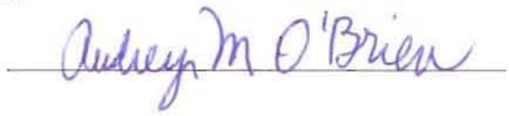
US Army Corps of Engineers

- Provide staff support to help the Estuary Partnership develop GIS layers that supplement existing layers (e.g., dredge disposal sites, scour sites, shoaling sites, etc.).
- Provide staff support to help define potential project sites for beneficial use.
- Provide a background paper on the beneficial uses of sediments based on the recently released national reports.
- Provide copies of various sediment management and planning documents, including but not limited to "Columbia River Estuary Dredged Material Management Plan", "Columbia River Dredged Material Management Plan and Supplemental Environmental Impact Statement for the Columbia and Lower Willamette Navigation Channel" (June of 1998), "The Role of the Federal Standard in the Beneficial Use of Dredged Material", "Summary of Available Guidance and Best Practices for Determining Suitability of Dredged Material for Beneficial Uses", and "Identifying, Planning, and Financing Beneficial Use Projects Using Dredged Material: Beneficial Use Planning Manual".
- Work tasks assigned to the Corps of Engineers are subject to receiving funds appropriated by the Congress of the United States.

US Army Corps of Engineers 

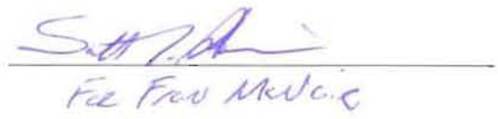
Oregon Department of Environmental Quality

- Work with the Estuary Partnership, CREST and lower river ports to support development of an upland disposal plan for toxic sediments.

Oregon Department of Environmental Quality 

Washington Department of Natural Resources

- The Washington Department of Natural Resources (DNR) will collaborate with the LCSG and Estuary Partnership through policy development and scientific support in the development of a regional sediment management plan. DNR will identify opportunities for restoration of state owned aquatic lands, beneficial reuse and sale of valuable materials utilizing its land management, environmental stewardship and material management expertise.

Washington Department of Natural Resources 

Oregon Department of Land Conservation and Development (DLCD)/Oregon Coastal Management Program (OCMP)

- Work with the local, state and federal agencies and lower river ports to develop a sustainable dredged material management planning framework that is consistent with requirements of the applicable statewide planning goals.

- Provide information, support and assistance related to enforceable policies of the OCMP and federal consistency requirements of the Coastal Zone Management Act.

DLCD/OCMP _____

U.S. Environmental Protection Agency, Region 10

- Provide general support for the efforts of the Estuary Partnership with respect to development of beneficial use of sediment, greater understanding of the littoral cell, and overall balancing of the sediment budget.
- Provide general support for ocean disposal of suitable sediments (dredged material) that cannot be otherwise accommodated in river or upland sites.

U.S. Environmental Protection Agency, Region 10 Jonathan M Freedman

Columbia River Estuary Study Taskforce

- Work with the Estuary Partnership, DEQ and lower river ports to support development of an upland disposal plan for toxic sediments.
- Provide planning support to Clatsop County, Wahkiakum County and Pacific County to ensure that the Regional Sediment Management Plan is consistent with the Counties' Comprehensive Plans.

Columbia River Estuary Study Taskforce _____

U.S. Geological Survey Western Region - Pacific Northwest

- In cooperation with the Estuary Partnership, contribute to studies that describe Lower Columbia River biologic, hydrologic, and geologic conditions and processes: develop sediment budgets and sediment transport models; assess sediment contaminant loads; define, characterize, and monitor habitats; examine the impacts of multiple stressors on fish health and disease; and assess potential climate change effects.

U.S. Geological Survey Western Region _____
for Carol Schuler

VI. Funding of Plan Development

As noted above, the sediment management planning subcommittee has developed a work plan that can be carried out with the existing funding sources of the participants. When federal or foundation funding is obtained, the scope of work will be expanded and the work will be accelerated. With available funding, a complete and detailed plan cannot be prepared, but significant progress can be made and this is what the LCSG intends to do at this time.