Regional Upland Disposal Plan Outline

Prepared for:

Lower Columbia Solutions Group
Toxics Subcommittee

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Contents

Key Components of an Effective Upland Disposal Plan

Regional management of sediment is complex and dynamic. A regional approach to sediment management can provide enormous benefits environmentally, economically, and logistically. The Lower Columbia Solutions Group (LCSG) has successfully addressed various dredge material disposal related issues and projects, and this group is already positioned to develop a Regional Sediment Management Plan which would pull together data on the physical sediment processes in the river and dredging projects to comprehensively manage sediment in the lower Columbia River. This plan would outline areas for beneficial applications of dredge material, provide general guidance on sedimentation processes in the river, and assist regulatory and dredge project managers with individual project evaluation. Likewise, a regional approach addressing upland disposal of contaminated dredge material would provide a sustainable framework for this emerging issue.

To develop an effective Regional Upland Disposal Plan the following elements have been identified:

- This plan is integral to the Regional Sediment Management Plan and should be incorporated into the development and planning process.
- Information on physical sediment processes from the Regional Sediment Management Plan and Lower Columbia Estuary Partnership's toxics monitoring programs should be reviewed and incorporated into the plan.
- The LCSG members should support the development of the plan and agree that there is an appropriate and important role for the LCSG to play in addressing this issue.
- The identified plan participants should support of the development and implementation of the plan and provide a financial contribution.
- When identifying potential locations for a regional upland disposal site, economy, transportation logistics, and local community interests should be considered. To increase cost-efficiency and lower the amount of re-handling of material the site should be close to the water.
- The regulations and policy that govern upland disposal should be thoroughly understood, and the plan should incorporate strategies that adhere to the existing regulations.
- Agencies involved in the permitting and approval process for an upland disposal site should be involved in the development and adoption of the plan.
- If needed, the LCSG should suggest a change in policy or code to support the plan and eliminate potential inconsistency or conflict.
- Long term funding should be identified for successful implementation and development.
- The plan should identify key elements for long term sustainability such as beneficial reuse and treatment of sediment.

Regulatory Agencies Involved in Upland Disposal

Federal Agencies and Authorizations

- US Army Corps of Engineers – Section 10 and 404 Permits
- NOAA National Marine Fisheries Service – Federal Endangered Species Act Biological Opinion

State Agencies and Authorizations

In Oregon:

- Oregon Department of Environmental Quality (DEQ) – 401 Water Quality Certification and Solid Waste Permit
- Oregon Department of Land Conservation and Development (DLCD) – Coastal Zone Management Act Consistency Determination
- Oregon Department of State Lands – Removal-Fill Permit, Waterway Lease, and Royalty rights to the fill
- Local – Land Use Permit

In Washington:

- Washington Department of Ecology (DOE) - 401 Water Quality Certification and Coastal Zone Management Act Consistency Determination
- Washington Fish and Wildlife (WDFW) – Hydraulic Project Approval
- Washington Department of Natural Resources (DNR) – Use Authorization for State-Owned Aquatic Lands and Royalty rights to the fill
- Local – State Environmental Policy Act (SEPA) Determination, Shoreline Permit, and other land use permits

Regional Upland Disposal Plan Outline

1.0 Introduction

The contaminated sediment issue has become more prevalent in the lower Columbia River as maintenance dredging needs in existing channels and berthing areas and expansion and modernization of ports, harbors, and marinas continues. Some of the sediments dredged from these areas contain levels of heavy metals, pesticides, and other contaminants that have been determined to be unsuitable for in-water disposal. Disposal of any contaminated dredged materials entails special management, permitting, and disposal practices.

The LCSG has successfully addressed various dredge material disposal related issues and projects. Additionally, the LCSG has identified the need for the group to develop a Regional Sediment Management Plan which would pull together data on the physical sediment processes in the river and dredging projects to comprehensively manage sediment in the lower Columbia River. Since managing contaminated sediment is fundamental to managing sediment in general, the LCSG Toxics subcommittee agreed that there is an appropriate and important role for the LCSG to play in addressing contaminated sediment issues by leading the development of a Regional Upland Disposal Plan.

This plan identifies shared upland disposal sites for ports and other users in the lower Columbia River, located in areas that make sense for the environment, nearby communities, and the ports (considering transportation and disposal costs). Additionally, this plan addresses regulatory issues in siting and managing a regional upland disposal site for contaminated sediments in order to streamline the permitting process and coordinate management of these sediments.

1.1 Purpose

- To develop a regional plan for upland disposal of dredge materials in the lower Columbia River that identifies regional sites and management strategies for those sites.
- To unify the policies on upland disposal of dredge material by providing a planned siting process.
- To streamline the dredge permitting process as it relates to upland dredge material disposal by legislative and regulatory adoption of this plan.
- To provide an upland disposal plan that incorporates local land use requirements and interests, environmental protection, and practicality.
- To provide a regional long term management plan for sediment that is not deemed suitable for unconfined in-water disposal.
- To establish a funding source for research and development of treatment technologies.

1.2 Contaminated Sediment Problem in the Lower Columbia River

- Discussion on the prevalence of contaminants in the sediments of the Columbia River. Review of the Lower Columbia Estuary Partnership's (LCREP) toxics monitoring programs and the results thus far.
- Discussion on the types of contaminants found in the lower Columbia River sediments.
- Discussion on the testing requirements for dredging permits the data repository at the Corps, and strategies for continued monitoring of the movement of contaminated sediment.
- Discussion of the regulation of contaminants in dredged sediments and the implication for disposal. Mention of the listing of several species of salmon in the river and the impacts these types of contaminants have on their development.

1.3 Nationwide Upland Disposal Plans

- There are several groups that have approached sediment management regionally and a few of these groups are developing approaches for the management of contaminated sediment.
- Los Angeles Region Contaminated Sediments Task Force was formed by the California Coastal Commission and Los Angeles Regional Water Quality Board. This task force is working on development of a long-term management plan for dredging and disposal of contaminated sediments in the coastal waters near Los Angeles County. The management plan addresses the following topics: scope of the problem, evaluation of management options (aquatic and upland disposal, sediment treatment, and beneficial re-use), unified management and regulation of these materials, and contamination source control.

1.4 Regional Distribution of Contaminated Sediment in the Lower Columbia River

- Discussion of the results from the baseline data collection including an evaluation of the amounts of material dredged in the river regionally.
- Include a general discussion of the river sedimentation processes that govern prevalence of contaminants in these regions.

1.5 Upland Disposal Plan Geographic Boundary

- This plan's geographic scope is the lower Columbia River and the site(s) or plan might be divided further regionally depending upon the recommendations of the baseline study and the LCSG.
- Due to the results of the baseline study describe the river participants for this plan.

1.6 Participants Dredging Operations

- Discussion on the participants dredging volumes, disposal practices, and projected dredging volumes.

2.0 Regional Upland Disposal Plan

2.1 Siting/Location

- Identify potential locations and actual location(s).
- Outline siting rational covering the following topics: local land use requirements and interests, environmental protection, and practicality for the ports (dredging project) location.
- Incorporate the following criteria into the process economy, transportation logistics, environmental and minimal re-handling of material when identifying potential locations for a regional upland disposal site.

2.2 Upland Disposal Sites

- Outline sites on the lower Columbia River where clean dredge material can be placed.
- Discussion of the Corps DMMP and the CREST DMMP.

2.3 Management of Contaminated Material Site(s)

- Responsible entity. Either a single entity such as one port or a cooperative.
- Testing requirements for sites' stormwater runoff, water (if de-watering is occurring on site) and deposited material, if necessary. Outline tracking system for contaminant concentrations, amounts deposited onsite, and site volume and capacity.
- Design requirements for site to ensure environmental protection to surrounding area. Outline site capacity and rate of deposition.
- Outline contaminant levels permitted. If site is large enough, consider having two facilities on site, one facility for low level contaminants and one for high level contaminants.
- Develop a plan for continuing use of site through removal of deposited sediment and re-use. Develop guidelines for the reuse of material.
- Investigate the potential for Oregon DSL and Washington DNR waiving royalties for materials deposited here so that sale of materials for fill can be used to fund research and development of remediation technologies. Evaluate cost of implementing technology for mechanical de-watering, grain separation, and treatment.

2.4 Use of Contaminated Material Site(s)

- For use of the site or as part of cooperative agreement, Ports and other entities that dredge such as cities, the Corps, or private interests would pay into a fund for ongoing management of the site, insurance for long-term liability, and development of new technologies to treat contaminated sediment.
- Sediment testing results would be submitted to responsible entity to determine suitability of material for deposition at site.