

SECTION 905(b) ANALYSIS

GENERAL INVESTIGATION RECONNAISSANCE STUDY

**Commencement Bay Environmental Dredging
Tacoma, Washington
January 2, 2003**



**US Army Corps
of Engineers®**
Seattle District

COMMENCEMENT BAY
ENVIRONMENTAL DREDGING TACOMA HARBOR STUDY

1. STUDY AUTHORITY. The Commencement Bay Environmental Dredging Project was initiated as a Corps of Engineers Civil Title I General Investigation (GI) study. The study is authorized under Puget Sound and Adjacent Waters, Section 209 of the Flood Control Act of 1962 (PL 84-874). Environmental dredging activities are authorized under Section 312 of the Water Resource Development Act of 1990. Amendments to this authorization including Section 205 of the 1986 Water Resource Development Act and Section 224 of the Water Resource Development Act of 1999 provide for potential Corps participation at sites designated by the Environmental Protection Agency (EPA) or a state for a response action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Funding for this study was provided via a congressional addition to the Fiscal Year 2001 budget. A project sponsor was not identified at that time.

2. STUDY PURPOSE. This report is a preliminary analysis, performed in accordance with the guidelines of Section 905(b) of the Water Resources Development Act (WRDA) of 1986, to determine if there is a Federal interest in pursuing further detailed studies related to the environmental dredging of Commencement Bay. A number of local, state, Federal, and tribal agencies have identified Commencement Bay as a key area for environmental restoration/cleanup in the Puget Sound region. The bay and surrounding environment have changed radically in the past 100 years to include significant and widespread sediment contamination as well as loss of intertidal shoreline areas, loss of habitat and species diversity, and degradation of water quality. The other purpose of the study was to identify a project sponsor for further studies and possible construction.

3. LOCATION AND DESCRIPTION OF PROJECT/CONGRESSIONAL DISTRICT. Commencement Bay is located in the southern portion of Puget Sound in Washington, approximately 30 miles south of Seattle. The project area is located in Pierce County with the City of Tacoma and Port of Tacoma being the primary public jurisdictions in the area. The project is in the 6th and 9th Congressional Districts for Washington State. The Commencement Bay project study area consists of seven waterways and the Puyallup River which flows into the bay and other near shore areas along the bay. Several small tributaries of the Puyallup, including Hylebos Creek, also flow into the bay and are part of the study area. Four of the waterways are Federally authorized navigation projects (Blair, Sitcum, Hylebos, and Thea Foss waterways), while the other three waterways (Wheeler-Osgood, Middle, and St. Paul) have navigation use but are not Federal projects. In addition to navigation projects, there is a Federally authorized flood control project along the lower 3 miles of the Puyallup River. One of the nearshore areas considered under this investigation is the Olympic View Resource Area which is located on a peninsula between the Thea Foss Waterway and the Middle Waterway.

4. **DISCUSSION OF PRIOR STUDIES, REPORTS, AND EXISTING WATER RESOURCE PROJECTS.**

The Commencement Bay area encompasses an active seaport, marinas, and industrial development, on approximately 10-12 square miles of shallow-water shoreline and adjacent land. EPA has named Commencement Bay and the nearshore tide flats as a CERCLA cleanup site. A Remedial Investigation/Feasibility Study was completed in February 1989. The Commencement Bay Nearshore/Tideflats Record of Decision was signed in September 1989 and outlined the selected cleanup remedy. To date, some areas have either been cleaned up or are in the process of being cleaned, remain to be cleaned up, or were not contaminated.

Cleanup of the St. Paul, Sitcum, and Blair Waterways has been completed, and cleanup was recently completed at the Olympic View site. The areas left for cleanup action are in the remedial design process. Remedial action to remove and dispose of the contaminated sediments from the Thea Foss, Wheeler-Osgood, Middle, and Hylebos waterways is scheduled to begin in the summer of 2003. Following is a discussion of each waterway plus the Olympic View site. The following discussion is broken into Federally authorized projects, non-Federal projects, and other sites.

FEDERALLY AUTHORIZED PROJECT AREAS.

Blair Waterway. The Corps has recently completed a Federal navigation improvement project which deepened this 2.6-mile-long waterway to -51 feet mean lower low water (MLLW). The Port of Tacoma is also evaluating widening this waterway. Contaminated sediments were removed from the Blair Waterway and placed in the Milwaukee confined nearshore disposal site as part of the Sitcum Waterway Remediation Project that was implemented under EPA superfund authorities from 1993-1995.

Hylebos Waterway. This waterway is 3.1 miles long and has an authorized Federal navigation channel of -30 feet MLLW. This waterway has or has had various chemical manufacturing facilities, smelters, refineries, scrap yards, log yards, marinas, and boat building and repair facilities operating on or near the waterway, past and present. This waterway is scheduled for remedial cleanup action, portions of which are scheduled to start in the fall of 2002, continuing into 2005. This waterway is contaminated with residue from chemical manufacturing, shipbuilding, scrap-metal recycling, and log shipping. Contaminants include heavy metals, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), hexachlorobenzene, hexachlorobutadiene, and trichloroethene. The plan is to dredge about 949,600 cubic yards of contaminated sediment. This sediment will be disposed in either Blair Slip 1 or an approved upland landfill. Blair Slip 1 is a Nearshore Confined Disposal Facility being constructed on the Blair Waterway as part of the Port of Tacoma and Occidental Chemical cleanup of the mouth of the Hylebos Waterway under a Unilateral Administrative Order from EPA. In addition, several acres of contaminated sediment will be capped with clean sand, riprap or other suitable cap material mostly along embankment areas.

Thea Foss Waterway. This waterway is approximately 1.5 miles long and is authorized at

-29 feet MLLW to the East 11th Street bridge, at -22 feet MLLW between the bridge and 14th Street, and at -19 feet from 14th Street to the end of the waterway. A portion of the upper end of the waterway, from station 80+00 to 70+00, is in the process of being de-authorized. This waterway is contaminated with PAHs, cadmium, lead, arsenic, copper, bis-2-ethyl-hexyl-phthalate (BEP), and mercury. Various manufacturing facilities, refineries, and marinas operate on or near the waterway. This waterway is scheduled for remedial action cleanup, in the summer of 2003 and is expected to continue into 2006. The City of Tacoma is the main Potentially Responsible Party (PRP) and has taken the lead for cleanup at the mouth of the waterway (north of 70+10). The majority of the PRPs have been identified, though there is a portion of the cleanup that is "orphan share" (i.e., one or more PRPs have been identified as being associated with a quantifiable portion of the cleanup, but that PRP is defunct). EPA and the viable PRPs will share the costs of the required cleanup of the orphan share. The plan calls for dredging 535,000 cubic yards of contaminated sediments and capping some areas with clean material. The sediments will be disposed at either the St. Paul Confined Disposal Facility or at an approved upland landfill.

In addition to work by the City of Tacoma, a separate group of PRPs --"the Utilities" (Puget Sound Energy, PacifiCorps, and Advance Ross Subcompany) -- will implement the remedial action at the head of the waterway or south of 70+00. The cleanup at the head of Thea Foss will consist of capping. In order to implement the cleanup, this portion of the Federal project must be de-authorized (70+00 to 80+00). This process is underway, and legislation is expected in 2003. Once de-authorized, the site will be eligible for EPA superfund cleanup.

Puyallup River. This consists of a sediment control project at the mouth of the Puyallup for the purpose of flood control. No cleanup action is needed for this area.

NON-FEDERAL PROJECTS.

There are four additional project areas that serve navigation interests but are not Federally authorized navigation channels or projects. These areas include the Middle Waterway, St. Paul Waterway, Wheeler-Osgood Waterway, and Sitcom Waterway.

Middle Waterway. This is a small waterway located between the Puyallup River and the Thea Foss Waterway. Various operations, primarily located around the mouth of the waterway, include marine maintenance and painting and metal and wood works. This waterway is scheduled for remedial cleanup action and includes dredging about 86,000 cubic yards of sediment which will be placed in the Blair Waterway Slip 1 Nearshore Confined Disposal facility. The Middle Waterway Action Committee (MWAC), under a separate Consent Decree with EPA, will complete dredging of the Middle Waterway. MWAC consists of Marine Industries Northwest, Foss Maritime, and Pioneer Industries.

St. Paul Waterway. Cleanup of this waterway was completed in 1988. This action consisted of capping 11 acres of marine sediments with clean sand and creating 6 acres of shoreline habitat. This waterway is being considered as a confined disposal facility for the contaminated sediments from Thea Foss Waterway.

Wheeler-Osgood. This is a side waterway to the Thea-Foss Waterway. This waterway is scheduled for remedial cleanup as part of the cleanup of the Thea-Foss Waterway under EPA Superfund authorities. Between the two waterways, 535,000 cubic yards of contaminants will be dredged with some areas covered in clean fill.

Sitcum Waterway. This waterway was cleaned up in 1993-1994 under EPA Superfund authorities as a result of ore shipping operations which had contaminated the site with metals. About 430,000 cubic yards of material were dredged as part of the Sitcum Waterway Remediation Project and used as fill in the Milwaukee Waterway, which is now used for container storage. The Port of Tacoma created about 31 acres of new habitat at two mitigation sites.

OTHER CLEANUP AREAS/REPORTS

Olympic View. Cleanup of this area began in May and was completed in October 2002. About 10,500 cubic yards of sediments contaminated with dioxin, PCBs, PAHs, and heavy metals were dredged.

Other Reports. Prior reports which have been developed pertaining to the contaminated sediment cleanup in the project area consist of: (1) Commencement Bay Programmatic Environmental Impact Statement Draft, (2) Commencement Bay Cumulative Impact Study dated May/June 1993, and (3) Commencement Bay Aquatic Ecosystem Assessment dated May 2000.

5. **ISSUES AND CONCERNS.** This study was authorized via a Congressional addition to the FY 2001 budget without an identified project sponsor. One requirement for a study to proceed to the feasibility stage is the necessity to have a project sponsor cost share the feasibility study. Neither the Port of Tacoma, the City of Tacoma, or any other public entity that qualifies for civil works project sponsorship has stepped forward to sponsor the required feasibility study. Without a project sponsor, a cost-shared feasibility study cannot be initiated.
6. **CORPS OF ENGINEERS INTEREST.** Working in concert with EPA, the intent of this study was to assist in the identification of cleanup sites, evaluation of alternative cleanup actions to include contaminated sediment disposal options, and identification of the Federal (i.e., Corps of Engineers) interest. The WRDA Section 312 authority permits the Corps to cost share in the cleanup of contaminated sediments from CERCLA sites; however, the authority does not preclude the cost responsibilities of any identified PRP. Cost sharing is not implemented until after the identified PRP has paid for their share of the clean up action. For most of the designated cleanup sites in Commencement Bay, PRPs have been identified and will be paying for their cost of the cleanup action. The two areas with the highest potential for utilizing the Corps environmental dredging authority are in the Thea Foss and Hylebos Waterways.

There was some interest at the Thea Foss Waterway in exploring the orphan share portion of the cleanup as a potential Corps cost-shared environmental dredging project. In the Thea Foss, this is approximately 13% of the cleanup costs. The CERCLA cleanup in this area could begin as early as 2003. Corps of Engineers guidance with respect to the orphan share and liability is somewhat unclear. However, the schedule for Corps involvement would extend this date by several years, which is not acceptable to EPA or the PRPs.

In the Hylebos Waterway, it is estimated that after the PRP cleanup projects (including any orphan share) have been completed there will only be 50,000 cubic yards or less of contaminated sediment remaining. Most of this contaminated sediment is buried subsurface sediment located in the Hylebos Waterway within the authorized Federal navigation channel. If the sponsor of the Hylebos navigation project provides a disposal site, much of this material could be cleaned up through maintenance dredging of the channel and berthing areas. This would be the most time- and cost-efficient way to cleanup this remaining sediment.

However, as outlined in Section 5, the Corps cannot proceed with a cost-shared feasibility study and any construction without a project sponsor. The Port of Tacoma and City of Tacoma have declined to serve as or be a project sponsor, and no other applicable public entity has expressed an interest in project sponsorship.

7. RECOMMENDATION. Given the small quantity of sediment remaining to be dredged and/or cleaned up after the PRP portion is completed as mandated by EPA's CERCLA authorities, time limitations to initiate a Corps project, and lack of a non-Federal sponsor, it is recommended that this study be terminated.

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