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EXPLANATION OF SIGNIFICANT DIFFERENCES

I. INTRODUCTION

Site Name and Location:

Sitcum Waterway Problem Area of the Commencement Bay Nearshore/Tideflats Superfund site, Tacoma, Washington. Operable Units 01 and 05--Contaminated Marine Sediments and Sources, respectively.

Lead and Support Agencies:

U.S. Environmental Protection Agency (EPA) - Lead Agency for Sediment Remediation
Washington State Department of Ecology (Ecology) - Lead Agency for Source Control under a Cooperative Agreement
Puyallup Tribe of Indians - Support Agency

Statute that requires Explanation of Significant Differences (ESD):

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Section 117(c) and National Oil and Hazardous Substances Contingency Plan (NCP), Section 300.435(c)(2)(i).

Purpose of ESD:

The purpose of this ESD is to provide information concerning the remedial action to address contaminated sediments in the Sitcum Waterway Problem Area of the Commencement Bay Nearshore/Tideflats (CB/NT or Commencement Bay) Superfund site. This ESD also explains the differences between the remedial action and the cleanup plan described in EPA's September 30, 1989, Record of Decision (ROD) for the CB/NT site.

Sitcum Waterway is one of the eight problem areas designated in the ROD for cleanup of contaminated marine sediments. The CB/NT ROD set cleanup levels and identified four disposal and cleanup options for contaminated sediments: confined aquatic disposal, nearshore disposal, upland disposal, and capping in place. The Port of Tacoma, "the Port", one of the potentially responsible parties for the Sitcum Waterway Problem Area, evaluated each of the four disposal options during the design of the remedial action plan for the Sitcum Waterway Problem Area under an Administrative Order on Consent with EPA issued in March 1991. Based on EPA's review of the Port's evaluation, EPA conditionally approved the nearshore disposal option as a component of the remedial action for the Sitcum Waterway Problem Area. EPA sought public comment on the evaluation process and EPA's conditional approval of the nearshore disposal option from

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December 1, 1992, to January 29, 1993. Once the conditions of the approval (that are further explained in this ESD) have been met, the Port may start the remedial action.

EPA is approving the option of disposing of Sitcum Waterway sediments in a nearshore fill as a component of the remedial action for the Sitcum Waterway Problem Area. The remedial action is consistent with the remedy selected in the ROD, but includes some differences from the selected remedy as it was originally specified. This ESD describes the differences from the ROD including the approval of a specific remedial action, consistent with the options provided in the ROD. It also describes the resulting refinement of project costs and volume of affected sediments.

The most significant difference from the ROD projections results from EPA's decision to combine remediation of Sitcum contaminated sediments with a larger Port development project. The resulting project is called the "Sitcum Waterway Remediation Project." It combines activities in three waterways: Sitcum, Blair, and Milwaukee. Sitcum activities include dredging of contaminated sediments and dredging sediments for long term navigational purposes and other considerations. Activities in Blair Waterway include dredging of sediments for navigational purposes and for berthing purposes at properties covered by land transfer obligations to the Puyallup Indian Tribe, as specified in the Puyallup Settlement Agreement. The Sitcum Waterway sediments and designated Blair Waterway sediments will be disposed in a nearshore confined disposal fill located in the Milwaukee Waterway, and constructed to be protective of human health and the environment. The Port will use the surface of the Milwaukee fill to expand a marine terminal facility. Combining the remediation of Sitcum sediments with the Port's development projects in the Milwaukee and Blair Waterways results in an overall change in project scope that significantly increases the cost of remediation and the volume of sediments involved. However, the incremental costs of confining the contaminated Sitcum sediments remain consistent with the original cost estimates of the ROD.

Administrative Record:

This ESD will become part of the Administrative Record for the CB/NT Superfund site, which is available to the public at the following two locations:

U.S. Environmental Protection Agency
1200 6th Avenue, Records Center (7th floor)
Seattle, Washington 98101

Tacoma Public Library

Northwest Room
1102 Tacoma Avenue
Tacoma, Washington 98402

II. BACKGROUND

A. Commencement Bay Nearshore/Tideflats Superfund Site

In 1983, EPA placed the CB/NT site on the National Priorities List (NPL) of sites requiring investigation and cleanup under EPA's Superfund Program. The site is located at the southern basin of Puget Sound and in the City of Tacoma, Washington.

The Commencement Bay site has been divided into smaller project activities, called operable units (OU), in order to more effectively manage the overall cleanup of the site. In a September 30, 1989, ROD, EPA designated two operable units for the cleanup of Commencement Bay: source control (OU 5), which focuses on efforts to control upland discharges or releases to the Bay, and sediment remediation (OU 1), which addresses the cleanup of the contaminated sediments in Commencement Bay. Ecology is the lead agency for source control and EPA is the lead agency for sediment remediation.

The ROD identified eight problem areas, including Sitcum Waterway, in Commencement Bay that require sediment remediation. The ROD describes a sediment remediation process which generally includes a combination of natural recovery and active sediment cleanup. For those areas in which natural recovery is not expected to sufficiently reduce contaminant concentrations within ten years from the time source control measures are implemented, the ROD provides for confining and isolating the contaminated sediments by using one of the four disposal options: in-place capping, dredging and confined aquatic disposal, dredging and nearshore disposal, or dredging and upland disposal. The ROD anticipated that the specific confinement approach would be identified during Remedial Design for each sediment problem area cleanup, when more site-specific information would be available to refine the remedial decision.

The cleanup goal for the Commencement Bay problem areas is reduction of biological effects associated with contaminated sediment concentrations to levels that will support a healthy marine environment and will reduce the human health risk of eating contaminated seafood from the Bay. The ROD designated biological test requirements and associated sediment chemical concentrations referred to as Sediment Quality Objectives (SQOs) in order to achieve this goal. The goal is established to allow a diverse range of uses in the bay including industrial, commercial, navigation, fisheries, and recreation. EPA also is

seeking to improve the quality of the environment by coordinating with the federal, state, and tribal Natural Resource Trustees so that they may participate in the remediation in order to attain their natural resource restoration goals. EPA also seeks to minimize the loss of natural habitat solely for the purpose of remediation by expressing in the ROD a general preference that the nearshore disposal option be used in conjunction with fill projects that would otherwise be permittable under Section 404 of the Clean Water Act (described in more detail below).

B. Sitcum Waterway Problem Area

The Sitcum Waterway is located between the Blair Waterway to the northeast and the Milwaukee Waterway to the southwest. It is a deep navigational waterway, created by dredging and filling native mudflats since 1910. The navigational channel is approximately 3000 feet long and 750 feet wide from bank to bank.

The Port of Tacoma owns the land adjacent to the waterway and the sediment in the waterway. However, some land near the mouth of Sitcum is owned by the State of Washington, and managed by the Department of Natural Resources. The south shore is used as a marine terminal facility by Sea-Land, a Port tenant. Terminal 7 occupies the northeastern waterfront, with facilities for container handling and bulk unloading of alumina. Historically, lead, copper, and zinc ores were handled as well. Other properties associated with Sitcum sediment contamination are connected to the Sitcum Waterway by a large storm drain, called SI-171, that discharges runoff from an industrial and commercial area covering approximately 170 acres into the waterway.

The Sitcum Waterway sediments are contaminated with arsenic, cadmium, copper, lead, nickel, zinc, and polyaromatic hydrocarbons above the SQOs identified in the ROD. In general, the highest concentrations of these contaminants are found near the SI-171 storm drain in the southeastern corner, and near Terminal 7 on the northeastern embankment. The ROD estimated that approximately 167,000 cubic yards of sediment in the Sitcum waterway exceed SQOs for arsenic and copper.

The Washington State Department of Ecology (Ecology), as the lead agency for conducting source control activities at the CB/NT Site, investigates and enforces source control activities at the Sitcum Waterway. Ecology identified ongoing sources through a combination of site inspections and sampling. The major sources most directly linked with sediment impacts in Sitcum Waterway are the Port of Tacoma Terminal 7 ore off-loading facility and the City of Tacoma Storm Drain SI-172. These major sources have been addressed with administrative actions, including cessation of black ore off-loading at Terminal 7 and removal of sediment from

Storm Drain SI-172. The completion of this work concludes an important step in source control action and in implementing the remedial action for the Sitcum Waterway.

Prior to EPA's issuance of the ROD, the Port had proposed a dredge and fill development project for the Blair Waterway and the Milwaukee Waterway, two waterways within the boundaries of the CB/NT Superfund Site, but not identified as sediment problem areas in the CB/NT ROD. The Port proposed to dredge the Blair Waterway, with disposal of the dredged material in a nearshore fill in the Milwaukee Waterway. In addition to Port development objectives, the proposed dredge and fill project would fulfill certain Port obligations under the 1988 Puyallup Land Settlement Agreement. On May 29, 1990, after issuance of the ROD, EPA requested the Port to evaluate also disposing of the contaminated Sitcum sediments in the nearshore fill that would be created in the Milwaukee Waterway. Because of the limited availability of candidate sites for sediment disposal within Commencement Bay, the ROD anticipated the potential need to take advantage of such opportunities.

In response to EPA's request, the Port proposed conducting the remedial action for the Sitcum sediments in two phases: remedial action for channel sediments, including sediments dredged for navigational purposes and other purposes (Phase 1), and remedial action for peripheral sediments not addressed under Phase 1 (Phase 2).

See figure 1 for the map that delineates Phase 1 channel sediments and Phase 2 peripheral sediments. Description of the Phase 1 and Phase 2 areas follows:

> Phase 1 area is the bottom sediment of Sitcum Waterway, limited on three sides by the existing rip rap at the toe of the banks and at the mouth of the waterway where the existing channnel bottom drops off to the deeper portions of the Bay. Also included in Phase 1 are the slopes which have no rip rap and are located bayward of the existing Sea Land Pier and the northwestern rail trestle leading to Pier 7.
>
> Phase 2 area is the rip rap covered existing slopes, both exposed and under pier. The slopes are from the bay end of the Sea Land pier to and including the head of the waterway, and all slopes under Pier 7 including those surrounded by the rail trestles at each end of the pier.

III. SUMMARY OF WORK COMPLETED DURING REMEDIAL DESIGN

A. The Administrative Order on Consent

On March 29, 1991 an Administrative Order on Consent ("the Order") was signed by EPA and the Port of Tacoma. Under the Order, remedial design for Phase 1 addressed plans for dredging and disposing of the Sitcum channel sediments, including: 1) sampling to determine the extent of sediments subject to remediation and to evaluate the ROD disposal options, 2) evaluating the ROD disposal options with an emphasis on the evaluation of the Port's proposed Milwaukee Waterway fill project as the preferred nearshore disposal option for the contaminated Sitcum sediments, 3) sampling the Sitcum, Blair, and Milwaukee Waterways to support a natural resource damage assessment (NRDA), and 4) designing dredge plans and confinement structure for disposal of contaminated sediments dredged from the Sitcum channel area.

Remedial design for Phase 2 under the AOC was limited to pre-remedial design activities, including 1) characterizing sediments around the periphery of the Sitcum Waterway not addressed under Phase 1, 2) determining the need for remediation, 3) performing a preliminary evaluation of ROD disposal options, and 4) completing NRDA sampling and analysis.

B. Evaluation of ROD Disposal Options

Working under the requirements of the Order, the Port prepared a report entitled, "Sitcum Waterway Remediation Project, Phase 1 Pre-Remedial Design Evaluation and Phase 2 Preliminary Evaluation of Remedial Options Report, Port of Tacoma, Washington", Volumes 1, 2, and 3, September 30, 1992 (Evaluation Report). In the Evaluation Report, each disposal option was analyzed for consistency with the ROD and for compliance with environmental requirements under federal, state, and tribal laws. The evaluation of the Milwaukee Waterway nearshore fill option also included plans to provide habitat mitigation measures to compensate for the adverse environmental impacts of the project, which is necessary to meet the standards of Section 404 of the Clean Water Act.

Based on the Evaluation Report, EPA concluded that in-place capping and natural recovery were not viable options for the Phase 1 area sediments of the Sitcum Waterway remediation because of the Port's long-term navigational needs as an active port. Although the Evaluation Report showed that confined aquatic disposal and upland disposal were potentially viable options, EPA concluded that the nearshore disposal option in conjunction with the Port's development project was the preferred approach for the Phase 1 area sediments for the following reasons:

* Ongoing sources of contamination to Sitcum have been adequately controlled; recontamination of the sediments after cleanup is not expected to occur.

* SQOs for the Sitcum Waterway will be achieved.

* The disposal site will be constructed in a manner that meets EPA requirements and is protective of human health and the environment.

* Disposal of the Sitcum contaminated sediments in the Milwaukee Waterway nearshore disposal takes advantage of disposal capacity in a commercial development project, thus addressing the limited availability of disposal sites and using an on-going development project.

* By dredging the Blair Waterway, including certain berth areas, and by disposing of the Mud Lake sediments, (dredged from the Blair and stored temporarily pending final disposal) several key elements of the Puyallup Tribe of Indians Settlement Act of 1989 are met.

* The Port will perform the work on an expedited time frame.

* Adverse environmental impacts on existing habitat will be be compensated with mitigation projects that are based on the most recent EPA and resource agency policies.

* Based on the information provided in the Evaluation Report, the approved remedial action plan is the most cost effective alternative.

EPA also concluded that the sediment above the riprapped slopes in the Phase 2 area would be removed during the Phase 1 remediation in order to minimize the potential for recontamination from resuspension or sloughing of Phase 2 area sediments into Phase 1 area sediments. Should post-construction sampling monitoring indicate that sediments in the Phase 2 area which were not removed by hydraulic dredging have chemical concentrations above SQOs, additional response actions would then need to be considered.

EPA sought public comment on the evaluation process and the conditional approval of the nearshore disposal option from December 1, 1992 to January 29, 1993. The approval was conditioned upon consideration of public comment, determination of compliance with the Clean Water Act, approval of Remedial Design plans, and successful negotiation of a consent decree for remedial action. After the close of the public comment period, EPA and the Port proceeded with steps to complete these outstanding conditions since the public comment generally supported the proposed nearshore disposal option. These steps are described in the following sections.

C. Determination of compliance with the substantive requirements of the Clean Water Act (CWA)

The U. S. Army Corps of Engineers (COE) typically conducts the review of a permit application for a proposed commercial nearshore fill project for authorization under Section 404 of the CWA. The review evaluates whether the project, as proposed or further modified by the applicant, meets the standards of the 404(b)(1) Guidelines which have been developed by EPA and the COE. If so, the Corps may issue a permit.

For the Sitcum Waterway Remediation Project, however, EPA has the authority to determine whether the project complies with the requirements of the 404(b)(1) guidelines. Under Section 121(e) of CERCLA, no permit is required for a remedial action that is conducted entirely onsite where the action is selected and carried out by EPA in accordance with CERCLA. EPA may select an action if it meets the substantive requirements of all applicable relevant and appropriate requirements (ARARs) that were identified in the ROD. The ROD for the CB/NT site identified Section 10 of the Rivers and Harbors Act, Sections 401 and 404 of the CWA, and EPA's Section 404 (b)(1) guidelines (40 CFR Part 230) as ARARs. EPA, in consultation with the COE, the State of Washington, and the Natural Resource Trustees, has made the determination that this project complies with the substantive requirements for authorizing an action under 404 of the CWA.

EPA prepared a Section 404(b)(1) Evaluation for the Sitcum Waterway Remediation Project for evaluating potential discharges of the dredged or fill material. Extensive engineering and environmental information was provided to EPA and the conditions for compliance were specifically reviewed and documented. The project selected and approved by EPA, including provision of mitigation of unavoidable environmental resource losses, monitoring and contingency plan, was found to be the least environmentally-damaging practicable alternative. The project is considered to be the most practicable in terms of logistics, technology, and costs, and its implementation is expected to have only minor, short-term effects and provide substantial long-term positive effects on the Commencement Bay aquatic system. The discharge activities are not expected to significantly impact water quality. A Section 401 water quality certification was prepared and is attached to the 404(b)(1) evaluation. The discharge and fill activities associated with this project are in compliance with all pertinent legislation, including the Endangered Species Act, Coastal Zone Management Act, and Marine Protection, Research, and Sanctuaries Act. Through project design, proposed mitigation, monitoring and contingency planning, all appropriate and practicable measures to minimize potential adverse discharge effects were included in the proposed project. Accordingly, EPA found the proposed discharges and fill associated with the Sitcum Waterway Remediation project to comply

with the substantive requirements and guidelines of Section 404(b)(1). This evaluation is included as part of the administrative record for the Sitcum Waterway Remediation project.

D. Proposed Consent Decree for Remedial Action

EPA and the Natural Resource Trustees have completed negotiations with the Port for the remedial action and natural resource damage aspects of the Sitcum Waterway Problem Area. The remedial action combines the remediation of the Sitcum sediments with the planned Milwaukee Waterway nearshore fill development project. The Consent Decree defines this project as the "Sitcum Waterway Remediation Project." The Port also settles its potential liability under CERCLA for natural resource damages by making cash payments over time for use in natural resource restoration projects by the federal, state, and tribal Natural Resource Trustees. The Natural Resource Trustees joining this settlement include the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce, the Fish and Wildlife Service of the U.S. Department of the Interior, the Washington Department of Ecology (on behalf of the Washington Department of Fisheries, the Washington Department of Natural Resources, and the Washington Department of Wildlife), the Puyallup Tribe of Indians, and the Muckleshoot Indian Tribe.

After the Consent Decree is approved by the governments, it will be lodged with the federal court and made available for public comment. The Consent Decree requires the Port to: (1) implement the remedial action, including attainment of SQOs in the Phase 1 and Phase 2 sediment areas, (2) implement mitigation measures to compensate for the environmental impacts from the nearshore fill project, as discussed in this ESD, (3) compensate the Natural Resource Trustees for natural resource damages to Commencement Bay, and (4) reimburse past and future response and assessment costs incurred by EPA and the Natural Resource Trustees.

E. Approval of the Sitcum Waterway Remediation Project

Based on the information collected during the Remedial Design, EPA has determined that the Sitcum Waterway Remediation Project can meet SQOs set forth in the ROD and is protective of human health and the environment. Final project approval remains dependent on approval of the remedial design plans to be submitted under the Administrative Order on Consent. The remedial design plans approved by EPA will be implemented by the Port under the terms of the Consent Decree following public comment and entry in federal court. The plans for conducting the remedial action are summarized below.

1. Approximately 428,000 cubic yards of Sitcum sediments will be dredged and disposed of in a designed nearshore confinement facility located in the Milwaukee Waterway. This volume includes approximately 396,000 cubic yards of mostly channel sediments in the Phase one area, and 32,300 cubic yards of mostly side slope sediments in the Phase 2 Area. The remedial action will remove as much sediment as technically possible above the riprap in the Phase 2 area without causing damage to the pier structures. Any remaining sediment in the Phase 2 area contaminated at levels above EPA's SQOs will be evaluated and may be subject to further action under the Consent Decree.

2. Approximately 2.1 million cubic yards of sediment will be dredged from the Blair waterway. This volume estimate includes: (1) 866,600 cubic yards of Blair sediments that are referred to as "contaminated" because they contain levels of chemicals which exceed the Puget Sound Dredge Disposal Analysis (PSDDA) screening levels (SL) , (2) 32,500 cubic yards of previously dredged Blair sediment, referred to as Mud Lake sediment that are currently stored on property along the Blair Waterway that is owned by the Port, and (3) 1,225,400 cubic yards of Blair sediment that are referred to as "clean" because they contain levels of contaminants below the SLs and would be suitable for open water disposal under PSDDA. Under a separate permit to be issued by the COE, the other "clean" sediments from the head of Blair Waterway will be dredged and disposed of at the Commencement Bay PSDDA open water disposal site.

3. The nearshore facility that will fill approximately 72 percent of the Milwaukee Waterway will be constructed as follows: First, a "closure berm" will be constructed across the Milwaukee Waterway to form an outer structure of the containment area. The closure berm will be constructed with clean Blair sediments. Contaminated sediments from the Sitcum Waterway and the Blair Waterway will then be placed behind the berm at the bottom of the Milwaukee Waterway in order to keep the sediments saturated, which will minimize potential mobility of contaminants. Clean Blair Waterway sediments will be used to cap the contaminated sediments. The cap will have an average thickness of seven feet. The final surface will be created by adding an additional three feet of clean material that will provide for site drainage and surface pavement.

4. The approved project provides for several types of habitat mitigation measures at two locations to compensate for environmental impacts of the dredge and fill activities.

a. Approximately nine acres of intertidal habitat (area exposed at low tide) will be constructed in front of the closure berm in the Milwaukee Waterway in Mitigation Area One. (See Figure 2.) This mitigation area will include approximately

one acre of saltmarsh. Grasses, shrubs and trees will be planted around the edge of the Milwaukee Waterway.

b. Approximately 11 acres of intertidal habitat and one acre of shallow subtidal (areas always covered by water) habitat will connect the existing sandflats at and beyond the mouth of the Milwaukee Waterway, as shown in Mitigation Area Two. Clean Blair sediment and clean imported fill materials will be used to construct both mitigation areas.

c. An additional mitigation area of approximately nine and one half acres of restored habitat (six of which must be wetted) will be created at an off-site location to provide refuge habitat for use by salmon and other fish from the Puyallup River. The design and construction of the additional mitigation area will be conducted in accordance with the schedule of the Consent Decree.

5. EPA will ensure that the remedial action is done in a protective manner by using best engineering controls, and monitoring the construction and post construction activities to ensure the design requirements and performance standards are met. EPA approval of these measures will occur as EPA completes review of the Port's Remedial Design plans. The Port, with EPA oversight, will be responsible for long-term monitoring and maintenance of the fill site and mitigation areas in order to ensure that the project continues to meet the performance standards established by EPA. The long-term monitoring and maintenance plans also specify a number of corrective actions to be taken by the Port in the event that long term performance standards are exceeded.

IV. DESCRIPTION OF AND BASIS FOR THE SIGNIFICANT DIFFERENCES

A. Change in Project Scope

The Port had planned a commercial development project in the Milwaukee Waterway, a non-problem area next to Sitcum, surrounded by the Sea-Land terminal. The Port's agreement with Sea-Land includes expanding the size of the existing container storage facility by creating a nearshore fill in the Milwaukee Waterway. The Port planned to dredge the Blair Waterway for navigational needs and to fulfill certain requirements of the Puyallup Land Settlement Act. Blair sediments exceeding PSDDA standards would be disposed in the Milwaukee Waterway fill.

The CB/NT ROD identified four disposal and cleanup options for contaminated sediments: confined aquatic disposal, nearshore disposal, upland disposal, and capping in place. The Port evaluated each of the four disposal options as part of designing

the remedial action plan for the Sitcum Waterway Problem Area under an Administrative Order on Consent with EPA issued in March 1991. Based on EPA's review and public comment on the Port's evaluation, EPA has entered into a proposed Consent Decree with the Port of Tacoma that requires disposing of the Sitcum Waterway sediments in the Milwaukee Waterway nearshore fill as a component of the remedial action for the Sitcum Waterway Problem area. While the nearshore disposal is one of the four identified ROD disposal options, incorporating a development project into the remediation has resulted in a significant difference in the overall scope of the remediation.

B. Change in Volume

The ROD estimated that 167,000 cubic yards of Sitcum sediment exceeded SQOs. Of that volume, the ROD estimated that 66,000 cubic yards would be subject to active remediation because SQOs would not be attained within ten years through natural recovery. In the Evaluation Report, the Port estimated that the volume of sediment in the Sitcum Waterway that will be dredged as part of the Sitcum Waterway Remediation Project is approximately 428,000 cubic yards.

EPA finds there is a significant difference in volume of contaminated sediments to be actively remediated than was estimated in the ROD, but that the remedial approach is consistent with the remedy selected in the ROD. Since EPA agreed to incorporate the Port's long-term navigational and maintenance needs for the entire Sitcum Waterway into the Sitcum Waterway Remediation Project, estimates of the volume of sediments that could naturally recover in the ten-year timeframe were not developed. The primary consideration was the area and depth of sediments which exceeded SQOs, which have been identified as performance standards for the project. Other considerations included the potential for recontamination from resuspension or sloughing of Phase 2 area sediments into the Phase 1 area, potential damage to the piers and buildings from dredging the sideslopes in the Phase 2 area, and long-term navigational needs of the waterway. The resulting plan includes dredging two feet below elevations that contain sediments exceeding SQOs in order to assure attainment of performance standards. Based on this plan, the waterway will be deepened by a approximately seven feet and approximately 428,000 cubic yards of sediment will be dredged from the Sitcum Waterway.

Although not part of the cleanup required under the ROD, approximately 2.1 million cubic yards of sediment will be dredged from the Blair waterway to meet Port navigational needs. Some of these sediments require confinement due to levels of contamination exceeding PSDDA standards. The remaining sediment not requiring confinement will be used in the construction of the

fill and the mitigation areas, or will be disposed of off-site under a separate permit.

C. Change in cost

The ROD estimated the cleanup of the Sitcum Waterway problem area at $3,502,000 using a nearshore confinement facility as a disposal site for 167,00 cubic yards of sediments. In the Evaluation Report, the Port estimated the total cost of the Sitcum Waterway Remediation Project is $22,701,033. Of that total cost, the Port estimates that the costs of dredging and disposing of the 428,000 cubic yards of sediments from the Sitcum Waterway Problem Area is $3,978,235.

EPA finds the total estimated cost of the approved remedial project is a significant difference from the cost estimates in ROD for remediating sediments in the Sitcum Waterway. However, the significant changes in cost is attributable to the broader scope of the Sitcum Waterway Remediation Project, and includes the Port's costs of development projects that were not considered in the cost estimates of the ROD. When considering only the portion of the total costs that are attributable to the Sitcum Waterway cleanup, EPA finds that the costs of this remedial action are consistent with the cost estimates of the ROD.

V. SUPPORT AGENCIES' COMMENTS

Ecology and the Puyallup Tribe of Indians concur with this ESD.

VI. AFFIRMATION OF THE STATUTORY DETERMINATION

Considering the new information that has been developed and the differences between the approved remedial action plan and the remedy selected in the ROD, EPA, Ecology, and the Puyallup Tribe believe that the remedy selected in the ROD and approved by EPA as the Sitcum Waterway Remediation Project is protective of human health and the environment, complies with Federal, State and tribal requirements that are applicable or relevant and appropriate to this remedial action, is cost-effective, and otherwise meets the standards of Section 121 of CERCLA.

VII. PUBLIC PARTICIPATION ACTIVITIES

This ESD, supporting information, and EPA's response to any comments from the public will be added to the CB/NT administrative record. For additional information regarding this ESD, please contact the Superfund Site Manager for the Sitcum Waterway problem area:

Margaret Justus
U.S. Environmental Protection Agency
1200 6th Avenue, HW-113
Seattle, Washington 98101
(206) 553-2138
Toll-Free 1-800-424-4372

Approved by:

Randall F. Smith 6/24/93

Randall F. Smith, Director, Date
Hazardous Waste Division

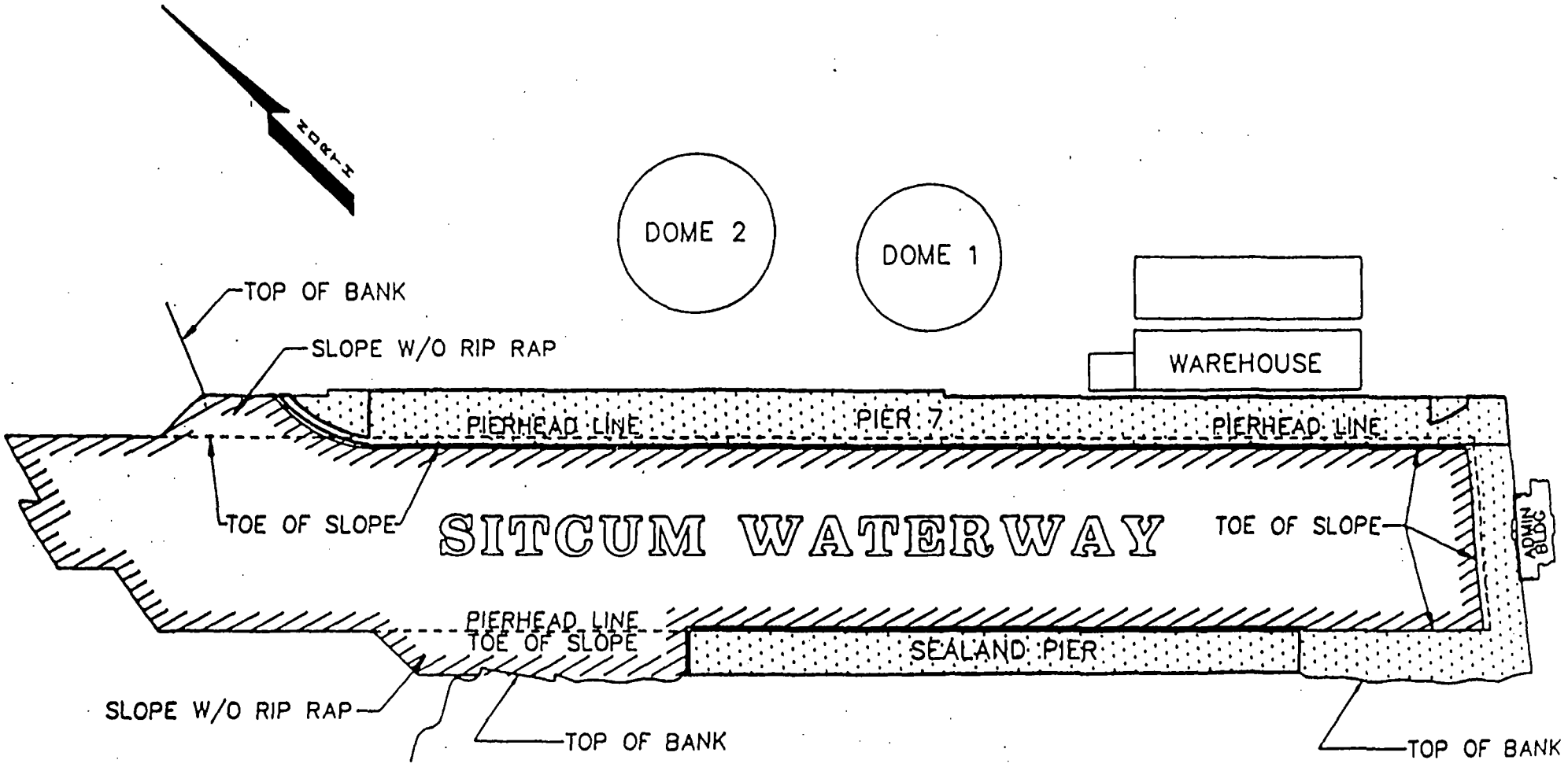

FIGURE 1

SCALE: 1" = 400'

NOTE: ALL PHASE 2 AREA IS SLOPE WITH RIP RAP

PHASE 1

PHASE 2

SITDREDG.DWG (WATERW/

Puyallup Tribe of Indians

May 27, 1993

Peggy Justus
Site Manager Superfund Branch
U.S. E.P.A. Region 10, HW-113
1200 - Sixth Avenue
Seattle, Washington 98101

Re: Puyallup Tribe's Appraisal of the Explanation of Significant Differences, Sitcum Waterway Program Area

Dear Peggy;

With this letter the Puyallup Tribe of Indians approves the above mentioned document. The Puyallup Tribe looks forward to the cleanup of the Sitcum Waterway problem area and the construction of two habitat mitigation projects to compensate for the filling of the Milwaukee Waterway.

On behalf of the Puyallup Tribe, I would like to express my appreciation to you, Rich McAllister and staff for a job well done. We look forward to working with you in implementing this remedial action. Thank you.

Sincerely,

Bill Sullivan
Director Environmental Programs

cc: Tribal Council
file

2002 East 29th Street • Tacoma, Washington 98404 • 206/597-6200

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
P.O. BOX 47600 • Olympia, Washington 98504-7600 • (206) 459-6000

June 7, 1993

RECEIVED
JUN 14 1993
SUPERFUND REMEDIAL BRANCH

Margaret Justus
Project Manager
US EPA Region X
1200 Sixth Avenue
Seattle WA 98101

Dear Peggy:

This letter is in reference to the EPA explanation of significant differences to the Record of Decision concerning the Sitcum problem area of Commencement Bay.

I have reviewed EPA's explanation of significant differences for the Sitcum remediation project in Commencement Bay and the Department concurs with the proposed project and the changes to the ROD. We will be signing an agreement on Consent shortly which will outline the mutual responsibilities of the Port, Trustees, and EPA in implementing this project. I have enclosed some suggestions on making the ESD letter clearer, however these comments do not suggest substantive changes to the document, nor qualify our concurrence.

An issue to be aware of related to the dredging is the recent oil spill in Blair Waterway. Clean sediments and the habitat mitigation sediments will be obtained from material below the historical contamination or from native sediments. I would like to make sure no contamination from the spill gets into these clean sediments. We (trustees) expect that the Port will make sure this is the case.

Thank you for providing me this opportunity to comment.

Sincerely,

Fred Gardner
Toxics Cleanup Program

FG:ll
Enclosure