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FISH PRO

Engineering and
Environmental Consultants

LINCOLN DITCH
404(b)(1)
Alternatives Analysis

1000296

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Appendices

Appendix A - Agency Correspondence and Project Documentation
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EXECUTIVE SUMMARY

At the request of the Puyallup Tribe, FishPro, Inc. evaluated alternatives identified for the development of the Blair Waterway Property as a marine terminal container loading facility. FishPro analyzed two bridging options, a partial fill option, and a restoration option, in addition to evaluating the filling of Lincoln Avenue Ditch as proposed by the Puyallup Tribe of Indians. This evaluation was conducted in compliance with the U. S. Environmental Protection Agency's (EPA) Section 404(b)(1) Guidelines, 40 C.F.R. Part 230 and the Section 404(b)(1) evaluation outline referenced in the February 16, 1993 letter from EPA's Assistant Regional Counsel to the Puyallup Tribe. In addition, this alternatives analysis incorporates the sequential evaluation of avoidance, minimization, and mitigation required by reviewing agencies.

Based on this analysis, there is no practicable alternative to filling the Lincoln Avenue Ditch which fulfills the project's water dependent purpose with less impact to the aquatic environment. Filling the Ditch as proposed by the Puyallup Tribe complies with the requirements of 40 C.F.R. Part 230.

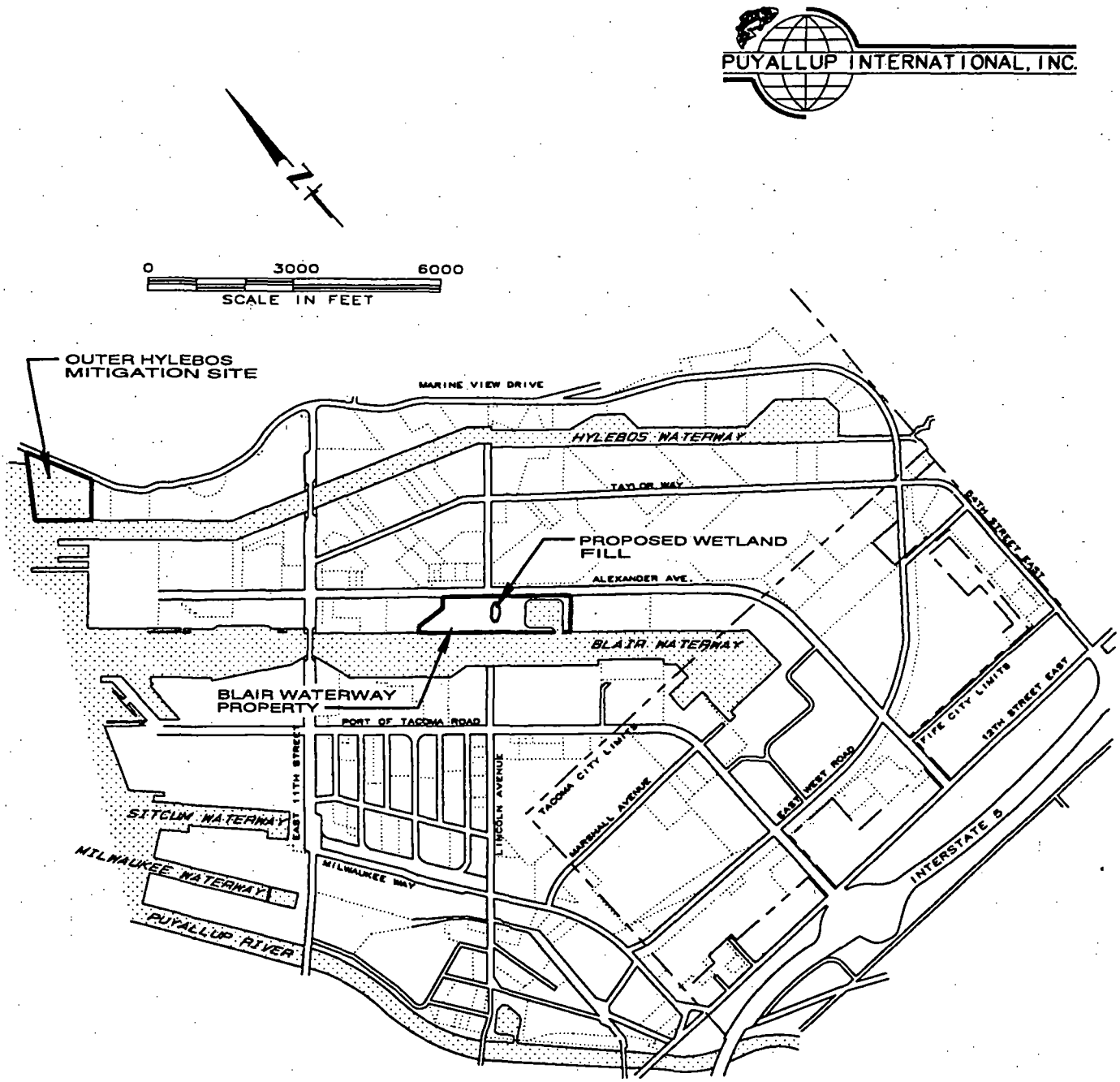
SECTION 1.0
INTRODUCTION

The Blair Waterway Property (Property) is located on the north side of the Blair Waterway, in an area known as the Commencement Bay Tideflats (Figure 1). The Property is a 43.4 acre parcel of land located between Alexander Avenue and the Blair Waterway, which is comprised of approximately 3,000 feet of shoreline (Landau Associates, Inc. 1992a). The Lincoln Avenue Ditch (Ditch) bisects the Property as it drains into the Blair Waterway. The Ditch was formed on fill material and can be characterized as a tidally influenced drainage Ditch and artificial channel. Lincoln Ditch was constructed by the Port of Tacoma and dedicated to the City of Tacoma prior to the early 1950s (K. Gerhardt, City of Tacoma Assistant City Attorney, letter to D. Phinney, Washington Department of Fisheries, 10/20/92). The Ditch formed part of the City of Tacoma's Lincoln Avenue drainage system. However, the tidegate on the culvert which acts as a water conduit system between the Waterway and the Ditch has not remained functional, thereby allowing for tidal influence in Lincoln Ditch.

The City of Tacoma is currently planning to install a buried storm sewer for Lincoln Avenue drainage (Refer to correspondences in Appendix A). The open Ditch will subsequently be abandoned as a part of the current storm water conduit system. The new storm sewer will be comprised of one 48 inch culvert located approximately fifty feet southeast of, and parallel to, the existing Ditch. The City of Tacoma has obtained U. S. Army Corps of Engineers, Shoreline Management Act and Hydraulics Projects Approval permits, conditional upon mitigation, for the proposed action (Landau Associates, Inc. 1993). This installation will occur regardless of the results of this analysis. Impacts related to the City's new stormwater system will not be analyzed as part of this document.

The Blair Waterway Property is one of six parcels of property to be transferred to the Puyallup Indian Tribe by the Port of Tacoma pursuant to the Federal Puyallup Land Claim Settlement Act (25 U.S.C. § 1773). The Property is to be transferred under the Federal Puyallup Land Claim Settlement Act for the specific purpose of providing the Tribe with a water dependent commercial and industrial port development project as part of the Puyallup Reservation (Du Bey 1993).

A deep draft container terminal is the preferred long-term development option for the Property. The proposed development action requires filling the Ditch, which is a 0.80 acre intertidal wetland. The water dependent use of the site will be compromised if the Lincoln Ditch is not filled because a commercially viable deep draft port facility requires a specific amount of continuous linear waterfront and contiguous container mobilization and loading area. The proposed activity involves a discharge into the waters of the United States, in an area which has been designated as a special aquatic site. Alternatives to the proposal are evaluated in this document to allow objective review of the wetlands loss and proposed mitigation. This proposal compensates for the fill of the wetland with enhancement and restoration of wetland habitat at the Outer Hylebos site, adjacent to Commencement Bay. This site is within approximately two miles of the Blair Waterway Property, and is within the same watershed (Figure 1). The outline used by the U. S. Environmental Protection Agency



PUYALLUP INTERNATIONAL, INC.

VICINITY MAP

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PORT ORCHARD, WASHINGTON

FIGURE 1

to evaluate Section 404(b)(1) compliance does not include a section for discussion of mitigation options. The Lincoln Ditch Mitigation Plan will be submitted for agency review as a separate document.

SECTION 2.0
DESCRIPTION OF PROPOSED DISCHARGE

The identification of proposed project purposes is important when examining whether an alternative is practicable. Cost, existing technology and logistic factors are central to the concept of practicability. In addition, it is considered implicit that, to be practicable, an alternative must be capable of achieving the basic purpose of the proposed activity (Federal Register 1980). In the case of the Blair Waterway Property, the project purpose is twofold, and includes environmental cleanup and commercial development as a deep draft container loading facility.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Clean-up

The Blair Waterway Property and the Lincoln Avenue Ditch have been impacted over time by releases of industrial contamination, and the Ditch currently contains high levels of metals (Landau Associates, Inc. 1992a). The Property is located within the boundary of the Commencement Bay Nearshore/Tideflats Superfund Site. The Port of Tacoma is undertaking the cleanup of the Blair Waterway Property as part of its obligations under the Settlement Act, the Settlement Agreement and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). On March 9, 1993, the Environmental Protection Agency (EPA) issued an Administrative Order on Consent (AOC) directing the Port to clean up the Blair Waterway Property. As part of the Memorandum of Agreement between the U. S. Environmental Protection Agency (EPA), the Washington State Department of Ecology (Ecology), the Puyallup Tribe of Indians, and the Port of Tacoma, comprehensive environmental studies were conducted at the Blair Waterway Property (Landau Associates, Inc. 1992b). A number of cleanup alternatives were developed by the Port for the Property as part of these studies. Alternatives were presented which were designed to be consistent with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) process and the Puyallup Settlement Agreement. The cleanup alternatives identified for the Lincoln Ditch are summarized below (Landau Associates, Inc. 1992b):

Alternative 1 - This alternative involves limited action. The stormwater supply and discharge culverts would be plugged, a fence constructed around the Ditch and institutional controls would be implemented. Institutional controls are required at sites where cleanup levels are developed based on site uses other than residential use for soil, and drinking water use for groundwater. Institutional controls should, where appropriate, prohibit use of near-surface groundwater for drinking water purposes, include health and safety requirements for future intrusive construction activities, identify appropriate handling procedures for any generated material, and provide notification of conditions to current and future property owners (Landau Associates, Inc. 1992b).

Alternative 2 - Under Alternative 2, a two foot layer of clean soil would be deposited above the contaminated sediment in the Ditch. Institutional controls, similar to those described above, would also be required.

Alternative 3 - Alternative 3 consists of excavating the contaminated soil from the Ditch and temporarily storing it on-site. Contaminated sediments would subsequently be consolidated off-site with other material and disposed in conjunction with the Milwaukee Waterway Fill Project.

Alternative 4 - Within this alternative, the Ditch would be filled to grade with clean soil. Some institutional controls would be required. The institutional controls will prevent future use of shallow groundwater as drinking water supply and will minimize human health exposure by restricting future use of the Property to industrial activities (Landau Associates, Inc. 1993).

Alternative 5 - Alternative 5 is similar to Alternative 3, in which contaminated sediment would be excavated, temporarily stored on-site and disposed of as fill. The major difference with Alternative 5, however, is that the sediment would be consolidated with existing slag while in storage.

Alternative 6 - Under Alternative 6, contaminated soils would be excavated and disposed of at a hazardous waste landfill.

These alternatives (Landau Associates, Inc. 1992b) were evaluated for their effectiveness in protecting human health and the environment, compliance with Applicable, Relevant and Appropriate Requirements (ARAR's), long-term effectiveness, implementability, estimated construction cost, compatibility with development, and long-term monitoring and institutional control requirements. The alternatives were made available for public review and comment from November 23, 1992 through December 23, 1992. A Responsiveness Summary was prepared by EPA in response to public comments. Upon evaluation of alternatives by EPA, Ecology and the Tribe, Alternative 4 was recommended as the preferred action for cleanup of the Lincoln Ditch (Landau Associates, Inc. 1993). This action will effectively isolate contaminated sediment, providing a permanent solution to protect the downstream ecosystem from future releases of hazardous substances from the Ditch. Pursuant to the March 9, 1993 EPA Administrative Order on Consent (AOC) for cleanup of the Property, Alternative 4 was generally adopted. However, the AOC provides that filling the Ditch as described in Section 2.4 and 4.0 of the Blair Water Cleanup Plan is not authorized until EPA amends the order after determining that such action is consistent with the 404 Guidelines, 40 C.F.R. Part 230. This document evaluates options relating to development of the Property under these Guidelines.

The Puyallup Tribe of Indians will provide mitigation to offset the loss of habitat associated with filling the 0.80 acre wetland. A mitigation plan developed by the Tribe and approved by resource agencies will be implemented.

Commercial Development

The Blair Waterway Property was identified within the Settlement Agreement for the specific purpose of water dependent commercial and industrial development as a deep draft container terminal. The Federal Settlement Act and State of Washington Settlement Act ratified, approved and confirmed the Settlement Agreement (Puyallup

Tribe of Indians 1988) as a matter of federal and State law (Du Bey 1993). Actions necessary to implement the Settlement Agreement were also authorized.

The Lincoln Ditch bisects the Property where the container loading and unloading operations of the proposed Tribal Port facility would be conducted. This development is part of what has been widely recognized as the most desirable port development project on the west coast (Du Bey 1993). Modern container ships are becoming too large to pass through the Panama Canal. This cargo must, therefore, be moved through West Coast ports. The Port of Tacoma is in a position to obtain a good share of this commerce because it is one of the few West Coast ports where expansion could occur. Containers would be unloaded from deep draft vessels at the Blair Waterway Property and then transferred to the Blair Backup Property. There will not be enough continuous linear waterfront footage to conduct a commercially viable deep draft port facility unless the Ditch is filled (Du Bey 1993; Perry 1993). Fifty acres is generally accepted as the minimum amount of land required for the effective operation of a deep draft port facility in conjunction with a container terminal (E. L. Perry, Perry International, Ltd., personal communication 4/20/93). The Blair Waterway Property is comprised of 43.4 acres. Recognizing that this already constrains development, the development of the Property as proposed by the Tribe would become impracticable if the proposed fill is not approved.

2.1 Need for Discharge

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Clean-up

The Lincoln Avenue Ditch receives runoff from industrial properties to the northeast through a system of Ditches and storm drains. Sediments in the Ditch contain both metal and organic contaminants, including arsenic and PCBs. Only arsenic and PCBs exceed the MTCA screening criteria for an industrial property (Landau Associates, Inc. 1992a; U. S. Environmental Protection Agency 1993b). The cleanup plan approved by EPA for the Ditch includes institutional controls to minimize the potential for uncontrolled exposure to, and release of, buried contaminated sediment.

Alternative 4 was the recommended Lincoln Avenue Ditch cleanup alternative in the Cleanup Plan approved by EPA for several reasons (U. S. Environmental Protection Agency 1993b). Alternative 4 achieves the cleanup objectives and satisfies the threshold screening criteria, is easy to accomplish, is cost effective relative to the selected alternatives, results in contaminated sediment being isolated from potential human environmental contact, and combines cleanup action with filling of Ditch for site development (Landau Associates, Inc. 1992b). The soil fill will adequately meet the cleanup objectives for the Ditch and will permanently reduce the volume, toxicity and mobility of hazardous substances which must be managed either on-site or at an off-site location (Du Bey 1993; Landau Associates, Inc. 1992b).

Commercial Development

The Port of Tacoma is one of the nation's leading ports. The results of the Blair Waterway 2010 Plan indicate that container cargo is expected to double in ten years

and almost triple by the year 2010 (Vickerman, Zachary & Miller 1991). Waterfront property suitable for development as deep draft container terminals has become scarce in the United States. The Blair Waterway Property is the only suitable property available to the Puyallup Tribe of Indians, pursuant to the Settlement Agreement and the Settlement Act, for this purpose (Du Bey 1993; Perry 1993). Additionally, the Tribe's water dependent use of the Property was the centerpiece of the Settlement Agreement as ratified by the Federal and State Settlement Acts (Du Bey 1993).

It has been previously noted that a commercially viable deep draft container facility requires a minimum amount of continuous linear waterfront. This requirement is clearly explained by Perry (1993):

> The economics of operating a deep draft marine terminal require that design and layout focus on achieving maximum efficiency in facilitating the flow of large quantities of cargo on and off vessels. Movement of containers over long distances can severely constrain facility operations. The cargo loading area, therefore, must be designed to handle traffic flows efficiently.

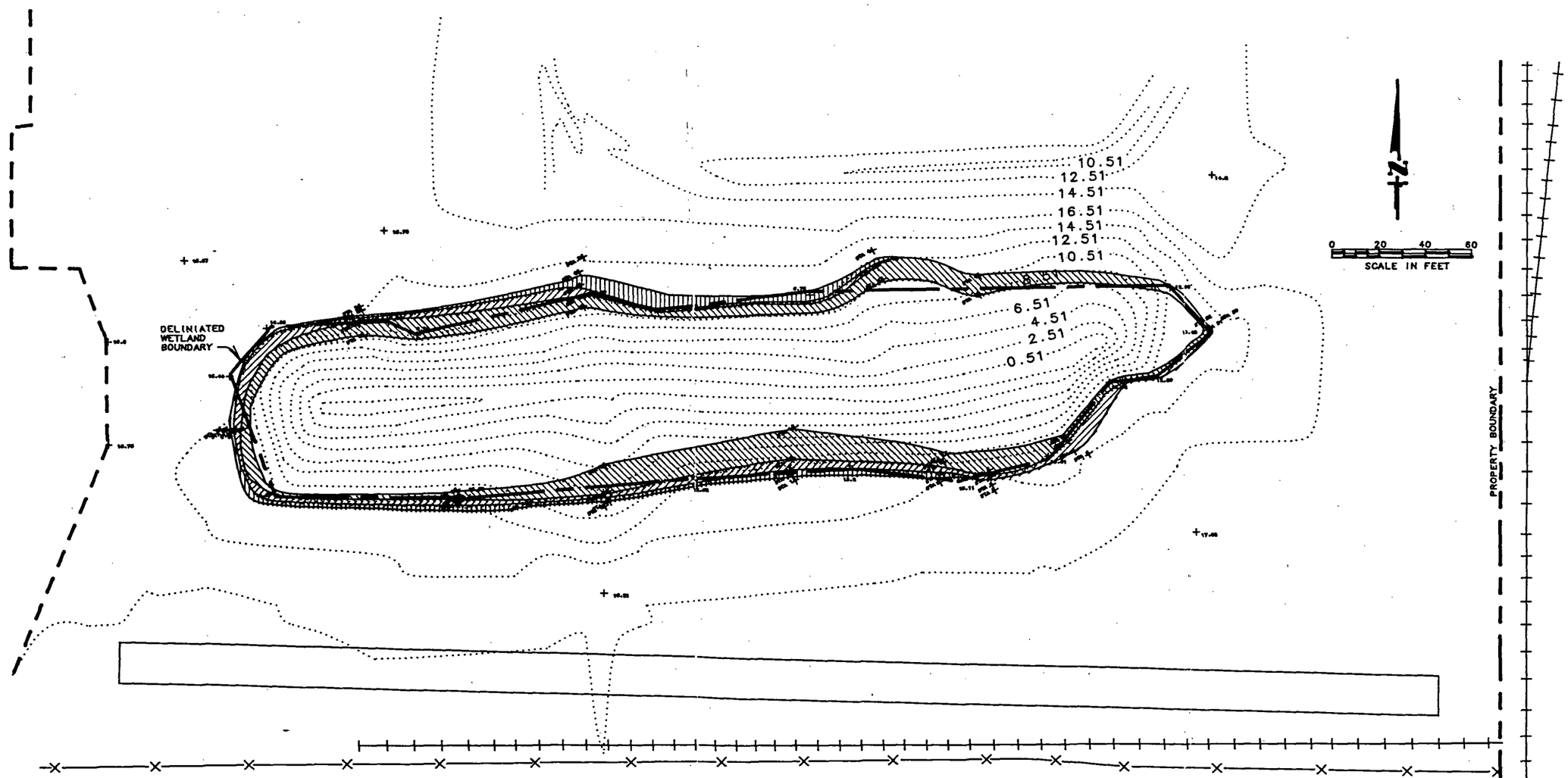
Fifty acres is generally accepted as the minimum amount of land required for the effective operation of a deep draft port facility (E. L. Perry, Perry International, Ltd., personal communication 4/20/93). Recognizing this limitation, the Blair Waterway Property has constraints which would make its development into a deep draft container facility impracticable if the proposed fill is not approved. The filling of the Lincoln Avenue Ditch would provide the minimum conditions necessary to facilitate efficient operation of a deep draft container facility (Perry 1993).

2.2 Location

The site proposed for development is on the north side of Blair Waterway, and is within a mile of Tacoma's city limits (Figure 1). Alexander Avenue forms the property's northeast boundary. The site is bounded on the southeast by the Weyerhaeuser Wood Chip Facility and on the northwest by the Domtar Gypsum Facility. The Ditch is centrally located on the Property, as indicated in Figure 1. The area of the Property within 200 feet of the ordinary high water mark is zoned Port Industrial S-10 Shoreline District, while the area landward is zoned M-2 Heavy Industrial.

2.3 Description of Discharge Site

As illustrated in Figure 2, the Ditch comprises approximately 0.80 acres of estuarine wetland, with channel-like morphology (FishPro, Inc. 1992). It is approximately 430 feet long and from 100 to 150 feet wide. The bottom of the Ditch is approximately 14 to 17 feet below the surrounding surface grade (Landau Associates, Inc. 1993). The end of the Ditch nearest Blair Waterway is approximately 70 feet from the edge of the bank, while the opposite end is approximately 70 feet from Alexander Avenue. Drainage water is introduced into the Ditch by three 72 inch underground storm water drainage pipes. Water is then conveyed through the Ditch and exits to Blair Waterway by one 72 inch drainage pipe equipped with a tide gate which no longer functions properly



DISTICHLIS SPICATA, MAY BE FOUND IN CONJUNCTION WITH SALICORNIA VIRGINICA, ASTER SUBSPICATUS, HOLCUS LANATUS, RUBUS DISCOLOR, OR R. LACINIATUS.

ASTER SUBSPICATUS, MAY BE IN CONJUNCTION WITH SALICORNIA VIRGINICA AND/OR DISTICHLIS SPICATA.

SALICORNIA VIRGINICA, MAY BE IN CONJUNCTION WITH SCATTERED DISTICHLIS SPICATA OR ASTER SUBSPICATUS.

LINCOLN DITCH

APRIL 28, 1993

PUYALLUP INTERNATIONAL, INC.

FISHPRO, INC.
PORT ORCHARD, WASHINGTON

(Perry 1993). The water level in this wetland is tidally influenced, as evidenced by bare mud intertidal banks (FishPro, Inc. 1992). Old wood piles are located along a portion of the north side of the wetland.

The mud banks along the lower intertidal region are primarily devoid of plants, although green algae (*Enteromorpha spp.*) occurs in limited areas. The higher intertidal region of the wetland is dominated by pickleweed (*Salicornia virginica*) and Douglas aster (*Aster subspicatus*). Saltgrass, in most areas, forms an additional band above the pickleweed zone. Himalayan (*Rubus discolor*) and evergreen blackberry (*R. laciniatus*) surround the wetland.

2.4 Method of Discharge

The proposed development will incorporate the engineered fill of Lincoln Ditch and will utilize heavy construction equipment and controlled lifts. Probable discharge methods will include transporting fill material to the site by trucks. Placement will be by end dumping. The fill material will be placed in a manner which will limit material segregation and the formation of pockets or layers of fine-grained soil (Landau Associates, Inc. 1993).

Site preparation activities will include the removal of brush from the sides of the Ditch, installation of temporary construction fencing, construction of haul roads, and implementation of a traffic control plan and the erosion control plan. Wood piles located in the north end of the Ditch will be cut off to below elevation 15 feet MLLW (Landau Associates, Inc. 1993).

Prior to placement of any fill in Lincoln Ditch, the landward end of the 72 inch outlet culvert between Blair Waterway and the Ditch will be plugged to prevent tidal flooding of the Ditch during filling. The three inlet culverts will also be filled. Filling of culverts will be accomplished by injecting or pumping a sand or grout slurry into the ends or from holes drilled through the top of the culverts. Filling of the culverts will be accomplished in a manner that minimizes the potential for leaving voids (Landau Associates, Inc. 1993). A silt fence will be placed around the discharge area and fill placement would commence once the Ditch is free of standing water. Fill placed within two feet of the planned surface grades will be placed in maximum eight to ten inch loose lifts and compacted to a minimum of 95 percent of the maximum dry density, as determined by the ASTM D-1557 test method. Deeper fill will generally be placed in maximum one foot loose lifts and compacted to a minimum of 92 percent of the maximum dry density (Landau Associates, Inc. 1993). The fill may require preloading for additional compaction of soil. Preloading will be achieved by placing a thick layer of soil over the Ditch and allowing the soil below to compress over time. The preload material would be composed of soil similar to the fill material and would be removed after the preloading operation.

All on-site cleanup work will be monitored by a Port of Tacoma representative to assess compliance with the construction plans and specifications and to identify conditions in the field that significantly vary from the current understanding of site contamination conditions (Landau Associates, Inc. 1993). Changes to the cleanup plan approved by EPA in the Administrative Order on Consent will be discussed with

the Puyallup Tribe and approved by EPA prior to implementation (Landau Associates, Inc. 1993; U. S. Environmental Protection Agency 1993a).

2.5 Timing of Discharge

Filling of Lincoln Ditch will begin after the City of Tacoma has installed the new storm sewer culvert between Alexander Avenue and the Blair Waterway to convey Lincoln Avenue drainage (Landau Associates, Inc. 1993).

Site preparation efforts are estimated to take approximately one month. These activities have been described in detail in Section 2.3. The proposed fill of Lincoln Ditch, along with associated activities described in Section 2.4, has been estimated to take as much as one month.

Construction activities associated with the proposed cleanup alternative have been estimated to take approximately nine weeks (Landau Associates, Inc. 1993).

A preload may subsequently be placed on top of the fill for a period of up to six months. It would then be removed and the Ditch graded smooth. Other site development activities, such as paving, could then commence.

2.6 General Characteristics of Material

The material to be placed in the Lincoln Avenue Ditch will consist of imported granular fill consisting of clean sand and gravel material free of organic material, debris and other deleterious matter. Imported granular fill will contain a maximum of five percent particles passing the No. 200 U. S. Standard sieve size (by dry weight method). Material containing debris, wood, plant matter, or other similar organic materials will not be placed as fill.

2.7 Quantity of Material

It has been estimated that approximately 13,000 to 15,000 cubic yards of soil will be required to the fill the Lincoln Avenue Ditch to grade. Approximate fill elevations range from about elevation 17 to 18 feet MLLW (Landau Associates, Inc. 1993).

2.8 Source of Material

The soil fill will consist of a clean sand and gravel mix from an upland source.

2.9 Projected Life of Disposal Site

Not applicable.

SECTION 3.0
POTENTIAL IMPACTS ON PHYSICAL AND CHEMICAL CHARACTERISTICS OF THE AQUATIC ECOSYSTEM

The goal of the following analysis is to establish the practicable development alternative with the least impact to the aquatic ecosystem, which still fulfills the basic project purposes. A thorough search was conducted to document existing environmental conditions and assess the probable impacts of development. Wetlands were considered to be of primary importance. The wetland evaluation technique (WET) for microcomputers (Adamus et al. 1987) was used to analyze the functions and values of the 0.80 acre wetland. The WET program asks a series of questions related to the social significance (value) and functions of the wetland and the associated upland area. It then analyzes the data and calculates a low, moderate or high probability rating for the functions of Social Significance, Effectiveness and Opportunity. The results of the WET analysis are presented in Table 1. All relevant information obtained through preliminary research and field investigations is summarized in the following sections.

Table 1. Summary of Wetland Evaluation Technique

	Social Significance	Effectiveness	Opportunity
Ground Water Recharge	M	L	*
Ground Water Discharge	M	M	*
Floodflow Alteration	M	L	L
Sediment Stabilization	M	L	*
Sediment/Toxicant Retention	H	L	H
Nutrient Removal/Transformation	H	L	M
Production Export	*	M	*
Wildlife Diversity/Abundance	M	*	*
Wildlife D/A Breeding	*	L	*
Wildlife D/A Migration	*	L	*
Wildlife D/A Wintering	*	L	*
Aquatic Diversity/Abundance	M	M	*
Uniqueness/Heritage	M	*	*
Recreation	L	*	*

Note: "H" = High, "M" = Moderate, "L" = Low, "U" = Uncertain, and "*"'s identify conditions where functions and values are not evaluated.

3.1 Substrate

Information regarding wetland soils and topography was obtained from the Soil Survey of Pierce County Area, Washington (U.S.D.A., Soil Conservation Service 1979), the Tacoma North U.S. Geological Survey map (1981), from site-specific environmental studies and from on-site observations.

Soil survey maps for the surrounding area do not include a description of soil types at the subject site. However, soils in adjacent port areas are classified as Xerorthents

(USDA, SCS 1979). Xerorthents are defined as a smoothed area that has been artificially filled with earth, trash or both. It has been noted that the subject site and surrounding lands in the Puyallup River estuary were historically intertidal emergent wetlands, which have subsequently been filled (U.S. Army Corps of Engineers 1991). Soils currently present at the site could, then, be described as Xerorthents, or fill areas. Fill soil above the original tideflat muds were generally greater than four feet thick (Landau Associates, Inc. 1992a). On-site investigations indicated that soils in the Ditch were covered with a layer of black organic matter.

Soil sediments in the Ditch have been found to be contaminated due, primarily, to stormwater runoff from industrial properties to the northeast. Sediments in the Ditch contain both metal and organic contaminants, including arsenic and PCBs. Arsenic and PCBs were found to exceed the MTCA screening criteria for an industrial property (Landau Associates, Inc. 1992a). The proposed fill will result in isolation of contaminated sediment, permanently reducing the volume, toxicity and mobility of hazardous substances (Du Bey 1993; Landau Associates, Inc. 1992b).

The Blair Waterway Property is located within the boundary of the Commencement Bay Nearshore/Tideflats Superfund Site. The Port of Tacoma is undertaking the cleanup of the Blair Waterway Property as part of an obligation under the Settlement Act, the Settlement Agreement and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). On March 9, 1993, the U. S. Environmental Protection Agency issued an Administrative Order on Consent (AOC) directing the Port to clean up the Blair Waterway Property. Pursuant to the AOC for cleanup of the Property, Alternative 4 was generally adopted. However, the AOC provides that filling the Ditch as described in Section 2.4 and 4.0 of the Blair Water Cleanup Plan is not authorized until EPA amends the order after determining that such action is consistent with the 404(b)(1) Guidelines, 40 C.F.R. Part 230. The Ditch cleanup is the only aspect of the Property cleanup that has not been approved, pending resolution of these issues.

3.2 Suspended Particulates/Turbidity

Not applicable due to the confined nature of the proposed fill.

3.3 Water Quality

Existing water quality is adversely affected by the presence of contaminated sediments within the Lincoln Ditch. A likely source of contamination in the Ditch is stormwater runoff from upland properties. Currently, under tidal influence, the Ditch maintains a certain amount of flushing, which results in downstream movement of contaminated sediment particles. As initially designed, the Lincoln Ditch flowed in only one direction and water and sediment mixing was reduced compared to current conditions. The proposed alternative will help to eliminate this impact on downstream water quality.

The results of the WET analysis (Table 1) indicate that the Lincoln Ditch has a moderate to high social significance due to its location in an industrial area. Although both sediment/toxicant retention and nutrient removal/transformation were assigned a high social significance value and a moderate to high opportunity value, the

effectiveness of the wetland to perform these functions is low due to its small size, channel-like morphology and sparsity of vegetation (FishPro, Inc. 1992).

Stormwater collection systems, designed in conjunction with site development, will allow for adequate treatment and collection of on-site stormwater runoff. Site development stormwater systems will not be routed through the existing Lincoln Ditch system. The quality of stormwater at the Ditch will not be significantly affected as a result of the proposed fill. All stormwater systems associated with site development will comply with current National Pollution Discharge Elimination System (NPDES) standards.

3.4 Current Patterns and Water Circulation

The presence, extent and direction of drainage flow was assessed using the Tacoma North U. S. Geological Survey map, the Tacoma North National Wetlands Inventory Map (U. S. Fish and Wildlife Service 1987), the Tacoma-Pierce County Commencement Bay drainage map (Tacoma-Pierce County 1988), and by direct on-site observation.

The Lincoln Avenue Ditch is currently an active drainage Ditch that receives runoff from upland areas to the northeast of the site, and is tidally influenced. It is connected to the off-site segment of Lincoln Avenue Ditch by a closed channel (Tacoma-Pierce County 1988). This connection will be terminated, independent of the Puyallup Tribe's proposal to fill the Ditch, as the City of Tacoma develops a new buried stormwater system for the Lincoln Avenue drainage area. The Ditch bottom is approximately 20 feet below the surrounding surface grade elevation. Drainage water flows into the Ditch through three 72 inch concrete stormwater drainage pipes and is discharged into Blair Waterway by one 72 inch drainage pipe equipped with a tide gate on the Blair Waterway end of the pipe (Perry 1993). This tide gate no longer functions properly.

The proposed discharge into Lincoln Ditch will affect current water circulation patterns. The non-functional tide gate will be sealed, preventing any water circulation into and out of the Lincoln Ditch system. Upland stormwater drainage to the Ditch will be intercepted by the City's new stormwater drainage system. Actual volume displacement is calculated at 65,000 cubic feet, based on the cubic area of the Ditch at MWL (6.6 feet above MLLW). Tidal influence will be eliminated at the Lincoln Ditch outlet to Blair Waterway.

3.5 Normal Water Fluctuations

The proposed Lincoln Ditch fill will not significantly alter the normal water-level fluctuation pattern of the Blair Waterway. The Ditch volume displacement is calculated at 65,000 cubic feet. Daily, seasonal and annual tidal and flood fluctuations in water level in the project vicinity will, therefore, be only moderately affected by the proposed development.

3.6 Salinity Gradients

Current salinity gradients will remain unaltered, as neither hyper- or hyposaline waters will be introduced as a result of this project. The proposed development will have no significant adverse effect on the position of the salinity gradient.

SECTION 4.0
POTENTIAL IMPACTS ON BIOLOGICAL CHARACTERISTICS OF THE AQUATIC ECOSYSTEMS

4.1 Threatened and Endangered Species

No threatened or endangered species were observed during site visits. FishPro biologists have made numerous visits to the Blair Waterway Property. These site visits occurred during all times of the year and were of significant duration. Draft wetland reports for the Blair Waterway Property describe only common species on-site. Lincoln Ditch plant species were mapped in detail as part of on-going site investigations (FishPro, Inc. 1993). Only non-sensitive plant and animal species were observed during all on-site investigations.

The State of Washington Natural Heritage Data System of the Department of Natural Resources (plants) and the Nongame Program of the Department of Wildlife (animals) were consulted for information concerning the presence of threatened and endangered species which may occur on or near the proposed site. A search was conducted by each agency that encompassed a two mile radius around the Blair Waterway Property.

Data results from the Department of Natural Resources has not yet been received. The Washington Department of Wildlife Nongame Program reported no occurrence of threatened or endangered (T&E) species on or near the site (Appendix B). The Washington Department of Wildlife data search did, however, identify three species of concern which may occur near the project vicinity: purple martin (*Progne subis*), Dolly Varden/bull trout (*Salvelinus malma / S. confluentus*), and steelhead (*Oncorhynchus mykiss*).

Purple martins have been confirmed to nest in boxes on pilings in the Hylebos Waterway, Tacoma. This species is listed as a state candidate and as a federal sensitive species. Insecticides should not be applied within at least seven and a half miles of martin nesting colonies in order to maintain a food base and avoid chemical contamination. Appropriate management recommendations also include retaining old pilings (Rodrick and Milner 1991).

The Washington Department of Wildlife has indicated that both Dolly Varden/bull trout and steelhead inhabit "stream reaches" within a two-mile radius of the Blair Waterway Property. Dolly Varden/bull trout are listed as a federal candidate species, but are considered a game species, subject to fishing regulations, under state management (Rodrick and Milner 1991). Steelhead species status, within the State of Washington, is as a priority game species. Steelhead have no federal status. These species were identified in the search because anadromous fish runs are defined as occurring along coastlines within the database encoding system (J. McPeck, Washington Department of Wildlife, personal communication, 5/3/93). This does not imply that these species necessarily occur in specific stream reaches within the project area, nor were they observed during field investigations.

4.2 Aquatic Food Web

Intertidal wetlands serve as a major source of organic detritus supporting the aquatic food web. A reduction of detrital feeding species or other representatives of lower trophic levels can impair the flow of energy from primary consumers to higher trophic levels. The reduction or potential elimination of food chain organism populations decreases the overall productivity and nutrient export capability of the ecosystem.

Contaminated sediments within Lincoln Ditch may serve to reduce aquatic food web productivity. Loss of this wetland with proper compensation will serve to increase localized productivity within Commencement Bay.

As indicated in Table 1, the ability (effectiveness) of the Ditch to provide nutrient transformation and production export functions is rated as low to moderate. These ratings result from the small size of the wetland, its channel-like morphology, and sparsity of vegetation in the lower intertidal region (FishPro, Inc. 1992). In addition, the available opportunity for the wetland to transform or remove nutrients is moderate because water flows through the wetland, reducing the opportunity of the wetland to retain nutrients.

Direct support of the aquatic food chain by nutrient export to downstream areas is low, due, primarily, to the wetland's small size. However, any adverse impacts to the aquatic food web that do occur as a result of the proposed fill of this 0.80 acre wetland will be compensated for as described in the Lincoln Ditch Mitigation Plan.

4.3 Fish and Wildlife

Special aquatic sites are areas that possess special ecological characteristics such as productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These sites are recognized as significantly influencing or positively contributing to the general overall environmental health of the region's ecosystem (U. S. Army Corps of Engineers 1992). Wetlands are specifically defined by resource agencies as meeting the criteria of a special aquatic site. While special aquatic sites provide an important function within the Commencement Bay ecosystem, historical loss of foraging, nesting, and resting habitat has resulted in a reduction in use of the area by birds (U. S. Army Corps of Engineers 1992).

Although Commencement Bay as a whole has been identified as an area of waterfowl concentration by the Washington Department of Natural Resources and was probably important historically, it is not currently listed by the U. S. Fish and Wildlife Service as being of major importance in the south Puget Sound region. Additionally, the Washington Department of Ecology does not consider Commencement Bay to contain any critical biological areas (U. S. Army Corps of Engineers 1992).

Signs and observations of animals were recorded during numerous site visits. Canadian geese (*Canadensis branta*) were observed by FishPro biologists during site visits (FishPro, Inc. 1992). Other migratory birds, such as killdeer and great blue heron, have also been noted on-site. Table 1 illustrates the generally low effectiveness of the Lincoln Ditch wetland in providing wildlife breeding, migration and

wintering functions.

The Lincoln Avenue Ditch is an artificial channel which does not provide salmon spawning, rearing or migration habitat. Filling the Ditch and diverting upland stormwater flow through the City's new stormwater sewer system will not change salmonid productivity in the vicinity of the Blair Waterway or the Commencement Bay area.

Adverse impacts due to reduction in available foraging, resting and nesting habitat due to the proposed cleanup and development activities could potentially result in fewer visits by transient mammals, birds, reptiles, and amphibians to the Property. However, adverse impacts will be compensated for by the proposed compensatory mitigation plan which will preserve the Outer Hylebos mitigation site in perpetuity as a Conservation area.

SECTION 5.0
POTENTIAL IMPACTS ON SPECIAL AQUATIC SITES

5.1 Sanctuaries and Refuges

No designated sanctuaries or refuges exist at the Blair Waterway Property.

5.2 Wetlands

The Tacoma North National Wetland Inventory map (1987) did not identify a wetland on the Blair Waterway Property. The 0.80 acre Lincoln Ditch wetland was delineated by FishPro, and is classified as Estuarine, mud, intertidal and regularly flooded (FishPro, Inc. 1992). This wetland has low to moderate physical, chemical and biological functions and values. Its rating stems from the location, small size, sparsity of vegetation and channel-like morphology. The Ditch was originally constructed to form part of the City of Tacoma's Lincoln Avenue stormwater drainage system and does not retain stormwater. However, the tidegates that act as a water conduit system for the Ditch have not all remained functional, thereby allowing for tidal influence. Upon closure of the tidegates, tidal influences will discontinue.

The proposed development at the Blair Waterway Property will result in the loss of a 0.80 acre wetland. Wetland loss will cause a displacement of the previously described functions and values, regardless of their rating (Table 1). The Lincoln Ditch Mitigation Plan presents the mitigation option proposed for the loss of this wetland.

5.3 Mudflats

The proposed filling of the Ditch will result in the loss of a small mudflat area. The limited habitat quality of this small mudflat area is further reduced by the presence of contaminated sediments. The contaminated sediments within Lincoln Ditch will be effectively capped and contained as a result of this fill. Cleanup Alternative 4 will permanently reduce the toxicity and mobility of hazardous substances, including arsenic and PCBs, while still allowing for the proposed development.

5.4 Vegetated Shallows

No vegetated shallows are present at the proposed discharge site.

5.5 Coral Reefs

Coral reefs do not occur at this location.

5.6 Riffle and Pool Complexes

The Lincoln Avenue Ditch does not contain any riffle and pool complexes.

SECTION 6.0
POTENTIAL EFFECTS ON HUMAN USE CHARACTERISTICS

6.1 Municipal and Private Water Supplies

No municipal or private water intakes are present at the proposed discharge site.

6.2 Recreational and Commercial Fisheries

No harvestable fish, crustaceans, shellfish, or other aquatic organisms used by man are present at the Lincoln Avenue Ditch.

6.3 Water Related Recreation

The proposed fill will cause no significant adverse impact to consumptive or nonconsumptive recreational activities. The Blair Waterway Property is privately owned, and as such does not currently afford the opportunity for on-site recreation.

6.4 Aesthetics

The aesthetic quality of a given environment is a function of an individual's sensory experience which is related to a complex range of cultural, psychological and environmental factors (Smardon 1988). In general, a high quality aesthetic experience in a landscape correlates with such things as high visual relief and floral and faunal diversity in conjunction with a well-balanced and pleasing overall scene. Conversely, a poor aesthetic experience may be associated with a scene that is repetitive and monotonous and provides little interest to the viewer.

The project site is characterized by primarily flat terrain covered with grasses. Non-native vegetation (*Rubus discolor* and *R. laciniatus*) surrounds the Lincoln Ditch. The site is in a heavily industrialized area, and provides no change in scenery from the neighboring properties. The nearly level terrain provides little interest to the viewer, and the Lincoln Ditch wetland is not readily visible to passing motorists or pedestrians. The proposed fill will not adversely affect the aesthetic quality of the surrounding area.

6.5 Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves

There are no parks, National and Historical monuments, National Seashores, Wilderness Areas, designated research sites, or similar preserves located at the proposed project site.

SECTION 7.0
EVALUATION AND TESTING OF DISCHARGE MATERIAL

7.1 General Evaluation of Dredged or Fill Material

The material to be used in the proposed Lincoln Avenue Ditch fill will consist of imported granular matter comprised of clean sand and gravel, free of organic material, debris and other deleterious matter.

All fill material will be extracted from a reputable upland source. Suitability of fill material will be ascertained by testing previously conducted at the extraction site or carried out on similar material for other permitted projects in the vicinity. The discharge material will not be a potential carrier of contaminants. In addition, discharge of fill material into Lincoln Ditch will be confined, which will prevent any transport beyond the boundaries of the disposal site. No significant adverse impact to the aquatic ecosystem will occur as a result of the proposed fill.

7.2 Evaluation of Chemical-Biological Interactive Effects

7.2.1 Exclusion of Material from Testing

Proposed fill material, comprised of clean sand and gravel, can be excluded from the evaluation procedures specified in the Section 404(b)(1) Guidelines (Section 230.61) due to the small likelihood of contamination of the aquatic ecosystem by fill material.

7.2.2 Water Column Effects

No impacts to water quality due to release of contaminants from fill material will result under Alternative 4 and associated development. A water leachate test is, therefore, not a requirement.

7.2.3 Effects on Benthos

Clean fill will be utilized for the proposed discharge, thereby eliminating the need for benthic bioassay or bioaccumulation tests.

7.3 Comparison of Excavation and Discharge Sites

7.3.1 Total Sediment Chemical Analysis

The Blair Waterway Property and the Lincoln Avenue Ditch have been impacted over time by releases of industrial contamination (Landau Associates, Inc. 1992a). Sediments in the Ditch contain both metal and organic contaminants, including arsenic and PCBs. Only arsenic and PCBs exceed the MTCA screening criteria for an industrial property (Landau Associates, Inc. 1992a). The cleanup objective stated for the Ditch includes providing protection against direct contact with sediment containing greater than 200 mg/kg arsenic and minimizing surface water transport of contaminated sediment (Landau Associates, Inc. 1992b). The proposed fill will

effectively isolate contaminated sediment, providing a permanent mechanism to protect the downstream ecosystem from future releases of hazardous substances from the Ditch.

The proposed fill of Lincoln Ditch was chosen as the recommended cleanup alternative for several reasons. It achieves the cleanup objectives and satisfies the threshold screening criteria, is easy to accomplish, is cost effective relative to the selected alternatives, results in contaminated sediment being isolated from potential human environmental contact, and combines cleanup action with filling of Ditch for site development (Landau Associates, Inc. 1992b). The soil fill will adequately meet the cleanup objectives for the Ditch and will permanently reduce the volume, toxicity and mobility of hazardous substances which must be managed either on-site or at an off-site location (Du Bey 1993; Landau Associates, Inc. 1992b).

The material to be used in the proposed Lincoln Avenue Ditch fill will consist of imported granular matter comprised of clean sand and gravel, free of organic material, debris and other deleterious matter. The fill will be free from chemical, biological, or other pollutants. As such, discharge material will pose no potential for harm as a result of the proposed disposal operation.

7.3.2 Biological Community Structure Analysis

Community structure studies should be performed only when they will be of value in determining discharge conditions, especially with discharges of large quantities of dredged material known to contain adverse quantities of toxic materials (U. S. Environmental Protection Agency 1980a). Fill material utilized in the proposed project will consist of a clean sand and gravel mixture, free from chemical, biological, or other pollutants. A biological community structure analysis will not be required to assess the potential for adverse environmental impacts at the proposed disposal site.

7.4 Physical Tests and Evaluation

Soils in port areas in the vicinity of the Blair Waterway Property are classified as Xerorthents (USDA, SCS 1979). Xerorthents are smoothed areas that have been artificially filled with earth, trash or both. Fill soil above the original Commencement Bay tideflat muds generally averages greater than four feet thick (Landau Associates, Inc. 1992a). Soil sediments in the Ditch are contaminated due, primarily, to stormwater runoff from industrial properties to the northeast. Sediments in the Ditch contain both metal and organic contaminants, including arsenic and PCBs (Landau Associates, Inc. 1992a). The proposed fill will result in isolation of contaminated sediment, permanently reducing the volume, toxicity and mobility of hazardous substances (Du Bey 1993; Landau Associates, Inc. 1992b).

Turbidity impacts will not result from Alternative 4 and associated development due to the confined nature of the proposed fill.

The Lincoln Avenue Ditch is currently a tidally influenced active drainage Ditch that receives runoff from upland areas to the northeast of the site. It is connected to the off-site segment of Lincoln Avenue Ditch by a closed channel (Tacoma-Pierce County

1988). The proposed fill of Lincoln Ditch will eliminate flushing of contaminated sediments, resulting in an improvement of downstream water quality.

The proposed Lincoln Ditch fill will not significantly alter the normal water-level fluctuation pattern of the Blair Waterway. Daily, seasonal and annual tidal and flood fluctuations in water level of Blair Waterway will, therefore, be only marginally affected by the proposed development.

Current salinity gradients will remain primarily the same. The proposed development will have no significant adverse effect on the position of the salinity gradient.

The previous evaluation of the impacts of the proposed fill on physical substrate characteristics at Lincoln Ditch, as well as on turbidity, water circulation, fluctuation, and salinity, indicate that physical tests and evaluations will not be required.

SECTION 8.0
FACTUAL DETERMINATIONS

8.1 Physical Substrate Determinations

The proposed fill will result in the permanent loss of wetland substrates at the Lincoln Avenue Ditch. No adverse impacts will occur outside of the disposal site, due to erosion or other movement of the discharged material. Best Management Practices for erosion and sediment control will be designed and implemented, as established in Ecology's Stormwater Management Manual for the Puget Sound Basin (Landau Associates, Inc. 1993).

8.2 Water Circulation, Fluctuation, and Salinity Determinations

Water quality will not be significantly affected as a result of the proposed fill, and may actually be improved by not flowing through contaminated sediments in the Ditch.

Water circulation patterns and normal water level fluctuation patterns of Blair Waterway will not be significantly affected as a result of the proposed fill. Daily, seasonal and annual tidal and flood fluctuations in water level will, therefore, be relatively unaffected by the proposed development.

The proposed development will have no significant adverse effect on the position of the salinity gradient.

8.3 Suspended Particulate/Turbidity Determinations

Erosion and sediment control measures for the Lincoln Avenue Ditch will be designed to result in a zero net gain in off-site stormwater runoff (Landau Associates, Inc. 1993). Final stormwater system design will be coordinated with the overall site development. During construction, a silt fence and settling basin will be used as appropriate sediment control measures.

The proposed discharge will have no significant effect on changes in the kinds and concentrations of suspended particulate/turbidity in the vicinity of the disposal site due to the confined nature of the proposed fill. It is anticipated that applicable water quality standards will not be violated.

8.4 Contaminants Determinations

The material proposed for discharge will not introduce, relocate, or increase on-site contaminants. The proposed discharge protects the natural aquatic community from further chemical contamination. Together with the mitigation proposed by the Tribe, implementation of Alternative 4 can reasonably be expected to result in environmental gain.

8.5 Aquatic Ecosystem and Organism Determinations

The effectiveness of the Ditch to provide nutrient transformation and production export functions is rated as low to moderate. In addition, the Lincoln Ditch has a generally low effectiveness in providing wildlife breeding, migration and wintering functions. These ratings result from the small size of the wetland, its channel-like morphology, and sparsity of vegetation in the lower intertidal region (FishPro, Inc. 1992). Direct support of the aquatic food chain by nutrient export to downstream areas is low, due, primarily, to the wetland's small size. However, any adverse impacts to the aquatic food web that do occur as a result of the proposed fill of this 0.80 acre wetland will be compensated for as described in the Lincoln Ditch Mitigation Plan. Impacts to the aquatic ecosystem resulting from the proposed fill will be marginal both individually and cumulatively.

8.6 Proposed Disposal Site Mixing Zone Determinations

Not applicable.

8.7 Determination of Cumulative Effects on the Aquatic Ecosystem

Lincoln Ditch consists of a small, highly disturbed wetland of low to moderate functional value. Due to the history of Commencement Bay, remaining wetland habitat is increasingly valuable. Without remediation, the Ditch will continue to be a source of contamination to, and negative influence on, the larger ecosystem. The proposed mitigation plan provides for replacement of significant habitat lost as a result of the Lincoln Ditch fill.

8.8 Determination of Secondary Effects on the Aquatic Ecosystem

Secondary effects of the proposed fill on the aquatic ecosystem will be relatively insignificant. The proposed commercial development of the Blair Waterway Property is highly compatible with surrounding industrial land-uses.

Future surface water runoff, associated with both proposed discharge and subsequent site development, will comply with current National Pollution Discharge Elimination System (NPDES) and other applicable regulations. Secondary effects due to stormwater runoff will not be significant.

SECTION 9.0
PROPOSED AND ALTERNATIVE ACTIONS TO MINIMIZE ADVERSE EFFECTS

It should be noted that development near wetland areas can impact the wetlands directly or indirectly. In general, direct wetland impacts occur as a result of filling, dredging, or otherwise disturbing wetland habitat. In addition, indirect wetland impacts may occur if wetlands are not protected from adjacent development. Examples of indirect impacts include degradation of water quality entering wetlands, the overall fragmentation of wetland habitat complexes, functional disruption of the wetland-upland interface, displacement of wildlife, and reduced functionality caused by excess, or lack of, hydrology. Even if design alternatives can be developed which reduce or eliminate direct wetland impacts, care must be taken to address indirect wetland impacts as well.

9.1 Actions Concerning the Location of the Discharge

Under the proposed alternative, Lincoln Ditch will be filled to grade. The proposed discharge into Lincoln Ditch is necessary for two reasons: to isolate the contaminated sediment in the Ditch from human contact and from exposure to the environment, and to fill the Ditch for site development considerations. Minimization of discharge cannot be accomplished through disposal at an alternative site since available development area for this type of commercial activity is very limited (Du Bey 1993; Perry 1993; Vickerman, Zachary & Miller 1991). Discharge will, however, be confined to the Property in order to minimize impacts to Blair Waterway. The existing Ditch outlet culvert will be plugged to achieve this end. No fill material discharged into the Ditch will reach Blair Waterway.

Although on-site investigations indicated that soils in the Ditch were covered with a layer of black organic matter, soils currently present throughout a majority of the site have been identified as Xerorthents, or fill areas (FishPro, Inc. 1992). Fill soil above the original tideflat muds were generally greater than four feet thick (Landau Associates, Inc. 1992a). Filling in an area previously used as a fill disposal site may be considered to be one form of minimization.

Fluctuating water levels in Blair Waterway will not be adversely affected by the proposed discharge. Fill material will be placed in the Ditch in flat lifts of twelve inches or less, thus reducing the probability of developing standing water conditions during construction.

In addition, the proposed project discharge can be timed such that fill placement will occur during dry summer months. This would aid in minimizing the temporary creation of standing bodies of water in areas of normally fluctuating water levels, and also minimize dewatering requirements.

9.2 Actions Concerning the Material to be Discharged

The material to be discharged into Lincoln Ditch will be a clean washed granular material supplied from an upland source. The material will be tested to verify no contamination is present prior to placement of fill. Where culverts will be plugged and filled, the fill material will consist of clean washed sand, previously tested to determine absence of contamination. Filling of culverts will be accomplished by injecting or pumping a sand or grout slurry into the ends or from holes drilled through the top of the culverts.

9.3 Actions Controlling the Material After Discharge

During Construction

Discharge of sediments to the surrounding aquatic ecosystem will be minimized by the proposed alternative. Minimization will be accomplished by permanently plugging the stormwater supply culverts and the outlet culvert. No water or discharged fill material would enter Blair Waterway from the Ditch.

In addition, a silt fence will be constructed around the Ditch while under construction to capture sediment in construction area stormwater runoff. A silt fence is a barrier of permeable cloth that is buried on the bottom. It allows water to flow through it while retaining or filtering the sediments carried in the water. Erosion and sediment control measures for the Lincoln Avenue Ditch will be designed to result in a zero net gain in off-site stormwater runoff (Landau Associates, Inc. 1993). If dewatering is required, water will be pumped out of the Ditch and into a temporary settling basin constructed on-site. The settling basin will remove sediments in the water prior to discharge to Blair Waterway or the storm sewer. Settling basins may be constructed in various ways. Many utilize hay bales to form a small dam. The hay bales slow the water flow, consequently forming a pool. The slower velocity of water within the pool allows sediments to settle out, thus minimizing discharge.

Permanent Installations

Under the proposed cleanup and development alternative, the culverts will be permanently plugged by injecting or pumping a sand or grout slurry into the ends or from holes drilled through the top of the culverts. Filling of the culverts will be accomplished in a manner that minimizes the potential for leaving voids. No discharge from Lincoln Ditch will occur to the Blair Waterway.

All in-place contaminated Ditch sediments will be capped by as much as fourteen feet of clean washed fill material as a result of the proposed alternative. This will eliminate discharge of the existing contaminants to downstream aquatic systems.

As previously stated in Section 9.1, the project can be timed such that the fill operation will occur during the driest part of the year. This would help in reducing the amount of discharge material entering Blair Waterway due to stormwater runoff.

9.4 Actions Affecting the Method of Dispersion

Because the inlet and outlet culverts will be plugged prior to discharge into the Ditch under Alternative 4, the actual method of discharge into the Ditch will have no effect on Blair Waterway. All discharge material will be contained in the Ditch. Other construction techniques, such as those identified in Section 9.3 (i.e. silt fence and temporary settling basin), will also help to eliminate discharges into the Blair Waterway.

Minimization of discharge material during plugging of the outlet culvert will likely employ the use of a temporary coffer dam around the Blair Waterway outfall. This would entail placement of sandbags or sheet piling around three sides of the outlet to effectively exclude water. An effort will be made to place the dam during low tide, thereby reducing the amount of sediments entering the waterway due to site disruption from construction activity. Once in place, the coffer dam would allow for plugging of the culvert without causing discharge of grout slurry or fill material into Blair Waterway. Care would also be taken when dismantling the coffer dam to minimize sediment discharge into the waterway.

On a more permanent level, discharge of fill material will be minimized by the plugged culvert and the pavement which will cover the fill subsequent to site development. These two factors will eliminate the discharge of fill material from Lincoln Ditch to Blair Waterway.

9.5 Actions Related to Technology

During construction, appropriate sediment control and reduction techniques will be used to minimize the discharge of fill material into Blair Waterway or other aquatic systems. These techniques include the use of a silt fence, temporary settling basin and coffer dam. Sections 9.3 and 9.4 describe these methods in greater detail.

Construction personnel will be trained in the use and maintenance of these sediment control and reduction systems. They shall be maintained and remain functional as long as they are needed.

During discharge operations, the fill material will be brought in either by truck or by barge. Delivery by truck will likely be associated with placement of fill material at the northeast end of the Ditch. Placement from this end will increase the barrier between Blair Waterway and the Ditch, allowing for greater minimization of impacts due to possible accidental discharge of fill material. If a barge is used to transport fill material, discharge will most likely be distributed by conveyor. Accidental discharge of fill material using this method would be prevented by the use of a containment tray located under the conveyor. The containment tray would catch any material that may possibly fall off of the conveyor during transfer. Once the fill material is in the Ditch, it will effectively be isolated from the Blair Waterway.

9.6 Actions Affecting Plant and Animal Populations

Reduction in available foraging, resting and nesting habitat in the immediate vicinity of the Blair Waterway Property due to the proposed cleanup and development activities could potentially result in fewer visits by transient mammals, birds, reptiles, and amphibians. Since the Ditch is effectively isolated from other habitat complexes, and major industrial activity will be occurring in the immediate vicinity, it is highly unlikely that the Ditch would support significant animal populations, regardless of minimizing actions. The Ditch does not have any unique habitat or other values that will not be fully compensated for under the mitigation plan. Under the proposed alternative, the Ditch will be completely filled, resulting in the loss of plant and animal populations. One of the primary goals of the Lincoln Ditch Mitigation Plan is to develop and construct a structurally complex and species rich plant community within the mitigation site in order to replace lost habitat types.

9.7 Actions Affecting Human Use

The proposed fill will cause no significant adverse impact to consumptive or nonconsumptive recreational activities. The Blair Waterway Property is privately owned, and as such does not currently afford the opportunity for on-site recreation.

The site is in a heavily industrialized area, and provides no change in scenery from the neighboring properties. The nearly level terrain provides little interest to the viewer, and the Lincoln Ditch wetland is not readily visible to passing motorists or pedestrians. The proposed fill will not, therefore, adversely affect the aesthetic quality of the surrounding area.

Minimization of adverse effects on the human use potential is achieved because the site is centrally located within the Port of Tacoma industrial area. This continuity of use avoids increasing incompatible human activities. In addition, the disposal site is outside of the vicinity of a public water supply intake.

Development of the Blair Waterway Property will not impact the current human use, but will provide for the containment of contaminated sediments. This will provide a positive impact by permanently reducing the volume, toxicity and mobility of hazardous substances (Du Bey 1993; Landau Associates, Inc. 1992b).

9.8 Other Actions

Construction related runoff and dewatering discharges will be handled as noted in Section 9.4.

SECTION 10.0
ANALYSIS OF PRACTICABLE ALTERNATIVES

10.1 Identification and Evaluation of Practicable Alternatives

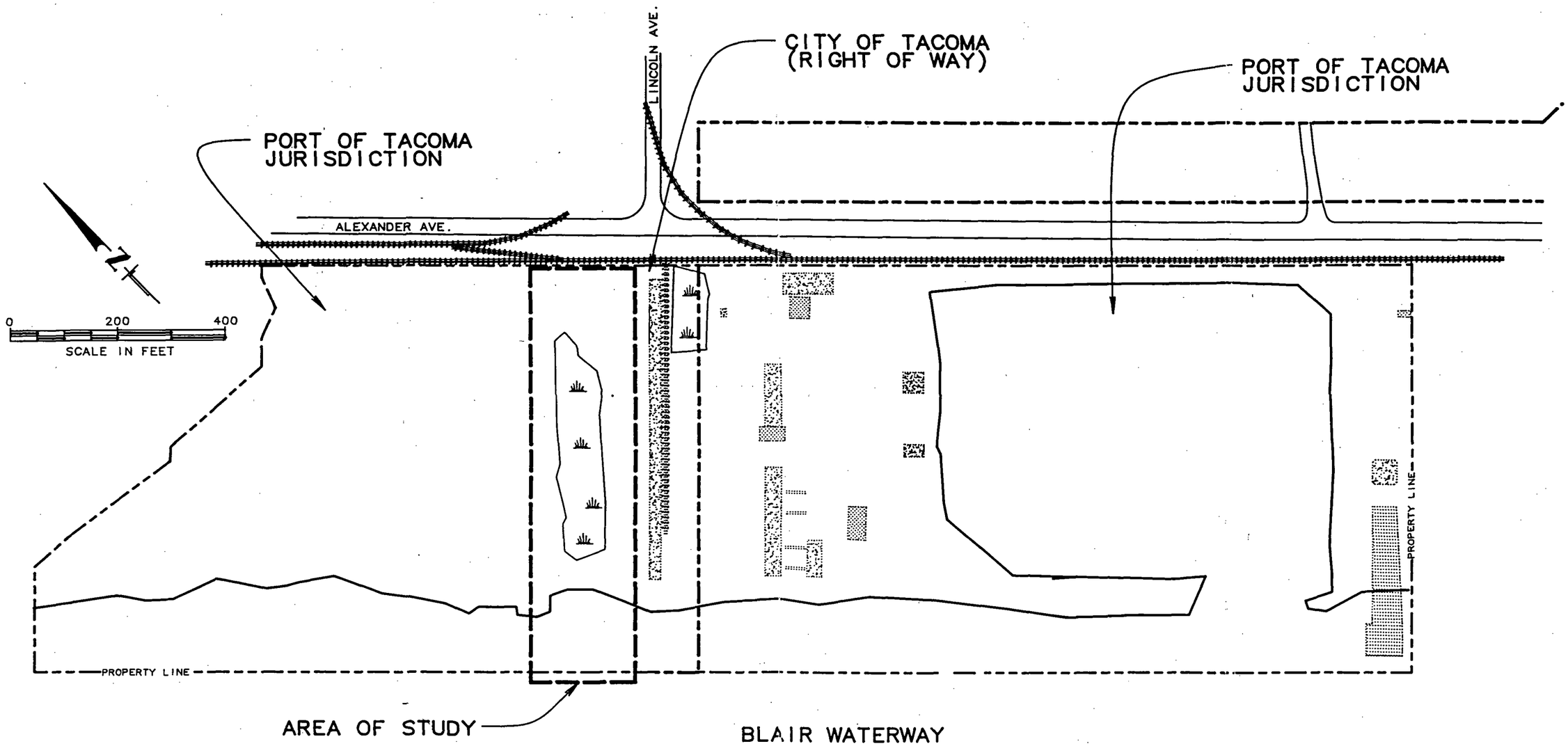
It has been indicated that previous evidence submitted by the Puyallup Tribe of Indians has adequately demonstrated that the proposed activity cannot be avoided at the proposed project location (McAllister 1993). The Settlement Agreement (Puyallup Tribe of Indians 1988) provides justification that there are no practicable alternative locations in Commencement Bay for the proposed development of a deep draft port facility. The following analysis of alternatives will, therefore, focus on alternatives available at the Blair Waterway Property to examine variations in site design which may reduce the impact on wetlands.

Four different options were investigated for the development of Lincoln Ditch. They include: Option A, filling the Ditch completely, Option B, bridging the Ditch, Option C, partially filling the Ditch, and Option D, remediation and restoration of the Ditch. Each option was evaluated for cost, ability to construct with existing technology, ability to meet project goals, clean up of contaminated sediments, safety, overall environmental impact and maintenance requirements. Previous studies have identified and analyzed appropriate cleanup alternatives for Lincoln Ditch that are consistent with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) process. These alternatives are described in detail in Section 2.0. Alternative 4, fill the Ditch to grade, was recommended as the preferred cleanup action. However, it was necessary to utilize different identified cleanup alternatives under each of the development options. Table 2 illustrates the possible connections between development options and cleanup alternatives.

Table 2. Development and Cleanup Alternatives Matrix.

Development Option	A	B1 and B2	C	D
Cleanup Alternatives	4	2,3,5,6	2,4	3,5,6

It should be noted that this analysis investigated only options to develop or modify Lincoln Ditch. It does not consider other costs or factors associated with development of the entire site or wharf area (Figure 3) Unit costs used in the estimation of probable construction cost (Tables 3 through 8) come from varying sources. Unit cost for granular fill were referenced with the Port of Tacoma and Landau Associates, Inc. Estimates of bridge structure costs were taken from Perry (1993), and estimates of excavation and disposal of contaminated sediments were taken from Landau Associates, Inc. (1992b).



PORT OF TACOMA

SUPERFUND CLEANUP AREA FOR
THE PUYALLUP TRIBE

FIGURE 3

PUYALLUP INTERNATIONAL, INC.

FISHPRO, INC.
PORT ORCHARD, WASHINGTON

Option A (Proposed)

In Option A, the entire Ditch would be filled and paved over, see Figures 4 and 5. To construct this option, the supply and discharge culverts would initially be plugged and filled with sand. A silt fence would then be constructed around the Ditch and the vegetation cleared. Fill would then be placed in the Ditch. Several feet of fill would likely be needed for the first lift due to the presence of thick soft sediment on the Ditch bottom. The fill would then be placed and compacted in lifts of one foot or less. A preload may be required to compact the soft sediment on the Ditch bottom further. In this case, extra fill would be placed above the filled Ditch and would remain in place for up to six months. The preload would then be removed after full compaction. The silt fence would be also removed and the area graded and paved.

Evaluation Cost:
An opinion of probable cost was developed and is shown in Table 3. The total cost for filling the Ditch and paving it over would be approximately $280,000.

Ease and Ability to Construct:
This option would be relatively easy to construct with existing technology, as it primarily involves earth work. It should be noted that if preload is required the Ditch filling operation would need to precede other site development by up to six months.

Ability to Meet Project Goals:
With this option, the project goals would be met. A permanent CERCLA remedy would be provided. In addition, the entire parcel area would be available for cargo handling, maximizing the operational efficiency of the facility.

Level of Contamination Cleanup:
This option utilizes cleanup Alternative 4 (fill the Ditch to grade) (Landau Associates, Inc. 1992b). This is the preferred alternative and will yield a high level of contamination cleanup. The contaminated sediments will be completely isolated from human and environmental contact.

Level of Safety:
This option will maximize the safety of subsequent commercial operation. Cargo handling equipment can move and maneuver without the danger of unreasonable safety hazards under this option.

Level of Environmental Impact:
This option will eliminate the 0.80 acre Ditch, but it will also contain and isolate the contaminated sediments found there. The existing plant and animal life in the Ditch may currently be compromised by present contamination levels. The proposed mitigation plan will compensate for habitat lost as a result of the Lincoln Ditch fill.

Level of Maintenance Required:
Maintenance requirements within this option would be relatively low. It would be similar to the pavement maintenance required elsewhere on the site.

NOTES:

1. APPROXIMATE USEABLE CARGO HANDLING AREA IS 43 ACRES.
2. INITIAL FACILITY TO HANDLE ONE SHIP. FACILITY COULD BE EXPANDED TO HANDLE TWO SHIPS IN THE FUTURE.
3. STORM DRAINAGE INITIALLY ROUTED THROUGH LINCOLN DITCH WILL BE REROUTED DIRECTLY TO BLAIR WATERWAY (NOT SHOWN) WORK WILL BE ACCOMPLISHED BY CITY OF TACOMA.

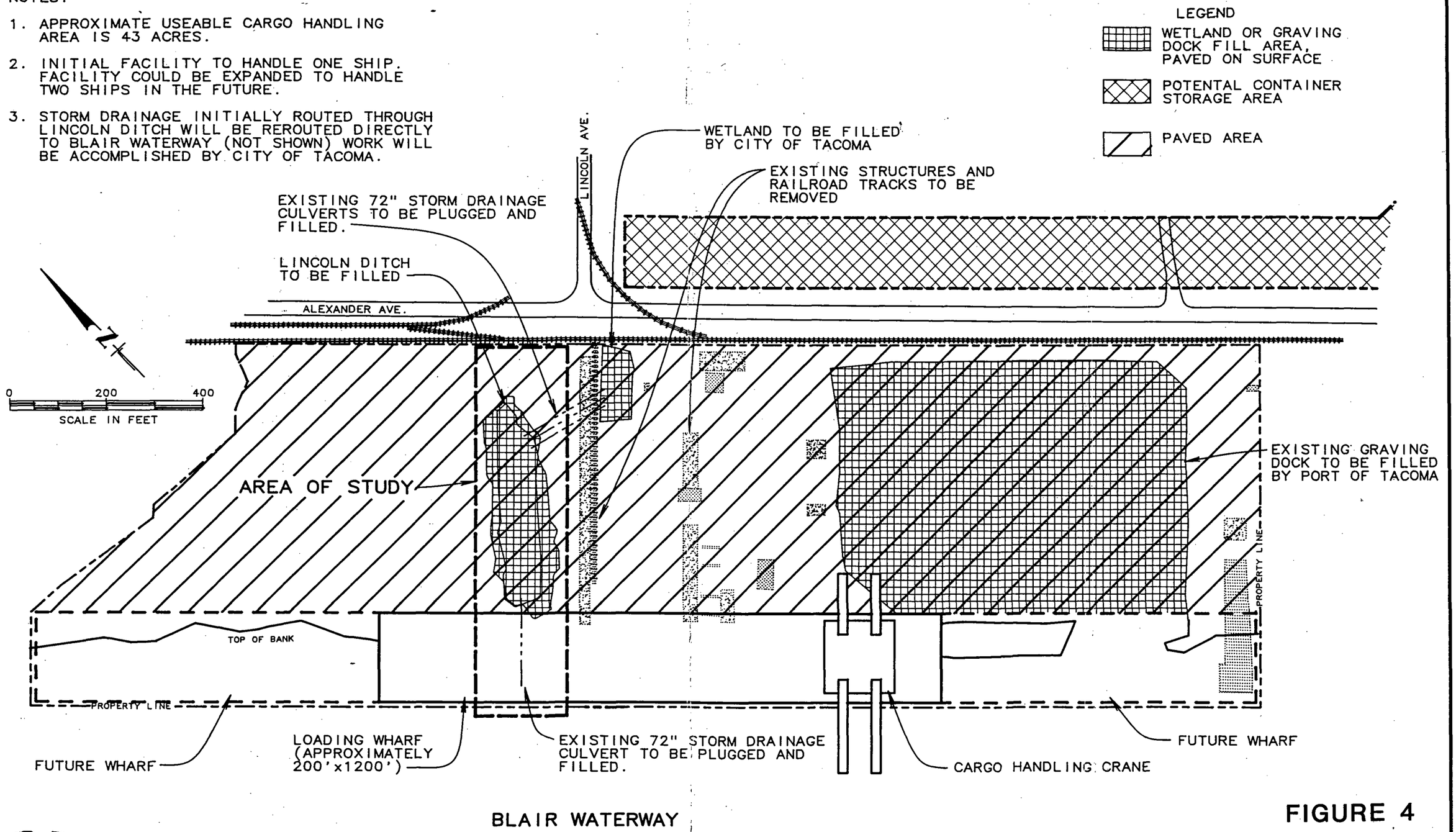


FIGURE 4

PUYALLUP INTERNATIONAL, INC.

BLAIR WATERWAY DEVELOPMENT — OPTION A

FISHPRO, INC.
PORT ORCHARD, WASHINGTON

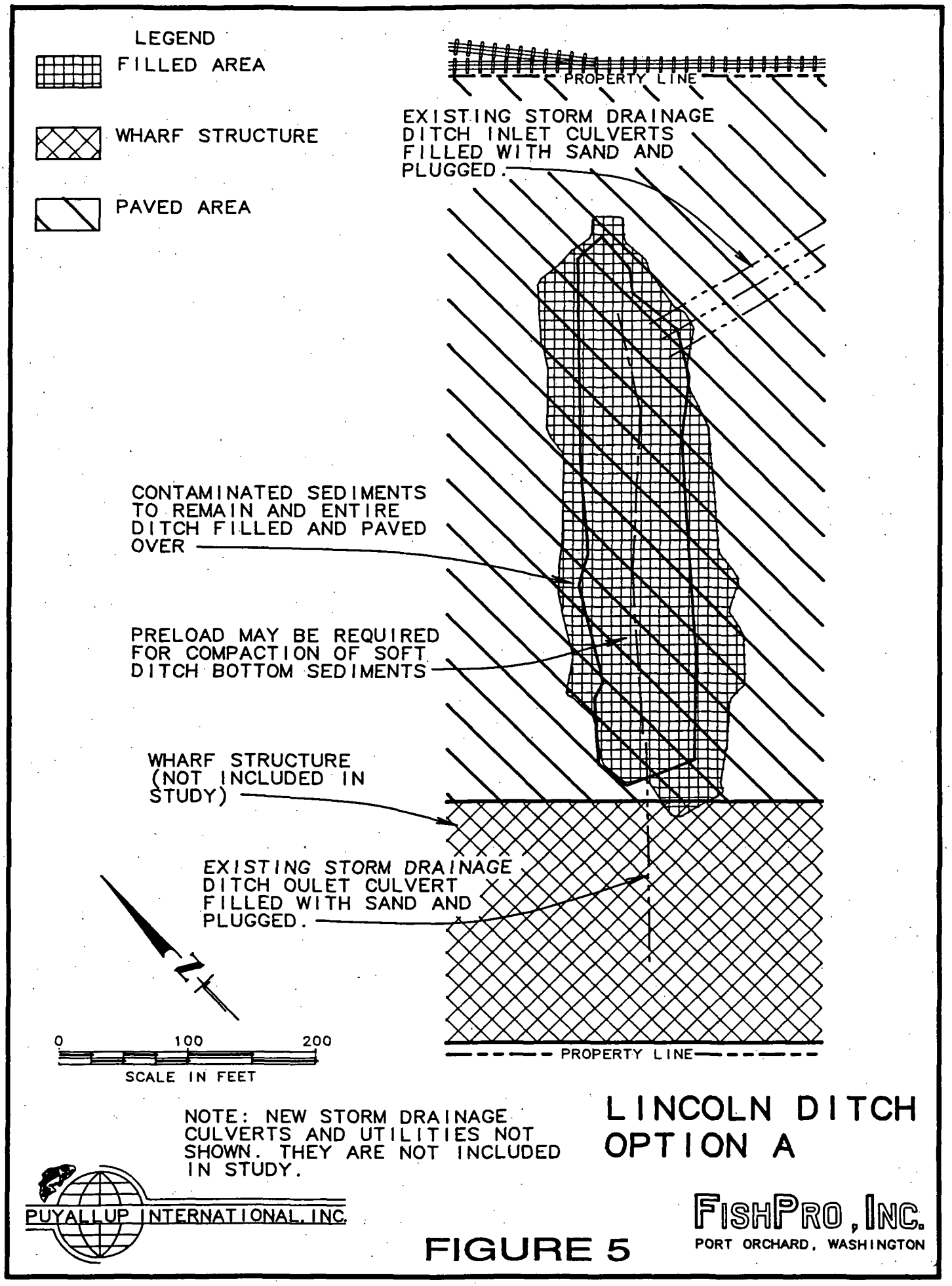

LEGEND
FILLED AREA
WHARF STRUCTURE
PAVED AREA
PROPERTY LINE
EXISTING STORM DRAINAGE DITCH INLET CULVERTS FILLED WITH SAND AND PLUGGED.
CONTAMINATED SEDIMENTS TO REMAIN AND ENTIRE DITCH FILLED AND PAVED OVER
PRELOAD MAY BE REQUIRED FOR COMPACTION OF SOFT DITCH BOTTOM SEDIMENTS
WHARF STRUCTURE (NOT INCLUDED IN STUDY)
EXISTING STORM DRAINAGE DITCH OULET CULVERT FILLED WITH SAND AND PLUGGED.
N
0
100
200
SCALE IN FEET
PROPERTY LINE
NOTE: NEW STORM DRAINAGE CULVERTS AND UTILITIES NOT SHOWN. THEY ARE NOT INCLUDED IN STUDY.
LINCOLN DITCH
OPTION A
PUYALLUP INTERNATIONAL, INC.
FISHPRO, INC.
PORT ORCHARD, WASHINGTON

FIGURE 5

Table 3. Lincoln Ditch - Option A
Preliminary Opinion of Probable Construction Cost **

ITEM	QUANTITY	UNIT	UNIT COST*	EXTENSION	SUBTOTAL
Constructon					
Clear and Grub	1.2	AC	1,500	$1,800	
Granular Fill	15,000	CY	6.00	$90,000	
Preload ***	11,000	CY	2.00	$22,000	
Paving	5,600	SY	14.50	$81,200	
Temporary Erosion Control	1	LS	2,300	$2,300	
Plug & Fill Existing Culverts	1	LS	17,000	$17,000	
Subtotal Construction					**$214,000**
Engineering & Project Management			10%		$21,000
Contingency			20%		$43,000
Opinion of Probable Construction and Design Cost					**$280,000**

* Unit costs include all material, labor, and equipment for installation. Mobilization and insurance & bonding also included in unit costs.
** Opinion of Probable Cost does not include tax.
*** Only material handling costs included. It is assumed that preload material will be used as fill at other portions of the site after preload operation.

Option B

Option B consists of bridging the Ditch. Lincoln Ditch could be entirely bridged, Option B1, (Figures 6 and 7), or bridged on each end, Option B2, (Figure 8). In order to be operationally feasible, the minimum bridge width for Option B2 must be 125 feet to permit two pieces of container handling equipment to safely pass (Perry 1993).

To begin construction of this option, the Ditch inlet culvert would be plugged and filled with clean sand. The Ditch outlet culvert would also be temporarily plugged. A silt fence would then be installed around the construction area and vegetation removed. Fill material would then be applied to the Ditch, covering the existing sediment with approximately two feet of fill. The side walls of the Ditch would subsequently be steepened to a slope of 2 horizontal to 1vertical by adding and compacting fill in one foot or less lifts. Riprap would be applied, for slope and erosion protection, to the portions of the Ditch that would be covered by the bridge. Under Option B1, where a portion of the Ditch would remain open, an erosion control fabric would be applied to the exposed portion. In addition, a layer of topsoil would be applied to the exposed area.

Next, the bridge, or bridges would be constructed over the Ditch. The bridge would resemble a wharf structure and be designed to support a 1000 pounds/square foot live load. The bridge structure may be constructed using precast concrete planks for the platform. Fourteen inch diameter or greater prestressed concrete piling would support the platform. The piling may be located on ten foot spacing. Driving of the piling would have to be coordinated with the placement of riprap in the Ditch and may result in movement of contaminated sediments downward or laterally. After construction of the bridge structure, the exposed areas of the Ditch would be re-planted with appropriate wetland plant species.

Guard railing and fencing would be erected around the Ditch area. Erection of these components would be integral with the bridge and surrounding paving operations. The silt fence would be removed when no longer required and outlet culvert unplugged after construction.

Evaluation Cost:
Opinions of probable cost were developed for the completely and partially bridged alternatives. These are shown in Tables 4 and 5. The development cost for Option B1 (totally bridging the Ditch) is approximately $3,660,000; under Option B2 (two 125 foot bridges), the approximate cost is $2,480,000.

Ease and Ability to Construct:
This option is constructable using existing technology. Substantially more construction equipment and more sophisticated construction techniques would be required for this option, in relation to the other options.

NOTES:

1. APPROXIMATE USEABLE CARGO HANDLING AREA IS 43 ACRES.
2. INITIAL FACILITY TO HANDLE ONE SHIP. FACILITY COULD BE EXPANDED TO HANDLE TWO SHIPS IN THE FUTURE.
3. BRIDGE TO SUPPORT A 1000 lb/sf LIVE LOAD AND COMPLETELY SPAN LINCOLN DITCH. SUNLIGHT AND WILDLIFE ACCESS COMPLETELY BLOCKED.
3. STORM DRAINAGE INITIALLY ROUTED THROUGH LINCOLN DITCH WILL BE REROUTED DIRECTLY TO BLAIR WATERWAY (NOT SHOWN) WORK WILL BE ACCOMPLISHED BY CITY OF TACOMA.

LEGEND

- WETLAND OR GRAVING DOCK FILL AREA, PAVED ON SURFACE
- POTENTAL CONTAINER STORAGE AREA
- PAVED AREA
- BRIDGE

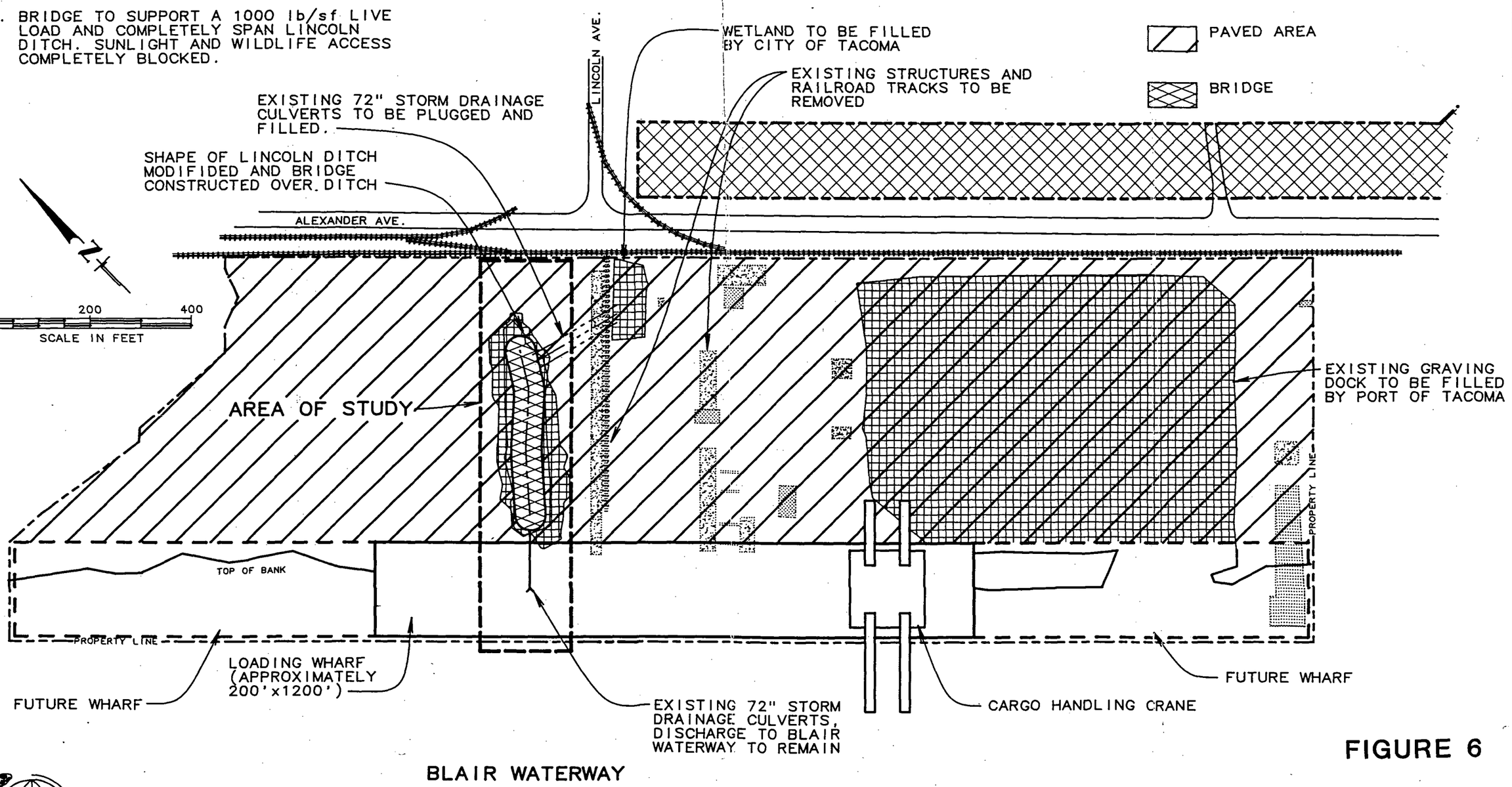


FIGURE 6

PUYALLUP INTERNATIONAL, INC.

BLAIR WATERWAY DEVELOPMENT – OPTION B1

FISHPRO, INC.
PORT ORCHARD, WASHINGTON

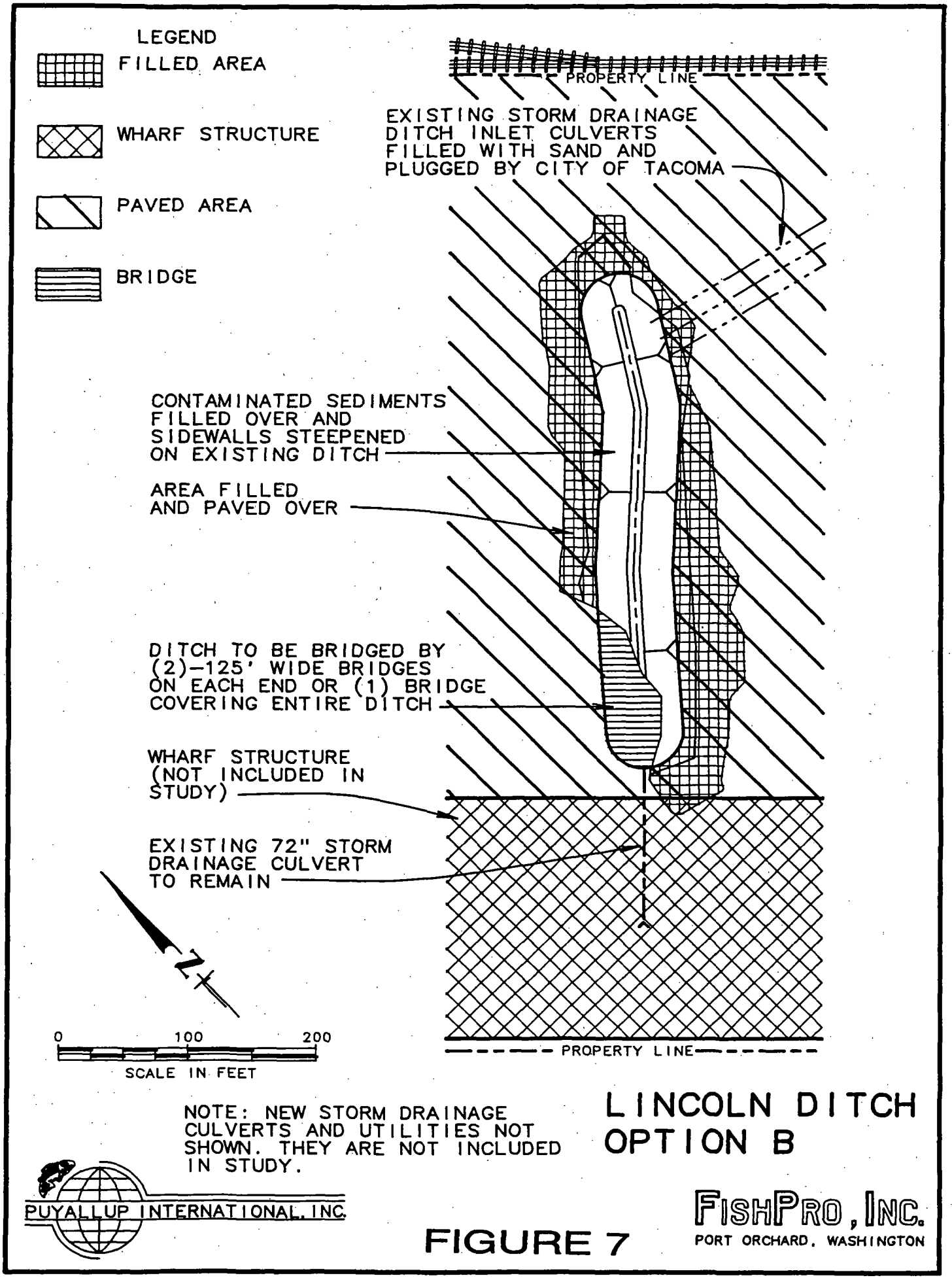

LEGEND
FILLED AREA
WHARF STRUCTURE
PAVED AREA
BRIDGE
PROPERTY LINE
EXISTING STORM DRAINAGE DITCH INLET CULVERTS FILLED WITH SAND AND PLUGGED BY CITY OF TACOMA
CONTAMINATED SEDIMENTS FILLED OVER AND SIDEWALLS STEEPENED ON EXISTING DITCH
AREA FILLED AND PAVED OVER
DITCH TO BE BRIDGED BY (2)-125' WIDE BRIDGES ON EACH END OR (1) BRIDGE COVERING ENTIRE DITCH
WHARF STRUCTURE (NOT INCLUDED IN STUDY)
EXISTING 72" STORM DRAINAGE CULVERT TO REMAIN
N
0
100
200
SCALE IN FEET
PROPERTY LINE
NOTE: NEW STORM DRAINAGE CULVERTS AND UTILITIES NOT SHOWN. THEY ARE NOT INCLUDED IN STUDY.
LINCOLN DITCH
OPTION B
PUYALLUP INTERNATIONAL, INC.
FISHPRO, INC.
PORT ORCHARD, WASHINGTON

FIGURE 7

NOTES:

1. APPROXIMATE USEABLE CARGO HANDLING AREA IS 41 ACRES.
2. INITIAL FACILITY TO HANDLE ONE SHIP. FACILITY COULD BE EXPANDED TO HANDLE TWO SHIPS IN THE FUTURE.
3. BRIDGES TO SUPPORT A 1000 lb/sf LIVE LOAD AND SPAN LINCOLN DITCH IN TWO PLACES. SUNLIGHT AND WILDLIFE ACCESS PARTIALLY BLOCKED.
4. OPERATIONAL EFFICENCY DECREASED DUE TO BRIDGE CONSTRICTIONS.
5. BRIDGES 125' WIDE TO ALLOW TWO PIECES OF CONTAINER HANDLING EQUIPMENT TO PASS SAFELY.
6. STORM DRAINAGE INITIALLY ROUTED THROUGH LINCOLN DITCH WILL BE REROUTED DIRECTLY TO BLAIR WATERWAY (NOT SHOWN) WORK WILL BE ACCOMPLISHED BY CITY OF TACOMA.

LEGEND

- WETLAND OR GRAVING DOCK FILL AREA, PAVED ON SURFACE
- POTENTAL CONTAINER STORAGE AREA
- PAVED AREA
- BRIDGE

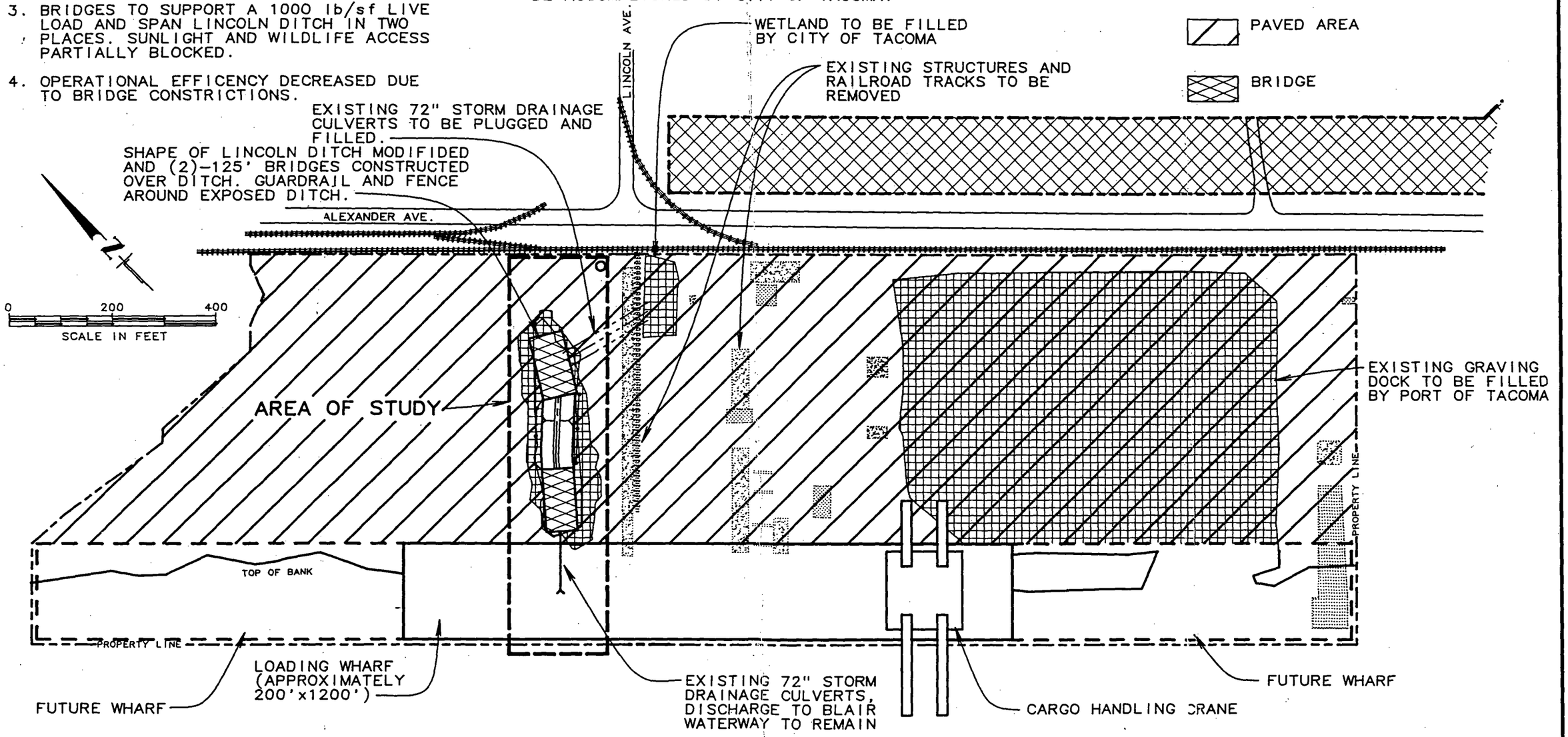


FIGURE 8

PUYALLUP INTERNATIONAL, INC.

BLAIR WATERWAY DEVELOPMENT – OPTION B2

FISHPRO, INC.
PORT ORCHARD, WASHINGTON

Table 4. Lincoln Ditch - Option B1
Preliminary Opinion of Probable Construction Cost **

ITEM	QUANTITY	UNIT	UNIT COST*	EXTENSION	SUBTOTAL
Constructon					
Clear and Grub	1.2	AC	1,500	$1,800	
Granular Fill	5,300	CY	6.00	$31,800	
Paving	2,700	SY	14.50	$39,200	
Riprap	1,500	CY	42.00	$63,000	
Bridge Structure	26,600	SF	100.00	$2,660,000	
Temporary Erosion Control	1	LS	2,300	$2,300	
Plug and Fill Existing Culverts	1	LS	13,500	$13,500	
Subtotal Construction					**$2,812,000**
Engineering & Project Management			10%		$281,000
Contingency			20%		$562,000
Opinion of Probable Construction and Design Cost					**$3,660,000**

* Unit costs include all material, labor, and equipment for installation. Mobilization and insurance & bonding also included in unit costs.
** Opinion of Probable Cost does not include tax.

Table 5. Lincoln Ditch - Option B2
Preliminary Opinion of Probable Construction Cost **

ITEM	QUANTITY	UNIT	UNIT COST*	EXTENSION	SUBTOTAL
Constructon					
Clear and Grub	1.2	AC	1,500	$1,800	
Granular Fill	5,300	CY	6.00	$31,800	
Paving	2,700	SY	14.50	$39,200	
Riprap	750	CY	42.00	$31,500	
Bridge Structure	17,500	SF	100.00	$1,750,000	
Temporary Erosion Control	1	LS	2,300	$2,300	
Plug and Fill Existing Culverts	1	LS	13,500	$13,500	
Chainlink Fencing	760	LF	17.00	$12,900	
Guardrailing	760	LF	25.00	$19,000	
Topsoil	200	CY	8.00	$1,600	
Erosion Control Fabric	1,600	SY	1.20	$1,900	
Plantings	0.2	AC	25,000	$5,000	
Subtotal Construction					**$1,911,000**
Engineering & Project Management			10%		$191,000
Contingency			20%		$382,000
Opinion of Probable Construction and Design Cost					**$2,480,000**

* Unit costs include all material, labor, and equipment for installation. Mobilization and insurance & bonding also included in unit costs.
** Opinion of Probable Cost does not include tax.

Ability to Meet Project Goal:
Under Option B1, project goals could be adequately met. With a bridge spanning the entire Ditch, the whole area would be available for cargo handling operations. With Option B2, project goals would be compromised. A Ditch partially bisecting the site increases the difficulty of safely maneuvering cargo handling equipment. Operational efficiency of the facility would be compromised under Option B2.

Level of Contamination Cleanup:
This option could utilize cleanup alternatives 2, 3, 5 or 6 (Landau Associates, Inc. 1992b). Alternative 2 involves covering the contaminated sediments with a layer of soil and alternatives 3, 5, and 6 involve excavating the contaminated materials and disposing of them in various ways. Alternative 2 was selected because it is the most cost effective and easiest to properly implement. It should be noted, however, that this is not the preferred cleanup alternative and will not provide the degree of isolation from contaminated sediments that the preferred alternative affords.

Level of Safety:
Option B1 offers the highest degree of safety from a site development stand-point. It affords the maximum space available from the site for maneuvering equipment. Safety is compromised under Option B2, since the exposed Ditch will present an obstacle to equipment movement. Even with guard railing, the Ditch poses a potential safety hazard. If equipment, containers or personnel go into the Ditch, there is a significant risk that contaminated sediments would be released to the environment.

Level of Environmental Impact:
Since the contaminated sediments will be capped under Option B1, potential for environmental and human contact with hazardous materials would be reduced under Option B1. Within this option, the Ditch will maintain the connection with Blair Waterway. There is a possibility that the clean capping sediments could erode, especially around pilings due to tidal influence, surges and currents between the pilings, and vibrations caused by movement of equipment, which ultimately could cause releases of contamination to the waterway. A long-term monitoring program would likely be required under this option. Option B1 would have environmental impacts similar to Option A. The Ditch would be completely covered, prohibiting any plant or animal life.

In Option B2, a section of the Ditch would be directly exposed to the elements. In addition to potential accident risks involving heavy equipment and containers, there is a possibility that clean capped sediments could erode and ultimately convey further contamination to the Waterway. A long-term monitoring program would likely be required under Option B2. With proposed plantings, the vegetation in the Ditch could be maintained or enhanced. Animal populations would, however, be limited, as this area would be surrounded by major industrial activity, and cut off from other habitat.

Level of Maintenance Required:
Maintenance required for the bridge structure would be extensive. It is estimated that annual maintenance costs could be as high as $30,000 (Perry 1993) for Option B1 and $20,000 for Option B2.

Option C

In Option C, a portion of each end of the Ditch would be filled, leaving an approximately 200 foot section of Ditch in the center. The exposed Ditch sidewalls would be steepened and planted with appropriate wetland plant species (Figures 9 and 10).

To initiate construction under this option, the inlet culverts would be plugged and filled. A silt fence would be placed around the construction area and the existing vegetation cleared. A new section of 72 inch outlet culvert would then be added to the existing culvert, to extend the outlet to the new tidal pond location. The end sections of the pond would then be filled in lifts as describe in Option A. A preload may be required for these sections, as well. The center section would receive a layer of clean fill and the side slopes would be steepened in a manner similar to Option B. The center Ditch section would be covered with erosion control fabric and a layer of topsoil and then re-planted. The silt fence would then be removed, the end near the outlet culvert unplugged, the surface paved and fencing and guard railing erected around the exposed Ditch.

Evaluation Cost:
An opinion of probable cost was developed for this option and is presented in Table 6. The construction cost for this option is approximated at $290,000.

Ease and Ability to Construct:
As with Option A, this development option would be easily constructed under existing technology. Preloading, if required, should precede other site development by up to six months.

Ability to Meet Project Goals:
Project goals would be compromised by this option. Since the Ditch would still partially bisect the site, the maneuvering abilities of cargo loading equipment would be impaired and cargo storage area reduced. Operational efficiency of the area would be much reduced.

Level of Contamination Cleanup:
This option would employ a combination of previously analyzed cleanup Alternatives 2 and 4 (Landau Associates, Inc. 1992b). Alternative 4, filing the Ditch to grade, would be used on the end sections, where the wetland would be filled. This was the recommended cleanup alternative. Although the remaining Ditch area could be cleaned up under a number of the identified alternatives, Alternative 2 was selected because it was the easiest to implement and the most cost effective. This method of handling the contaminated material should be effective in isolating the material from the environment.

NOTES:

1. APPROXIMATE USEABLE CARGO HANDLING AREA IS 41 ACRES.
2. INITIAL FACILITY TO HANDLE ONE SHIP. FACILITY COULD BE EXPANDED TO HANDLE TWO SHIPS IN THE FUTURE.
3. STORM DRAINAGE INITIALLY ROUTED THROUGH LINCOLN DITCH WILL BE REROUTED DIRECTLY TO BLAIR WATERWAY (NOT SHOWN) WORK WILL BE ACCOMPLISHED BY CITY OF TACOMA.
4. OPERATIONAL EFFICIENCY DECREASED DUE TO DITCH SECTION.

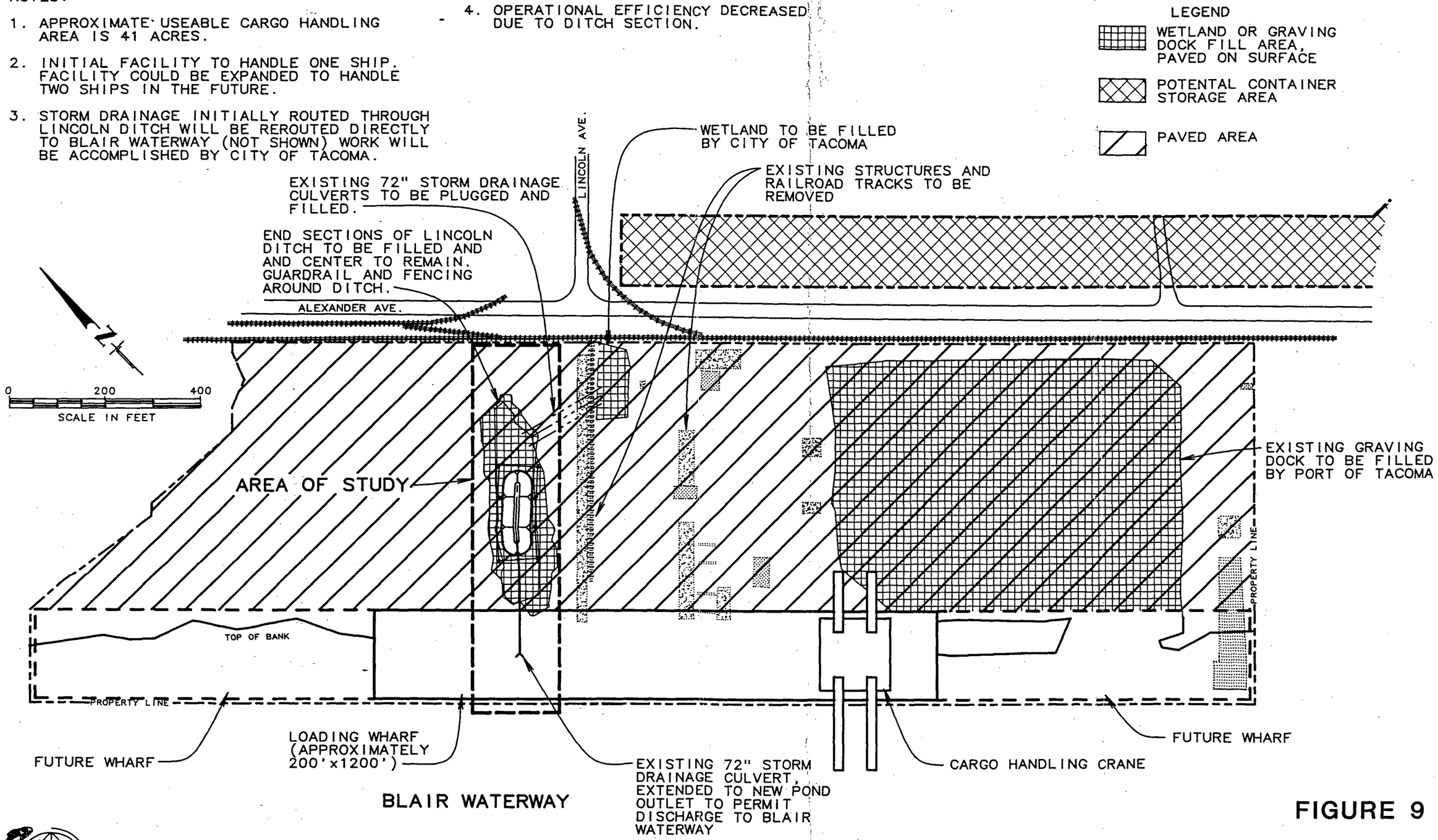
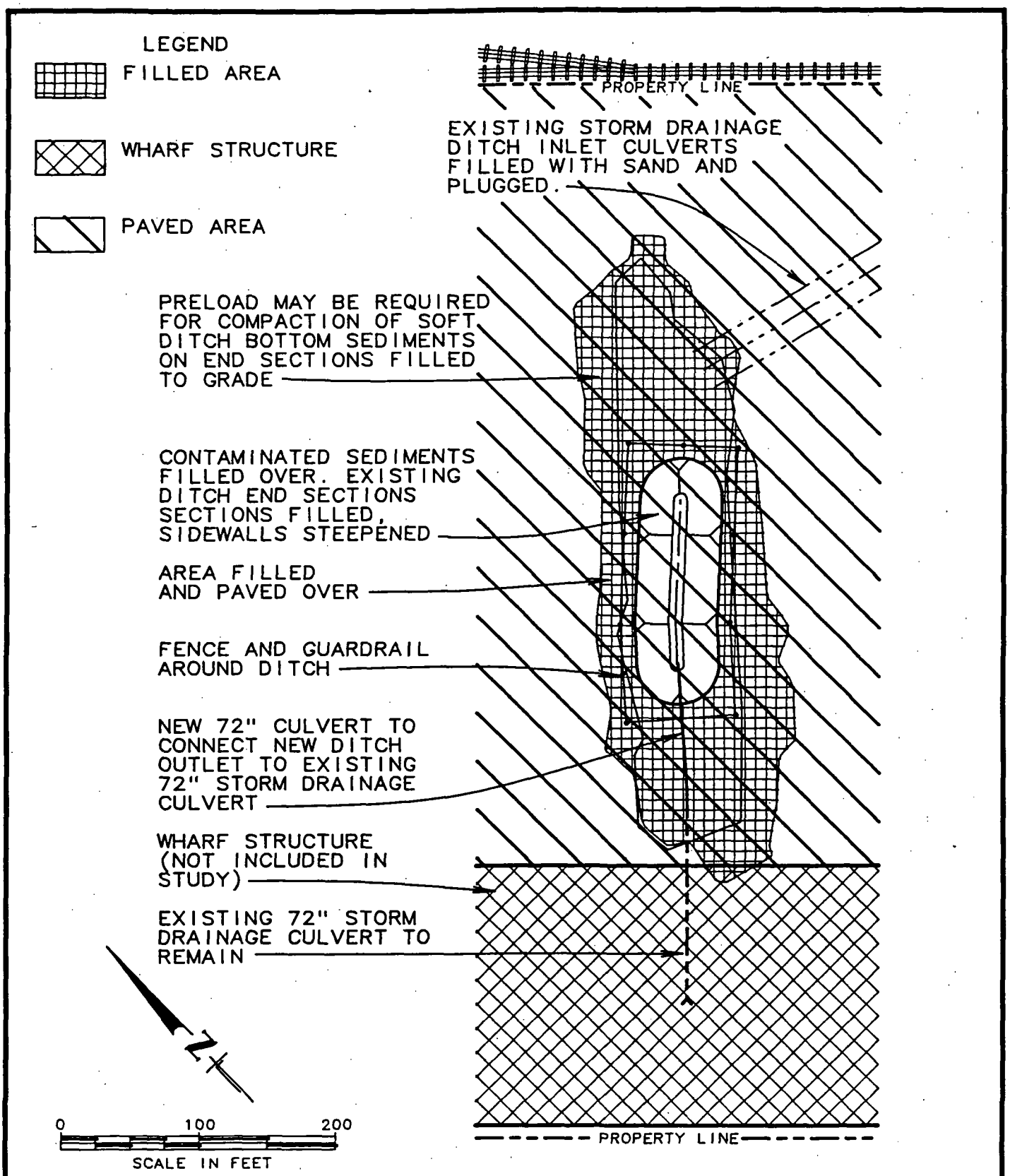


FIGURE 9

PUYALLUP INTERNATIONAL, INC.

BLAIR WATERWAY DEVELOPMENT — OPTION C

FISHPRO, INC.
PORT ORCHARD, WASHINGTON



NOTE: NEW STORM DRAINAGE CULVERTS AND UTILITIES NOT SHOWN. THEY ARE NOT INCLUDED IN STUDY.

LINCOLN DITCH OPTION C

PUYALLUP INTERNATIONAL, INC.

FISHPRO, INC.
PORT ORCHARD, WASHINGTON

FIGURE 10

Table 6. Lincoln Ditch - Option C
Preliminary Opinion of Probable Construction Cost **

ITEM	QUANTITY	UNIT	UNIT COST*	EXTENSION	SUBTOTAL
Constructon					
Clear and Grub	1.2	AC	1,500	$1,800	
Granular Fill	10,200	CY	6.00	$61,200	
Preload ***	5,800	CY	2.00	$11,600	
Paving	4,200	SY	14.50	$60,900	
Temporary Erosion Control	1	LS	2,300	$2,300	
72 in Culvert	120	LF	205	$24,600	
Culvert Inlet Structure	1	LS	4,000	$4,000	
Plug and Fill Existing Culverts	1	LS	13,500	$13,500	
Culvert Bedding	70	CY	14.00	$1,000	
Chainlink Fencing	800	LF	17.00	$13,600	
Guardrailing	800	LF	25.00	$20,000	
Topsoil	260	CY	8.00	$2,100	
Erosion Control Fabric	1,600	SY	1.20	$1,900	
Plantings	0.3	AC	25,000	$7,500	
Subtotal Construction					**$226,000**
Engineering & Project Management			10%		$23,000
Contingency			20%		$45,000
Opinion of Probable Construction and Design Cost					**$290,000**

* Unit costs include all material, labor, and equipment for installation. Mobilization and insurance & bonding also included in unit costs.

** Opinion of Probable Cost does not include tax.

*** Only material handling costs included. It is assumed that preload material will be used as fill at other portions of the site.

Level of Safety:
Safety is compromised within this option since the exposed Ditch would present an obstacle for movement of cargo handling equipment. The Ditch would pose a potential safety hazard, into which equipment, containers and personnel could fall. Should such accidents occur, there is a significant risk that contaminated sediments would be released to the environment.

Level of Environmental Impact:
Since the contaminated sediments are capped under this development option, the potential for contact with hazardous materials will be reduced. The Ditch will maintain hydraulic connection with Blair Waterway under this option. The possibility of clean sediments eroding and ultimately resulting in further discharge of contaminated sediments to the waterway remains. A long-term monitoring program may be required under this option. A center section of the Ditch would be enhanced with wetland plantings. Animal populations, however, would probably be very limited since this area would be the center of major industrial activities.

Level of Maintenance Required:
Maintenance requirements under this option would be relatively low to moderate. The filled areas would be maintained in a manner similar to the maintenance associated with other on-site development. The enhanced wetland area would most likely require a long-term monitoring program to help ensure contaminated sediments remained capped.

Option D

Option D consists of altering the cross section of the Ditch, removing the contaminated sediments and creating a fully functional intertidal wetland. See Figures 11 and 12. To construct this option, the inlet culverts would initially be plugged and filled. In addition, the outlet culvert would be temporarily plugged. A silt fence would then be constructed around the construction area. Next, the contaminated material in the Ditch bottom would be excavated and either taken to a hazardous waste landfill or placed in a temporary holding area, to be later transported as fill for the Milwaukee Waterway Project, or another appropriate fill project.

After excavation, clean imported fill would be added to the Ditch and the side slopes steepened. This operation would be done in a way similar to that described under Options B2 and C. The purpose of steepening the side slopes is to provide a Ditch section that is more compatible with site development objectives. After this operation is complete, erosion control fabric would be applied, topsoil spread over the entire Ditch surface and the area planted with appropriate wetland plants. The silt fence would then be removed and the outlet culvert unplugged. Guard railing and fencing would be constructed around the Ditch as the surrounding areas were paved.

NOTES:

1. APPROXIMATE INITIAL USEABLE CARGO HANDLING AREA IS 39 ACRES.
2. INITIAL FACILITY TO HANDLE ONE SHIP. FACILITY COULD BE EXPANDED TO HANDLE TWO SHIPS IN THE FUTURE.
3. STORM DRAINAGE INITIALLY ROUTED THROUGH LINCOLN DITCH WILL BE REROUTED DIRECTLY TO BLAIR WATERWAY (NOT SHOWN) WORK WILL BE ACCOMPLISHED BY CITY OF TACOMA.
4. NORTH AND SOUTH CONTAINER HANDLING AREAS EFFECTIVLY ISOLATED FROM EACH OTHER BY LINCOLN DITCH (OPERATIONALLY INEFFECTIVE).

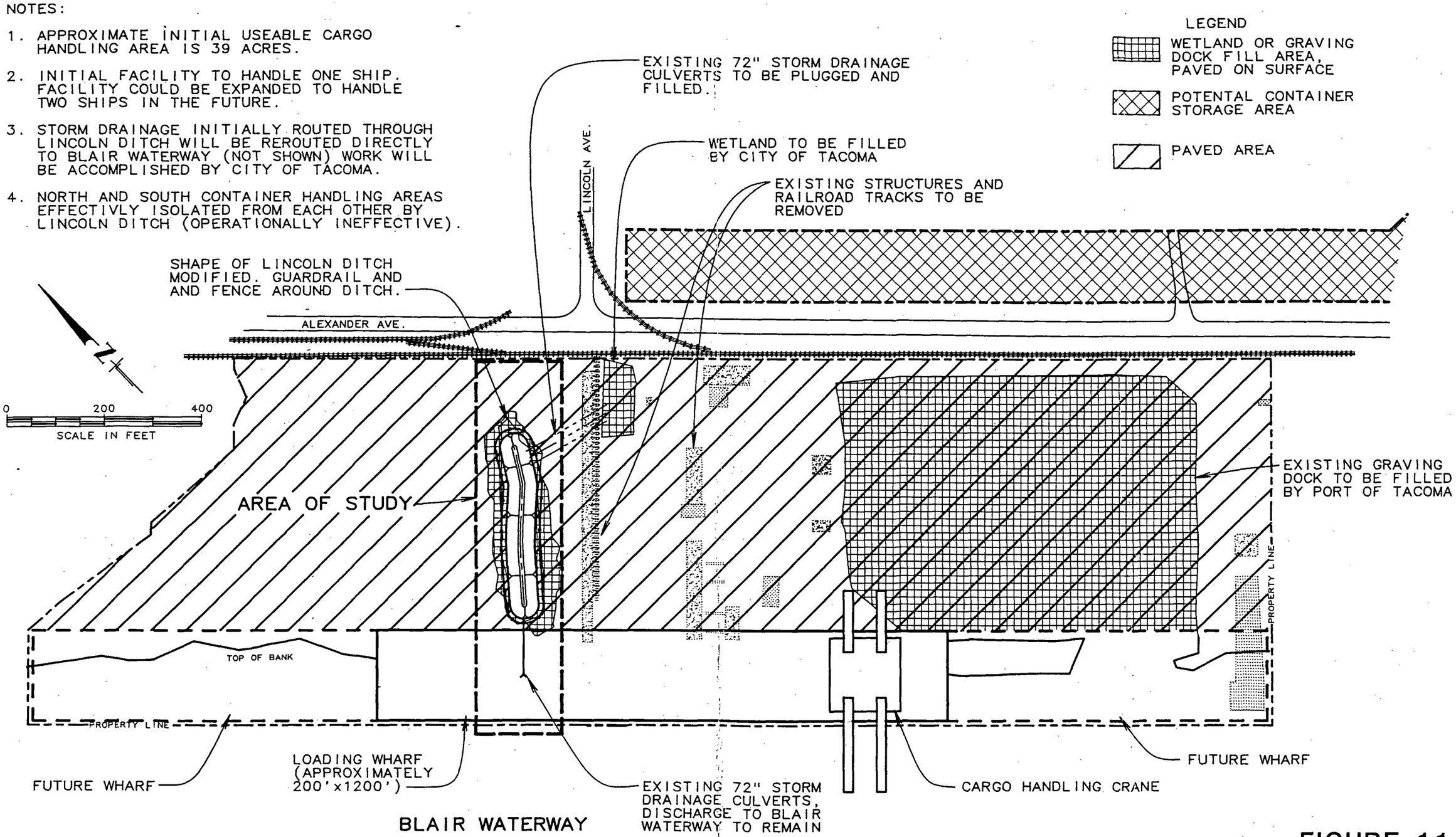
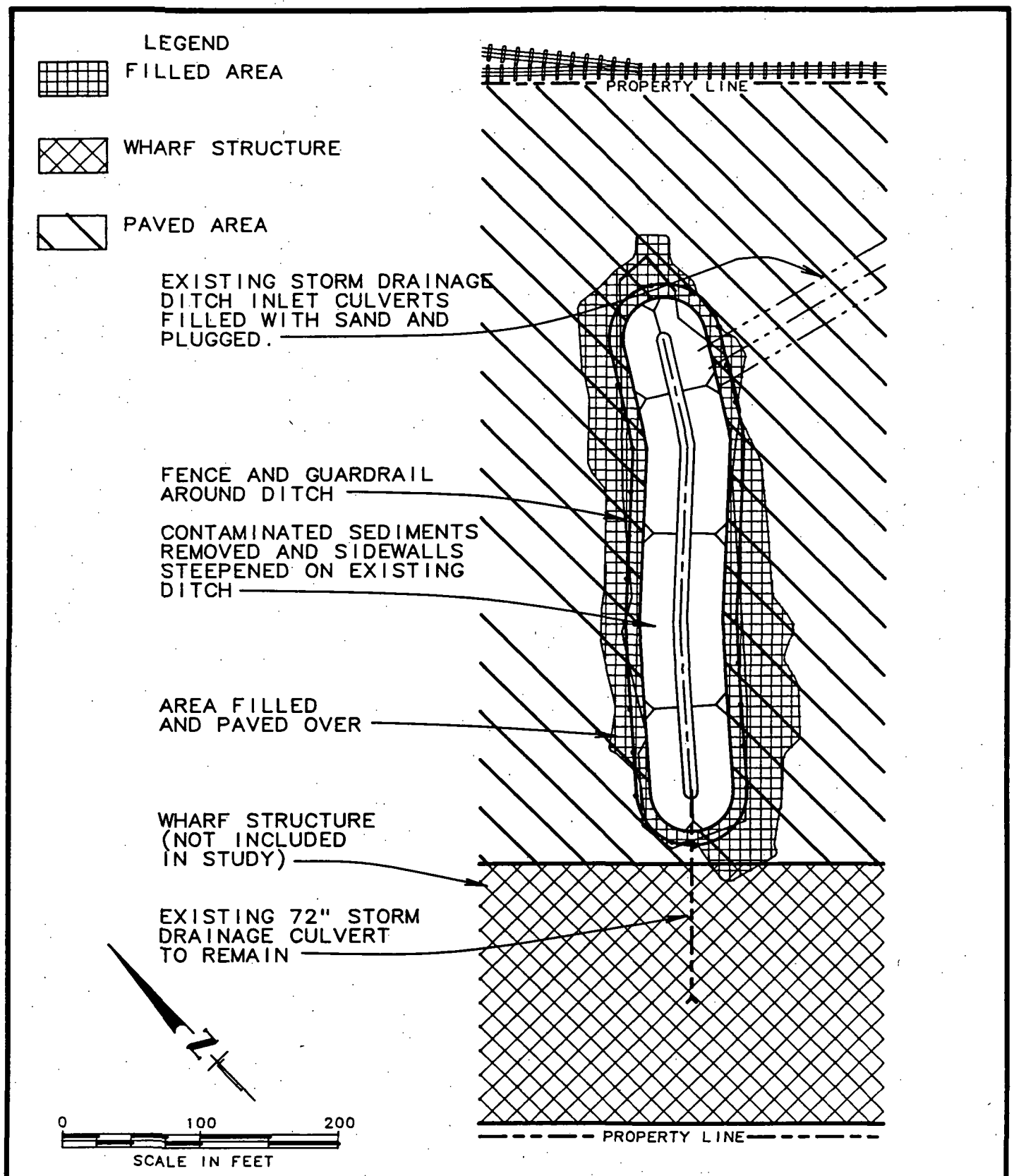


FIGURE 11

PUYALLUP INTERNATIONAL, INC.

BLAIR WATERWAY DEVELOPMENT – OPTION D

FISHPRO, INC.
PORT ORCHARD, WASHINGTON



NOTE: NEW STORM DRAINAGE CULVERTS AND UTILITIES NOT SHOWN. THEY ARE NOT INCLUDED IN STUDY.

LINCOLN DITCH OPTION D

PUYALLUP INTERNATIONAL, INC.

FIGURE 12

FISHPRO, INC.
PORT ORCHARD, WASHINGTON

Evaluation Cost:
An opinion of probable cost was developed for this option and is shown in Tables 7 and 8. Construction costs for this option could range from approximately $310,000 to $1,310,000 depending upon the selected method of disposal for the contaminated sediments. In addition, it is unknown at this time how much contaminated sediment exists in the Ditch. Cost will vary depending upon the quantity.

Ease and Ability to Construct:
This option would require some excavation and some controlled fill. Excavation of the wet bottom materials may be difficult and transporting and disposal of the contaminated material may require a substantial effort to gain acceptance by disposal agencies. In addition, construction effort will depend upon the amount of contaminated sediment at the site. It is, therefore, difficult to quantify the ease and ability to construct this development option.

Ability to Meet Project Goals:
Facility operation would be seriously compromised, making this development option exceptionally unpracticable in light of overall project purposes. The Ditch effectively bisects the required container handling area. The water dependent use of the site will be compromised under this development option because a commercially viable deep draft port facility requires a specific amount of continuous linear waterfront and contiguous container mobilization and loading area. The area available under this option, approximately 39 acres, pushes the project below the minimum that is commercially and operationally feasible. This option would not meet the project requirements (Perry 1993).

Level of Contamination Cleanup:
Contamination cleanup could be accomplished in association with Alternatives 3, 5 or 6 (Landau Associates, Inc. 1992b). In Alternatives 3 and 5, the contaminated sediment would be excavated from the bottom of the Ditch and temporarily stored. Later they would be disposed of in conjunction with the Milwaukee Waterway Fill Project or similar fill operations. For these alternatives to be viable, this project would have to be completed prior to the start of the Milwaukee Waterway Fill Project. Additionally, gaining approval to place the contaminated material in such a project may be difficult. In Alternative 6, the sediment would be excavated and disposed of at a hazardous waste landfill. Each of the alternatives would clean up the contaminated sediment. The alternative selected would depend on the timing of the project relative to other large fill operations. None of these alternatives was the cleanup method recommended in the alternatives analysis report (Landau Associates, Inc. 1992b).

Level of Safety:
Safety would be compromised under this development option since the exposed Ditch would present an obstacle for movement of cargo handling equipment. The Ditch would be a potential safety hazard. Because the overall size of the Ditch within this option is much greater than in the other options, it would pose a greater detriment to personal safety.

Table 7. Lincoln Ditch - Option D1
Disposal of Contaminated Fill in Hazardous Waste Landfill
Preliminary Opinion of Probable Construction Cost **

ITEM	QUANTITY	UNIT	UNIT COST*	EXTENSION	SUBTOTAL
Constructon					
Clear and Grub	1.2	AC	1,500	$1,800	
Excavation	4,000	CY	12.00	$48,000	
Haul & Dispose of Contaminated Sed.	4,000	CY	200.00	$800,000	
Granular Fill	5,300	CY	6.00	$31,800	
Paving	2,700	SY	14.50	$39,200	
Temporary Erosion Control	1	LS	2,300	$2,300	
Plug and Fill Existing Culverts	1	LS	13,500	$13,500	
Chainlink Fencing	1,200	LF	17.00	$20,400	
Guardrailing	1,200	LF	25.00	$30,000	
Topsoil	550	CY	8.00	$4,400	
Erosion Control Fabric	3,300	SY	1.20	$4,000	
Plantings	0.6	AC	25,000	$15,000	
Subtotal Construction					**$1,010,000**
Engineering & Project Management			10%		$101,000
Contingency			20%		$202,000
Opinion of Probable Construction and Design Cost					**$1,310,000**

* Unit costs include all material, labor, and equipment for installation. Mobilization and insurance & bonding also included in unit costs.

** Opinion of Probable Cost does not include tax.

Table 8. Lincoln Ditch - Option D2
Disposal of Contaminated Fill in Waterway Fill Project
Preliminary Opinion of Probable Construction Cost **

ITEM	QUANTITY	UNIT	UNIT COST*	EXTENSION	SUBTOTAL
Constructon					
Clear and Grub	1.2	AC	1,500	$1,800	
Excavation	4,000	CY	12.00	$48,000	
Transport & Store Contaminated Sed.	4,000	CY	2.75	$11,000	
Transfer to Appropriate Fill Project	4,000	CY	4.00	$16,000	
Granular Fill	5,300	CY	6.00	$31,800	
Paving	2,700	SY	14.50	$39,200	
Temporary Erosion Control	1	LS	2,300	$2,300	
Plug and Fill Existing Culverts	1	LS	13,500	$13,500	
Chainlink Fencing	1,200	LF	17.00	$20,400	
Guardrailing	1,200	LF	25.00	$30,000	
Topsoil	550	CY	8.00	$4,400	
Erosion Control Fabric	3,300	SY	1.20	$4,000	
Plantings	0.6	AC	25,000	$15,000	
Subtotal Construction					**$237,000**
Engineering & Project Management			10%		$24,000
Contingency			20%		$47,000
Opinion of Probable Construction and Design Cost					**$310,000**

* Unit costs include all material, labor, and equipment for installation. Mobilization and insurance & bonding also included in unit costs.

** Opinion of Probable Cost does not include tax.

Level of Environmental Impact:
Contaminated sediments would be removed under this option, thus providing a positive effect on the environment. In addition, the wetland would be enhanced by planting native wetland plants. Animal life, however, would be impacted. With the wetland cut off from other habitats and surrounded by major industrial activity, it is unlikely that populations of animals would flourish.

Level of Maintenance Required:
The maintenance level for this option would be very low. It would probably primarily consist of a wetland monitoring program.

Selection of Preferred Development Options

To select a preferred option of development for Lincoln Ditch, a comparison matrix was developed (Table 9). Each of the criteria evaluated in Table 9 is discussed below:

Construction Cost:
Estimated construction costs ranged from $280,000 to $3,660,000, with Option A being the most cost effective.

Ability to Meet Project Goals:
In order to operate efficiently as a container loading facility, the handling area must be as obstruction free as possible. Available area near the loading wharf should be maximized. The only options that completely meet this criteria are Options A and B1.

Ability and Ease of Construction:
Option A, C and D consist primarily of simple earth work, making them desirable from this stand point. Building a bridge structure, as proposed in Option B, would be very complicated compared to the other identified development options. Option D involves excavation and handling of contaminated material. It would, therefore, be a more complicated operation. Option C would result in working with a steep side slope, which poses added difficulties. Option A affords the simplest construction techniques, with Option C being the next most desirable in regards to ease of construction.

Level of Contamination Cleanup:
All options do an adequate job of cleaning or isolating the contaminated sediments from human and environmental contact at the outset. Options B and C involve long-term risks of additional releases of contaminated sediments. Only Option A utilizes the preferred method of cleanup as recommended in the Landau report (Landau Associates, Inc. 1992b). Option A is, therefore, the highest rated in this category.

Level of Safety:
For safe operation of the facility, the site should be developed with a minimum number of obstructions. An open Ditch in the middle of the site would be a major obstacle, and could present serious operational safety hazards. Options A and B1 were given preferred status ratings for this evaluation category.

TABLE 9: DEVELOPMENT OPTION COMPARISON MATRIX							
Option	Construction Cost	Ability to Meet Goal	Ability and Ease to Construct	Level of Cleanup of Contamination	Level of Safety	Level of Environmental Impact	Level of O & M
A	290,000	High	High	High	High	Moderate	Low
B1	3,660,000	High	Low	Moderate	High	Moderate	High
B2	2,480,000	Moderate	Low	Moderate	Moderate	Moderate	High
C	290,000	Moderate	High	Moderate	Moderate	Moderate	Low
D1	1,310,000	Low	Moderate	Moderate	Low	Low	Low
D2	310,000	Low	Moderate	Moderate	Low	Low	Low

Level of Environmental Impact:
All options will have an impact on the environment. The existing Ditch will be impacted under each development option. In addition, each development option will result in the cleanup of contaminated sediments. Only Option D would attempt to enhance the existing wetland and create a fully functioning wetland on-site. It is however, questionable whether a "fully functioning" wetland could be created in the middle of a major industrial container loading facility in the heavily industrialized Blair Waterway. The area would be cut off from other habitat complexes. It is unlikely that diverse animals populations would inhabit the area. A potentially more desirable alternative would be to mitigate for the lost Ditch habitat at an appropriate off-site location. Without taking mitigation into account, Option D was selected as having the lowest environmental impact. Remaining options were assigned like ratings.

Level of Maintenance Required:
Options A, C and D would be relatively easy to maintain. Maintenance of the bridge structure, within Options B1 and B2, would be very expensive relative to other development options. Option A would involve pavement maintenance similar to that required for the rest of the site subsequent to development. Option B would involve pavement maintenance. Options B and C would most likely require long-term wetland monitoring. Option D would involve only wetland monitoring. Option D was selected as requiring the least amount of maintenance.

Selected Development Option

Option A was selected as the preferred development alternative. It is the least costly and easiest to construct of all identified options. It meets the project goals and provides a safe, efficient site for the proposed deep draft container terminal. Maintenance requirements for this option will be low. Risks of recontamination of the aquatic environment are low. Its environmental impact will also be relatively low when combined with off-site mitigation efforts.

10.2 Evaluation of Alternatives to Discharge in Special Aquatic Sites

The 404(b)(1) Guidelines (U. S. Environmental Protection Agency 1980a) set forth rebuttable assumptions that 1) alternatives for non-water dependent activities that do not involve special aquatic sites are available and that 2) alternatives that do not involve a discharge into a special aquatic site have less adverse impact on the aquatic environment.

1) As previously described, the Puyallup Tribe of Indian's proposed use for the Blair Waterway Property is for a deep draft port facility, as intended by the Settlement Agreement. Only a limited number of West Coast ports meet all the necessary requirements for a deep draft marine terminal. The Property meets all the requirements. By its ratification of the Settlement Agreement, it was the intent of Congress that the Property be available for this use by the Tribe (Du Bey 1993). Operating a port facility on the Blair Waterway Property clearly is a water dependent use within the meaning of the Guidelines (40 C.F.R. Part 230.10(a)(3)). The activity associated with the proposed fill requires access or proximity to the Lincoln Avenue

Ditch to fulfill its basic purpose.

2) Minimization of discharge cannot be accomplished through disposal at an alternative site since the area available for development of this type of commercial activity is very limited (Du Bey 1993; Perry 1993; Vickerman, Zachary & Miller 1991). Although, as identified in Section 10.1, other development options may pose similar or less environmental impact, they are not practicable when considering overall project purposes.

In order to operate efficiently as a container loading facility, the handling area must be as obstruction free as possible. Available area near the loading wharf should be maximized. The only development options that completely meet this criteria are Options A and B1. The estimate of construction cost for Option A is $280,000 (Table 3), while the estimated construction cost for Option B1 is 3,660,000 (Table 4). While both options provide the necessary conditions for efficient facility operation, Option A is clearly more practicable in terms of cost. Options A and B1 have similar environmental impact. Option B1 involves long-term risks of further release of contaminated sediments to the environment. Option D is the only identified alternative with an environmental impact lower than the proposed Option A. However, this option is not practicable in light of overall project goals.

Option A was selected as the preferred development alternative. It is the least costly and easiest to construct of all identified options. It meets the project goals and provides a safe, efficient site for the proposed deep draft container terminal. Its environmental impact will also be relatively low when combined with proposed off-site mitigation efforts.

SECTION 11.0
REVIEW OF CONDITIONS FOR COMPLIANCE

11.1 Availability of Practicable Alternatives

Section 10.2 clearly identifies that the proposed fill of the Lincoln Avenue Ditch is both water dependent and the practicable alternative with the least impact to the aquatic ecosystem. An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes (U. S. Environmental Protection Agency 1980a).

The identification of proposed project purposes is important when examining whether an alternative is practicable. To be practicable, an alternative must be capable of achieving the basic purpose of the proposed activity (Federal Register 1980). In the case of the Blair Waterway Property, the project purpose is twofold, and includes environmental cleanup and commercial development.

The proposed fill of Lincoln Ditch has been identified as the recommended cleanup alternative under the CERCLA process (Landau Associates, Inc. 1992b). This action will effectively isolate contaminated sediment, providing a permanent solution to protect the downstream ecosystem from future releases of hazardous substances from the Ditch.

Although several development options have been identified as possible alternatives, they are not practicable alternatives within the context of the proposed development. It has been previously explained that fifty acres is generally accepted as the minimum amount of land required for the effective operation of a deep draft port facility (E. L. Perry, Perry International, Ltd., personal communication 4/20/93). Recognizing this limitation, the Blair Waterway Property has certain constraints or conditions which must be satisfied in order to develop the Property as a port facility. Filling the Lincoln Avenue Ditch provides the conditions necessary to facilitate efficient operation of a deep draft container facility (Perry 1993).

11.2 Compliance with Pertinent Legislation

11.2.1 State Water Quality Standards and Federal Toxic Effluent Standards

The proposed fill of the Lincoln Avenue Ditch will not cause or contribute to violations of any applicable State or Tribal water quality standards (Puyallup Tribe of Indians 1992). Neither will it violate any applicable Federal toxic effluent standard or prohibition.

11.2.2 Threatened and Endangered Species

The preferred CERCLA cleanup alternative and associated development option will not jeopardize the continued existence of species listed as endangered or threatened under the Endangered Species Act of 1973 or result in the likelihood of the destruction

or adverse modification of a habitat which is determined to be a critical habitat.

11.2.3 Marine Sanctuaries

The proposed Lincoln Avenue Ditch fill will not violate any requirement imposed by the Secretary of Commerce to protect any marine sanctuary designated under the Marine Protection, Research, and Sanctuaries Act of 1972.

11.3 Potential for Significant Degradation of Water as a Result of the Discharge of Polluted Material

The fill proposed for the purpose of CERCLA cleanup and commercial development at the Blair Waterway Property will not cause or contribute to significant degradation of the waters of the United States. Fill material will not be discharged until the culvert connecting the Ditch to the Waterway has been plugged. Material to be discharged will be a clean sand and gravel mixture, free of organic material, debris and other deleterious matter. Imported granular fill will contain a maximum of five percent by dry weight particles passing the No. 200 U. S. Standard sieve size. Material containing debris, wood, plant matter, or other similar organic materials will not be placed as backfill.

11.4 Steps to Minimize Potential Adverse Impacts on the Aquatic Ecosystem

Under the proposed alternative, Lincoln Ditch will be filled to grade. The proposed discharge into Lincoln Ditch is necessary for two reasons: to isolate the contaminated sediment in the Ditch from human contact and from exposure to the environment, and to fill the Ditch for site development considerations. Minimization of discharge cannot be accomplished through disposal at an alternative site since available development area for this type of commercial activity is very limited (Du Bey 1993; Perry 1993; Vickerman, Zachary & Miller 1991).

Sections 9.1 through 9.8 identify the proposed appropriate and practicable steps which will be taken to minimize the potential adverse impacts resulting from the fill of Lincoln Ditch. Discharge activities will be confined in order to minimize impacts to the downstream aquatic ecosystem as much as possible. Development of the Blair Waterway Property will provide for the containment of contaminated sediments. This will provide a positive impact by permanently reducing the volume, toxicity and mobility of hazardous substances (Du Bey 1993; Landau Associates, Inc. 1992b).

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APPENDIX A

Material Included in Appendix A

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Carman, R., Department of Fisheries. March 12, 1993. Letter to Ms. Karen Keeley regarding comments on the Lincoln Ditch mitigation plan.

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Keeley, K., Environmental Protection Agency. March 9, 1993. Letter to Mr. Bill Sullivan regarding comments on the Lincoln Ditch mitigation plan.

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Washington Department of Fisheries. October 29, 1992. Hydraulic Project Approval permit for Tacoma Public Works Department. Control Number 00-57172-02.

EXHIBIT "G"

88-44RWC/E000000

EASEMENT

CORPORATE

XYZ, INC., a corporation organized and existing under the laws of the State of

record owner(s) of the premises hereinafter described, for a valuable consideration from the City of Tacoma, do(es) grant unto the said City, its successors and assigns, the right and privilege to construct and maintain poles, anchors, transformers and guy, service and distribution wires

in, under, over, along and across the following real property situate and being in the County of Pierce and State of Washington, described as follows, to-wit: (see attached)

together with the right to trim and keep trimmed all danger trees located upon the tract of land above described.

It is agreed that the grantor and its successors shall not construct any permanent structures within the easement area and shall at all times provide adequate access to the City staff and its contractors, to change, repair, renew, or remove said equipment.

IN WITNESS WHEREOF, said company has caused its corporate name and seal to be hereunto subscribed and affixed and these presents to be executed by its officers thereunto duly authorized,

this _____ day of _____, 19____.

XYZ, INC.

_____ _____

_____ _____

State of Washington)
)ss.
County of Pierce)

I certify that I know or have satisfactory evidence that _____ signed this instrument on oath stated that (he/she/they) (was/were) authorized to execute the instrument and acknowledged it as the _____ (type of authority) of XYZ, INC. _____ to be _____ (name of party on behalf of whom instrument was executed) the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

S-T-R NE 35-21-3E Map No.

Date _____

Reviewed: _____
Engineer

_____
Notary Public in and for the State of Washington
residing in _____
My appointment expires _____

Form Approved: _____
Assistant City Attorney

Accepted by Director of Utilities

_____

Date _____

(3/90)

A strip of land 50 feet in width; 25 feet on each side of the centerline described as follows:

(Insert legal description here.)

Approved:

Legal Signature

Approved:

Grantor Signature

P. YAMASHITA

PUYALLUP INDIAN LAND
SETTLEMENT AGREEMENT
AUGUST 1988

MEMORANDUM OF AGREEMENT BETWEEN THE PORT OF TACOMA AND THE CITY OF TACOMA FOR SHARING COSTS FOR RELOCATING UTILITIES AT BLAIR WATERWAY AND OTHER OBLIGATIONS TO IMPLEMENT THE SETTLEMENT AGREEMENT WITH THE PUYALLUP INDIAN TRIBE DATED AUGUST 27, 1988

Whereas, the Port of Tacoma ("Port") and City of Tacoma General Government and Department of Public Utilities ("City") are parties to the Agreement between the Puyallup Tribe of Indians, local governments in Pierce County, the State of Washington, the United States of America and certain private property owners dated August 27, 1988 (the "Settlement Agreement"), and

Whereas, prior to the effective date of the Settlement Agreement it became apparent that the City's Sanitary Sewer Crossing and Water Transmission Main crossings for Blair Waterway would conflict with the Puyallup Tribe of Indians ("Tribe") proposed pier and dock structure, and the use of the Blair Waterway Property as contemplated in the Settlement Agreement, and

Whereas, the Port, City and Tribe will be parties to a Supplemental Agreement to the Settlement Agreement (hereinafter called "SA") which will provide for certain specified obligations by the parties thereto, pertaining to relocating these mentioned utilities and dredging, and which SA is contemporaneous to this Memorandum of Agreement ("Memorandum") and incorporated herein, and the purpose of this Memorandum is to further outline the cost sharing and other obligations between the Port and City including transfer of City Belt Line property and easement for the City Light Division;

NOW, THEREFORE, IT IS HEREBY AGREED AS FOLLOWS:

A. CITY TRANSMISSION MAIN RELOCATION

1. The City Department of Public Utilities (Water Division) shall relocate its 36-inch Lincoln Avenue (Vacated)-Blair Waterway Transmission Main in accordance with the terms and conditions in SA, and as further set forth herein.

2. The City shall construct the project substantially in accordance with Exhibit A. All obligations of the Port pursuant to this Memorandum are conditioned on the project scope as defined in Exhibit A unless a change in project scope is agreed to in writing by the Port.

3. The cost estimate for the 36-inch transmission main relocation is set forth on Exhibit A. Except to the extent that the Tribe reimburses the City and Port for the said water main's relocation (as set forth in Section D herein), it is agreed that the City and Port shall share all of the relocation costs equally. The estimated cost for the City (Water Division) and Port for the water transmission main relocation will be approximately $950,000 each.

(a) The said cost estimate for the water main relocation (Exhibit A) makes a number of assumptions pertaining to the cost of this relocation. In the event that the cost of this subject relocation exceeds or is below the cost estimate due to the mentioned assumptions or any other problems, the Port and City agree to share the additional costs equally.

(b) The City shall keep detailed cost accounting records for all costs related to this work, including the City's own staff time. ~~The City will only invoice to the Port its actual cost for this work plus fifteen percent (15%) for overhead and administrative expenses when City employee time is involved.~~

(c) The Port shall pay its said share of the cost within 30 days of being invoiced by the City for such costs. Failure to pay the invoiced amount within 30 days of the date the invoice is mailed shall obligate the Port to pay interest at 1% per month on the unpaid balance. Exhibit D (which by this reference is incorporated herein) further outlines the division of costs between the parties.

(d) The City agrees that the construction and materials standards related to the 36-inch water main relocation costs that will be invoiced to the Port shall not exceed those construction or materials standards that are presently used by the City Water Division. The City's records and/or proposed construction plans and specifications pertaining to this project will be available for review by the Port.

4. The Port agrees to grant to the City appropriate right-of-way easements to accommodate the City's said water transmission main relocation (as set forth on Exhibit A). The City's construction plans and specifications for the portion of the line on Port property must be reviewed and approved by the Port's Chief Engineer prior to construction. The Port will respond with any comments within 10 working days. Except as set forth herein, the form of the to-be-granted easement shall be substantially similar to the easement attached as Exhibit B (recorded under fee number 2087273). The Port agrees that it will not construct any permanent structures within either the twenty (20) foot wide easement area or the two contiguous and parallel fifteen (15) foot wide temporary construction easement areas for this relocated main. In the event a permanent structure is constructed within the temporary construction easement area, the City may charge and the Port shall pay for all additional costs to the City arising from the encumbrance including reimbursement of the cost to repair or replace the damaged structure and delays or extra costs for construction or maintenance.

5. After relocation and notice from the City Water Division, the Port shall become the owner of the abandoned existing 36-inch water main that is within the Blair Waterway from the pierhead line on the northerly side to the end of the southerly abandoned end at the southerly pierhead line.

B. CITY SANITARY SEWER RELOCATION

1. The City (Public Works Department Sewer Utility) shall relocate by installing deeper, the existing Lincoln Avenue

3. The cost for the relocated Blair Waterway Sanitary Sewer crossing is set forth on Exhibit C. Except to the extent that the Tribe reimburses the City and Port for the sewer line relocation, it is agreed that the City and Port shall share in all of the sanitary sewer line relocation cost on the following basis: City 77.78%, Port 22.22%. The invoicing and payment for the sanitary sewer line relocation shall be substantially the same as set forth in Section A.3 above. Exhibit D further outlines the division of costs between the parties.

4. If the relocation of the sanitary sewer line can be accomplished in close proximity to the proposed dredging for the Blair Waterway, the Port or its contractor shall (at the option and request of the City) both dredge the trench in the Waterway for the deepened line and also cover the newly installed line in the Water with six feet of appropriate cover materials. The cost of such work shall be proportionately shared in accordance with the sharing provisions herein.

C. TRIBE'S UTILITY RELOCATION COST REIMBURSEMENT

1. The Port's and City's cost sharing for the City's utility relocation costs as set forth in this Memorandum anticipates the reimbursement of certain costs from the Tribe. However, until the Tribe fully reimburses or pays certain monies as further explained, the City and Port agree to fund the Tribe's share of the relocation costs. The Tribe's share of the relocation costs is:

Water Line Relocation = $800,000*
Sanitary Sewer Line Relocation = $100,000*
* As adjusted by Index.

2. The initial payment by the Tribe of $450,000 shall be to the City at the time the Tribe develops Blair Waterway property (as set forth in SA). The City Water Division shall receive $400,000 of this amount and the City Sewer Utility shall receive $50,000. Said amounts will be increased to reflect adjustment pursuant to the agreed index and interest pursuant to SA.

3. The Port agrees to reimburse the City for an additional $450,000 (plus indexing and interest adjustments) for the Tribe's share of the City's utility relocation costs, which will be invoiced and paid in accordance with A.3 herein during project construction.

4. If for any reason the Tribe does not pay all or part of the utility relocation costs, the Port and City shall share equally all of the water transmission main relocation costs and

proportionately (e.g., 77.78% City and 22.22% Port, respectively) for the sanitary sewer line relocation costs).

D. CITY BELT LINE PROPERTY TRANSFER TO PORT WHICH WILL BE TRANSFERRED BY THE PORT TO THE TRIBE

1. The City is transferring by deed the City Belt Line parcel of land (approximately 0.66 acre) which is described on Exhibit E, which by this reference is incorporated herein.

2. All environmental cleanup activities on the subject parcel shall be conducted by the Port at the Port's sole expense.

3. The City hereby assigns over to the Port any and all causes of action which it may have against others for pollution, contamination or environmental harm done to said property or for contribution and indemnity of liability accruing under federal or state cleanup statutes, including, but not limited to, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the State Model Toxics Control Act or successor statutes.

4. The City shall reimburse the Port for all cleanup costs incurred by the Port as a result of the City's operations.

5. In consideration of the assignment to the Port of causes of action based on contribution or indemnity for liability arising out of federal or state cleanup statutes, the Port agrees that the City shall have no liability to the Port for cleanup costs resulting solely from the City's status as a former landowner.

6. The Port agrees that, if the City is the subject of claims or legal actions by third parties, it will reassign back to the City such causes of action as are herein specified, except that this paragraph does not apply to cleanup liability arising from Belt Line operations, or wastes disposed of by the City or generated as a result of City operations.

E. EASEMENTS TO BE RESERVED IN PORT'S DEEDS TO TRIBE AND EASEMENTS TO BE GRANTED TO CITY BY THE PORT

1. The City will be providing the Port with numerous reservations of easement that the Port agrees to insert in the appropriate deeds that the Port will be granting to the U. S. Bureau of Indian Affairs in Trust for the Puyallup Indian Tribe. The Port agrees that before delivery of the deed, the City will have the right to review each deed to verify that the appropriate reservation of easement has been included (Exhibit F).

2. In order to implement the Settlement Agreement, within 60 days of the effective date of this Memorandum, the Port shall grant the City Light Division an easement to allow rerouting certain transmission lines along Alexander Avenue, which relocation is necessary due to the removal of the towers in the Lincoln Avenue Street Vacated area. The Port agrees to provide the necessary easement to the City Light Division at no cost to the City.

(a) This easement will follow the generally described route: from Northeast Substation southerly and parallel to Alexander Avenue, on the east side of Alexander over (Port) leased property to a point about 250 feet northerly of East-West Road, then southerly to the westerly side of Alexander Avenue and crossing the northwesterly corner of a triangular shaped parcel on the northwest corner of Alexander and East-West Road.

(b) The form of the easement shall be substantially similar to the easements held by the City Light Division for its 115 kV transmission lines (50 foot width), a copy of which form is attached and by this reference is incorporated herein as Exhibit G.

F. EFFECTIVE DATE

The effective date of this Memorandum shall be the effective date of the Settlement Agreement.

Approved and Agreed:

PORT OF TACOMA

By: _____
Ned Shera
Commissioner

Dated: March 21, 1990

Approved and Agreed:

CITY OF TACOMA

By: _____
Ray E. Corpuz, Jr.
City Manager

Dated: March 22, 1990

By: _____
E. E. Coates
for Director of Utilities

Dated: March 22, 1990

APPROVED AS TO FORM:

_____
Chief Assistant City Attorney

EXHIBIT A

TACOMA CITY WATER
PROPOSED 36" TRANSMISSION MAIN TO REPLACE
LINCOLN AVENUE CROSSING OF BLAIR WATERWAY
(Location Sketch Attached)
Revised February 20, 1990

COST ESTIMATE

A.	Direct Construction Cost (Per attached estimate)	$2,360,820
B.	Engineering, Surveying & Inspection @ 7%	$ 165,000
C.	Bond/Financing Costs @ 8%	$ 189,000
	TOTAL	$2,714,820

In the event that following cost assumptions do not prove correct, which results in increased costs, such increased costs shall be paid by the Port, Tribe or others and not the City Water Division.

ASSUMPTIONS:

1. No right-of-way costs.
2. No soil or water contamination requiring special treatment.
3. Normal permitting process.
4. No cost for disruption of operations by Port tenants.
5. Pipe buried 5′ in existing Port parking yard and roadways to account for future container storage loadings.
6. Garbage encountered in Marshall Avenue can go to County dump.
7. Suitable excess trench and roadway material is disposed of locally.
8. Railroad tracks can be temporarily removed, not requiring drilled casings.
9. No wetlands are involved.
10. Pierce County cooperation on Marshall Avenue construction permits and location of pipeline.
11. Leave the abandoned pipe in place and it will become property of Port in waterway and Tribe in Lincoln Avenue vacated.

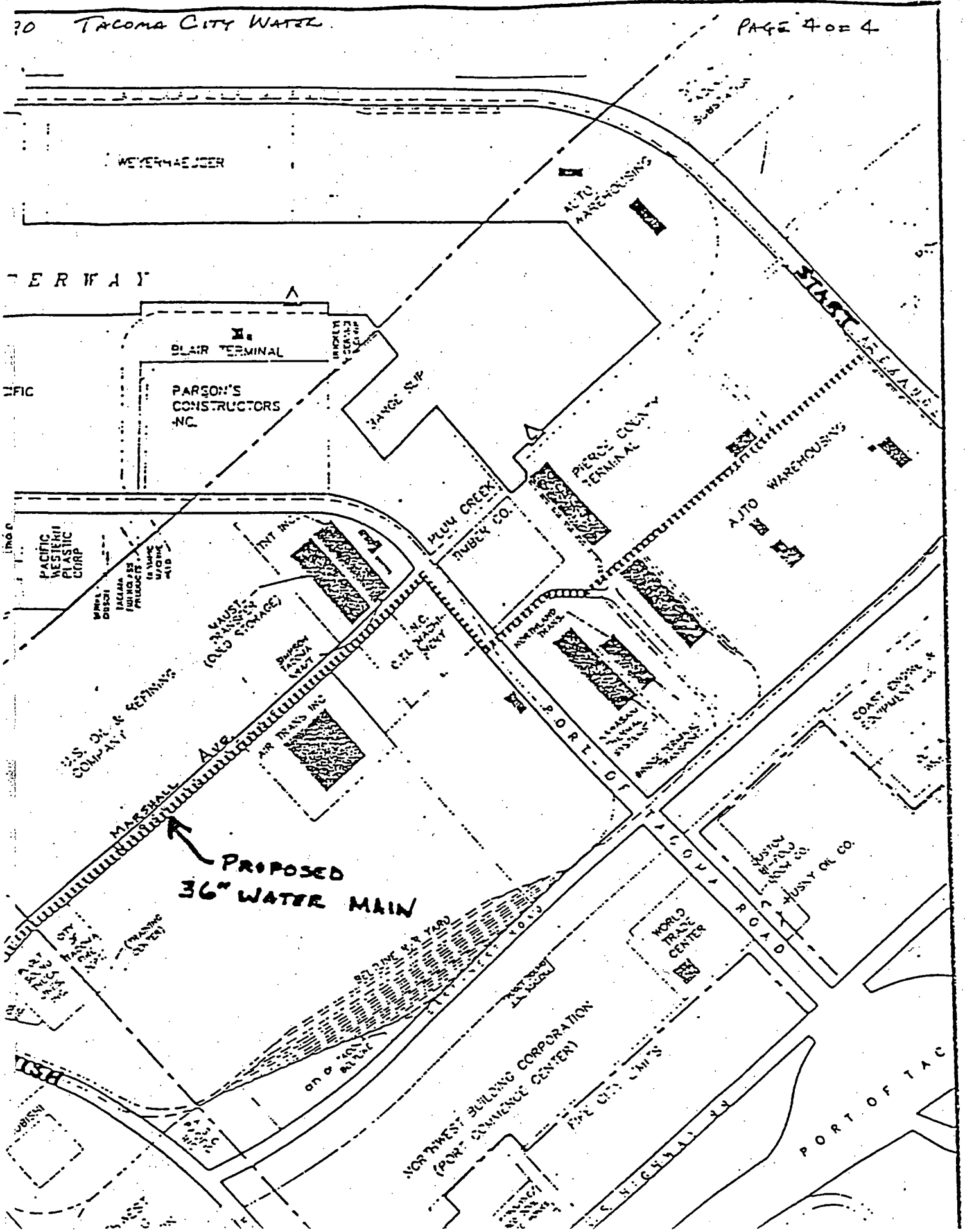
WEYERHAEUSER
AUTO WAREHOUSING
START
BLAIR TERMINAL
PARSON'S CONSTRUCTORS INC
PIERCE COUNTY TERMINAL
PLUM CREEK TIMBER CO.
AUTO WAREHOUSING
PACIFIC WESTERN PLASTIC CORP
U.S. OIL & REFINING COMPANY
MARSHALL AVE.
AIR TRANS INC
PORT OF TACOMA ROAD
PROPOSED 36" WATER MAIN
WORLD TRADE CENTER
NORTHWEST BUILDING CORPORATION (PORT COMMERCE CENTER)
PORT OF TAC

EXHIBIT B

2087273 VOL 1302 PAGE 453

EXCISE TAX EXEMPT DATE
L. R. Johnson, Pierce Co. Treasurer
By _____ Deputy

EASEMENT

KNOW ALL MEN BY THESE PRESENTS, that HOOKER CHEMICAL CORPORATION, a corporation organized and existing under the laws of the State of New York, Grantor, owner of the premises hereinafter described, for valuable consideration, receipt whereof is hereby acknowledged, has granted and conveyed and by these presents does hereby grant and convey unto the Water Division of the CITY OF TACOMA, a municipal corporation, Grantee, a twenty (70) foot wide utility right-of-way together with a perpetual right and privilege to excavate, construct, install and maintain a 36-inch diameter steel trunk distribution water main, having a minimum wall thickness of 5/16 inch under and upon said 20 foot right-of-way situate in the County of Pierce, State of Washington, to-wit:

> The Northwest quarter (NW-1/4) of Section 35, Township 21 North, Range 3 East of W. M., County of Pierce, State of Washington, the center line of which is more particularly described as follows:
>
> Commencing at a point on the Lincoln Avenue Monument Line 655 feet West of the center line of Alexander Avenue; thence at right angles to said Monument Line 100 feet to the northerly line of Lincoln Avenue and the true point of beginning; thence continuing in a northwesterly direction on the same course a distance of 145 feet; thence in a southwesterly direction and parallel to the Lincoln Avenue Monument Line a distance of 175 feet to the proposed Pierhead Line which is City of Tacoma, Water Division Engineer's Station 171 + 34.50

together with the right to enter upon, over and along said real property hereinabove described, from time to time, with reasonable care to inspect, repair, alter, modify, replace or remove said water main; provided, however further, that permission is granted to Grantee to enter upon and utilize for the purpose of excavation, construction, installation, repair and replacing the above described water main, a strip of land 15 feet wide on contiguous to and adjoining either side of the 20 foot utility right-of-way above described, but the use of said additional area shall extend only for such period of time as it is necessary for Grantee to lay down and install the aforesaid water main, or repair or replace it, after which time the permission

herein granted shall cease and determine except for the granting of the 20 foot right-of-way. It is further agreed by Grantor that it will not erect permanent structures on the said fifteen-foot strips directly opposite one another during the existence of this easement, provided however, that a piled dock shall not be deemed a permanent structure within the meaning of this restriction.

Grantor reserves the right to use the said 20 foot strip for purposes which will not interfere with Grantee's full enjoyment of the rights hereby granted; provided, that Grantor shall not erect or construct any permanent structure within said easement area unless Grantor will (1) remove such surface material as may be necessary at the request of Grantee if it is necessary to inspect, repair, alter, modify, replace or remove said water main, and (2) in the construction of any surface structure, provide that materials stored or resting within 10 feet of the center line of the above mentioned trunk distribution water main shall not exceed the following load limits;

(a) Concentrated live loads equal to the maximum State Highway loading of 18,000 pounds per axle.

(b) Fixed (dead) loads of 500 pounds per square foot.

(3) In the event of the construction of a piled dock the piles nearest the trunk distribution water main shall be driven so as to provide a minimum clearance of 7-1/2 feet from the center line of said main.

The acceptance of this grant by Grantee shall constitute and be deemed an acceptance by it of the following obligations and undertakings:

The Grantee, City of Tacoma, agrees that said main will be covered and backfilled with a minimum cover of three feet in depth and further agrees to restore the surface within said easement and adjacent area if the same is broken for repairs, change or modifications; and Grantee hereby agrees to hold and save Grantor harmless from any and all damages arising from its use of the right, easement and right-of-way herein granted and agrees to pay any

7a

damage or demands which may arise to the property, premises or rights of Grantor through Grantee's use, occupation and possession of the rights herein granted.

Said easement shall continue so long as the City shall make use of the same for the purpose above specified, but that upon permanent discontinuance of said use by the City, this easement shall be of no force or effect.

IN WITNESS WHEREOF, said corporation has caused its corporate name to be hereunto subscribed and by these presents to be executed by its officers thereunto duly authorized, this 19th day of November, 1964.

CITY OF TACOMA:

Description approved:

By _____ Engineer

Approved as to form:

By _____, Asst. City Attorney

Accepted:

By _____ Director of Utilities

BOOKER CHEMICAL CORPORATION

By _____ Vice President

By _____ Secretary

STATE OF NEW YORK)
: ss.
COUNTY OF NEW YORK)

On this 19th day of November, 1964, before me personally appeared T. G. BALDWIN and A. W. CHAMBERS, JR., to me known to be the Vice President and Secretary respectively of the corporation that executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of the corporation, for the uses and purposes therein mentioned, and on oath stated that they were authorized to execute said instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

Notary Public in and for the State of NEW YORK
residing at 400 East 85th Street

Filed for record June 18, 1965 9 a.m.
Request of City of Tacoma
JACK R. [illegible], County Auditor

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EXHIBIT C

BLAIR WATERWAY SANITARY SEWER CROSSING

To accomodate the dredging of the Blair Waterway the existing sanitary sewer pressure line crossing the Waterway will be replaced with a polyethylene pipe. The existing line would stay in service while the new line is constructed. At the end of the project the newly constructed pipe would be connected to the existing gravity sewer on the south side of the Waterway and to the pump station on the north side.

It is assumed that the new pipe will be laid with 6 feet of cover, along the bottom and sides of the Waterway. The newly dredged side slope of the Waterway is assumed to be 2:1.

Mobilization	Lump Sum	$ 15,000	$ 15,000
16" Dia Polyethylene Pipe, Class 57	800 LF	$ 30	$ 24,000
Installation	5 Day	$ 4,000	$ 20,000
Manhole, Special	1 Only	$ 5,000	$ 5,000
Ductile Iron Pipe 16" Dia Class 52	570 LF	$ 30	$ 17,100
Dredging	6,400 CY	$ 10	$ 64,000
Trench Excavation	1,368 CY	$ 8	$ 10,944
Haul & Waste Mat'l	7,768 CY	$ 10	$ 77,680
Backfill	6,648 CY	$ 20	$132,960
Shoring & Cribbing	4,560 SF	$ 0.50	$ 2,280
Connect to Existing Pressure Line	2 Only	$ 4,000	$ 8,000
Pneumatic Check Valves, Installed, 16" Dia	2 Only	$ 8,500	$ 17,000
			$383,964
		Misc 30%	$118,189
		Total	$512,153
		Tax 7.8%	$ 39,948
		GRAND TOTAL	$552,101

EXHIBIT D

2/28/90

Outline of Tribe/City/Port Obligations for Blair Improvements

A. Sewer

Estimated Cost $552,000

Cost Allocation:

Port on behalf of Tribe (Port to be compensated pursuant to Port/Tribe Blair Payment Agreement	- 100,000	
Total Port/City responsibility	452,000	
Port	100,434	(22.22%)
City	351,566	(77.78%)

NOTE: Project cost increases will be shared by Port and City in proportion to the percentages above, except to the extent that such additional costs are offset by indexing of Tribe's contribution.

B. Water

Estimated Cost $2,714,820

Cost Allocation:

Port on behalf of Tribe (Port to be compensated pursuant to Port/Tribe Blair Payment Agreement)	- 350,000	
Tribe's Development Payment	- 450,000	
Total Port/City Responsibility	1,914,820	
Port	957,410	(50%)
City	957,410	(50%)

NOTE: Project cost increases will be shared by Port and City in proportion to the percentages above, after such additional costs are offset by indexing of Tribe's contribution.

EXHIBIT E

88-44RWC/D6413

WARRANTY DEED

The Grantor, CITY OF TACOMA, a municipal corporation, for and on behalf of its Department of Public Utilities, for and in consideration of settlement of certain land claims in the agreement dated August 27, 1988, between the Puyallup Tribe of Indians, local governments in Pierce County, the State of Washington, the United States of America, and certain private property owners, conveys and warrants to the PORT OF TACOMA, a duly organized Port District of Pierce County, Washington, as Grantee, the following described property situated in Pierce County, State of Washington, including any interest therein which Grantor may hereinafter acquire, to wit:

Beginning at a point on the westerly line of Alexander Avenue in the City of Tacoma, Washington, said point being 480 feet northwesterly from point of intersection of said westerly line of Alexander Avenue, extended southerly with the northerly line of Lincoln Avenue extended easterly; thence southwesterly on a curve having a radius of 480 feet through an angle of 90 degrees to point of tangent with the northerly line of Lincoln Avenue; thence easterly to the beginning of curve designating the westerly line of Alexander Avenue; thence along said westerly line to Point of Beginning.

Situate in the County of Pierce, State of Washington.

Containing approximately 0.92 acres, more or less.

IN WITNESS WHEREOF, said corporation has caused this instrument to be executed by its proper officers and its corporate seal to be hereunto affixed this _____ day of _____, 19____.

CITY OF TACOMA

By_____
Mayor

Attest:

_____
City Clerk

Authorized by City Council Ordinance No. 24269, adopted January 10, 1989, and by Public Utility Board Resolution No. U-8177, adopted December 20, 1988.

88-44RWC/D6413

STATE OF WASHINGTON)
) SS
COUNTY OF PIERCE)

On this ____ day of _____, 19__, before me personally appeared Karen L. R. Vialle, to me known to be the Mayor of the City of Tacoma, the municipal corporation that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of the City of Tacoma, for the uses and purposes herein mentioned, and on oath stated that she was authorized to execute said instrument and that the seal affixed is the corporate seal of the City of Tacoma.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

Approved:

_____
Engineer

Approved as to Form and Legality:

_____
Assistant City Attorney

Approved:

_____
Belt Line Division Superintendent

Accepted:

_____
Director of Utilities

Dated_____

_____
Notary Public in and for the
State of Washington
Residing at Tacoma
My commission expires_____

(CITYACKU 3/90)

EXHIBIT F

UTILITY CORRIDOR ON THE BLAIR WATERWAY PARCEL

Reserving to the CITY OF TACOMA a forty (40) foot non-exclusive right-of-way easement for the purpose of exercising the perpetual right and privilege of constructing, reconstructing, maintaining and operating City utilities within the Utility Corridor under a strip of land described below, together with a construction easement which allows the right to enter upon the property, contiguous to the below described parcel, from time to time, with reasonable care for inspecting, repairing, altering, modifying, replacing, or removing the City's utilities under a parcel of land situate in the County of Pierce, State of Washington, to-wit:

A strip of land 40.00 feet in width in the Southeast Quarter of the Northwest Quarter of Section 35, Township 21 North, Range 3 East of the Willamette Meridian, Pierce County, Washington, lying 20.00 feet on each side of the following described line:

Commencing at the intersection of the Southeast right-of-way line of Lincoln Avenue, as vacated by City of Tacoma Ordinance Number 21508, and the Southwest right-of-way line of Alexander Avenue; thence Northwesterly along said Southwest right-of-way line of Alexander Avenue, North 45°53'14" West, 80.00 feet; thence continuing along said right-of-way line, North 45°53'23" West 50.00 feet to the TRUE POINT OF BEGINNING of said described line; thence Southwesterly and parallel with said Southeast right-of-way line of Lincoln Avenue, South 44°06'53" West 605.00 feet to the END OF SAID DESCRIBED LINE.

The sidelines of said strip of land shall be shortened or lengthened as required to terminate on the Southwesterly right-of-way line of Alexander Avenue.

Further, permission is granted to enter upon and utilize for the purposes mentioned above, access to property "as reasonably needed" contiguous to and adjoining the above right-of-way within the temporary construction easement. The permission for the use of said additional "as reasonably needed" area shall extend only for such period of time as is necessary for replacing, installing, or repairing said utilities and appurtenances. The City shall cooperate with owner in scheduling access to such property unless an emergency exists in which case the City may immediately access said property without notifying owner.

It is further agreed that no permanent building structures will be constructed on or across this forty (40) foot permanent easement provided however, that pile supported pier/wharf, railroads, material handling, conveyor systems, utility lines or similar uses shall be allowed and shall not be deemed permanent structures within the meaning of this easement. Owner, without any charge or costs imposed by the City, may construct piling and pier structures within the City's easement. Owner will use extra care to assure that no damage comes of constructing within the City's easement. Owner will use water jets or similar technology to drive piling or pier supports within or adjacent to the City's easement. Owner's herein permitted uses within the right-of-way shall not unreasonably compromise or limit the uses of the easement, by the City, intended hereunder or substantially increase the costs of maintenance, repair or replacement of the City's utilities.

This easement is subject to the following conditions:

1. In the event of permanent abandonment of the easement use for a period of five or more consecutive years by the City or City's successor, then this easement shall be of no force or effect.

2. The City of Tacoma shall, at its sole expense, restore, repair and reconstruct the surface and improvements within said easement and adjacent areas if the same is damaged or removed for repairs or modifications to the City's utilities.

3. During any maintenance, repair or construction, the City of Tacoma specifically agrees to work under and not damage any pile supported pier/wharf, railroads, material handling, conveyor systems and utility lines. If maintenance or repair under these limitations is not feasible, then the City of Tacoma may request owner's permission to remove railroads, material handling, or conveyor system devices on terms acceptable to owner or the City shall abandon said utility lines and, at the City's sole expense, will reconstruct new utility lines, and the owner, in the event of abandonment, shall grant at no cost to the City a new easement under its property at a location mutually agreeable and the City will reconstruct a new line by boring under such existing permanent improvements and such new line shall be at an appropriate depth to meet existing or planned dredging standards for navigation and berthing within the Blair Waterway.

4. The City of Tacoma agrees that to the extent of its negligence, it will save harmless the property owner and owner's successors in interest from all claims, suits, actions, liability, loss and damages resulting from the construction, operation, maintenance, repair or reconstruction of the City's utility and related facilities within the easement area. Provided, however, this indemnification is not applicable to any permanent building structures installed by property owner and/or owner's successors in interest within the easement area.

5. Owner specifically reserves the right to request and require the City to relocate its utility facilities within a mutually agreed reasonable period of time to other locations under owner's property. Owner will pay all costs associated with the relocation of the City's utility facilities under this paragraph.

This easement replaces, supercedes and releases portions of CITY OF TACOMA easements lying in Lincoln Avenue vacated from the Southwesterly line of Alexander Avenue to a point 167 feet Northeasterly of the Northeasterly Pierhead line of Blair Waterway, reserved and recorded in the office of the Pierce County Auditor under Auditor Fee No. 2864315 (Ordinance No. 21508) to be effective the same time as this herein deed becomes effective.

ALSO,

BLAIR WATERWAY STORM SEWER EASEMENT

Reserving to the CITY OF TACOMA, Department of Public Works, Sewer Utility Division, a fifteen (15') foot wide non-exclusive right-of-way easement for the purpose of exercising the perpetual right and privilege of constructing, installing, repairing, inspecting and maintaining a storm sewer and outfall line under the entire area described below, together with a construction easement which allows the right to enter upon the property, contiguous to the below described parcel, from time to time, with reasonable care for inspecting, repairing, altering, modifying, replacing, or removing said storm sewer and outfall line under a parcel of land situate in the County of Pierce, State of Washington, to-wit:

A strip of land 15.00 feet in width in the Southeast Quarter of the Northwest Quarter of Section 35, Township 21 North, Range 3 East, of the Willamette Meridian, Pierce County, Washington, lying 7.50 feet on each side of the following described line:

Commencing at the intersection of the Southeast right-of-way line of Lincoln Avenue, as vacated by City of Tacoma Ordinance Number 21508, and the Southwest right-of-way line of Alexander Avenue; thence Northwesterly along said Southwest right-of-way line of Alexander Avenue, North 45°53'14" West, 80.00 feet; thence continuing along said right-of-way line, North 45°53'23" West 50.00 feet; thence Southwesterly and parallel with said Southeast right-of-way line of Lincoln Avenue, South 44°06'53" West 602.50 feet; thence South 45°53'23" East 12.50 feet to the TRUE POINT OF BEGINNING of said described line; thence Southwesterly and parallel with said Southeast right-of-way line of Lincoln Avenue, South 44°06'53" West 67.50 feet to the Northeasterly Bulkhead line of Blair Waterway; thence continuing Southwesterly and parallel with said Southeast rights-of-way line of Lincoln Avenue, South 44°06'53" West 100.00 feet to the Northeasterly Pierhead line of Blair Waterway and the END OF SAID DESCRIBED LINE.

The sidelines of said strip of land shall be shortened or lengthened as required to terminate on the Northeasterly Pierhead line of the Blair Waterway.

Further, permission is granted to enter upon and utilize for the purposes mentioned above, access to property "as reasonably needed" contiguous to and adjoining the above right-of-way as the temporary construction easement areas. The permission for the use of said additional "as reasonably needed" area shall extend only for such period of time as is necessary for replacing, installing, or repairing said storm sewer and appurtenances. The City shall cooperate with owner in scheduling access to such property unless an emergency exists in which case the City may immediately access said property without notifying owner.

It is further agreed that no permanent building structures will be constructed on or across this fifteen (15') foot permanent easement provided however, that pile supported pier/wharf, railroads, material handling, conveyor systems, utility lines or similar said uses located above, shall be allowed and shall not be deemed permanent structures within the meaning of this easement. Owner, without any charge or costs imposed by the City, may construct piling and pier structures within or above the City's easement. Owner will use extra care to assure that no damage results from constructing within the City's easement. Owner will use water jets or similar technology to drive piling or pier supports within or adjacent to the City's easement.

Owner's herein permitted uses within the right-of-way shall not unreasonably compromise or limit the uses of the easement, by the City, intended hereunder or substantially increase the costs of maintenance, repair or replacement of the City's utilities.

This easement is subject to the following conditions:

1. In the event of permanent abandonment of the easement use for a period of five or more consecutive years by the City or City's successor, then this easement shall be of no force or effect.

2. The City of Tacoma shall, at its sole expense, restore, repair and reconstruct the surface and improvements within said easement and adjacent areas if the same is damaged or removed for repairs or modifications to the City's sewer line.

3. During any maintenance, repair or construction, the City of Tacoma specifically agrees to work under and not damage any pile supported pier/wharf, railroads, material handling, conveyor systems and utility lines. If maintenance or repair under these limitations is not feasible, then the City of Tacoma may request owner's permission to remove railroads, material handling, or conveyor system devises on terms acceptable to owner or the City shall abandon said sewer line and, at the City's sole expense, will reconstruct a new sewer line, and the owner, in the event of abandonment, shall grant at no cost to the City a new easement under its property at a location mutually agreeable and the City will reconstruct a new line by boring under such existing permanent improvements and such new line shall be at an appropriate depth to meet existing or planned dredging standards for navigation and berthing within the Blair Waterway as provided to the City by the owner.

4. The City of Tacoma agrees that to the extent of its negligence, it will save harmless the property owner and owner's successors in interest from all claims, suits, actions, liability, loss and damages resulting from the construction, operation, maintenance, repair or reconstruction of the City's utility and related facilities within the easement area. Provided, however, this indemnification is not applicable to any permanent building structures installed by property owner and/or owner's successors in interest within the easement area.

5. Owner specifically reserves the right to request and require the City to relocate its utility facilities within a mutually agreed reasonable period of time to other locations under owner's property. Owner will pay all costs associated with the relocation of the City's utility facilities under this paragraph.

This easement replaces, supercedes and releases a portion of those CITY OF TACOMA easements lying in Lincoln Avenue vacated from the Northeasterly Pierhead line of Blair Waterway, thence northeasterly 167 feet, reserved and recorded in the office of the Pierce County Auditor under Auditor Fee No. 2864315 (Ordinance No. 21508) to be effective the same time as this herein deed becomes effective.

ALSO,

BLAIR WATERWAY POWERLINE EASEMENT

Reserving to the City of Tacoma Department of Public Utilities, Light Division, a ten (10') foot wide non-exclusive right-of-way easement, for the purpose of exercising the perpetual right and privilege of constructing, installing, repairing, inspecting and maintaining its lines of electric transmission, distribution and/or communication under the entire area described below, together with a construction easement which allows the right to enter upon, over, along and contiguous to the property herein described below, from time to time, with reasonable care for inspecting, repairing, altering, modifying, replacing, or removing said line under a parcel of land situate in the County of Pierce, State of Washington, to-wit:

A strip of land 10.00 feet in width in the Southeast Quarter of the Northwest Quarter of Section 35, Township 21 North, Range 3 East of the Willamette Meridian, Pierce County, Washington, lying 5.00 feet on each side of the following described line:

Commencing at the intersection of the Southeast right-of-way line of Lincoln Avenue, as vacated by City of Tacoma Ordinance Number 21508, and the Southwest right-of-way line of Alexander Avenue; thence Northwesterly along said Southwest right-of-way line of Alexander Avenue, North 45°53'14" West, 80.00 feet; thence continuing along said right-of-way line, North 45°53'23" West 50.00 feet; thence Southwesterly and parallel with said Southeast right-of-way line of Lincoln Avenue, South 44°06'53" West 602.50 feet to the TRUE POINT OF BEGINNING of said described line; thence continuing parallel with said right-of-way line, South 44°06'53" West 67.50 feet to the Northeasterly Bulkhead line of Blair Waterway; thence continuing parallel with said right-of-way line, South 44°06'53" West 100.00 feet to the Northeasterly Pierhead line of Blair Waterway and the END OF SAID DESCRIBED LINE.

The sidelines of said strip of land shall be shortened or lengthened as required to terminate on the Northeasterly Pierhead line of the Blair Waterway.

Further, permission is granted to enter upon and utilize for the purposes mentioned above, access to property "as reasonably needed," contiguous to and adjoining the above right-of-way. The permission for the use of said additional "as reasonably needed" area shall extend only for such period of time as is necessary for repairing, installing or replacing said line. The City shall cooperate with owner in scheduling access to such property unless an emergency exists in which case the City may immediately access said property without notifying owner.

It is further agreed that no permanent building structures will be constructed on or across this ten (10') foot permanent easement provided however, that pile supported pier/wharf, railroads, material handling, conveyor systems, utility lines or similar said uses located above, shall be allowed and shall not be deemed permanent structures within the meaning of this easement. Owner, without any charge or costs imposed by the City, may construct piling or pier structures within or above the City's easement. Owner will use extra care to assure that no damage results from constructing within the City's easement. Owner will use water jets or similar technology to drive piling or pier supports within or adjacent to the City's easement. Owner's herein permitted uses, within the right-of-way, shall not unreasonably compromise or limit the uses of the easement by the City intended hereunder or substantially increase the costs of maintenance, repair or replacement of City's utilities.

This easement is subject to the following conditions:

1. Lack of use by the City shall not constitute an abandonment, or termination of this easement.

2. The City of Tacoma shall, at its sole expense, restore, repair and reconstruct the surface and improvements within said easement and adjacent areas if the same is damaged or removed for repairs or modifications to the City's line.

3. During any maintenance, repair or construction, the City of Tacoma specifically agrees to work under and not damage any pile supported pier/wharf, railroads, material handling, conveyor systems and utility lines. If maintenance or repair under these limitations is not feasible, then the City of Tacoma may request owner's permission to remove railroads, material handling, or conveyor system devises on terms acceptable to owner or the City shall abandon said line and, at the City's sole expense, will reconstruct a new line. The owner, in the event of abandonment, shall grant, at no cost to the City, a new easement under its property at a location mutually agreeable and the City shall reconstruct said line by boring under such existing permanent improvements and such new line shall be at appropriate depth to meet existing or planned dredging standards for navigation and berthing within the Blair Waterway.

4. The City of Tacoma agrees that to the extent of its negligence, it will save harmless the property owner and owner's successors in interest from all claims, suits, actions, liability, loss and damages resulting from the construction, operation, maintenance, repair or reconstruction of the City's utility and related facilities within the easement area. Provided, however, this indemnification is not applicable to any permanent building structures installed by property owner and/or owner's successors in interest within the easement area.

5. Owner specifically reserves the right to request and require the City to relocate its utility facilities within a mutually agreed reasonable period of time to other locations under owner's property. Owner will pay all costs associated with the relocation of the City's utility under this paragraph.

6. The City shall construct its lines of electric transmission distribution and/or communication at appropriate depths to meet existing or planned dredging standards for navigation and berthing within the Blair Waterway as provided in the Blair Navigation Project and as provided to the City by Owner prior to construction.

This easement replaces, supercedes and releases portions of CITY OF TACOMA easements lying in Lincoln Avenue vacated from the Southwesterly line of Alexander Avenue to a point 167 feet Northeasterly of the Northeasterly Pierhead line of Blair Waterway, reserved and recorded in the office of the Pierce County Auditor under Auditor Fee No. 2864315 (Ordinance No. 21508) to be effective the same time as this herein deed becomes effective.

ALSO,

BLAIR WATERWAY SANITARY SEWER EASEMENT

Reserving to the City of Tacoma Department of Public Works, Sewer Utility Division, a triangular shaped and a ten (10') foot wide non-exclusive right-of-way easement, for the purpose of exercising the perpetual right and privilege of constructing, installing, repairing, inspecting and maintaining a sanitary sewer, pump station and appurtenances in and under the entire area described below, together with a construction easement which allows the right to enter upon, over and along the property, contiguous to the below described parcel, from time to time, with reasonable care for inspecting, repairing, altering, modifying, replacing, or removing said sanitary sewer, pump station and appurtenances under and along a parcel of land situate in the County of Pierce, State of Washington, to-wit:

A triangular parcel of land in the Southeast Quarter of the Northwest Quarter of Section 35, Township 21 North, Range 3 East, of the Willamette Meridian being more particularly described as follows:

Commencing at the intersection of the Southeast right-of-way line of Lincoln Avenue, as vacated by City of Tacoma Ordinance Number 21508, and the Southwest right-of-way line of Alexander Avenue; thence Northwesterly along said Southwest right-of-way line of Alexander Avenue, North 45°53'14" West, 45.00 feet to the TRUE POINT OF BEGINNING; thence continuing Northwesterly along said right-of-way line, North 45°53'14" West 35.00 feet; thence continuing Northwesterly along said right-of-way line, North 45°53'23" West 30.00 feet; thence Southwesterly and parallel with said Southeast right-of-way line of Lincoln Avenue, South 44°06'53" West 40.00 feet; thence Easterly to the POINT OF BEGINNING AND,

A strip of land 10.00 feet in width in the Southeast Quarter of the Northwest Quarter of Section 35, Township 21 North, Range 3 East of the Willamette Meridian, Pierce County, Washington, lying 5.00 feet on each side of the following described line:

Commencing at the intersection of the Southeast right-of-way line of Lincoln Avenue as vacated by City of Tacoma Ordinance Number 21508, and the Southwest right-of-way line of Alexander Avenue; thence Northwesterly along said Southwest right-of-way line of Alexander Avenue, North 45°53'14" West, 80.00 feet; thence continuing along said right-of-way line, North 45°53'23" West 50.00 feet; thence Southwesterly and parallel with said Southeast right-of-way line of Lincoln Avenue, South 44°06'53" West 602.50 feet; thence North 45°53'23" West 10.00 feet to the TRUE POINT OF BEGINNING of said described line; thence Southwesterly and parallel with said Southeast right-of-way line of Lincoln Avenue, South 44°06'53" West 67.50 feet to the Northeasterly Bulkhead line of the Blair Waterway; thence continuing Southwesterly and parallel with said Southeast right-of-way line of Lincoln Avenue, South 44°06'53" West 100.00 feet to the Northeasterly Pierhead line of Blair Waterway and the END OF SAID DESCRIBED LINE.

The sidelines of said strip of land shall be shortened or lengthened as required to terminate on the Northeasterly pierhead line of the Blair Waterway.

Further, permission is granted to enter upon and utilize for the purposes mentioned above, access to property "as reasonably needed", contiguous to and adjoining the above right-of-way. The permission for the use of said additional "as reasonably needed" area shall extend only for such period of time as is necessary for installing, repairing or replacing said sanitary sewer, pump station and appurtenances. The City shall cooperate with owner in scheduling access to such property unless an emergency exists in which case the City may immediately access said property without notifying owner.

It is further agreed that no permanent building structures will be constructed on or across this ten (10') foot permanent easement provided however, that pile supported pier/wharf, railroads, material handling, conveyor systems, utility lines or similar said uses located above, shall be allowed and shall not be deemed permanent structures within the meaning of this easement. Owner, without any charge or costs imposed by the City, may construct piling or pier structures within or above the City's easement. Owner will use extra care to assure that no damage results from constructing within the City's easement. Owner will use water jets or similar technology to drive piling or pier supports within or adjacent to the City's easement. Owner's herein permitted uses within the right-of-way shall not unreasonably compromise or limit the uses of the easement by the City intended hereunder or substantially increase the costs of maintenance, repair or replacement of the City's utilities.

This easement is subject to the following conditions:

1. In the event of permanent abandonment of the easement use for a period of five or more consecutive years by the City or City's successor, then this easement shall be of no force or effect.

2. The City of Tacoma shall, at its sole expense, restore, repair and reconstruct the surface and improvements within said easement and adjacent areas if the same is damaged or removed for repairs or modifications to the City's sanitary sewer, pump station and appurtenances.

3. During any maintenance, repair or construction, the City of Tacoma specifically agrees to work under and not damage any pile supported pier/wharf, railroads, material handling, conveyor systems and utility lines. If maintenance or repair under these limitations is not feasible, then the City of Tacoma may request owner's permission to remove railroads, material handling, or conveyor system devises on terms acceptable to owner or the City shall abandon said sanitary sewer, pump station and appurtenances and, at the City's sole expense, will reconstruct a new sanitary sewer and pump station. The owner, in the event of abandonment, shall grant at no cost to the City a new easement under its property at a location mutually agreeable and the City shall reconstruct said sanitary sewer and pump station by boring under such existing permanent improvements to meet existing or planned dredging standards for navigation and berthing within the Blair Waterway as provided in the Blair Navigation Project and as provided to the City by owner prior to construction.

4. The City of Tacoma agrees that to the extent of its negligence, it will save harmless the property owner and owner's successors in interest from all claims, suits, actions, liability, loss and damages resulting from the construction, operation, maintenance, repair or reconstruction of the City's utility and related facilities within the easement area. Provided, however, this indemnification is not applicable to any permanent building structures installed by property owner and/or owner's successors in interest within the easement area.

5. Owner specifically reserves the right to request and require the City to relocate within a mutually agreed reasonable period of time to other locations under owner's property. Owner will pay all costs associated with the relocation of the City's utility facilities under this paragraph. The owner's obligation to pay for relocation costs herein, shall not apply to the onetime relocation obligation of the City required by the tripartite Supplemental Agreement between the Puyallup Tribe, Port of Tacoma and the City of Tacoma dated March 24, 1990.

6. The pump station facility may be located above ground, in the proximity of its present location.

This easement replaces, supercedes and releases portions of CITY OF TACOMA easements lying in Lincoln Avenue vacated from the Southwesterly line of Alexander Avenue to a point 167 feet Northeasterly of the Northeasterly Pierhead line of Blair Waterway, reserved and recorded in the office of the Pierce County Auditor under Auditor Fee No. 2864315 (Ordinance No. 21508) to be effective the same time as this herein deed becomes effective.

POWER TRANSMISSION LINE EASEMENT (E-5146):

Reserving to the CITY OF TACOMA, Department of Public Utilities, Light Division a forty (40') foot non-exclusive right-of-way easement for the purpose of exercising the perpetual right and privilege of constructing, operating and maintaining electric power transmission, subtransmission, distribution and communication facilities, together with a construction easement which allows the right to enter upon the property, contiguous to the below described parcel, from time to time, with reasonable care for inspecting, repairing, altering, modifying, replacing, or removing said electric power transmission, subtransmission, distribution and communication facilities, together with the right to trim and keep trimmed all danger trees, over and across a parcel of land situate in the County of Pierce, State of Washington, to-wit:

> A strip of land 40.00 feet in width in the Southeast Quarter of Section 35, and in the Southwest Quarter of Section 36, all in Township 21 North, Range 3 East of the Willamette Meridian, Pierce County Washington, whose Northeasterly line is 40.00 feet Northeasterly of, as measured at right angles, from the following described line:
>
> Commencing at the brass pin at the intersection of the monument lines of Alexander Avenue and Lincoln Avenue; thence South 45°53'50" East, along said Alexander Avenue monument line, 80 feet to the Southeasterly right-of-way line extended of Lincoln Avenue; thence North 44°06'17" East along said extension, 60.00 feet to the Northeasterly right-of-way line of Alexander Avenue and the TRUE POINT OF BEGINNING of said described line; thence South 45°53'50" East along said right-of-way line 4329.45 feet to the East line, extended Southerly, of a parcel of land conveyed to the port of Tacoma by deed recorded under Auditor's Fee Number 8110260223 and the end of said described line.
>
> The sidelines of said strip of land shall be shortened or lengthened as required to terminate on said Southeasterly right-of-way line of Lincoln Avenue and said East line, extended Southerly of a parcel of land conveyed to the Port of Tacoma by deed recorded under Auditor's Fee Number 8110260223.

Further, permission is granted to enter upon and utilize for the purposes mentioned above, access to property "as reasonably needed" contiguous to and adjoining the above right-of-way within the temporary construction easement areas. The permission for the use of said additional "as reasonably needed" area shall extend only for such period of time as is necessary for repairing, replacing, and installing, said line. The City shall cooperate with owner in scheduling access to such property unless an emergency exists in which case the City may immediately access said property without notifying owner.

It is further agreed that no permanent building structures will be constructed on or across this forty (40') foot permanent easement provided however, that piling supports, railroads, material handling, conveyor systems, utility lines or similar uses shall be allowed and shall not be deemed permanent structures within the meaning of this easement. Owner, without any charge or costs imposed by the City, may construct piling within the City's easement. Owner will use extra care to assure that no damage comes of constructing within the City's easement. Owner will use water jets or similar technology to drive piling supports within or adjacent to the City's easement. Owner's herein permitted uses within the right-of-way shall not unreasonably compromise or limit the uses of the easement, by the City, intended hereunder or substantially increase the costs of maintenance, repair or replacement of the City's utilities.

This easement is subject to the following conditions:

1. In the event of permanent abandonment of the easement use for a period of five or more consecutive years by the City or City's successor, then this easement shall be of no force or effect.

2. The City of Tacoma shall, at its sole expense, restore, repair and reconstruct the surface and improvements within said easement and adjacent areas if the same is damaged or removed for repairs or modifications to the City's line.

3. The City of Tacoma agrees that to the extent of its negligence, it will save harmless the property owner and owner's successors in interest from all claims, suits, actions, liability, loss and damages resulting from the construction, operation, maintenance, repair or reconstruction of the City's utility and related facilities within the easement area. Provided, however, this indemnification is not applicable to any permanent building structures installed by property owner and/or owner's successors in interest within the easement area.

4. Owner specifically reserves the right to request and require the City to relocate its utility facilities within a reasonable period of time to other locations on owner's property. Owner will pay all costs associated with the relocation of the City's utility under this paragraph.

This easement reservation replaces and supercedes a portion of Easement No. 5146, dated May 31, 1961, and recorded in the office of the Pierce County Auditor under Auditor Fee No. 1938328, said portion of former easement will be released by the CITY OF TACOMA to be effective the same time as this herein deed becomes effective.

PUBLIC WORKS STREET EASEMENT FROM PORT OF TACOMA:

Reserving to the CITY OF TACOMA, Department of Public Works, an easement for public street purposes across the described real property situate in Pierce County, Washington, to-wit:

Parcel "A":

A strip of land in Section 35, Township 21 North, Range 3 East, W.M., described as follows:

Beginning at the intersection of the southwesterly line of Taylor Way and the east line of the Northeast Quarter (NE¼) of the Southeast Quarter (SE¼) of the Northeast Quarter (NE¼) of said Section 35; thence southerly along said east line to a point 4.00 feet distant from, when measured at right angles, the southwesterly line of Taylor Way; thence northwesterly parallel with the said southwesterly line to the east line of Lot 1, Short Plat No. 83-08-19-0230; thence northeasterly along said east line to the southwesterly line of Taylor Way; thence along said southwesterly line to the point of beginning.

Parcel "B":

A strip of land in Section 36, Township 21 North, Range 3 East, W.M., described as follows:

Beginning at the intersection of the north line of the Southwest Quarter (SW¼) of the Southwest Quarter (SW¼) of the Northwest Quarter (NW¼) of said Section 36 and the southwesterly line of Taylor Way; thence southeasterly along said southwesterly line to the east line of the West Half (W½) of the Southwest Quarter (SW¼) of the Southwest Quarter (SW¼) of the Northwest Quarter (NW¼) of said Section 36; thence southerly along said east line to a point 4.00 feet distant from, when measured at right angles, the southwesterly line of Taylor Way; thence northwesterly parallel with the said southwesterly line to the north line of the Southwest Quarter (SW¼) of the Southwest Quarter (SW¼) of the Northwest Quarter (NW¼) of said Section 36; thence easterly along said north line to the point of beginning.

Parcel "C":

A strip of land in Section 36, Township 21 North, Range 3 East, W.M., described as follows:

Beginning at the intersection of the north line of the Southwest Quarter (SW¼) of said Section 36 and the southwesterly line of Taylor Way; thence southeasterly 477.16 feet along said southwesterly line; thence southwesterly 1.00 foot at right angles to said southwesterly line; thence northwesterly 350.00 feet parallel with said southwesterly line; thence northwesterly to the intersection of the north line of the Southwest Quarter (SW¼) of said section and a point 3.00 feet distant from, when measured at right angles, the southwesterly line of Taylor Way; thence easterly along said north line to the point of beginning.

Parcel "D":

The northerly 4.00 feet of the West Half (W½) of the Northwest Quarter (NW¼) of the Southwest Quarter (SW¼) of the Northwest Quarter (NW¼) of Section 36, Township 21 North, Range 3 East, W.M., lying southwest of Taylor Way.

This easement reservation replaces and supercedes that easement dated May 12, 1987, and recorded in the office of the Pierce County Auditor under Auditor Fee No. 8708110371, which former easement will be released by the CITY OF TACOMA to be effective the same time as this herein deed becomes effective.

UNDERGROUND POWER LINE (E-9466):

Reserving to the CITY OF TACOMA, Department of Public Utilities, Light Division a ten (10') foot non-exclusive right-of-way easement for the purpose of exercising the perpetual right and privilege of installing its underground power and communication lines with appurtenant underground equipment together with a construction easement which allows the right to enter upon the property, contiguous to the below described parcel, from time to time, with reasonable care for inspecting, repairing, altering, modifying, replacing or removing the underground power line with appurtenant equipment in, under, over, along and across the following real property situate and being in the County of Pierce and State of Washington, described as follows, to-wit:

A strip of land located in the Northeast Quarter (NE¼) of Section 35, Township 21 North, Range 3 East, W.M., being 10.00 feet in width, lying 5.00 feet on each side of the following described line:

Commencing at the intersection of the center line of Alexander Avenue and Lincoln Avenue; thence south 45° 53' 00" east, along the center line of Alexander Avenue, 514.00 feet; thence north 44° 07' 00" east, 50.00 feet; thence north 36° 38' 22" east, 10.09 feet to the northeasterly right-of-way line of Alexander Avenue and the beginning of said described line; thence continuing north 36° 38' 22" east, 151.28 feet to the end of said described line.

Further, permission is granted to enter upon and utilize for the purposes mentioned above, access to property "as reasonably needed" contiguous to and adjoining the above right-of-way within the temporary construction easement areas. The permission for the use of said additional "as reasonably needed" area shall extend only for such period of time as is necessary for replacing, installing or repairing underground power lines and appurtenant equipment. The City shall cooperate with owner in scheduling access to such property unless an emergency exists in which case the City may immediately access said property without notifying owner.

It is further agreed that no permanent building structures will be constructed on or across this ten (10') foot permanent easement provided however, that piling supports, railroads, material handling, conveyor systems, utility lines or similar uses shall be allowed and shall not be deemed permanent structures within the meaning of this easement. Owner, without any charge or costs imposed by the City, may construct piling within the City's easement. Owner will use extra care to assure that no damage comes of constructing within the City's easement.

Owner will use water jets or similar technology to drive piling supports within or adjacent to the City's easement. Owner's herein permitted uses within the right-of-way shall not unreasonably compromise or limit the uses of the easement, by the City, intended hereunder or substantially increase the costs of maintenance, repair or replacement of the City's utilities.

This easement is subject to the following conditions:

1. In the event of permanent abandonment of the easement use for a period of five or more consecutive years by the City or City's successor, then this easement shall be of no force or effect.

2. The City of Tacoma shall, at its sole expense, restore, repair and reconstruct the surface and improvements within said easement and adjacent areas if the same is damaged or removed for repairs or modifications to the City's line.

3. The City of Tacoma agrees that to the extent of its negligence, it will save harmless the property owner and owner's successors in interest from all claims, suits, actions, liability, loss and damages resulting from the construction, operation, maintenance, repair or reconstruction of the City's utility and related facilities within the easement area. Provided, however, this indemnification is not applicable to any permanent building structures installed by property owner and/or owner's successors in interest within the easement area.

4. Owner specifically reserves the right to request and require the City to relocate its utility facilities within a reasonable period of time to other locations under owner's property. Owner will pay all costs associated with the relocation of the City's utility under this paragraph.

This easement reservation replaces and supercedes that Easement No. 9466, dated October 24, 1985, and recorded in the office of the Pierce County Auditor under Auditor Fee No. 8511270317, which former easement will be released by the CITY OF TACOMA to be effective the same time as this herein deed becomes effective.

Public Works Storm Sewer E-5291

Reserving to the City of Tacoma Department of Public Works, Sewer Utility Division, a thirty (30') foot non-exclusive right-of-way easement for the purpose of exercising the perpetual right and privilege of constructing, reconstructing, inspecting, operating, repairing and maintaining an underground storm drain line and appurtenances, together with a construction easement which allows the right to enter upon property, contiguous to the below described parcel, from time to time, with reasonable care for inspecting, repairing, altering, modifying, replacing or removing the storm drain line and appurtenances in, over, under, along and across the following described real property, situate in the County of Pierce, State of Washington, to-wit:

PARCEL "A": The East 30 feet of the West 98 feet of the following described tract: Beginning at a point South 56°38'39" East 89.5 feet from the meander corner between Sections 26 and 27, Township 21 North, Range 3 East of the Willamette Meridian, which is the point where the right-of-way boundary of East Side Drive intersects the meander line; thence due South 80 feet; thence South 88°00'13" East 300 feet; thence due North 70.376 feet to intersection with the meander line; thence South 80°58'38" West 219.73 feet; thence North 56°38'39" West 99.193 feet along meander line to point of beginning, being part of Block 4 of "STATE LAND COMMISSIONER'S REPLAT OF BLOCKS 13 to 48 both inclusive, TACOMA TIDELANDS, formerly in King County, sometimes known as ASHTON REPLAT, as per map thereof filed for record December 23, 1918 in the office of the County Auditor.

PARCEL "B": The East 30 feet of the West 98 feet of the following described tract: All of the following described tract lying South of East Side Drive: Beginning at the Northwest corner of Lot 1 in Section 26, Township 21 North, Range 3 East of the Willamette Meridian; thence South 1°03'05" East 470.38 feet to meander corner and Southwest corner of Lot 1; thence South 56°38'39" East 188.693 feet; thence North 80°58'30" East 219.73 feet; thence North 9.624 feet to South line of East Side Drive; thence South 88°14' East 77.528 feet to a point 451.50 feet East of projected West line of said Lot 1; thence North 1°03'15" West 525 feet, more or less, to North line of said Lot 1; thence North 89°33'18" West 451.50 feet along the North line of said Lot 1 to point of beginning. EXCEPT therefrom 100 foot right of way for East Side Drive.

Further, permission is granted to enter upon and utilize for the purposes mentioned above, access to property "as reasonably needed", contiguous to and adjoining the above right-of-way within the temporary construction easement areas. The permission for the use of said additional "as reasonably needed" area shall extend only for such period of time as is necessary for installing, repairing or replacing said line.

The City shall cooperate with owner in scheduling access to such property unless an emergency exists in which case the City may immediately access said property without notfying owner.

It is further agreed that no permanent building structures will be constructed on or across this thirty (30') foot permanent easement provided however, that piling supports, railroads, material handling, conveyor systems, utility lines or similar uses shall be allowed and shall not be deemed permanent structures within the meaning of this easement. Owner, without any charge or costs imposed by the City, may construct piling within the City's easement. Owner will use extra care to assure that no damage comes of constructing within the City's easement. Owner will use water jets or similar technology to drive piling supports within or adjacent to the City's easement. Owner's herein permitted uses within the right-of-way shall not unreasonably compromise or limit the uses of the easement, by the City, intended hereunder or substantially increase the costs of maintenance, repair or replacement of the City's utilities.

This easement is subject to the following conditions:

1. In the event of permanent abandonment of the easement use for a period of five or more consecutive years by the City or City's successor, then this easement shall be of no force or effect.

2. The City of Tacoma shall, at its sole expense, restore, repair and reconstruct the surface and improvements within said easement and adjacent areas if the same is damaged or removed for repairs or modifications to the City's line.

3. The City of Tacoma agrees that to the extent of its negligence, it will save harmless the property owner and owner's successors in interest from all claims, suits, actions, liability, loss and damages resulting from the construction, operation, maintenance, repair or reconstruction of the City's utility and related facilities within the easement area. Provided, however, this indemnification is not applicable to any permanent building structures installed by property owner and/or owner's successors in interest within the easement area.

4. Owner specifically reserves the right to request and require the City to relocate its utility facilities within a mutually agreed reasonable period of time to other locations under owner's property. Owner will pay all costs associated with the relocation of the City's utility under this paragraph.

This easement reservation replaces and supercedes that easement No. 5291, dated April 30, 1960, and recorded in the office of the Pierce County Auditor under Auditor Fee No. 1890257, which former easement will be released by the City of Tacoma to be effective the same time as this herein deed becomes effective.

Light Division Anchor and Guy Wire Easement

Reserving to the City of Tacoma Department of Public Utilities, Light Division, a ten-foot (10') non-exclusive right-of-way easement for the purpose of exercising the perpetual right and privilege of constructing, reconstructing, and maintaining poles, anchors, transformers and guy, service and distribution wires together with a construction easement which allows the right to enter upon property herein described below, from time to time, with reasonable care for inspecting, repairing, altering, modifying, replacing or removing poles, anchors, transformers and guy, service and distribution wires, together with the right to trim and keep trimmed all danger trees in, under, over, along and across the following real property situate and being in the County of Pierce and State of Washington, described as follows, to-wit:

A strip of land 10 feet in width, five feet on each side of the centerline described as follows:

Commencing at the intersection of the Northwesterly right-of-way line of East 11th Street at the Southeast corner of Block 4 "A", as the same is designated on the re-plat of Blocks 13 to 48, Tacoma Tide Lands, King County Annex, known as "Ashton's Re-plat" which plat was filed for record in the office of said County December 23, 1918, said Point of beginning being on the North line of Hylebos Waterway; thence North 68°02'18" West along said North line of Hylebos Waterway 1513.81 feet to and angle point in said North line; thence continuing along said North line, North 45°55'01" West, 1580.4 feet; thence North 44°05'54" East 420.03 feet to a point on the Southwesterly margin of Marine View Drive in the Northeast Quarter of Section 27, Township 21 North, Range 3 East of the Willamette Meridian, Pierce County, Washington. Thence Northwesterly along the Southwesterly Right-of-Way line of Marine View Drive, 91 feet to the point of beginning of this description; thence South 30°24'57" West 10 feet.

Further, permission is granted to enter upon and utilize for the purposes mentioned above, access to property "as reasonably needed" contiguous to and adjoining the above right-of-way within the temporary construction areas. The permission for the use of said additional "as reasonably needed" area shall extend only for such period of time as is necessary for installing, repairing or replacing said poles, anchors, transformers and guy, service and distribution wires. The City shall cooperate with owner in scheduling access to such property unless an emergency exists in which case the City may immediately access said property without notfying owner.

It is further agreed that no permanent structures will be constructed on or across this ten (10') foot permanent easement.

This easement is subject to the following conditions:

1. In the event of permanent abandonment of the easement use for a period of five or more consecutive years by the City or City's successor, then this easement shall be of no force or effect.

2. The City of Tacoma shall, at its sole expense, restore, repair and reconstruct the surface and improvements within said easement and adjacent areas if the same is damaged or removed for repairs or modifications to the City's line.

3. The City of Tacoma agrees that to the extent of its negligence, it will save harmless the property owner and owner's successors in interest from all claims, suits, actions, liability, loss and damages resulting from the construction, operation, maintenance, repair or reconstruction of the City's utility and related facilities within the easement area. Provided, however, this indemnification is not applicable to any permanent building structures installed by property owner and/or owner's successors in interest within the easement area.

4. Owner specifically reserves the right to request and require the City to relocate its utility facilities within a mutually reasonable period of time to other locations on owner's property. Owner will pay all costs associated with the relocation of the City's utility under this paragraph.

Light Division Anchor and Guy Wire Easement

Reserving to the City of Tacoma Department of Public Utilities, Light Division, a ten-foot (10') non-exclusive right-of-way easement for the purpose of exercising the perpetual right and privilege of constructing, reconstructing, and maintaining poles, anchors, transformers and guy, service and distribution wires together with a construction easement which allows the right to enter upon property herein described below, from time to time, with reasonable care for inspecting, repairing, altering, modifying, replacing or removing poles, anchors, transformers and guy, service and distribution wires , together with the right to trim and keep trimmed all danger trees in, under, over, along and across the following real property situate and being in the County of Pierce and State of Washington, described as follows, to-wit:

A strip of land, 10 feet in width, five feet on each side of the centerline described as follows:

Commencing at the intersection of the Northwesterly right-of-way line of East 11th Street at the Southeast corner of Block 4 "A", as the same is designated on the re-plat of Blocks 13 to 48, Tacoma Tide Lands, King County Annex, known as "Ashton's Re-plat" which plat was filed for record in the office of said County December 23, 1918, said Point of beginning being on the North line of Hylebos Waterway; thence North 68°02'18" West along said North line of Hylebos Waterway 1513.81 feet to and angle point in said North line; thence continuing along said North line, North 45°55'01" West, 1580.4 feet; thence North 44°05'54" East 420.03 feet to a point on the Southwesterly margin of Marine View Drive in the Northeast Quarter of Section 27, Township 21 North, Range 3 East of the Willamette Meridian, Pierce County, Washington. Thence Northwesterly along the Southwesterly Right-of-Way line of Marine View Drive, 437 feet to the point of beginning of this description; thence South 56°59'07" West 15 feet.

Further, permission is granted to enter upon and utilize for the purposes mentioned above, access to property "as reasonably needed" contiguous to and adjoining the above right-of-way within the temporary construction easement areas. The permission for the use of said additional "as reasonably needed" area shall extend only for such period of time as is necessary for installing, repairing or replacing said poles, anchors, transformers and guy, service and distribution wires. The City shall cooperate with owner in scheduling access to such property unless an emergency exists in which case the City may immediately access said property without notfying owner.

It is further agreed that no permanent structures will be constructed on or across this ten (10') foot permanent easement.

This easement is subject to the following conditions:

1. In the event of permanent abandonment of the easement use for a period of five or more consecutive years by the City or City's successor, then this easement shall be of no force or effect.

2. The City of Tacoma shall, at its sole expense, restore, repair and reconstruct the surface and improvements within said easement and adjacent areas if the same is damaged or removed for repairs or modifications to the City's line.

3. The City of Tacoma agrees that to the extent of its negligence, it will save harmless the property owner and owner's successors in interest from all claims, suits, actions, liability, loss and damages resulting from the construction, operation, maintenance, repair or reconstruction of the City's utility and related facilities within the easement area. Provided, however, this indemnification is not applicable to any permanent building structures installed by property owner and/or owner's successors in interest within the easement area.

4. Owner specifically reserves the right to request and require the City to relocate its utility facilities within a mutually agreed reasonable period of time to other locations on owner's property. Owner will pay all costs associated with the relocation of the City's utility under this paragraph.

Light Division Anchor and Guy Wire Easement

Reserving to the City of Tacoma Department of Public Utilities, Light Division, a ten-foot (10') non-exclusive right-of-way easement for the purpose of exercising the perpetual right and privilege of constructing, reconstructing, and maintaining poles, anchors, transformers and guy, service and distribution wires, together with a construction easement which allows the right to enter upon property herein described below, from time to time, with reasonable care for inspecting, repairing, altering, modifying, replacing or removing poles, anchors, transformers and guy, service and distribution wires , together with the right to trim and keep trimmed all danger trees in, under, over, along and across the following real property situate and being in the County of Pierce and State of Washington, described as follows, to-wit:

A strip of land 10 feet in width, five feet on each side of the centerline described as follows:

Commencing at the intersection of the Northwesterly right-of-way line of East 11th Street at the Southeast corner of Block 4 "A", as the same is designated on the re-plat of Blocks 13 to 48, Tacoma Tide Lands, King County Annex, known as "Ashton's Re-plat" which plat was filed for record in the office of said County December 23, 1918, said Point of beginning being on the North line of Hylebos Waterway; thence North 68°02'18" West along said North line of Hylebos Waterway 1513.81 feet to and angle point in said North line; thence continuing along said North line, North 45°55'01" West, 1580.4 feet; thence North 44°05'54" East 420.03 feet to a point on the Southwesterly margin of Marine View Drive in the Northeast Quarter of Section 27, Township 21 North, Range 3 East of the Willamette Meridian, Pierce County, Washington. Thence Northwesterly along the Southwesterly Right-of-Way line of Marine View Drive, 540 feet to the point of beginning of this description; thence South 66°46'10" West 15 feet.

Further, permission is granted to enter upon and utilize for the purposes mentioned above, access to property "as reasonably needed" contiguous to and adjoining the above right-of-way within the temporary construction easement areas. The permission for the use of said additional "as reasonably needed" area shall extend only for such period of time as is necessary for installing, repairing or replacing said poles, anchors, transformers and guy, service and distribution wires. The City shall coopersate with owner in scheduling access to such property unless an emergency exists in which case the City may immediately access said property without exists in which case the City may immediately access said prpoerty without notfying owner.

It is further agreed that no permanent structures will be constructed on or across this ten (10') foot permanent easement.

This easement is subject to the following conditions:

1. In the event of permanent abandonment of the easement use for a period of five or more consecutive years by the City or City's successor, then this easement shall be of no force or effect.

2. The City of Tacoma shall, at its sole expense, restore, repair and reconstruct the surface and improvements within said easement and adjacent areas if the same is damaged or removed for repairs or modifications to the City's line.

3. The City of Tacoma agrees that to the extent of its negligence, it will save harmless the property owner and owner's successors in interest from all claims, suits, actions, liability, loss and damages resulting from the construction, operation, maintenance, repair or reconstruction of the City's utility and related facilities within the easement area. Provided, however, this indemnification is not applicable to any permanent building structures installed by property owner and/or owner's successors in interest within the easement area.

4. Owner specifically reserves the right to request and require the City to relocate its utility facilities within a mutually agreed reasonable period of time to other locations on owner's property. Owner will pay all costs associated with the relocation of the City's utility under this paragraph.

Fire Hydrant Easement

Reserving to the City of Tacoma Department of Public Utilities, Water Division, a ten (10') foot non-exclusive right-of-way easement for purpose of exercising the perpetual right and privilege of installing, reinstalling, and maintaining a fire hydrant and other appurtenances, together with a construction easement which allows the right to enter upon property herein described below, from time to time, with reasonable care for inspecting, repairing, altering, modifying, replacing or removing fire hydrants, together with the right to trim and keep trimmed all danger trees in, under, over, along and across the following real property situate and being in the County of Pierce and State of Washington, described as follows, to-wit:

A strip of land 10 feet in width, five feet on each side of the centerline described as follows:

Commencing at the intersection of the Northwesterly right-of-way line of East 11th Street at the Southeast corner of Block 4 "A", as the same is designated on the re-plat of Blocks 13 to 48, Tacoma Tide Lands, King County Annex, known as "Ashton's Re-plat" which plat was filed for record in the office of said County December 23, 1918, said Point of beginning being on the North line of Hylebos Waterway; thence North 68°02'18" West along said North line of Hylebos Waterway 1513.81 feet to and angle point in said North line; thence continuing along said North line, North 45°55'01" West, 1580.4 feet; thence North 44°05'54" East 420.03 feet to a point on the Southwesterly margin of Marine View Drive in the Northeast Quarter of Section 27, Township 21 North, Range 3 East of the Willamette Meridian, Pierce County, Washington. Thence Northwesterly along the Southwesterly Right-of-Way line of Marine View Drive, 566 feet to the point of beginning of this description; thence South 69°14'21" West 10 feet.

Further, permission is granted to enter upon and utilize for the purposes mentioned above, access to property "as reasonably needed" contiguous to and adjoining the above right-of-way within the temporary construction easement areas. The permission for the use of said additional "as reasonably needed" area shall extend only for such period of time as is necessary for installing, repairing or replacing said fire hydrants. The City shall cooperate with owner in scheduling access to such property unless an emergency exists in whcih case the City may immedately access said preoperty wihout notfying owner.

It is further agreed that no permanent structures will be constructed on or across this ten (10") foot permanent easement.

This easement is subject to the following conditions:

1. In the event of permanent abandonment of the easement use for a period of five or more consecutive years by the City or City's successor, then this easement shall be of no force or effect.

2. The City of Tacoma shall, at its sole expense, restore, repair and reconstruct the surface and improvements within said easement and adjacent areas if the same is damaged or removed for repairs or modifications to the City's line.

3. The City of Tacoma agrees that to the extent of its negligence, it will save harmless the property owner and owner's successors in interest from all claims, suits, actions, liability, loss and damages resulting from the construction, operation, maintenance, repair or reconstruction of the City's utility and related facilities within the easement area. Provided, however, this indemnification is not applicable to any permanent building structures installed by property owner and/or owner's successors in interest within the easement area.

4. Owner specifically reserves the right to request and require the City to relocate its utility facilities within a mutually agreed reasonable period of time to other locations on owner's property. Owner will pay all costs associated with the relocation of the City's utility under this paragraph.

Light Division Overhang E-6038

Reserving to the City of Tacoma Department of Public Utilities, Light Division, a ten (10') foot, non-exclusive right-of-way easement for the purpose of exercising the perpetual right and privilege of extending distribution wires, together with a construction easement which allows the right to enter upon property herein described below, from time to time, with reasonable care for inspecting, repairing, altering, modifying, replacing or removing distribution wires, together with the right to trim and keep trimmed all danger trees in, under, over, along and across the following real property situate and being in the County of Pierce and State of Washington, described as follows, to-wit:

The South 10 feet of the East 400 feet of the described property:

Commencing at the Southeast corner of the Northeast quarter (NE¼) of the Southeast quarter (SE¼) of Section 36, Township 21 North, Range 3 East of the W.M., thence Westerly along the Southerly line of said Northeast Quarter of the Southeast Quarter, a distance of 230.309 feet to a point on the Westerly right-of-way line of Marine View Drive, as it is now dedicated; thence on an angle to the right of 88°35'58" on a bearing of North 01°57'22" West along the right-of-way line a distance of 707.625 feet to the P.C. of a curve to the left having a radius of 904.93 feet and a central angle of 50°46'00"; thence following the arc of said right-of-way curve to the left a distance of 40.741 feet to the Northeast corner of parcel of land conveyed to Streich Brothers Engineering Company as recorded under Auditor's Fee No. 2201304 dated August 10, 1967, and the true point of beginning of this description; thence continuing along the arc of said right-of-way line curve to the left a distance of 657.162 feet to the Northeast corner of a parcel of land conveyed to the Starlet Corporation as recorded under Auditor's Fee No. 2227796 dated February 23, 1968; thence on an angle to the left on a bearing of South 41°44'25" West a distance of 636.138 feet to a point on the government pierhead line of Hylebos Waterway; thence on an angle to the left on a bearing of South 48°15'35" East, following said government pierhead line a distance of 123.420 feet to a point; thence on an angle to the right, on a bearing of South 03°15'35" East following said government pierhead line a distance of 58.584 feet to a point; thence on an angle to the left, on a bearing of North 86°44'25" East a distance of 604.18 feet to the true point of beginning of this description.

Further, permission is granted to enter upon and utilize for the purposes mentioned above, access to property "as reasonably needed" contiguous to and adjoining the above right-of-way within the temporary construction easement areas.

The permission for the use of said additional "as reasonably needed" area shall extend only for such period of time as is necessary for installing, repairing or replacing said distribution wires. The City shall cooperate with owner in scheduling access to such property unless an emergency exists in which case the City may immediately access said property withoiut notfying owner.

It is further agreed that no permanent building structures will be constructed under this ten (10') foot permanent easement provided however, that piling supports, railroads, material handling, conveyor systems, utility lines or similar uses shall be allowed and shall not be deemed permanent structures within the meaning of this easement. Owner, without any charge or costs imposed by the City, may construct piling within the City's easement. Owner will use extra care to assure that no damage comes of constructing within the City's easement. Owner will use water jets or similar technology to drive piling supports within or adjacent to the City's easement. Owner's herein permitted uses within the right-of-way shall not unreasonably compromise or limit the uses of the easement, by the City, intended hereunder or substantially increase the costs of maintenance, repair or replacement of the City's utilities.

This easement is subject to the following conditions:

1. In the event of permanent abandonment of the easement use for a period of five or more consecutive years by the City or City's successor, then this easement shall be of no force or effect.

2. The City of Tacoma shall, at its sole expense, restore, repair and reconstruct the surface and improvements within said easement and adjacent areas if the same is damaged or removed for repairs or modifications to the City's line.

3. The City of Tacoma agrees that to the extent of its negligence, it will save harmless the property owner and owner's successors in interest from all claims, suits, actions, liability, loss and damages resulting from the construction, operation, maintenance, repair or reconstruction of the City's utility and related facilities within the easement area. Provided, however, this indemnification is not applicable to any permanent building structures installed by property owner and/or owner's successors in interest within the easement area.

4. Owner specifically reserves the right to request and require the City to relocate its utility facilities within a mutually agreed reasonable period of time to other locations on owner's property. Owner will pay all costs associated with the relocation of the City's utility under this paragraph.

This easement reservation replaces and supercedes that easement No. 6038, dated March 8, 1967, and recorded in the office of the Pierce County Auditor under Auditor Fee No. 2181657, which former easement will be released by the City of Tacoma to be effective the same time as this herein deed becomes effective.

Light Division Powerline Easement E-6151

Reserving to the City of Tacoma Department of Public Utilities, Light Division, a ten-foot (10') non-exclusive right-of-way easement for the purpose of exercising the perpetual right and privilege of constructing, reconstructing, and maintaining poles, anchors, transformers and guy, service and distribution wires, together with a construction easement which allows the right to enter upon property herein described below, from time to time, with reasonable care for inspecting, repairing, altering, modifying, replacing or removing poles, anchors, transformers and guy, service and distribution wires , together with the right to trim and keep trimmed all danger trees in, under, over, along and across the following real property situate and being in the County of Pierce and State of Washington, described as follows, to-wit:

> A strip of land 10 feet in width, the centerline of which is described as follows:
>
> Commencing at the intersection of the center line of Taylor Way and the West line of the East half (E½) of the Southwest quarter (SW¼) of the Southeast quarter (SE¼) of Section 36, Township 21 North, Range 3 East, W. M., thence South 0°42'43" West 65.22 feet to the Southerly line of Taylor Way; thence South 49° 20' 07" East along said Southerly line 6.52 feet to the TRUE POINT OF BEGINNING; thence South 0° 42' 43" West parallel to the West line of the East half (E ½) of the Southwest quarter (SW¼) of the Southeast quarter (SE¼) of said Section 647.92 feet more or less to the South line of said Section 36.

Further, permission is granted to enter upon and utilize for the purposes mentioned above, access to property "as reasonably needed" contiguous to and adjoining the above right-of-way within the temporary construction easement areas. The permission for the use of said additional "as reasonably needed" area shall extend only for such period of time as is necessary for installing, repairing or replacing said line. The City shall cooperate with owner in scheduling access to such property unless an emergency exists in which case the City may immediately access said property without notifying owner.

It is further agreed that no permanent building structures will be constructed on or across this ten (10') foot permanent easement provided however, that piling supports, railroads, material handling, conveyor systems, utility lines or similar uses shall be allowed and shall not be deemed permanent structures within the meaning of this easement. Owner, without any charge or costs imposed by the City, may construct piling within the City's easement. Owner will use extra care to assure that no damage comes of constructing within the City's easement. Owner will use water jets or similar technology to drive piling supports within or adjacent to the City's easement.

Owner's herein permitted uses within the right-of-way shall not unreasonably compromise or limit the uses of the easement, by the City, intended hereunder or substantially increase the costs of maintenance, repair or replacement of the City's utilities.

This easement is subject to the following conditions:

1. In the event of permanent abandonment of the easement use for a period of five or more consecutive years by the City or City's successor, then this easement shall be of no force or effect.

2. The City of Tacoma shall, at its sole expense, restore, repair and reconstruct the surface and improvements within said easement and adjacent areas if the same is damaged or removed for repairs or modifications to the City's line.

3. The City of Tacoma agrees that to the extent of its negligence, it will save harmless the property owner and owner's successors in interest from all claims, suits, actions, liability, loss and damages resulting from the construction, operation, maintenance, repair or reconstruction of the City's utility and related facilities within the easement area. Provided, however, this indemnification is not applicable to any permanent building structures installed by property owner and/or owner's successors in interest within the easement area.

4. Owner specifically reserves the right to request and require the City to relocate its utility facilities within a mutually agreed reasonable period of time to other locations on owner's property. Owner will pay all costs associated with the relocation of the City's utility under this paragraph.

This easement reservation replaces and supercedes that easement No. 6151, dated January 24, 1968, and recorded in the office of the Pierce County Auditor under Auditor Fee No. 2232418, which former easement will be released by the City of Tacoma to be effective the same time as this herein deed becomes effective.

Belt Line Right-of-Way E-8521

Reserving to the City of Tacoma, Department of Public Utilities, Belt Line Division, a fifteen (15') foot non-exclusive railroad right-of-way easement for the purpose of exercising the perpetual right and privilege of constructing, installing, maintaining and operating railroad tracks and appurtenances for railway purposes, together with a construction easement which allows the right to enter upon property herein described below, from time to time, with reasonable care for inspecting, repairing, altering, modifying, replacing or removing rail tracks and appurtenances in, over, along and across the following described real property, situate in the County of Pierce, State of Washington, to-wit:

A strip of land 15.0 feet in width lying northerly, and contiguous with that portion of East/West Road as constructed and dedicated to the County of Pierce, State of Washington, and recorded under Auditor's Fee No. 2577850, said roadway being described as follows:

LYING WITHIN the following described parcel:

A parcel of land located in the Northeast Quarter of Section 1, Township 20 North, Range 3 East, W.M; described as follows:

Commencing on the East line of vacated Chicago, Rock Island and Pacific Addition, Pierce County, Washington, according to plat recorded in Volume 10 of Plats at page 11, at a point being 350 feet South of the Northeast corner of said plat and the North line of said Section 1; thence South 88°30'22'' East, parallel with said North line of Section 1, 346.19 feet to the Northwesterly right-of-way line of East/West Road; thence South 40°01'05" West along said right-of-way line, 441.21 feet to the extension of the centerline of South 18th Street, according to said plat; thence North 88°47'38" West along said extension, 76.46 feet to the East line of said plat; thence North 02°20'02" East, 345.60 feet to the Point of Beginning.

EXCEPT that part of Port of Tacoma Road contained herein.

EXCEPT that part of Alexander Avenue contained herein.

Further, permission is granted to enter upon and utilize for the purposes mentioned above, access to property "as reasonably needed" contiguous to and adjoining the above right-of-way. The permission for the use of said additional "as reasonably needed" area shall extend only for such period of time as is necessary for installing, repairing or replacing said railway.

4. Owner specifically reserves the right to request and require the City to relocate its utility facilities within a mutually agreed reasonable period of time to other locations on owner's property. Owner will pay all costs associated with the relocation of the City's utility under this paragraph.

This easement reservation replaces and supercedes that portion of easement No. 8521, a portion of Exhibit "C-9", dated February 3, 1981, and recorded in the office of the Pierce County Auditor under Auditor Fee No. 8102030208, which former easement portion lying within the Southeasterly 15 feet of a parcel of land abutting the East/West Road in the Northeast Quarter (NE¼) of Section 1, Township 20 North, Range 3 East. W.M., will be released by the City of Tacoma to be effective the same time as this herein deed becomes effective.

SUPPLEMENTAL AGREEMENT

between the

PORT OF TACOMA,
the
CITY OF TACOMA,
and the
PUYALLUP INDIAN TRIBE

concerning

BLAIR WATERWAY PROPERTY AND BLAIR NAVIGATION PROJECT

This Supplemental Agreement between the Port of Tacoma ("Port"), the City of Tacoma ("City") and the Puyallup Indian Tribe ("Tribe"), and approved by the United States Department of the Interior ("Interior") pursuant to 25 U.S.C. § 81, is made to set forth the manner in which the parties will carry out certain aspects of the Settlement Agreement that is incorporated in the Puyallup Tribe of Indians Settlement Act of 1989, P.L. 101-41.

1. PURPOSE. Among the provisions of the Settlement Agreement are those conveying the Blair Waterway and Blair Backup properties to the Tribe, and those addressing the Blair Navigation Project. (The term "Blair Waterway property" as used in this Supplemental Agreement means the parcel by that name to be received by the Tribe under the provisions of section I(A) of the Settlement Agreement.) The parties have discovered, subsequent to their ratification of the Settlement Agreement, that there are questions and areas of uncertainty about those provisions. If those issues are not resolved and clarified, they threaten to interfere with the Tribe's use of the properties for a shipping terminal facility and with the parties' desire to maximize the beneficial use of the Blair Waterway. Because a shipping terminal facility is one of the central and most vital parts of the settlement to the Tribe, and because the Blair Navigation Project is important to all the parties, this Supplemental Agreement resolves these issues. The Port and the City will execute a separate agreement to address allocation of certain costs and payment between them.

2. MODIFICATION. To the extent they are inconsistent, this Supplemental Agreement shall be deemed to modify the Settlement Agreement. Except as specifically modified, the terms of the Settlement Agreement shall remain in full force and effect.

3. PROJECTS. Pursuant to a separate agreement, the Port and the City will design, manage, and carry out the projects listed in this section and described more fully in the rest of this document. As provided in section H of Technical Document #/

#1, the Tribe shall have the right of approval of the plans and specifications for these projects; provided, however, that that section shall apply to relocation of the water line addressed in subsection (a), below, only where that project crosses or directly affects the Tribe's property. If an objection raised by the Tribe pursuant to section H will significantly increase the cost of a project described in this document, the parties will negotiate allocation of the additional amount.

a. The City will relocate to a land route around the south end of Blair Waterway the 36" water line that is discussed in section D(1)(b)(1) on page 11 of Technical Document #1.

b. The City will relocate the sanitary sewer line that is discussed in section D(1)(b)(1) on page 11 of Technical Document #1.

c. The Port will, as part of the Blair Navigation Project, dredge in front of the Tribe's Blair Waterway property from the channel line to the pierhead line to a depth of at least -45 feet (with the additional allowances contained in Technical Document #6).

d. The Port will fill the graving dock on the Blair Waterway property to the normal capping level. The Tribe shall be responsible for capping the graving dock.

e. The Port will remove material in the temporary storage area known to the parties as "Mud Lake" on the Blair Waterway property. The Port will then fill the resevoir to the elevation of the adjoining undisturbed portions of the property.

4. WATER LINE RELOCATION. The water line referred to in section 3(a), above, will be relocated under the following terms and conditions:

a. Removal of the water line from the Blair Waterway property shall be completed prior to the time when dredging for the Blair Navigation Project reaches the current location of the water line. Until that time, the water line shall be permitted to stay in place.

b. After modification and release of easements pursuant to the Settlement Agreement, the existing easement for the water line across the Blair Waterway property has a gap of approximately ten feet in its legal description. The Tribe agrees that until the water line is relocated and the existing line abandoned (as evidenced by notice to the Tribe from the City), the City's easement shall be deemed to cover the area

omitted from the legal description so that the easement will be continuous for the length of the water line.

c. The existing easement for the current water line will be deemed to expire upon completion of the relocation project and the existing line abandoned (as evidenced by notice to the Tribe from the City). Upon completion of the project, the City agrees to execute and convey to the Tribe a release of easement.

d. The Tribe will grant to the City two easements across the Puyallup River: one for a tie-line to the Milwaukee Way main; one for construction of pipe line #5. The easements will be granted at no cost to the city, other than the City's expenditures for the projects described in this document.

e. Project construction in and under the Puyallup River will be timed to minimize impacts on juvenile salmonid migrations and interference with Tribal members' fishing activities. Construction in the river shall be permitted only between June 15 and September 1. If the Tribe's fisheries and environmental concerns have been satisfied, the Tribe agrees to cooperate in the necessary permitting and approval process within a reasonable time period. Work may be carried on after September 1 if the City and Tribe agree on an appropriate schedule and the work is permitted by applicable law.

f. The Port shall provide necessary easements to the city across Port property at no cost to the City. The form of the easement(s) shall be substantially similar to the easement attached as Exhibit A.

g. The Port shall remove the existing water pipe from the Blair Waterway; removal of the abandoned pipe on the Blair Waterway property shall not be the responsibility of the Port or the City, and shall become the property of the Tribe.

5. SEWER LINE RELOCATION: The location of the sewer line referred to in section 3(b), above, will be modified under the following terms and conditions:

a. That part of the sewer line located in the Blair Waterway will be lowered and reconstructed within its current or a new easement to a depth sufficient to allow dredging, between the channel lines and between the channel and pierhead lines in front of the property, to a depth of 45 feet plus the additional allowances described in Technical Document #6 (e.g., at least an additional foot for advance maintenance plus two feet for contractor's allowance).

b. That part of the sewer line located on and adjacent to the Tribe's Blair Waterway property will be lowered and reconstructed at a level at least 48 feet below MLLW from the bulkhead line to the channel line fronting the property so as to eliminate conflicts with the Tribe's use of the property for pier development and berthing and terminal operations.

c. Modification of the sewer line shall be completed no later than six months after the date on which dredging for the Blair Navigation Project reaches the current location of the sewer line.

6. DREDGING. The dredging referred to in section 3(c), above, shall be carried out under the following terms and conditions:

a. The Port may, at its option, (i) perform additional dredging in other areas of the Blair Waterway to achieve greater depths in the channel or channel-to-pierhead zone, and (ii) enlarge the turning basin at the upstream end of the Blair Waterway in the locations indicated on the map attached as Exhibit B; provided that these activities must be done in compliance with the standards for dredging in the Blair Waterway set forth in the Settlement Agreement and Technical Document #4. As long as the enlargement is done in compliance with those standards, the activities conducted in accordance with this paragraph shall be deemed to be part of the Blair Navigation Project and as such shall have the Tribe's approval as provided in section IV(B)(2) of the Settlement Agreement.

b. The parties agree that the term "to Lincoln Avenue" as used in the second paragraph of section A(2) of Technical Document #6 shall mean the center line of Lincoln Avenue as extended into Blair Waterway.

7. GRAVING DOCK. The fill of the graving dock referred to in section 3(d), above, shall be carried out under the following terms and conditions:

a. All dredge materials placed in the graving dock shall meet the requirements of applicable law for open water disposal and shall meet the disposal standards of federal and state law.

b. Dredge materials placed in the graving dock shall be suitable for use as fill that will leave the property, after the Tribe has capped the fill, usable for its intended purpose as a shipping terminal facility.

c. The graving dock shall be filled during the Blair Navigation Project dredging, unless the Port and the Tribe agree to a different schedule. The Tribe may, at the Tribe's option, direct the Port (1) not to fill the graving dock, or (2) to place the dredge materials on uplands adjoining the graving dock. If the Tribe chooses option (1) of this subparagraph, the Port shall not be obligated to provide for the fill of the graving dock. If the Tribe chooses option (2) of this subparagraph, the Port shall, if permitted by applicable laws, place the dredge materials on uplands adjoining the graving dock in a manner agreed upon by the Tribe and the Port.

8. MUD LAKE. Removal and fill of Mud Lake referred to in section 3(e), above, shall be carried out under the following terms and conditions:

a. The Port shall remove the dredge material and liner from the resevoir that were placed there by the Port and that are not suitable for fill and remediate all remaining contaminated materials regardless of their source, consistent with the terms of the Settlement Agreement and Technical Document #1.

b. All material placed in the resevoir shall be clean and uncontaminated and shall meet the requirements of federal and state law. The term "clean and uncontaminated" is defined as material which would meet or exceed the soil conditions required as a result of the MOA dated _____, between the Tribe, Port, United States Environmental Protection Agency, and Washington Department of Ecology.

c. Material placed in Mud Lake shall be material suitable for use as fill that will leave the property usable for its intended purpose as a shipping terminal facility. The Port shall not be responsible for paving Mud Lake.

d. Mud Lake shall be filled before or during the Blair Navigation Project dredging, unless the Port and the Tribe agree to a different schedule.

9. COST. The parties shall divide the cost of the actions described in this document as follows:

a. The Port and the City shall pay the costs of the improvements described in this document, pursuant to a separate agreement between them. The Tribe will reimburse them for a portion of those costs as set forth below.

b. If and when the Tribe or a developer pursuant to an agreement with the Tribe undertakes substantial development of

the Blair Waterway property, it shall pay to the City the sum of $450,000 plus the amounts, if any, determined under subsections (d) and (e), below. The Tribe shall make this payment from funds the Tribe obtains for the purpose of that development. The Tribe shall make the payment within 60 days of the availability of the first proceeds of construction financing or funding to used for this development.

c. The Tribe will pay to the Port the sum of $450,000 plus the amounts, if any, determined under subsections (d) and (e), below. This amount shall be in payment for dredging in front of the Blair Waterway property (see section 3(c), above), filling the graving dock, and excavating and filling Mud Lake. This amount shall be paid as set forth in subsection (f), below.

d. The Tribe's payment obligations set forth in subsections (b) and (c), above, shall be indexed from the effective date of the Settlement Agreement through the date on which the City awards the contract for said sewer relocation. The Engineering News Record Seattle Construction Cost Index will be used.

e. Beginning on the date on which the indexing described in subsection (d), above, ends, the remaining amount owed by the Tribe will accrue interest at the rate of eight per cent (8%) simple interest, calculated by the diminishing balance method, until paid in full.

f. The total amount to be paid to the Port under sections 9(c), 9(d), 9(e), and 10 of this Supplemental Agreement shall be paid by the Tribe as follows:

(1) During the first five years of the schedule set forth in section D(2) of Technical Document #6, the Tribe will pay simple interest at the rate of 8% on the principal amount;

(2) During years 6 through 20 of that schedule, the Tribe will pay the principal amount owed plus simple interest at the rate of 8%, calculated by the diminishing balance method, amortized over that 15 year period.

(3) The Port may, at its option, choose to offset the amounts owed by the Tribe against its payments to the Tribe under section D(2) of Technical Document #6, in lieu of receiving payments from the Tribe.

g. If the total cost of the projects listed in section 3 of this Supplemental Agreement is less than three million dol-

lars, the Tribe's obligation to pay and reimburse the City and the Port under subsections (b) and (c), above, shall be reduced by an amount equal to 30% of the amount by which the total cost falls short of three million dollars. The reduction shall be allocated between the payments to the Port and the City in a manner to be determined by the Port and the City.

10. COST OF SURVEYS. Pursuant to section C(7) of Technical Document #1, the Port has carried out surveys of each parcel that it will convey to the Tribe in the settlement. Although the cost of these surveys would otherwise be paid to the Port by the Tribe on the effective date, the Port instead agrees to deferred payment of the total cost in the sum of $42,000 plus eight per cent (8%) simple interest from the effective date, calculated by the diminishing balance method. Payment by the Tribe will be made in the manner prescribed in section 9(f) of this Supplemental Agreement.

11. ASSESSMENT CHARGE. Tacoma City Code section 12.10.153 provides that in some circumstances water service will be provided only upon payment of a water main connection charge. This charge is in addition to the normal service construction charge. The Blair Backup property would ordinarily be subject to a connection charge when the owner requests water service. The City agrees to waive the connection charge that would otherwise be applicable under City Code section 12.10.153. The Tribe, like any other customer, will be subject to the ordinance rate charges for obtaining water service including the water service construction charge for the meter, piping, and other customary items. The City warrants that City Code section 12.10.153 is not presently applicable to any of the other settlement properties that are within the Tacoma city limits.

12. OPTION FOR ANODE BED AREA EASEMENT. In exchange for the waiver given in paragraph 11 of this document, the Tribe grants to the City and its Water Division the option of obtaining an easement (at no cost to the City) for an anode bed area (50 feet by 18 feet) beneath the pier/dock structure between the bulkhead line and the pierhead line. The City agrees that if it exercises the option and obtains an easement for that purpose, it will use the easement in a manner that will not interfere with the Tribe's pier/dock structure or its use.

13. REVISION OF CITY POWER LINE. There exists along the west side of Alexander Avenue a power line which, unless it is modified, will interfere with transportation of containers from the Blair Waterway property to the Blair Backup property. The City agrees to modify the configuration of that power line to provide a crossing at least 150 feet wide between those two

properties where the power line is either placed underground or raised to allow at least a 40 foot clearance. This modification is in addition to the modifications in a separate power line on the east side of Alexander Avenue that are described in section D(1)(b)(1) of Technical Document #1.

14. PERMIT TO RETAIN UTILITIES. The Tribe hereby grants to the City and its Department of Public Utilities, Light, Water and Belt Line Divisions, and Public Works Sewer Utility Division, a temporary permit to retain in their present location certain utility facilities in, on, under, over, across and within Sections 27, 35 and 36, Township 21 North, Range 3 East, W.M., which property is being transferred by deed to the United States in trust for the Tribe under the Settlement Agreement. This permit shall remain in effect until the Tribe or its lessee has executed a contract for substantial development of the Blair Waterway property, at which time the Tribe may notify the City by certified letter from the Tribal Council that ~~those utility facilities must be removed or relocated to the revised easement areas as prescribed in the Settlement Agreement.~~ The subject utility facilities are: power lines, water mains and hydrants, rail tracks and sewer facilities. The notice of removal or relocation shall be delivered to the City Manager and to the Director of Utilities and shall allow a minimum of 180 days from the date of service of the letter for completion of the removal or relocation.

15. TRACKAGE. The City agrees that title to the Belt Line Railroad trackage located in the vacated Lincoln Avenue corridor on the Blair Waterway property shall be transferred to the Tribe on the date that the Blair Waterway property is conveyed to the United States in trust for the Tribe.

16. DEPARTMENT OF THE INTERIOR APPROVAL. The Tribe will, as part of a Supplemental Agreement between the Tribe and Interior,

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obtain advance approval from Interior for the easements and permit described in paragraphs 12 and 14, above.

DATED this 21st day of March, 1990.

PUYALLUP INDIAN TRIBE

Henry John
Chairman, Puyallup Tribal Council

PORT OF TACOMA

Robert Earley
President, Port Commission

CITY OF TACOMA

Karen Vialle
Mayor

Approved as to form:

John Howard Bell
Attorney for Puyallup Indian Tribe

Charles R. Blumenfeld
Attorney for Port of Tacoma

APPROVED:

for DIRECTOR OF UTILITIES

William J. Barker
Attorney for City of Tacoma

APPROVED, pursuant to 25 U.S.C. § 81:

_____

United States Department of the Interior

SMTEXTRN\SMTPROP\BLAIRNAV.SUP

William J. Barker
Attorney for City of Tacoma

APPROVED, pursuant to 25 U.S.C. § 81:

United States Department of the Interior

SMTEXTRN\SMTPROP\BLAIRNAV.SUP

RECEIVED
APR 4 1990
LEGAL DIV.

EXHIBIT A

2087273 VOL 1302 PAGE 453

EXCISE TAX EXEMPT DATE
L. E. Johnson, Pierce Co. Treasurer
By _____ Deputy

E A S E M E N T

KNOW ALL MEN BY THESE PRESENTS, that HOOKER CHEMICAL CORPORATION, a corporation organized and existing under the laws of the State of New York, Grantor, owner of the premises hereinafter described, for valuable consideration, receipt whereof is hereby acknowledged, has granted and conveyed and by these presents does hereby grant and convey unto the Water Division of the CITY OF TACOMA, a municipal corporation, Grantee, a twenty (20) foot wide utility right-of-way together with a perpetual right and privilege to excavate, construct, install and maintain a 36-inch diameter steel trunk distribution water main, having a minimum wall thickness of 5/16 inch under and upon said 20 foot right-of-way situate in the County of Pierce, State of Washington, to-wit:

> The Northwest quarter (NW-1/4) of Section 35, Township 21 North, Range 3 East of W. M., County of Pierce, State of Washington, the center line of which is more particularly described as follows:
>
> Commencing at a point on the Lincoln Avenue Monument Line 635 feet West of the center line of Alexander Avenue; thence at right angles to said Monument Line 100 feet to the northerly line of Lincoln Avenue and the true point of beginning; thence continuing in a northwesterly direction on the same course a distance of 143 feet; thence in a southwesterly direction and parallel to the Lincoln Avenue Monument Line a distance of 173 feet to the proposed Pierhead Line which is City of Tacoma, Water Division Engineer's Station 171 + 34.50

together with the right to enter upon, over and along said real property hereinabove described, from time to time, with reasonable care to inspect, repair, alter, modify, replace or remove said water main; provided, however further, that permission is granted to Grantee to enter upon and utilize for the purpose of excavation, construction, installation, repair and replacing the above described water main, a strip of land 15 feet wide on contiguous to and adjoining either side of the 20 foot utility right-of-way above described, but the use of said additional area shall extend only for such period of time as it is necessary for Grantee to lay down and install the aforesaid water main, or repair or replace it, after which time the permission

FR-113

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herein granted shall cease and determine except for the granting of the 20 foot right-of-way. It is further agreed by Grantor that it will not erect permanent structures on the said fifteen-foot strips directly opposite one another during the existence of this easement, provided however, that a piled dock shall not be deemed a permanent structure within the meaning of this restriction.

Grantor reserves the right to use the said 20 foot strip for purposes which will not interfere with Grantee's full enjoyment of the rights hereby granted; provided, that Grantor shall not erect or construct any permanent structure within said easement area unless Grantor will (1) remove such surface material as may be necessary at the request of Grantee if it is necessary to inspect, repair, alter, modify, replace or remove said water main, and (2) in the construction of any surface structure, provide that materials stored or resting within 10 feet of the center line of the above mentioned trunk distribution water main shall not exceed the following load limits:

(a) Concentrated live loads equal to the maximum State Highway loading of 18,000 pounds per axle.

(b) Fixed (dead) loads of 500 pounds per square foot.

(3) In the event of the construction of a piled dock the piles nearest the trunk distribution water main shall be driven so as to provide a minimum clearance of 7-1/2 feet from the center line of said main.

The acceptance of this grant by Grantee shall constitute and be deemed an acceptance by it of the following obligations and undertakings:

The Grantee, City of Tacoma, agrees that said main will be covered and backfilled with a minimum cover of three feet in depth and further agrees to restore the surface within said easement and adjacent area if the same is broken for repairs, change or modifications; and Grantee hereby agrees to hold and save Grantor harmless from any and all damages arising from its use of the right, easement and right-of-way herein granted and agrees to pay any

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damage or damages which may arise to the property, premises or rights of Grantor through Grantee's use, occupation and possession of the rights herein granted.

Said easement shall continue so long as the City shall make use of the same for the purpose above specified, but that upon permanent discontinuance of said use by the City, this easement shall be of no force or effect.

IN WITNESS WHEREOF, said corporation has caused its corporate name to be hereunto subscribed and by these presents to be executed by its officers thereunto duly authorized, this 19th day of November, 1964.

CITY OF TACOMA:

Description approved:

By _____ Engineer

Approved as to form:

By _____, Asst. City Attorney

Accepted:

By _____, Director of Utilities

BOOKER CHEMICAL CORPORATION

By _____ Vice President

By _____ Secretary

STATE OF NEW YORK)
: ss.
COUNTY OF NEW YORK)

On this 19th day of November, 1964, before me personally appeared J. C. Baldwin and A. W. Chambers, Jr., to me known to be the Vice President and Secretary respectively of the corporation that executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of the corporation, for the uses and purposes therein mentioned, and on oath stated that they were authorized to execute said instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

_____
Notary Public in and for the State of NEW YORK
residing at 400 East 55th Street

Notary Public

Filed for record June 8, 1965 7 45 m. O.S.
Request of City of Tacoma
JACK W. Sundstrom, Pierce Co. Auditor

- 3 -

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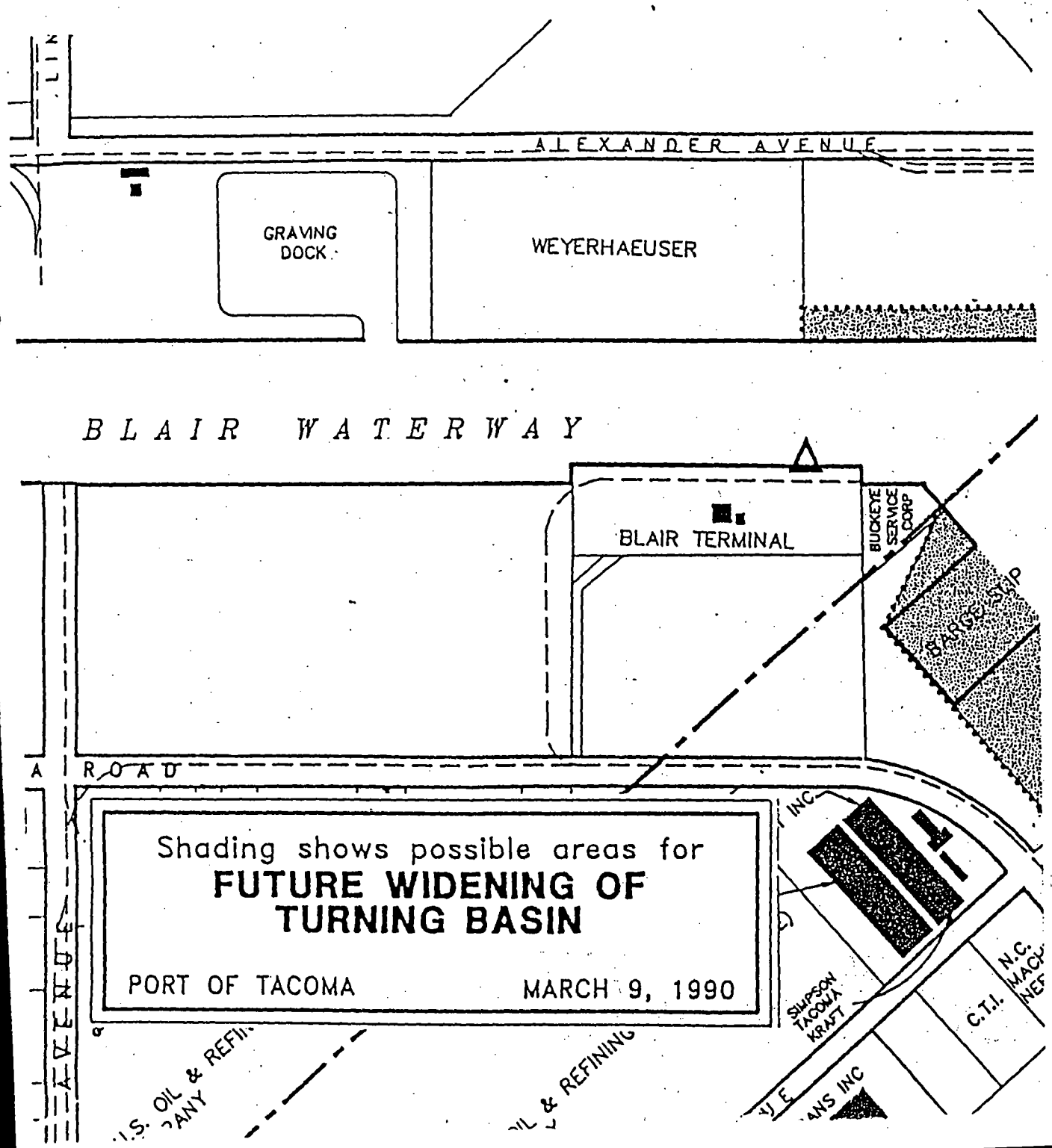
ALEXANDER AVENUE
GRAVING DOCK
WEYERHAEUSER
BLAIR WATERWAY
BLAIR TERMINAL
BUCKEYE SERVICE CORP
BARGE SLIP
ROAD
Shading shows possible areas for
FUTURE WIDENING OF TURNING BASIN
PORT OF TACOMA
MARCH 9, 1990
SIMPSON TACOMA KRAFT
C.T.I.
N.C.
U.S. OIL & REFIN
OIL & REFINING

rt Turner
ing Director

Post-It™ brand fax transmittal memo 7671 | # of pages ▸

To Pat Yamashita	From PWD/Donna
Co.	Co.
Dept.	Phone #
Fax #	Fax #

STATE OF WA
DEPARTMENT
115 General Administration Building, M.S. AX-11 • Olympia, Washington 98504 • (206) 753-6600 • (SCAN) 234-6600

October 13, 1992

City of Tacoma Public Works Department
ATTENTION: William Pugh
747 Market Street, Suite 408
Tacoma, Washington 98402

SUBJECT: Hydraulic Project Application - Storm Drain and Outfall Construction - Blair Waterway, Tributary to Commencement Bay, Section 35, Township 21 North, Range 03 East, Pierce County, WDF Log No. 00-57172-01, WRIA 10.MARI

Dear Mr. Pugh:

The Washington Department of Fisheries (WDF) received the above-referenced Hydraulic Project Application on August 31, 1992, but we are unable to complete processing at this time for the following reason:

Incomplete Application - Additional information is required

Complete plans and specifications of the project relative to Mean Higher High Water (MHHW) (Datum, Mean Lower Low Water [MLLW] = 0.0) must be submitted to facilitate evaluation of potential impacts to fish resources. The drawings must accurately depict existing conditions and include plan and cross-sectional views of the proposed project for any activities that are planned below the line of ordinary high water. The location of all prominent natural features and manmade improvements on the bank and beach in the immediate vicinity of the project area must be accurately represented.

The project description submitted for the Shoreline Substantial Development Permit (#141.526) indicated that the wetland area adjacent to Alexander Avenue would be filled as part of the proposed work. However, plans submitted to WDF do not indicate what work if any will occur in this wetland area. Please note that if you plan to conduct the previously proposed wetland fill, an HPA will be required as well as adequate mitigation to compensate for adverse impacts to fish life.

Your application is placed on hold until we receive the above-identified information; and will be processed after the information has been received.

We appreciate your cooperation in our efforts to protect, perpetuate and manage the fish resources of the state of Washington.

If you have any questions regarding the status of your application, please contact Randy Carman, Regional Habitat Manager, at (206) 902-2573.

Sincerely,

Duane E. Phinney

Duane E. Phinney, Chief
Habitat Management Division

DEP:RC:lmh:13

cc: Peter Katich - City of Tacoma Public Works
3rd Floor, Tacoma Municipal Bldg.
747 Market Street
Tacoma, WA 98402

Tacoma City of Tacoma
Office of the City Attorney

FAXED TO PROVIDE EARLIEST RESPONSE

October 20, 1992

Mr. Duane E. Phinney, Chief
Habitat Management Division
Department of Fisheries
115 General Administration Bldg.
M.S. AX-11
Olympia, WA 98504

Re: Hydraulic Project Application Outfall Construction - Blair Waterway, Tributary to Commencement Bay, Section 35 Township 21 North, Range 03 East, Pierce County, WDF Log No. 00-57172-01, WRIA 10.MARI

Dear Mr. Phinney:

Your letter of October 13, 1992, has been referred to me for response.

Please be advised that your assertion of jurisdiction and necessity for an HPA with regard to a manmade storm drainage device known as the smaller "Lincoln Avenue Ditch" is improper, as a matter of law. As was brought out at the Shorelines Substantial Development Permit hearing, this ditch was constructed by the Port of Tacoma and dedicated to the City of Tacoma over forty years ago. All water to and from the ditch is conveyed by manmade conduit.

As I am sure you are aware, your enabling legislation is pursuant to RCW 75.20.100, which commences that "a hydraulic project or other work that will <u>use, divert, obstruct or change the natural flow or bed</u> of any... waters of the state...." (Emphasis added) In the middle of that statute, the legislature has given express guidance as to its intended coverage:

> Bed shall mean the land below the ordinary high water lines of state waters. This definition shall <u>not</u> include...storm water run-off devices or other artificial water courses except where they exist in a natural water course that has been altered by man. (Emphasis added)

Thus, your agency simply has no jurisdiction with respect to any action relating to the ditches. The legislature clearly limited the HPA requirement to natural water courses.

0907w

747 Market Street, Room 1120 ▮ Tacoma, Washington 98402-3767 ▮ (206) 591-5885

As was clearly established in the lengthy hearing with respect to the Shoreline Substantial Development Permit, there was simply no evidence presented by Mr. Carman, representing your department, or any other party to support any conclusion other than these ditches are manmade. They are storm water run-off devices.

The City of Tacoma is engaged in this project solely as part of the Puyallup Settlement Agreement. The Settlement Agreement imposes strict timelines upon which the City must complete its project, and there are corresponding deadlines imposed upon the Port of Tacoma. Please be advised that your immediate response is urgently requested for these reasons. Please also be advised that in the event the City is required to pay delay penalties to the Puyallup Tribe, we may have no choice other than to look to you for redress.

I most earnestly suggest that you carefully confer with legal counsel as to the position that you have taken in this matter. Again, I feel that you have no legal support in asserting HPA jurisdiction here. I would be happy to discuss this matter with you or your attorney and hope that we may expeditiously resolve this matter.

Sincerely,

KBGerhardt

KATHRYN B. GERHARDT
Assistant City Attorney

KBG/bn

cc: Ray E. Corpuz, Jr., City Manager
Karen Larkin, Public Works
William Pugh, Public Works
Port of Tacoma
Puyallup Tribe

0907w

PW-SEWER
Fisheries

Robert Turner
Director

STATE OF WASHINGTON

DEPARTMENT OF FISHERIES

115 General Administration Building, M.S. AX-11 • Olympia, Washington 98504 • (206) 753-6600 • (SCAN) 234-6600

October 27, 1992

RECEIVED

OCT 28 1992

CITY ATTORNEY

Kathryn B. Gerhardt
Assistant City Attorney, City of Tacoma
Office of the City Attorney
747 Market Street, Room 1120
Tacoma, Washington 98402-3767

Dear Ms. Gerhardt:

This is in response to your letter to me of October 20, 1992, in which your advise me of your opinion about Washington Department of Fisheries (WDF) authority with respect to the "Lincoln Avenue Ditch".

In that letter you quoted the appropriate portion of RCW 75.20.100 as support for your contention that we have no authority over this particular body of water. In that quotation you appropriately noted the definition of "bed" excludes stormwater run-off devices ". . . except where they exist in a natural water course that has been altered by man".

Since the entire area surrounding this body of water is within what was historically part of the Commencement Bay intertidal area, it obviously meets the test of being within ". . . a natural water course that has been altered by man". Thus, our authority under RCW 75.20.100 pertains.

I have, however, talked with Karen Larkin and we have agreed in principle on some minimal mitigation that would replace the habitat lost by the proposed project. A Hydraulic Project Approval has been issued.

Sincerely,

Duane E. Phinney, Chief
Habitat Management Division

DEP:lmh

DEPARTMENT OF FISHERIES

HYDRAULIC PROJECT APPROVAL

R.C.W. 75.20.100
R.C.W. 75.20.103

[4] October 29, 1992
(applicant should refer to this date in all correspondence)

DEPARTMENT OF FISHERIES
General Administration Bldg.
Olympia, Washington 98504
(206) 753-6650

902-2534

[10] LAST NAME Tacoma Public Works Dept.	FIRST	[18] CONTACT PHONE(S) 591-5525	[1] CONTROL NUMBER 00-57172-02
[19] STREET OR RURAL ROUTE 747 Market St., #408, ATTN: William Pugh			[7] [8] [9] WRIA 10.MARI
CITY Tacoma	STATE WA	ZIP 98402	[14] [17]
[12] WATER Blair Waterway	TRIBUTARY TO Commencement Bay		[11] TYPE OF PROJECT Storm Drain
[13] QUARTER SECTION / SECTION 35	TOWNSHIP 21N	RANGE(E-W) 03E	COUNTY Pierce
			Outfall, Wetland
			Fill & Mitigation

TIME LIMITATIONS: [5] THIS PROJECT MAY BEGIN Immediately | [6] AND MUST BE COMPLETED BY March 15, 1995

THIS APPROVAL IS TO BE AVAILABLE ON THE JOB SITE AT ALL TIMES AND ITS PROVISIONS FOLLOWED BY THE PERMITTEE AND OPERATOR PERFORMING THE WORK.

SEE IMPORTANT GENERAL PROVISIONS ON REVERSE SIDE OF APPROVAL

NOTE: The Washington Department of Fisheries (WDF) has reviewed your plans received on August 31, 1992 and Duane Phinney, Chief of Habitat Management Division, discussed the wetland fill portion of the project with Karen Larkin on October 21, 1992.

1. This project is approved as illustrated in your application and as discussed with Ms. Larkin by phone on October 21, 1992 subject to the following provisions.

2. The City of Tacoma, Public Works Department shall construct a mitigation site within the Thea Foss Waterway (or another mutually agreeable location) to provide full compensation for the loss of intertidal wetland habitat destroyed as a result of this project. The mitigation project shall be completed within two (2) years of the completion of the Blair storm drain and outfall project and shall be designed, constructed, and located to provide full compensatory mitigation for wetland losses at the project site. A mitigation plan shall be submitted to WDF for approval prior to construction of the mitigation site. The plan shall contain all the components of a standard mitigation plan (e.g. environmental goals, work plan, performance standards, monitoring plan, and contingency plan).

3. The applicant or contractor shall notify the Regional Habitat Manager listed below by phone at least seven (7) working days prior to the start of construction activities.

EPA: DNS by City of Tacoma - May 1992
GIONAL HABITAT MANAGER - Randy Carman (206) 902-2573
TROL - Tuggle
PPLICANT - WILDLIFE - READER - PATROL - HAB. MGR. - WRIA

EPARTMENT OF FISHERIES R Timothy Flint for DIRECTOR

DEPARTMENT OF FISHERIES

HYDRAULIC PROJECT APPROVAL

R.C.W. 75.20.100
R.C.W. 75.20.103

[4] October 29, 1992
(applicant should refer to this date in all correspondence)

DEPARTMENT OF FISHERIES
General Administration Bldg.
Olympia, Washington 98504
(206) 753-6650

[10] LAST NAME Tacoma Public Works Dept.	[18] CONTACT PHONE(S) 591-5525	[1] CONTROL NUMBER 00-57172-02
[12] WATER Blair Waterway		[9] WRIA 10.MARI

4. Work below the ordinary high waterline shall not occur from March 15 through June 14 of any year for the protection of migrating juvenile salmonids.

5. Rock used for the outfall structure shall be composed of clean, angular material of a sufficient size to prevent its being washed away by high water or wave action. Only the minimum amount of rock necessary to stabilize the outfall shall be used.

6. Project activities shall not occur when the project area is inundated by tidal waters.

7. Use of equipment on the beach shall be confined to a specific access and to a 50 foot work corridor waterward of the outfall.

8. Excavated materials shall not be stockpiled on the beach below the ordinary high waterline.

9. All trenches, depressions, or holes created in the intertidal area shall be backfilled prior to inundation by tidal waters. Trenches excavated for the outfall may remain open during construction, however, fish shall either be prevented from entering such trenches or provided a readily accessible exit route for use during ebbing tides.

10. Any concrete poured on site shall be poured at low tide when the area is dewatered, and shall be allowed a minimum curing time of two (2) hours prior to coming in contact with state waters. Wet concrete shall be prevented from entering waters of the state. Forms for any concrete structure shall be constructed to prevent leaching of wet concrete. Impervious materials shall be placed over any exposed concrete not lined with the forms that will come in contact with state waters. Forms and impervious materials shall remain in place until the concrete is cured.

11. Project activities shall be conducted to minimize siltation of beach areas and bed materials.

12. If a fish kill occurs or fish are observed in distress, the project activity shall immediately cease and WDF Habitat Management Division shall be notified immediately.

13. Debris or deleterious material resulting from construction shall be removed from the beach area and project site and shall not be allowed to enter waters of the state.

DEPARTMENT OF FISHERIES

HYDRAULIC PROJECT APPROVAL

R.C.W. 75.20.100
R.C.W. 75.20.103

4 October 29, 1992

(applicant should refer to this date in all correspondence)

DEPARTMENT OF FISHERIES
General Administration Bldg.
Olympia, Washington 98504
(206) 753-6650

10 LAST NAME Tacoma Public Works Dept.	18 CONTACT PHONE(S) 591-5525	1 CONTROL NUMBER 00-57172-02
12 WATER Blair Waterway		9 WRIA 10.MARI

14. Water quality is not to be degraded to the detriment of fish life as a result of this project.

If you have any questions or need additional information, please contact Randy Carman, Regional Habitat Manager, at (206) 902-2573.

LOCATION: Blair Waterway and connected wetlands at Linclon Ave., Tacoma.

50:12:lmh

cc: Duane Phinney
Karen Larkin - Tacoma Public Works

THIS APPROVAL IS TO BE AVAILABLE ON THE JOB SITE AT ALL TIMES AND ITS PROVISIONS FOLLOWED BY THE PERMITTEE AND OPERATOR PERFORMING THE WORK

THE PERSON(S) TO WHOM THIS APPROVAL IS ISSUED MAY BE HELD LIABLE FOR ANY LOSS OR DAMAGE TO FISHLIFE OR FISH HABITAT WHICH RESULTS FROM FAILURE TO COMPLY WITH THE PROVISIONS OF THIS APPROVAL.

FAILURE TO COMPLY WITH THE PROVISIONS OF THIS APPROVAL COULD RESULT IN A CIVIL PENALTY OF UP TO ONE HUNDRED DOLLARS PER DAY OR A GROSS MISDEMEANOR CHARGE, POSSIBLY PUNISHABLE BY FINE OR IMPRISONMENT.

ALL HYDRAULIC PROJECT APPROVALS ISSUED PURSUANT TO RCW 75.20.100 ARE SUBJECT TO ADDITIONAL RESTRICTIONS, CONDITIONS, OR REVOCATION IF THE DEPARTMENT OF FISHERIES OR DEPARTMENT OF WILDLIFE DETERMINE THAT NEW BIOLOGICAL OR PHYSICAL INFORMATION INDICATES THE NEED FOR SUCH ACTION. THE PERMITTEE HAS THE RIGHT PURSUANT TO CHAPTER 34.04 RCW TO APPEAL SUCH DECISIONS. ALL HYDRAULIC PROJECT APPROVALS ISSUED PURSUANT TO RCW 75.20.103 MAY BE MODIFIED BY THE DEPARTMENT OF FISHERIES OR DEPARTMENT OF WILDLIFE DUE TO CHANGED CONDITIONS AFTER CONSULTATION WITH THE PERMITTEE: PROVIDED HOWEVER, THAT SUCH MODIFICATIONS SHALL BE SUBJECT TO APPEAL TO THE HYDRAULIC APPEALS BOARD ESTABLISHED IN RCW 75.20.130.

THIS APPROVAL PERTAINS ONLY TO THE PROVISIONS OF THE FISHERIES AND WILDLIFE CODES. ADDITIONAL AUTHORIZATION FROM OTHER PUBLIC AGENCIES MAY BE NECESSARY FOR THIS PROJECT.

APPEALS - GENERAL INFORMATION

IF YOU WISH TO APPEAL DENIAL OR CONDITIONS OF AN HPA, THERE ARE INFORMAL AND FORMAL APPEAL PROCESSES AVAILABLE.

. INFORMAL APPEALS:

AN INFORMAL APPEAL (WAC 220-110-340) CONSISTS OF CONTACTING THE REGIONAL HABITAT MANAGER AND DISCUSSING YOUR CONCERNS. MOST PROBLEMS ARE RESOLVED AT THIS LEVEL, BUT IF NOT, YOU MAY ELEVATE YOUR CONCERNS TO THE CHIEF OF THE HABITAT MANAGEMENT DIVISION IN OLYMPIA. THE HABITAT MANAGEMENT DIVISION CHIEF'S DECISION SHALL BE APPROVED OR DISAPPROVED BY THE DIRECTOR OR DESIGNEE. IF YOU ARE NOT SATISFIED WITH THE RESULTS OF THIS INFORMAL APPEAL, A FORMAL APPEAL MAY BE FILED.

. FORMAL APPEALS:

1) FOR ALL CIVIL PENALTY APPEALS AND FOR OTHER HPA APPEALS WHICH ARE NOT ASSOCIATED WITH IRRIGATION OR STOCK-WATERING DIVERSIONS, A WRITTEN APPEAL REQUEST MUST BE FILED WITH THE DEPARTMENT THAT ISSUED OR DENIED THE APPROVAL OR LEVIED THE CIVIL PENALTY YOU ARE APPEALING (WAC 220-110-350).

2) FOR APPEALS OF DENIAL OR CONDITIONS OF AN HPA ASSOCIATED WITH IRRIGATION OR STOCK-WATERING DIVERSIONS OTHER THAN CIVIL PENALTY APPEALS, A WRITTEN APPEAL REQUEST MUST BE FILED WITH THE HYDRAULIC APPEALS BOARD PER WAC 259-04. THE MAILING ADDRESS OF THE APPEALS BOARD IS: ENVIRONMENTAL HEARINGS OFFICE, BUILDING TWO - ROWE SIX, LACEY, WASHINGTON 98504; TELEPHONE 206/459-6327.

3) FAILURE TO APPEAL WITHIN 30 DAYS OF THE DATE OF ACTION YOU ARE APPEALING RESULTS IN FORFEITURE OF ALL APPEAL RIGHTS.

City of Tacoma

Department of
Public Works

RECEIVED
DEC 02 1992
HABITAT MANAGEMENT

December 1, 1992

Mr. Duane E. Phinney, Chief
Habitat Management Division
Department of Fisheries
115 General Administration Building.
MS AX-11
Olympia, WA 98504

Subject: Appeal of Hydraulic Project Approval - Storm Drain Outfall Construction - Blair Waterway, Tributary to Commencement Bay, Section 35, Township 21 North, Range 03 East, Pierce County, WDF Log No. 00-57172-01, WRIA 10.MARI

Dear Mr. Phinney:

The City of Tacoma Public Works Department received the above referenced Hydraulic Project Approval November 2, 1992. This letter shall serve as the City of Tacoma's appeal of Condition 2 of the Hydraulic Project Approval pursuant to WAC 220-110-340. This notice of appeal is being filed within 30 days of receipt of project approval.

It is our hope the appeal can be resolved informally with WDF staff. If this notice has not been properly filed please notify me immediately.

Condition 2 requires the City to "... construct a mitigation site to fully compensate for the intertidal wetland habitat destroyed as a result of the Blair storm drain and outfall project within two years of project completion." A mitigation plan approved by the Washington Department of Fisheries is also required.

Pursuant to our phone conversation on October 21, 1992, it was my understanding the City would provide voluntary mitigation for the filling of the storm drainage ditch within Commencement Bay or its tributaries as part of the City's storm water management program. These actions would be above and beyond the requirements of the NPDES permit. In our conversation, we did not agree to a two year window to provide mitigation nor did we agree to provide a mitigation plan for approval by WDF. Therefore, this appeal requests the removal of the two year mitigation window, the requirement for a mitigation plan, WDF approval of the plan, and direct one-for-one mitigation.

As we discussed, mitigation will not be provided for loss of habitat as a result of filling the smaller Lincoln Avenue Ditch since it is a manmade storm water run-off device and is therefore not under the jurisdiction of WDF. All water to and from the ditch is conveyed by manmade conduit. RCW 75.20.100 states that "a hydraulic project or other work that will use, divert, obstruct or change the natural flow or bed of any... waters of the state...." The middle of that statute gives expressed guidance as to its intended overage:

> Bed shall mean the land below the ordinary high water lines of state waters. This definition shall not include...storm water run-off devices or other artificial water courses except where they exist in a natural water course that has been altered by man.

Thus, WDF has no jurisdiction with respect to any action relating to the Lincoln Avenue Ditches. The legislature clearly limited the HPA requirement to natural water courses.

I understand you disagree with this opinion but felt we had come to a mutually agreed resolution that would not require us to pursue this through formal actions.

I look forward to discussing this appeal with you further. Please contact me at 591-5588 at your earliest convenience. I hope that we may expeditiously resolve this matter.

Sincerely,

KAREN J. LARKIN, P.E.
Division Manager
Utility Services Engineering

KJL:MPY:bls:WP1317b

File: Utility Services Engineering

DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-2255

December 21, 1992

REPLY TO ATTENTION OF

Karen Keeley, Project Manager
EPA, Region 10, Superfund
1200 Sixth Avenue, HW-113
Seattle Washington

Dear Ms. Keeley;

The Seattle District, Army Corps of Engineers would like to offer the following comments on your Superfund Fact Sheet, dated November 20,1992. We concur with your Preferred Cleanup Alterative with some exceptions.

As you are aware the Corps and EPA have an established Memorandum of Agreement (MOA) concerning the determination of mitigation under the Clean Water Act Section 404 (b)(1) Guidelines. This MOA clarifies that proposed fill projects into a water of the U.S. must follow a sequence of avoidance, minimizing and finally mitigating for impacts that cannot be avoided or minimized. The 404(b)(1) Guidelines at 40 CFR 230.10 (3) further state that "...where a discharge is proposed for a special aquatic site all practicable alternatives to the discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise". This seems to conflict with what you have proposed in the first part of paragraph 6) of the Preferred Cleanup Alterative . Although in a degraded state, the Lincoln Street ditch supports wetland vegetation (Grindelia integrifolia and Salicornia virginica) and is considered to be a special aquatic site. The ditch is also intertidal and the extent of tidal influence extends beyond the Blair Waterway Property, so filling of the ditch would have adverse impacts beyond the project's boundary. In addition, migratory waterfowl are often found utilizing the site. The Corps recommends that the preferred alternative for remediation of contaminated sediments of the Lincoln Street ditch be excavation (with proper disposal) of the sediments accompanied by planting of wetland vegetation. The ditch should remain connected to the Blair Waterway so that it remains an intertidal wetland. Mitigation should only be considered at the end of the process after all practicable measures to avoid or minimize have been implemented.

Your fact sheet did not mention if there are any wetlands that will be impacted during the cleanup and associated containment on the seven acre Ohio Ferro-Alloys site. Has this been considered in your evaluation process?

Thank you for allowing us the opportunity to comment. If you have any questions, please contact Patrick Cagney at 764-3624.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

Reply to
Attn of: HW-113

December 29, 1992

Curtis Ratcliffe
Port of Tacoma
P.O. Box 1837
Tacoma, Washington 98401-1837

Bill Sullivan
Puyallup Indian Tribe
2002 East 28th Street
Tacoma, Washington 98404

RE: Lincoln Avenue Ditch Component of the Blair Waterway Property Cleanup

Dear Curtis:

This letter provides the position of the U.S. Environmental Protection Agency (EPA) Superfund Remedial Branch regarding steps that must precede EPA agreement to fill the large segment of the Lincoln Avenue Ditch as part of the Blair Waterway Property cleanup. The cleanup is to be undertaken by the Port of Tacoma (the Port) pursuant to the Puyallup Land Settlement Agreement of 1988. As a result of comments received from the U.S. Army Corps of Engineers (the Corps), EPA wants to clarify actions that the Port and the Puyallup Indian Tribe must complete before EPA will issue an administrative order to require filling the ditch.

Under Alternative 4 of the Preferred Cleanup Alternatives for the Blair Waterway Property cleanup, the Port would fill the large segment of the Lincoln Avenue Ditch to contain contaminated sediments. Using the terminology of Section 404 of the Clean Water Act and EPA's 404(b)(1) Guidelines, 40 CFR § 230.10, this activity involves a discharge into the waters of the United States, in an area which is a special aquatic site. In order for EPA to authorize such an activity as part of a response action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), we have to find that the activity will substantively comply with those requirements (or find a basis for waiving the requirement). The first requirement is to determine that there is no practicable alternative, within the meaning of 40 CFR 230.10(a), to avoid the discharge. Note that there are several specific considerations for special aquatic sites. Second, we must find that steps will be taken to minimize potential adverse impacts. Finally, there must be mitigation to compensate for impacts that cannot be avoided or minimized.

In comments dated December 21, 1992, on the Preferred Cleanup Alternative which has been made available for public comment, the Corps recommended excavation with proper disposal of

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the contaminated sediments in the ditch, along with other measures (see enclosed letter). The Corps writes that "[m]itigation should only be considered at the end of the process after all practicable measures to avoid or minimize have been implemented." In order to respond to this significant comment, EPA needs the Port or the Tribe to provide a written justification that demonstrates there is no practicable alternative to the proposed discharge and that steps are being taken to minimize the unavoidable impacts. This justification will also be used by EPA to document compliance of the action with the Clean Water Act and the 404(b)(1) guidelines.

In addition, EPA has stated several times in correspondence to the Port, with copies to the Puyallup Indian Tribe, that we will not authorize filling of the ditch until an agreement on compensatory mitigation has been worked out with the Washington Department of Fisheries and the U.S. Fish and Wildlife Service. Specifically, the Port or the Tribe must provide to EPA letters from those resource agencies indicating they do not object to filling of the large segment of the ditch and identifying any mitigation that is required.

EPA recognizes that the rest of the cleanup for the Blair Waterway and the Blair Backup Properties will be ready to proceed at the end of the public comment period under an administrative order on consent (AOC). Rather than delay the cleanup pending resolution of the ditch issues, EPA is willing to negotiate an AOC for everything but the ditch cleanup. We can later amend the AOC when the cleanup alternative for the ditch has been properly documented by the Port and the Tribe. I would note that the Port will have to move swiftly if it wants to keep open the option of disposing the ditch sediments as part of the Sitcum Waterway Remediation Project, since those remedial plans are already being reviewed by EPA and will be governed by a separate consent decree.

I hope this letter clarifies EPA's position on this aspect of the Blair Waterway Property cleanup. If you have any questions, please call me at (206) 553-2141 or call Rich McAllister a (206) 553-8203.

Sincerely,

Karen Keeley

Karen Keeley
Superfund Site Manager

cc: C. Blumenfeld, w/enc.
R. DuBey, w/enc.
J. Bell, w/enc.
L. Sacha, w/enc.

Robert Turner
Acting Director

STATE OF WASHINGTON

DEPARTMENT OF FISHERIES

115 General Administration Building, M.S. AX-11 • Olympia, Washington 98504 • (206) 753-6600 • (SCAN) 234-6600

January 11, 1992

City of Tacoma Public Works Department
ATTENTION: Pat Yamashita
2201 Portland Avenue East
Tacoma, Washington 98421

SUBJECT: Hydraulic Project Approval - Modification of Provision No. 2 - Storm Drain Outfall, Wetland Fill and Mitigatio Blair Water Way, Tributary to Commencement Bay, Section 35, Township 21 North, Range 03 East, Pierce County, WDF Log No. 00-57172-02

Dear Mr. Yamashita:

The Washington Department of Fisheries (WDF) reviewed your proposed language (received on December 21, 1992) for modification of Provision Number 2 in the above-referenced Hydraulic Project Approval and offers the following substitute:

> The City of Tacoma Public Works Department (City) agrees to and shall conduct a project approved, prior to construction, by WDF to create intertidal habitat to fully replace the area lost due to filling of intertidal area as a result of the work conducted under this Hydraulic Project Approval. This could be accomplished through projects proposed within the Stormwater Management Plan now being drafted by the Public Works Department. An example of an acceptable project would be removal of the closed piping and tidegate storm drain system which discharges to the Hylebos Waterway and subsequent creation of an intertidal area equal in size to the area to be filled as a result of the Blair storm drain and outfall project. The City commits to conduct the replacement project within two years of completion of the Blair storm drain and outfall project. In the event that the replacement project is not completed within two years, added compensation of 10 percent per year shall be added for each subsequent year. In no case, however, shall the time for completion be greater than five years.

We appreciate your cooperation in our efforts to protect, perpetuate, and manage the fish resources of the state of Washington.

If you have any questions regarding this matter, please contact Randy Carman at (206) 902-2573.

Sincerely,

R. Timothy Flint for

Duane E. Phinney, Chief
Habitat Management Division

cc: Flint

STOEL RIVES BOLEY
JONES & GREY

ATTORNEYS AT LAW
36TH FLOOR
ONE UNION SQUARE
600 UNIVERSITY STREET
SEATTLE, WASHINGTON 98101-3197

Telephone (206) 624-0900
Telecopier (206) 386-7500
Telex RCA 292986

January 26, 1993

HAND DELIVERED

Ms. Karen Keeley
Superfund Site Manager
Region X Office
U.S. Environmental Protection Agency
1200 Sixth Avenue
Seattle, WA 98101

Re: Commencement Bay Cleanup: Lincoln Avenue Ditch

Dear Karen:

This letter provides the response of the Puyallup Indian Tribe ("Tribe") to your letter of December 29, 1992, regarding filling of the Lincoln Avenue Ditch ("Ditch"). In general, the Tribe agrees with the U.S. Environmental Protection Agency ("EPA") that the decision to fill the Ditch should be fully documented in the Administrative Record for the cleanup of the Blair Waterway Property ("Property").

I. Background

For decades, the Property and, in particular, the Ditch have been impacted by releases of industrial contamination. The recent Phase I Environmental Investigation Report for the Blair Waterway Property by Landau Associates, Inc. concludes that the Ditch is contaminated with several metals, including zinc, lead, arsenic, nickel, lead, cadmium, mercury, chromium, copper and molybdenum. See Landau Report at 27. A copy of the July 11, 1989 Phase I Environmental Report is enclosed as Attachment A.

The Property to be transferred was identified in the Federal Puyallup Land Claim Settlement Act ("Settlement Act"), 25 U.S.C. § 1773, for the specific purpose of water dependent commercial and industrial development as a part of what has been widely recognized as the most desirable port development project on the West Coast. Cleanup of the Property has been and will be undertaken by the Port of Tacoma ("Port"), as part of the Port's obligations under the Settlement Act, the Settlement Agreement of August 27, 1988 ("Settlement Agreement") among the Tribe, the United States, the State of Washington, the Port and other parties, and the Comprehensive

STOEL RIVES BOLEY
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and revegetation. The Corps' proposal would necessarily require off-site transfer, treatment and disposal of contaminants excavated from the Ditch. In short, this alternative recommendation will neither provide for a permanent CERCLA remedy nor facilitate the reestablishment of a viable wetland on the Property. Recontamination of the Ditch by surface water run-off from the Reichold Company property and other upgradient sources is highly likely, requiring future cleanups and resulting in the Ditch's continued role as a contaminated area rather that a viable wetland habitat.

The proposal advanced by the Corps will also serve to bar the Tribe's proposed water dependent use for the Blair Waterway Property.

III. Approval of Alternative 4 by EPA

For the reasons set forth below, we have determined that Alternative 4 complies with requirements under Section 404(1)(b) of the Clean Water Act for discharges of fill into waters of the United States.

A. No Practicable Alternative.

As discussed above, the Tribe's proposed use for the Blair Waterway Property is for a deep water marine terminal port facility as intended by the Settlement Agreement.[1] Filling the Ditch which currently bisects the Property is necessary to render the Property commercially useable for that purpose. Operating a port facility on the Blair Waterway

---

[1] *The economics of operating a deep draft marine terminal require that design and layout focus on achieving maximum efficiency in facilitating the flow of large quantities of cargo on and off vessels. Movement of containers over long distances can severely constrain facility operations. The cargo loading area, therefore, must be designed to handle traffic flows efficiently.*

Only a limited number of West Coast ports meet all the necessary requirements for a deep draft marine terminal and this number is not likely to increase. Simply put, the Property meets these requirements and by its ratification of the Settlement Agreement it was the intent of our Congress that the Property be available for this use by the Tribe.

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IV. Federal Trust Responsibility

All federal agencies involved in the Commencement Bay Superfund Site cleanup owe a fiduciary duty to the Tribe in light of their trust responsibility to the Puyallup Tribe. Nance v. Environmental Protection Agency, 645 F.2d 701, 711 (9th Cir.) (all federal agencies are "subject to the United States' fiduciary responsibilities toward Indian tribes"), cert. denied, 454 U.S. 1081 (1981). The existence of this trust responsibility provides additional support for EPA's approval of Alternative 4.

The trust responsibility of the United States to the Puyallup Tribe, as defined by the Treaty of Medicine Creek, is further confirmed by the Settlement Agreement to which the United States is a party. In turn, the Settlement Act approved by Congress directs the United States to do what is necessary to implement the Settlement Agreement. In short, it is the intent of both the Settlement Agreement and Settlement Act that the Blair Waterway Property be available for development as the Tribe's deep draft marine terminal port facility.

It is well established that federal statutes are to be construed liberally in favor of Tribal governments. Montana v. Blackfeet Tribe of Indians, 471 U.S. 759, 766 (1985). The trust responsibility, the Treaty, the Settlement Agreement, and the Settlement Act each serve as individual sources of the obligation that flows from the United States and its agencies to the Tribe and impose limits on the scope of governmental discretion. Crow Tribe of Montana v. United States, 789 F. Supp. 398, 401 (D.D.C. 1990).

EPA's Indian Policy, which serves to implement the federal trust responsibility, provides that the Agency "will assure that Tribal concerns and interests are considered whenever EPA's actions and/or decisions may affect reservation environments." EPA Indian Policy Statement at 3 (1984). Administrator Reilly reaffirmed EPA's 1984 Indian Policy Statement on July 10, 1991. The Tribe's concerns and interests outlined above must be considered by EPA in approving the Administrative Order on Consent ("AOC") for the Blair Waterway Property. Copies of EPA's 1984 Indian Policy Statement and Administrator Reilly's memorandum reaffirming that Policy are enclosed as Attachments E and F.

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LANDAU ASSOCIATES, INC.

July 11, 198

Ms. Leslie Sacha
Port of Tacoma
P.O. Box 1837
Tacoma, WA 98401

TRANSMITTAL OF PHASE I ENVIRONMENTAL INVESTIGATION REPORT
BLAIR WATERWAY PROPERTY

Dear Ms. Sacha:

Enclosed are two copies of the Phase I Environmental Investigation Reports for the Blair Waterway property. This report was prepared in accordance with our approved Scope of Work and the provisions of Professional Service Agreement No. E1192 (dated February 15, 1989) between the Port of Tacoma (the Port) and Landau Associates, Inc.

Please contact either of the undersigned if you have additional questions regarding information presented in this report. We look forward to providing you with continuing engineering consulting services during Phase II investigations.

Very truly yours,

LANDAU ASSOCIATES, INC.

By:

Robert G. Fulton, P.E.
Project Manager

and

Steven A. Johnston
Associate Project Manager

LANDAU ASSOCIATES, INC.

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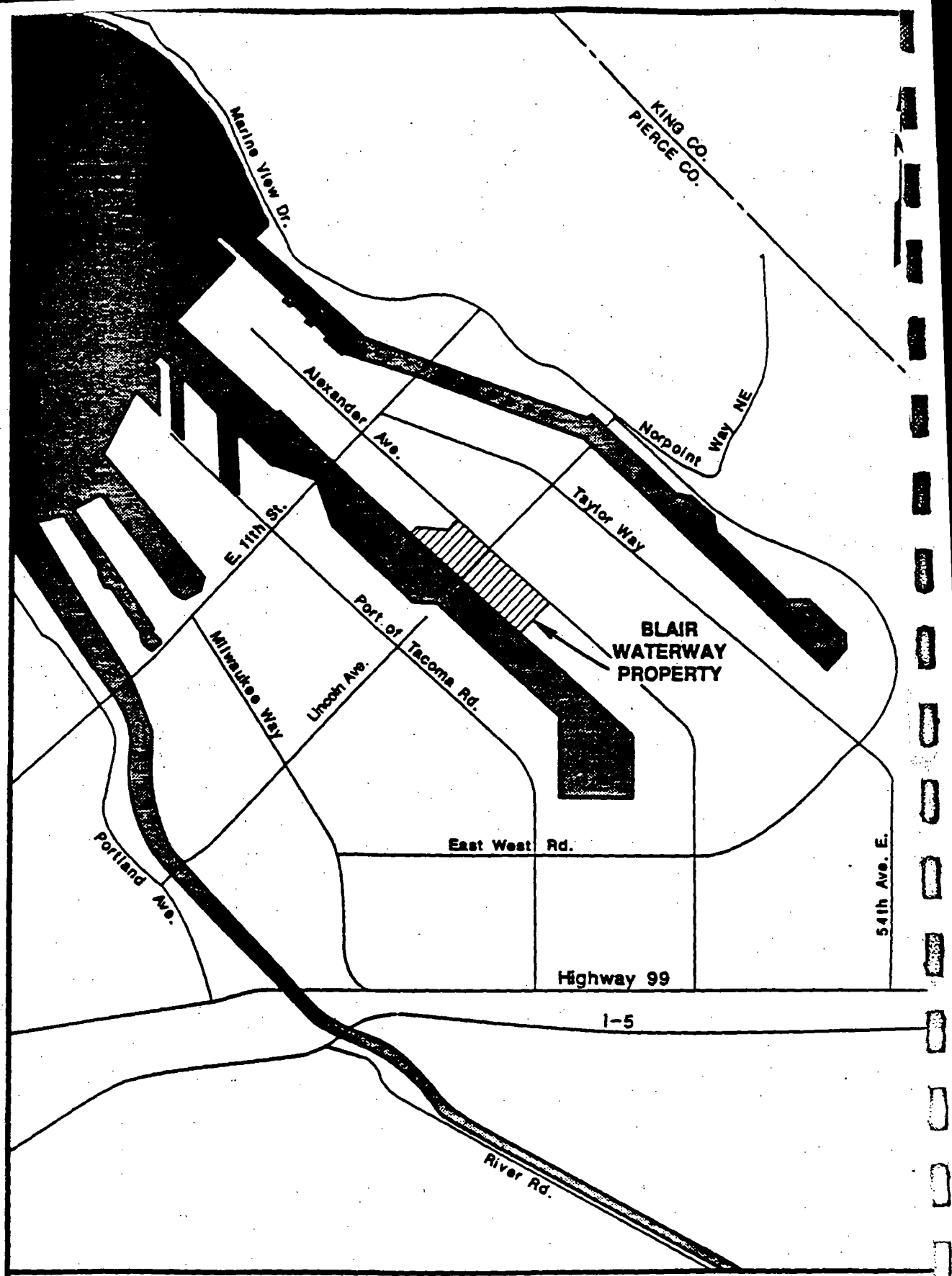

Source: Thomas Bros. Map, Pierce County, dated 1985.

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Scale in Miles

LANDAU ASSOCIATES, INC.

Vicinity Map

118-01.80 Port of Tacoma - Property Transfer-Blair Waterway 6-30-88

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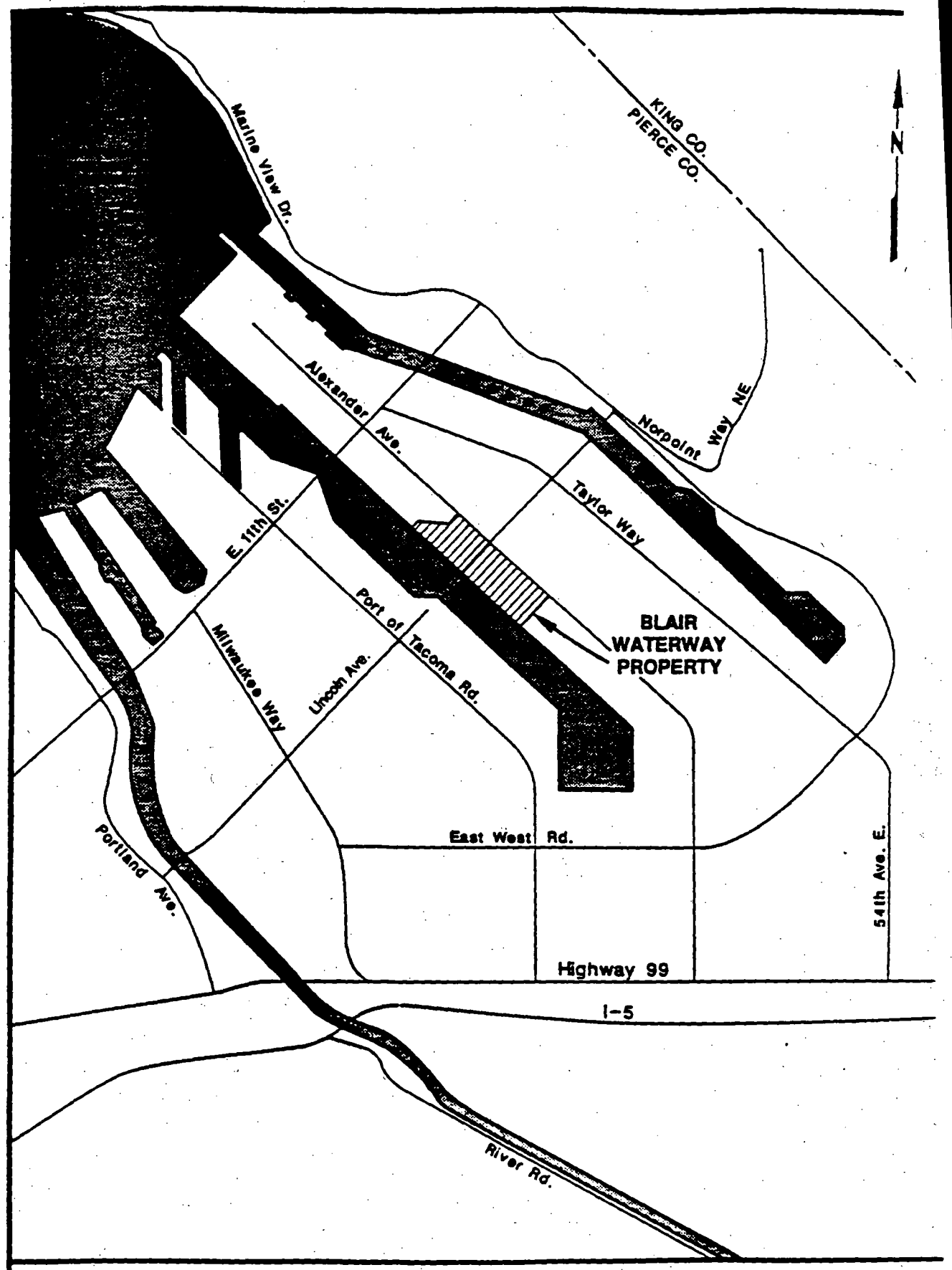

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LANDAU ASSOCIATES, INC.

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118-01.00 Port of Tacoma - Property Transfer: Blair Waterway 6-30-88

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1.1.2 Scope Of Investigations

The Phase I environmental investigation conducted at the Bla Waterway property consisted of:

- Collection and review of relevant data from environment investigations and assessments conducted at or around t property;
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- A property reconnaissance consisting of a visit to the pro perty on April 7, 1989, by personnel qualified in the area of property reconnaissance and hydrogeology to observ physical signs of contamination; and
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1.3 PROPERTY DESCRIPTION

The Blair Waterway property is a 43.4-acre parcel of land located on the northeast side of the Blair Waterway near the center of the tideflats industrial area (Figure 1). The property is bounded by Alexander Avenue to the northeast, the Weyerhaeuser wood chip facility to the southeast, the Domtar Gypsum facility to the northwest, and the Blair Waterway to the southwest. The site is generally level and is divided approximately in half by the former extension of Lincoln Avenue.

A map depicting major property features is presented on Figure 2. Property features of note include the graving dock on the southeastern half of the property; an impoundment for dredged sediments from the Blair Waterway called Mud Lake in the northwestern portion of the property; and drainage features including the Lincoln Avenue Drainageway in the central portion of the property and two boundary ditches along the east and west property lines.

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LINCOLN AVENUE DRAINAGEWAY

The Lincoln Avenue Drainageway consists of a large multi-branched ditch system oriented along Lincoln Avenue that collects runoff from most of the industrial sites in the local area. Two branches of this system meet just inside the property (near the intersection of Lincoln and Alexander Avenues) before bisecting the property and discharging into the Blair Waterway. The portion of the drainageway that is located on the property has been designated as "wetland" by the City of Tacoma.

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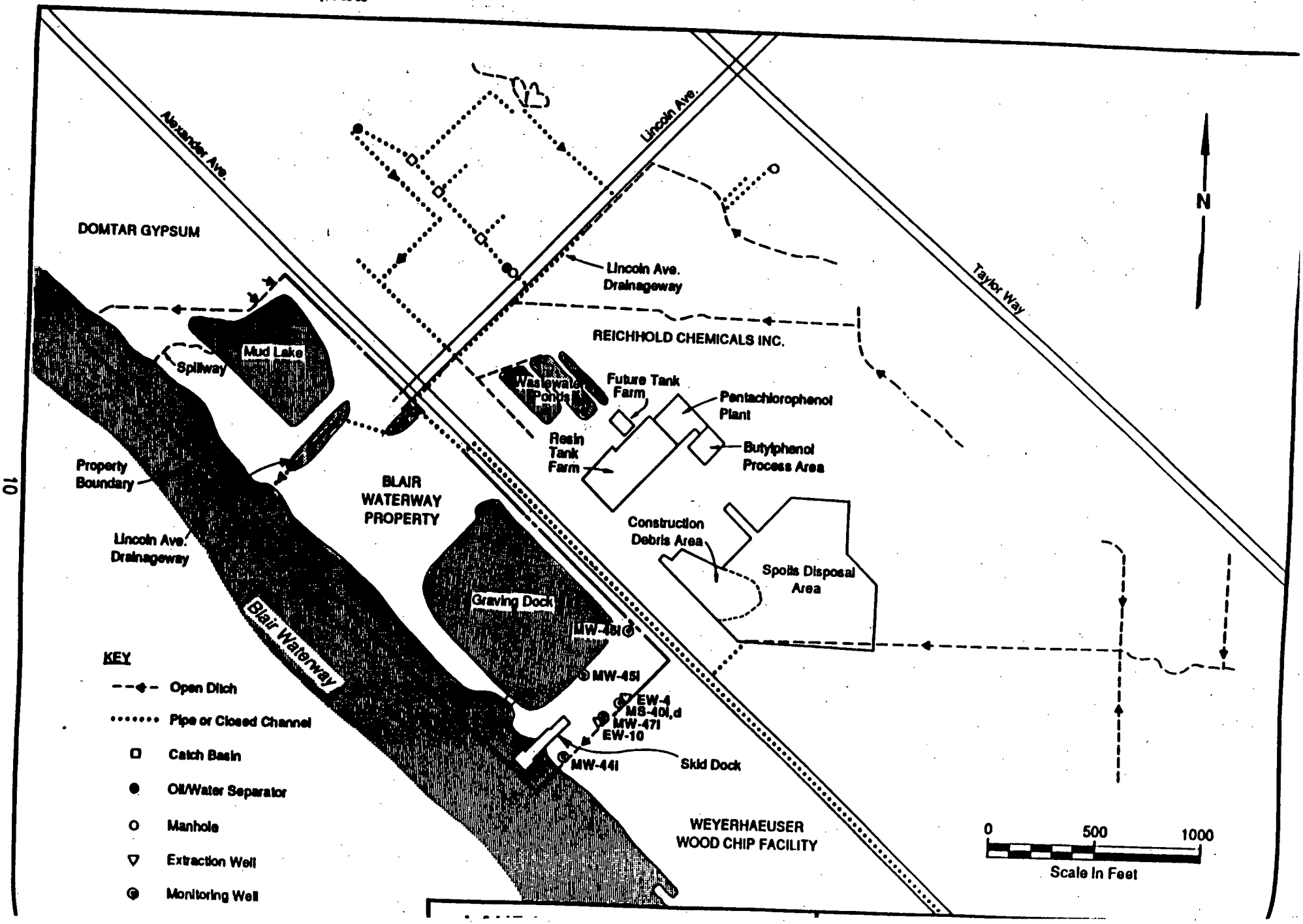
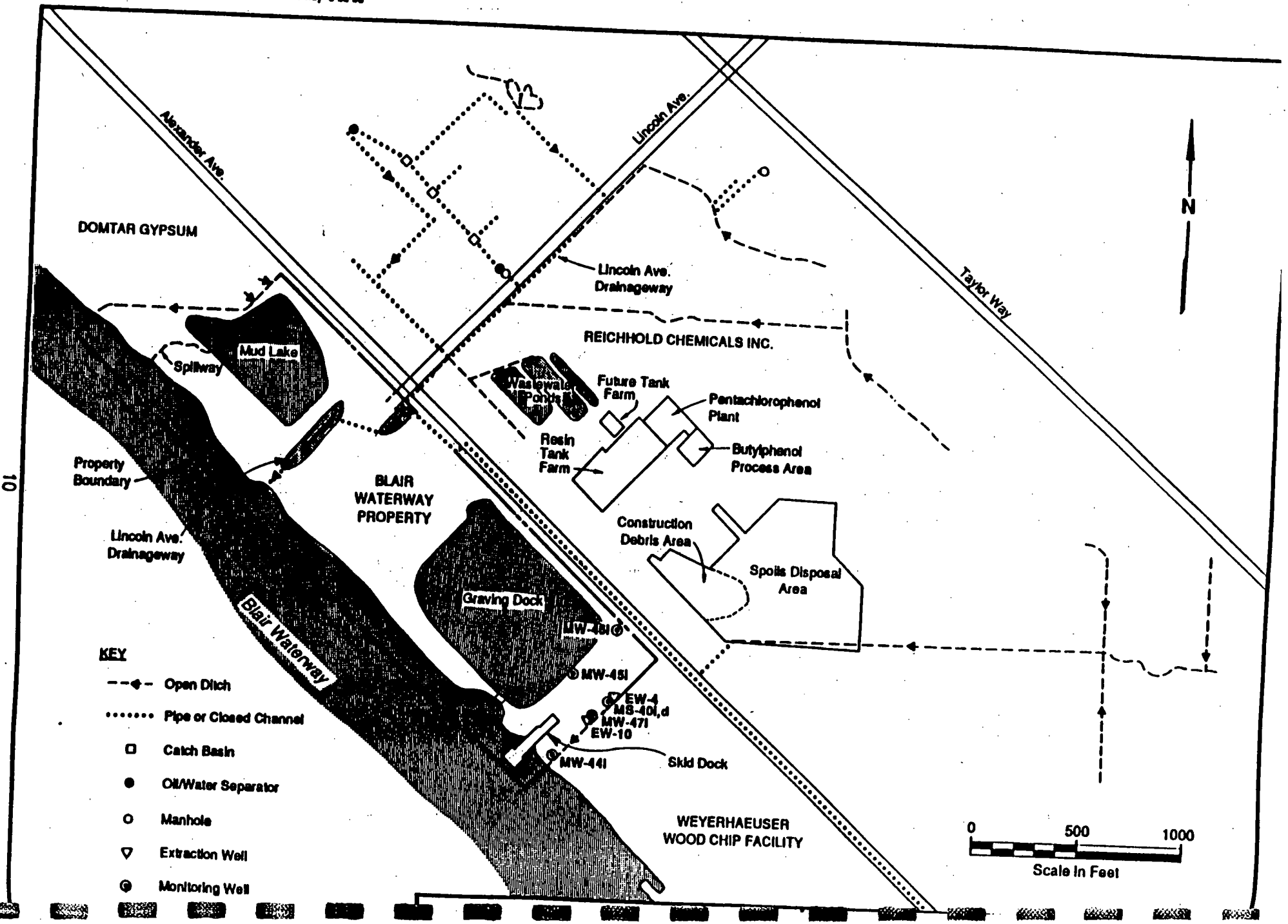

Alexander Ave.
Lincoln Ave.
Taylor Way
N
DOMTAR GYPSUM
Lincoln Ave. Drainageway
REICHHOLD CHEMICALS INC.
Mud Lake
Spillway
Wastewater Ponds
Future Tank Farm
Pentachlorophenol Plant
Resin Tank Farm
Butylphenol Process Area
Property Boundary
BLAIR WATERWAY PROPERTY
Lincoln Ave. Drainageway
Construction Debris Area
Spoils Disposal Area
Graving Dock
Blair Waterway
MW-48I
MW-45I
EW-4
MS-40I,d
MW-47I
EW-10
MW-44I
Skid Dock
WEYERHAEUSER WOOD CHIP FACILITY
KEY
Open Ditch
Pipe or Closed Channel
Catch Basin
Oil/Water Separator
Manhole
Extraction Well
Monitoring Well
0
500
1000
Scale In Feet


Alexander Ave.
Lincoln Ave.
Taylor Way
N
DOMTAR GYPSUM
Lincoln Ave. Drainageway
REICHHOLD CHEMICALS INC.
Mud Lake
Spillway
Wastewater Ponds
Future Tank Farm
Pentachlorophenol Plant
Resin Tank Farm
Butylphenol Process Area
Property Boundary
BLAIR WATERWAY PROPERTY
Lincoln Ave. Drainageway
Construction Debris Area
Spoils Disposal Area
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ditch extends along the southeastern boundary of the property and likely drains a small portion of the Weyerhaeuser wood chip facility along with the southeastern portion of the Blair Waterway property.

In addition to these drainage features, three outfalls (two 12-inch and one 6-inch pipes) discharge from the property to the Blair Waterway (Figure 2). A City of Tacoma utility corridor runs parallel to the property along Alexander Avenue.

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tion reportedly sold its product to the adjacent Weyerhaeuser wood chip facility.

By 1981, the wood-chipping operation had ceased operation and construction had begun on the J.A. Jones graving dock. The graving dock was the site for construction of pontoons for the I-90 Mercer Island Bridge in Seattle, Washington. The dock was excavated to 20 feet and lined with ASARCO slag. The dock was kept dry by a series of pumps located within the graving dock until construction of the pontoons was complete, at which time the dock was flooded by removing the steel piles adjacent to the waterway. The pontoons were then floated out to the waterway. A skid dock in the southwest corner of the property was used to pour concrete anchors and skid them to the waterway. The graving dock was dewatered by pumping and flooded twice during the construction of the pontoons. The graving dock ceased operation in the mid-1980s upon completion of the bridge pontoons.

In 1983, dredged sediments from the TOTE terminal on the Blair Waterway determined to be unsuitable for open water disposal were stored in the Mud Lake impoundment on the western half of the property.

3.0 ENVIRONMENTAL CONDITIONS

This section presents a description of environmental conditions at the Blair Waterway property including soil and sediment, surface water, ground water, and offshore (marine) sediments. This description is based on review of available property-related agency records and a property reconnaissance to inspect environmental conditions and property uses identified in the records, as well as to identify undocumented physical evidence of potential property contamination.

3.1 RECORDS REVIEW

Records and technical reports identified in Section 5.0 of this report were reviewed to develop an understanding of recorded property use, onsite physical and environmental conditions, onsite and offsite contamination and sources, and available data to support assessments of the property's suitability for commercial or industrial use. Other agency records reviewed included fire and health department records, technical reports characterizing environmental conditions at the property or nearby areas, aerial photographs, and other historic documents and pertinent data.

3.1.1 Environmental Conditions at the Property

AGENCY RECORDS

Agency records identified for review included several listings of hazardous waste sites or sites identified for cleanup prepared by the Environmental Protection Agency (EPA) or Washington State

Department of Ecology (Ecology). Where possible, interviews were conducted with key individuals with knowledge of the property to supplement recorded data.

Although the property is located within the Commencement Bay/Tideflats Superfund site, it is not specifically listed in EPA's CERCLIS listing of Superfund sites in Region 10 (EPA 1989a), the Facility Index (FINDS) listing of sites in Region 10 registered with federal environmental programs (EPA 1989b), or the Resource Conservation and Recovery Act (RCRA) list of sites operating under an interim or final RCRA permit to generate waste (EPA 1989c). The property is also not included in Washington State's list of hazardous waste sites prepared under the Hazardous Waste Investigations and Cleanup Program (Ecology 1989).

A review of other local agency records revealed inconclusive information regarding the presence of contamination at the property. The City of Tacoma Fire Department records contained no reports of past fires or spills of hazardous materials at the property (Tacoma Fire Department 1989). The Tacoma-Pierce County Health Department (1989), which has monitored physical quality (pH, conductivity, etc.) of discharge from outfalls at the Blair Waterway property on a quarterly basis since 1985, reported a heavy petroleum sheen in discharge from the Lincoln Avenue Drainageway in May 1988 and February 1989. Discharge from the graving dock had a "terrible smell" (possibly sewage-related) and dissolved oxygen levels were low in June and July 1985. Discharge from the middle of the three pipes draining the graving dock appeared to be of

"poor" quality in July 1985. The pH of discharge from the eastern drainageway along the property boundary shared with the Weyerhaeuser facility was evaluated as "too high for rainwater" in April 1989 (Tacoma-Pierce County Health Department 1989). No evaluation was made as to the cause of these conditions.

EXISTING TECHNICAL REPORTS

Technical data presented in several contamination assessments conducted in the area were reviewed to identify conditions with the potential to affect the property's suitability for commercial and industrial use. These include (but are not limited to) an environmental site assessment conducted on the property in 1986 (AGI 1986), the Commencement Bay Nearshore/Tideflats Feasibility Study (Tetra Tech 1988); and the Reichhold Chemicals, Inc. Revised RCRA Part B Application, an extensive documentation of ground water conditions and quality at the Reichhold property (located directly upgradient of the Blair Waterway property) and supporting reports (CH2M Hill 1989a-d, 1988a-c, 1987).

Review of data in technical reports indicate that contaminants found in ground water and Lincoln Avenue Drainageway sediments can be correlated to contaminants found at upgradient properties (including at least Reichhold Chemical) and upgradient drainageway sections. These contaminants include metals, volatile organics, chlorinated phenols, and polycyclic aromatic hydrocarbons (PAH).

The following sections present a summary of available data in reports regarding contamination at or near the Blair Waterway

property with the potential to affect the commercial or industri use of the property. Descriptions of contamination are keyed t specific features on the property or known conditions external t the property with the potential to affect property environmenta conditions.

Soils and Fill Material

As described in Section 2, the property was originally estua rine land. The property was filled with materials dredged from th Blair Waterway and possibly other sources beginning in th mid-1950s.

No data are available on the quality of the original fil materials. Existing data on the quality of surface soil and fil material are limited to several areas of potential contaminatio identified in the AGI (1986) report. These included an area usec by the J.A. Jones Company for drum storage and two areas along the Lincoln Avenue Drainageway where fill was placed after initial filling of the site.

Drum Storage Area

AGI sampled the surface soil in the drum storage area used during operation of the graving dock and analyzed the soil for volatile organics (AGI 1986). Although three solvents were detected at low concentrations (<50 parts per billion [ppb]), two may have been due to laboratory contamination since they were also detected in the test blank. The third solvent, toluene, may represent spillage from the drums. No information was available on the

materials stored in the drums; therefore, contaminants other than volatile organics may also be present in the soil.

End Dump Fill

A small portion of the property west of the Lincoln Avenue Drainageway was filled during about 1970. Soils at this location, termed the "End Dump Fill" in the AGI (1986) report, were analyzed for metals, PCBs, and phenols; no analyses were performed for PAH or volatile organics.

Results of analyses of the End Dump Fill are summarized in Table 1. No PCBs or phenols were detected. Arsenic and zinc were elevated within the top one foot. Field screening by photoionization detector (PID) did not detect any volatile compounds.

Lincoln Avenue Drainageway Fill

Between 1961 and 1970, fill was placed in the Lincoln Avenue Drainageway at its outlet and along that section located southeast of Lincoln Avenue. These fills were termed the "Old Ditch Fill" and the "Southeast Ditch Fill", respectively, in the AGI (1986) report (Table 1). These fills were sampled at depth intervals corresponding to 0 to 1 feet and 3.5 to 4.5 feet. No PCB or phenols were detected. Metals, especially arsenic, copper, lead, and zinc, were elevated in the Old Ditch Fill, and arsenic was elevated in the Southeast Ditch Fill (Table 1). AGI suggested that

TABLE 1

CONCENTRATIONS OF METALS IN ONSITE FILLS (a)(b)

Constituents	Back-ground(c)	End Dump Fill(d)	Old Ditch Fill(d)	Southeast Ditch Fill(d)
Arsenic	15	35.2 (e)	86.1 (e)	73.3 (e
Cadmium	--	< .2	< .2	< .2
Chromium	18	45.8 (e)	18.5	14.3
Copper	30	45.8	78.7 (e)	39.5
Lead	12	16.7	60.3 (e)	16.8
Mercury	--	< .02	< .02	< .02
Nickel	12	15.8	15.6	11.4
Zinc	45	106 (e)	218 (e)	69.2

(a) Source: AGI (1986); units in parts per million (ppm).

(b) Soils from the drum storage area, ASARCO slag at the property, and offshore (marine) sediments were not analyzed for metals in AGI (1986).

(c) Values for soils from non-process area (CH2M Hill 1988a); see text.

(d) Descriptions for sampled areas are in AGI (1986); see text.

(e) Values are more than twice the background concentration (non-process area soil at the Reichhold Chemical property).

the elevated metal concentrations may have resulted from pulverized slag tracked into these fill areas by construction traffic moving in and out of the ASARCO slag-covered graving dock.

Ground Water

The subsurface soils in the vicinity of the property contain alternating layers of silt and sand that form three near-surface water-bearing zones, referred to as the shallow, intermediate, and deep aquifers in the Reichhold RCRA Part B Application (CH2M Hill 1988b). The shallow aquifer, which is at a depth of generally less than 10 feet, occurs primarily in the fill and is separated from the intermediate aquifer by fine-grained marsh deposits that range from 1 to 20 feet thick on the adjacent Reichhold property. The intermediate aquifer ranges in thickness from approximately 4 to 30 feet at the Reichhold property (CH2M Hill 1988b) and is expected to be similar at the Blair Waterway property. The thickness of the deep aquifer is not known; however, regional studies indicate that it could be 80 feet thick or more in this area (CH2M Hill 1988b).

Ground water samples were collected in 1984 and 1985 from the dewatering wells around the graving dock and analyzed for volatile organics, formaldehyde, phenols, cyanide, and metals (AGI 1986). Analysis of these samples indicated that only concentrations of metals (cadmium, chromium, lead, manganese, nickel, and zinc) were elevated (CH2M Hill 1988b). High sodium and chloride concentrations suggest seawater intrusion from influences of tides and pumping.

Reichhold Chemical has installed a monitoring well on the Blair Waterway property to the southeast of the graving dock (CH2M Hill 1988b) (Figure 3). One well (MW40d) is screened in the deep aquifer, the other four in the intermediate aquifer. There are no monitoring wells screened in the shallow aquifer on the property. Three wells screened in the intermediate aquifer (MW40i, MW45i, and MW47i) have the highest associated concentrations of contaminants (Table 2). Ground water samples collected in the June and September 1988 quarterly sampling periods contained concentrations of pentachlorophenol (PCP) up to 13,000 ppb. Copper, lead, manganese, molybdenum, benzene, formaldehyde, naphthalene, chlorinated phenols, and trans-1,2-dichloroethene were also detected. Well MW40d, screened in the deep aquifer, contained formaldehyde and phthalates.

There are currently no other monitoring wells on the Blair Waterway property. The Port proposes to place wells screened in the shallow and intermediate aquifers around the graving dock as part of the plan to fill the dock with dredged materials.

Reichhold Chemical is implementing an Interim Corrective Action (ICA) plan approved by EPA to address contamination in the shallow and intermediate aquifer. As part of this plan, Reichhold Chemical has installed one extraction well to the southeast of the graving dock. No ground water extraction or treatment is planned for other areas of the Blair Waterway property where contamination may be present.

TABLE 2

ANALYTES IN GROUND WATER SAMPLES FROM WELLS
ON BLAIR WATERWAY PROPERTY(a)
June - September 1988

Constituent	Monitoring Well Designations					
	40d	40i	41i	45i	46i	47i
Organics (ppb)						
Acetone	3	19		16	1	18
2-Butanone		4				
Benzyl alcohol		5				
Benzoic acid						7
Benzene		62		9		60
Carbon disulfide	2			2		
1,2-Dichloroethene		17		5		13
Ethylbenzene		14				4
Formaldehyde	175	346	267		282	378
Methylene chloride	5	8		1		6
Naphthalene		58		45		
Pentachlorophenol		13000		1900		5000
Other chlorinated phenols		2953		1608		1484
Other phenols		351		9		12
Phthalates	5	2		3	6	3
Toluene		81		4		25
Trichloroethene		46		3		8
Xylenes		3				2
Vinyl chloride		9		2		18
p-Tert-butylphenol		33		10		3
Inorganics (ppm)						
Aluminum	42				94	
Arsenic				41	4	2
Barium	30			230	97	42
Chromium				6	10	7
Copper	2			6	6	2
Lead				127		3
Manganese	61			3400	1100	6700
Mercury						0.34
Molybdenum				37		
Nickel				10	10	
Vanadium	11			34	23	25
Zinc				12	44	14

(a) Source: CH2M Hill (1988b); maximum concentrations for two sampling periods shown. Some data have been reported as estimates only.

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(a) Source: AGI (1986); units in parts per million (ppm).

(b) Soils from the drum storage area, ASARCO slag at the proper and offshore (marine) sediments were not analyzed for metal in AGI (1986).

(c) Values for soils from non-process area (CH2M Hill 1988a); see text.

(d) Descriptions for sampled areas are in AGI (1986); see text.

(e) Values are more than twice the background concentration (non-process area soil at the Reichhold Chemical property).

found. After placement in Mud Lake, the dredge spoils were resampled by the Port in October 1983 and by Ecology in January 1984 (AGI 1986). An additional sample was collected from the surface of the Mud Lake sediments in October 1988 (Hart Crowser, Inc. 1989a).

Metals, phthalates, and PAHs were detected in all samples; the concentrations varied widely among samples. Concentrations of nickel, copper, zinc, lead, arsenic, and mercury were elevated compared to other metals. Sampling by Ecology (and reported in AGI 1986) indicated that phthalates were detected at concentrations ranging from 5000 to over 100,000 ppb, averaging approximately 45,000 ppb. Concentrations of PAHs were elevated (up to 275,000 ppb of 2- to 3-ring PAHs and up to 400,000 ppb of 4- to 5-ring PAHs). Relatively low concentrations of acetone and chlorobutadienes were also reported.

Surface Water

Two samples of surface water from Mud Lake were analyzed by Ecology in 1984. Many of the same organic compounds found in the underlying sediments were found in the water samples. These included PAHs, phthalates, PCP and other phenols, volatile organics, and metals at low concentrations. Since the presence of surface water in Mud Lake is directly related to precipitation, the amount of surface water and concentrations of contaminants can be expected to be highly variable.

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Carbon disulfide	2			2		
1,2-Dichloroethene		17		5		13
Ethylbenzene		14				4
Formaldehyde	175	346	267		282	378
Methylene chloride	5	8		1		6
Naphthalene		58		45		
Pentachlorophenol		13000		1900		5000
Other chlorinated phenols		2953		1608		1484
Other phenols		351		9		12
Phthalates	5	2		3	6	3
Toluene		81		4		25
Trichloroethene		46		3		8
Xylenes		3				2
Vinyl chloride		9		2		18
p-Tert-butylphenol		33		10		3
Inorganics (ppm)						
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Arsenic				41	4	2
Barium	30			230	97	42
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ppb), copper (85 ppb), and molybdenum (30 ppb) were also detected in elevated concentrations. PCP was detected in one sample as well as low concentrations of volatile organics. No PAHs, pesticides, PCBs, or other phenols were detected. Contaminant concentrations are expected to vary with the amount of water in the drainageway.

Boundary Ditches

Sediment Samples: Sediment samples collected by AGI from the ditch along the southeastern (Weyerhaeuser) boundary of the property were analyzed for metals and PCBs (AGI 1986). Arsenic concentrations were elevated compared to other fill areas, but concentrations of metals were comparable to these areas. No PCBs were detected. Samples were not analyzed for PAHs, phenols, or volatile organics. No sampling has been conducted in the boundary ditch located along the northwestern (Domtar Gypsum) property boundary.

Surface Water: No surface water data are available for the drainageways along the northwestern and southeastern property boundaries.

Offshore Marine Sediments

Both chemical and biological tests were conducted on Commencement Bay sediments as part of the Nearshore/Tideflats Remedial Investigation (Tetra Tech 1985). Sediments in the Blair Waterway just offshore from the Lincoln Avenue Drainageway were found to have elevated concentrations of arsenic, copper, lead, and zinc.

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In general, studies by Tetra Tech (1985) indicated that the Blair Waterway was less contaminated than most other Commencement Bay areas; however, sediment toxicity was observed in the waterway near the Lincoln Avenue Drainageway. In particular, 4-methylphenol, 1,3-dichlorobenzene, and pentachlorophenol (PCP) were found in high concentrations in the waterway sediments near the drainageway outlet. Blair Waterway area was not considered to be a high priority for cleanup under the Commencement Bay Nearshore/Tideflats Remedial Investigation and was not included in the feasibility study of remedial alternatives (Tetra Tech 1988).

3.1.2 Offsite Environmental Conditions

This section presents data on offsite environmental conditions with the potential to affect conditions at the Blair Waterway property. These data are summarized from agency records and existing technical reports.

AGENCY RECORDS

The CERCLIS, FINDS, and RCRA listings do not show any Superfund, RCRA, or other designated facilities located immediately adjacent to the property. However, four RCRA facilities (Reichhold Chemical, Poligen, Chemical Processors, and Sol-Pro Lilyblad, Inc.) are located to the north (across Alexander Avenue) and upgradient from the property (see Section 1.3.3).

Ecology (Morrison 1989) reported that a spill of water-miscible liquid asphalt occurred in Blair Waterway off Domtar Gypsum on April 1989. Studies are currently underway by Domtar to

The metals concentrations were similar to those found in the ons drainage areas and Mud Lake sediments. All the metals concent tions, however, were below the Apparent Effect Thresholds (AETs

A surface grab and two marine sediment samples collected f the Blair Waterway just outside the property boundary (pierh line) and analyzed by Hart Crowser, Inc. for the Port indica elevated concentrations of phthalates and PCBs (Hart Crowser, I 1989b). Hart Crowser, Inc. (1989b) also reported that constitue associated with most of the sediment samples collected in or ne the offshore portions of the property exceeded PSDDA screeni levels at elevations of 40 feet below MLLW or lower. At sever of these locations, PSDDA maximum levels of limited chemicals we also exceeded in the sediments[2].

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1 AETs have been developed as part of the Puget Sound Dredg Disposal Analysis (PSDDA) for use by the combined enviro mental agencies as an index for determining the suitabili of dredged sediments for open-water disposal. These criter are generally applied as indices of sediment toxicity.

2 AETs have been used to develop two chemical guideline (screening levels and maximum levels) against which sedimer chemical concentrations will be compared to determine th suitability of sediments for disposal in unconfined open-wate disposal sites. The lower screening level has been define for each chemical as a guideline to identify chemica concentrations below which there is no reason to believe tha dredged material disposal would result in unacceptable advers effects. For dredged material with chemical concentration below the screening level values, biological testing is no required to determine material suitability for unconfined open-water disposal. The higher maximum level also has bee defined for each chemical. The maximum level corresponds t the concentration of a chemical in dredged material abov which there is reason to believe that the material would b unacceptable for unconfined, open-water disposal.

to tidal influences and flow from the Reichhold Chemical property toward the Blair Waterway property at least part of the time. The graving dock dewatering wells are screened in the intermediate aquifer and may have drawn contaminated water toward the graving dock during the two previous dewatering events. The wells may have also drawn water from the shallow and deep aquifers.

Three main areas of contamination are located upgradient from the Blair Waterway property along the southern (Alexander Avenue) boundary of Reichhold Chemical property. These include: 1) the area under the wastewater ponds; 2) the area comprising the center of the site including the resin tank farm, PCP plant, and the butylphenol process area; and 3) the construction debris area (Figure 3).

On the Reichhold Chemical property, the shallow and intermediate aquifers contain formaldehyde, p-tert-butylphenol, and molybdenum at concentrations 50 to 200 times the proposed concentration (cleanup) limits for Reichhold Chemical ground water (CH2M Hill 1988b). Other volatile organics, PAHs, PCBs, pesticides, and metals are also present in excess of the proposed limits. In the deep aquifer, both formaldehyde and molybdenum are about 50 times higher than the proposed limits.

Contamination from the Reichhold Chemical property has been detected in ground water in the wells to the south of the graving dock. No ground water data exists for other portions of the Blair Waterway property.

determine what effect, if any, the spill may have had on nearshc sediments, including those adjacent to the Blair Waterway propert

EXISTING TECHNICAL REPORTS

Offsite Soils and Sediment

Soil samples were collected from the Reichhold Chemical pr perty and the area between the Reichhold property and Alexand Avenue across from the graving dock during site investigations a the Reichhold Chemical facility undertaken by CH2M Hill (1987) These data indicated that three of the most heavily contaminate areas of the Reichhold Chemical property are located near the Blai Waterway property. These include the wastewater ponds, the resi tank farm, and the construction debris area (Figure 3).

Extremely high concentrations of PCP, PCBs, PAHs, styrene phthalates, and benzoquinone, as well as high concentrations of volatile organics have been found in soils on the Reichhold property. However, there is no evidence that the surface soils on the Blair Waterway property have been directly affected by Reichhold operations, except as influenced by contaminants in surface water within the Lincoln Avenue Drainageway.

Offsite Ground Water

The shallow, intermediate, and deep aquifers under the Reichhold property are contaminated with both organic and inorganic constituents. The shallow aquifer, recharged through precipitation, flows from the Reichhold Chemical property toward the Blair Waterway property. The intermediate and deep aquifers are subject

included PCBs (mainly Aroclor 1248 at 200 ppm), PAHs, PCP, and other chlorinated and nonchlorinated phenols. Two pesticides were also detected at low concentrations that could not be confirmed. No volatile organics were confirmed in the sediment samples with the exception of benzene, ethylbenzene, and xylenes in the Lincoln Avenue Drainageway near Alexander Avenue and possibly trichloroethene (TCE) north of the Reichhold Chemical property. Metal concentrations in the sediments from that portion of the drainageway were 8 to 100 times greater for arsenic (400 ppm), copper (240 ppm), magnesium (850 ppm), molybdenum (3110 ppm), lead (270 ppm), and zinc (2000 ppm) than concentrations in the non-process area soils (CH2M Hill 1988a). In addition, some samples had associated concentrations are of barium and cobalt.

In general, the most contaminated sediments were found in the section of the drainageway located near the intersection of Lincoln and Alexander Avenues. This section is either on or immediately downgradient of the Reichhold Chemical property and immediately upgradient of the Blair Waterway property.

Surface Water

Surface water samples collected from the Lincoln Avenue Drainageway upstream from the property contained up to 380 ppb formaldehyde (CH2M Hill 1989a). Six other volatile organics (acetone, chloroform, 1,2- dichloroethane [1,2-DCA], methylene chloride, TCE, and 1,1,1-trichloroethane [1,1,1-TCA]) were found in one or more samples, but concentrations could not be confirmed. Chlorinated

Interim corrective action planned for the Reichhold Chemi property involves installing an interceptor drain along southern boundary of the Reichhold Chemical property to restr further migration of contamination in the shallow ground wa (CH2M Hill 1988c). The potential effectiveness of this action only be evaluated after it is operable in late 1989. Seve extraction wells have been installed on Reichhold Chemical prope and screened in the intermediate aquifer to extract contaminat ground water for treatment as part of the interim correcti action.

In May 1988, Chem Pro also installed a ground water monitori well screened in the intermediate aquifer on Port property betwe Chem Pro's south property boundary and Alexander Avenue (acro Alexander Avenue from Domtar Gypsum). As of this writing, ground water quality data were available for this well location

Offsite Portion of Lincoln Avenue Drainageway

Sediments

Sediments collected from upgradient offsite portions of t Lincoln Avenue Drainageway as part of Reichhold Chemical investi gations (CH2M Hill 1989a) show a greater number and higher concer trations of contaminants than the onsite portions of the drair ageway. However, the similarity of contaminants found indicat that the drainageway is a source of contaminants to the Blai Waterway property. Organic contaminants detected in sediments frc drainageway sections on or adjacent to Reichhold Chemical propert

the graving dock operation are located in the central portion of the property (between the Lincoln Avenue Drainageway and the graving dock). The buildings are constructed of corrugated metal. No evidence of asbestos-containing materials was noted.

- Graving Dock

  Coarse ASARCO slag was observed to line all exposed surfaces of the graving dock sidewalls. Runoff through the sheet pile wall from the graving dock was observed to be substantial during low tide. There was no significant sheens or discoloration of sediments in the runoff channel. Five pipe outfalls drain the graving dock during high rainfall periods. Three outfalls are located between the sheet pile wall and the skid dock at the southeast corner of the property. Discharge of surface water was not occurring from any of these outfalls during the reconnaissance.

- Mud Lake

  The Mud Lake impoundment was approximately two-thirds inundated during the time of observation. Water in Mud Lake had a slight green (possibly algal) hue. The portion of the liner located on the impoundment sidewalls (above the sediments) was in poor condition, having been torn or breached in numerous places. No discharge was observed from the Mud Lake spillway, which consists of PVC piping extending from the surface of Mud Lake to a drainageway connected to the Blair Waterway. Discharge only occurs during high rainfall periods; no discharge

phenols and p-tert-butylphenol were detected in the d
near the property boundary at Lincoln and Alexander Avenu
phthalates and phenols were also reported as present.

3.2 PROPERTY RECONNAISSANCE

A property reconnaissance was conducted on April 7
observe conditions at the property and identify additio
tial sources of contamination. The following property
and features (Figure 2) were observed:

- Topography and Vegetation

  The property is relatively level with the excepti
  three major features (the graving dock, Mud Lake
  Lincoln Avenue Drainageway). Surface soils have
  areas of staining; however, slag-like material
  ASARCO slag) is found in or on surficial soils i
  areas of the property. Property vegetation consis
  small stand of alder just north of Mud Lake, voluntee
  and sedges in the central and western portions of
  perty, and Scot's Broom (Cytisus scoparius) along
  of the graving dock and Mud Lake.

- Structures

  An abandoned facility of unknown purpose comprised
  pipes protruding from concrete was observed immedia
  of the upper segment of Lincoln Avenue (near
  Avenue). This feature may represent surface remna
  abandoned utility corridor. Several buildings used t

seeps. Sediments in the upper central and upper sections of the ditch are dark in color. The cause of the discoloration is not known. The banks of these ditch sections are also covered with what appears to be waste material (gypsum chips) from Domtar Gypsum.

- Shoreline Seeps

  Several small seeps were observed along the waterway shoreline just south of Mud Lake. A slight orange discoloration was observed at two of the seeps. This discoloration is likely attributable to bacterial growth on a source of iron in the soils.

3.3 SUMMARY OF ENVIRONMENTAL QUALITY CONDITIONS

Contamination from upgradient sources (including Reichhold Chemical) have been detected in ground water in the shallow, intermediate, and deep aquifers underlying the Blair Waterway property, as well as within Lincoln Avenue Drainageway sediments. In addition, dredged sediments continue to be stored onsite, although these sediments are planned for removal from Mud Lake and possible disposal in the graving dock. The following sections summarize known contamination conditions at the Blair Waterway property.

3.3.1 Soils and Fill Material

No data are available concerning the quality of the fill covering the property. AGI (1986) collected soil samples from selected areas of the property filled since 1960; these samples had

seeps. Sediments in the upper central and upper sections of the ditch are dark in color. The cause of the discoloration is not known. The banks of these ditch sections are also covered with what appears to be waste material (gypsum chips) from Domtar Gypsum.

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sition similar to that found at other sites; therefore, has associated concentrations of arsenic and lead.

3.3.4 Mud Lake

The dredged materials in Mud Lake contain PAHs, metals, phthalates, and other volatile organics. Reported concentrations from 1983 and 1984 are highly variable. Mud Lake sediment materials are being considered for placement as fill into the graving dock. PAHs and metals have also been detected in surface water in Mud Lake, which is currently permitted for discharge into the waterway.

3.3.5 Drainage Features

Both the water and sediment in the Lincoln Avenue Drainageway have elevated concentrations of chemicals from upstream sources. This drainageway is likely contributing to contamination of offshore (marine) sediments.

The sediments in the ditch along the southeastern property boundary, which appears to originate onsite, contain elevated concentrations of arsenic and PAHs. No surface water quality data are available for the ditch.

No information is available regarding water and sediment quality in the ditch along the northwestern boundary of the property, which collects runoff from the adjacent Domtar Gypsum property; however, site reconnaissance revealed a black precipitate and orange coatings on the sediments in much of the ditch.

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4.0 CONCLUSIONS AND RECOMMENDATIONS

Much data exists on environmental conditions at the eastern one-quarter of the Blair Waterway property and its surroundings. However, insufficient data exist to permit characterization of environmental conditions for the central and western portions of the property. These data gaps need to be filled to identify the property's suitability for industrial and commercial development. Specific conclusions and recommendations to address data gaps are discussed below:

1. CONCLUSION: The sediments in the Lincoln Avenue Drainageway are contaminated with PAHs, PCBs, dioxins, PCP, and metals, both on the property and upstream of the property. It is recognized that remediation of the sediments in this drainageway will not be permanent unless it is accomplished in conjunction with remediation activities in the upstream areas. The City of Tacoma has designated the portion of Lincoln Avenue Drainageway on the property as a wetland; a designation which may have implications for future development activities.

   RECOMMENDATION: Two sediment samples should be collected from onsite portions of the Lincoln Avenue Drainageway and analyzed for EP Toxicity metals to evaluate if the sediments meet the criteria for designation under the Washington State Dangerous Waste Regulations (WAC 173-303). In addition, the development implications of the City of Tacoma's designation of the Lincoln Avenue Drainageway as a wetland should be clarified

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extracting contaminated ground water southeast of the graving dock; it does not address either monitoring or remediation of ground water in the central and northwestern portions of the Blair Waterway property.

RECOMMENDATION: Ground water monitoring wells should be installed at several locations in the central and northwestern portions of the property. Wells should be installed to permit sampling of the shallow, intermediate, and deep aquifers to provide representative ground water quality data for the three aquifers in which elevated concentrations of constituents have been identified. Samples from these wells should be analyzed for at least the constituents detected in Reichhold wells.

5. CONCLUSION: Offshore sediments, while not considered to be sufficiently contaminated to warrant remediation under the Commencement Bay Nearshore/Tideflats Superfund activities, were found to contain metals, semi-volatile organics, and PCBs, especially near the mouth of the Lincoln Avenue Drainageway and the Mud Lake spillway.

RECOMMENDATION: At least four marine sediment samples should be collected from the nearshore area of the property at locations and depths to be determined. Lateral distribution of sediment sampling locations and sampling depth intervals should be selected to provide data representative of sediment conditions for the nearshore portions of the property. Sediment samples should be analyzed for those constituents for which Puget Sound Dredge Disposal Analysis (PSDDA) screening

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at representative locations at the property to characterize surface soil conditions at the property.

8. CONCLUSION: Reichhold Chemical continues to plan and design Interim Corrective Action and other long-term remediation and monitoring activities with the potential to affect the long-term environmental condition of the Blair Waterway property. Much of this planning has been conducted without input or knowledge of the Port and the Tribe.

RECOMMENDATION: The Port is an interested and affected party in matters of Reichhold Chemical remediation by virtue of the proximity of Port-owned property (Blair Waterway, Blair Backup) and properties leased by the Port (Weyerhaeuser, etc.) and the need for access to Port property by Reichhold Chemical to construct and monitor remedial measures. It is recommended that the Port request the right of review of all Reichhold remedial actions with the potential to affect Blair Waterway property conditions which are attributable to off-property sources.

* * * * * * *

Results of these investigations may indicate the presence of previously undocumented or unsuspected property contamination, thereby necessitating additional (Phase II) investigations to characterize the extent and source of the contamination.

5.0 DATA SOURCES

5.1 SOURCES CITED IN TEXT

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5.2 OTHER UNCITED SOURCES

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Navigation charts and maps (1910 through 1974) provided by th of Tacoma.

HISTORICAL AND STATUTORY NOTES

Effective Date

Section effective Dec. 31, 1987, see section 10 of Pub.L. 100-228, set out as a note under section 1772 of this title.

SUBCHAPTER VII—WASHINGTON INDIAN (PUYALLUP) LAND CLAIMS SETTLEMENT

§ 1772. Congressional findings and purpose

(a) Findings

The Congress finds and declares that:

(1) It is the policy of the United States to promote tribal self-determination and economic self-sufficiency and to support the resolution of disputes over historical claims through settlements mutually agreed to by Indian and non-Indian parties.

(2) Disputes over certain land claims of the Puyallup Tribe and other matters, including—

(A) ownership of the Commencement Bay tidelands and areas of former Puyallup Riverbed, lands within the Puyallup Tribe's Treaty Reservation, or intended reservation boundaries,

(B) railroad and other rights-of-way,

(C) control of fisheries resource and habitat,

(D) jurisdiction over law enforcement, environment, navigation, and authority and control in the areas of land use,

(E) business regulation and zoning,

have resulted in difficult community relations and negative economic impacts affecting both the Tribe and non-Indian parties.

(3) Some of the significant historical events that led to the present circumstances include—

(A) the negotiation of the Treaty of Medicine Creek in December 1854, by the Puyallup Indians and others, by which the tribes ceded most of their territories but reserved certain lands and rights, including fishing rights;

(B) the Executive Order of 1857 creating the Puyallup Indian Reservation;

(C) the Executive Order of 1873, clarifying and extending the Puyallup Reservation in the Washington Territory;

(D) the March 11, 1891, Report of the Puyallup Indian Commission on allotments and the 1896 report by a second Puyallup Indian Commission describing the problems with sales of allotted lands; and

(E) the 1909 District Court for Tacoma decision of the United States of America against J.M. Ashton and the 1910 Supreme Court decision of United States of America against J.M. Ashton.

(4) It is recognized that both Indian and non-Indian parties enter into this settlement to resolve certain problems and claims and to derive certain benefits.

(5) There is a recognition that any final resolution of pending disputes through a process of litigation would take many years and entail great expense to all parties; continue economically and socially damaging controversies; prolong uncertainty as to the access, ownership, and jurisdictional status of issues in question; and seriously impair long-term economic planning and development for all parties.

(6) To advance the goals of Federal policy of Indian self-determination and to carry out the trust responsibility of the United States, and to advance the Federal policy of international trade and economic development, and in recognition of the Federal policy of settling these conflicts through comprehensive settlement agreements, it is appropriate that the United States participate in the funding and implementation of the Settlement Agreement.

(b) Purpose

Therefore, it is the purpose of this subchapter—

(1) to approve, ratify, and confirm the agreement entered into by the non-Indian settlement parties and the Puyallup Tribe of Indians,

(2) to authorize and direct the Secretary to implement the terms of such agreement, and

(3) to authorize the actions and appropriations necessary to implement the provisions of the Settlement Agreement and this subchapter.

(Pub.L. 101-41, § 2, June 21, 1989, 103 Stat. 83.)

HISTORICAL AND STATUTORY NOTES

Short Title

Section 1 of Pub.L. 101-41 provided that: "This Act [enacting this subchapter and a provision set out as a note under section 1773a of this title] may be cited as the 'Puyallup Tribe of Indians Settlement Act of 1989'."

LIBRARY REFERENCES

Indians ⇐9 et seq.
WESTLAW Topic No. 209.
C.J.S. Indians § 28 et seq.

§ 1773a. Resolution of Puyallup tribal land claims

(a) Relinquishment

In accordance with the Settlement Agreement and in return for the land and other benefits derived from the Settlement Agreement and this subchapter, the Tribe, and the United States as trustee for the Tribe and its members, relinquish all claims to tidelands, submerged lands, and any other lands, and including any mineral claims and nonfisheries water rights connected with such relinquished land, known or unknown, within the State of Washington, subject to the exceptions referred to in subsection (b) of this section.

(b) Exception for certain lands

Subsection (a) of this section shall not apply to the following:

(1) 12.5 acres of former riverbed land confirmed to the Tribe in Puyallup Tribe of Indians against Port of Tacoma (717 F.2d 1251 (1983)), which land shall be subject to the terms and conditions described in the Settlement Agreement and document 6 of the Technical Documents.

(2) All land to which record title in the Tribe or the United States in trust for the Tribe or its members derives from a patent issued by the United States or from a conveyance of tideland by the State of Washington. For the purposes of this paragraph, the term "record title" means title documented by identifiable conveyances reflected in those records imparting constructive notice of conveyances according to the laws of the State (RCW chapters 65.04 and 65.08) and the final judgments of State or Federal courts.

(3) Certain land recognized to be owned on August 27, 1988, by the Tribe or the United States in trust for the Tribe within the Indian Addition to the city of Tacoma, Washington, as recorded in book 7 of plats at pages 30 and 31, records of Pierce County, Washington, as follows:

(A) Land owned on August 27, 1988:

(i) Portions of tracts 2, 5, 6, 10, and 11.

(ii) Tract 7 (school site).

(iii) Tract 8 (church site).

(iv) Tract 9 (cemetery site).

(v) Approximately 38 lots in blocks 8150, 8249, 8350, and 8442, inclusive.

(B) Land, wherever located, added to the above list of parcels on or before December 1, 1988, in accordance with paragraph A.3. of section IX of the Settlement Agreement.

(4) The lands transferred to the Tribe pursuant to the Settlement Agreement.

(5) The rights to underlying lands or the reversionary interest of the Tribe, if any, in the Union Pacific or Burlington Northern rights-of-way across the 1873 Survey Area, where the property over which they were granted belonged, at the time of the grant, to the United States in trust for the Tribe or to the Tribe.

(6) The submerged lands as of August 27, 1988, in the Puyallup River within the 1873 Survey Area below the mean high water line.

(c) Personal claims

Nothing in this section or in the Settlement Agreement shall be construed to impair, eliminate, or in any way affect the title of any individual Indian to land held by such individual in fee or in trust, nor shall it affect the personal claim of any individual Indian as to claims regarding past sales of allotted lands or any claim which is pursued under any law of general applicability that protects non-Indians as well as Indians.

(Pub.L. 101-41, § 3, June 21, 1989, 103 Stat. 84.)

Effective Date

Section 13 of Pub.L. 101-41 provided that this section is effective on the effective date of the Settlement Agreement and when all terms are met as stated under section X of the Settlement Agreement.

LIBRARY REFERENCES

Indians ⚷9 et seq.
WESTLAW Topic No. 209.
C.J.S. Indians § 28 et seq.

§ 1773b. Settlement lands

(a) Acceptance by Secretary

The Secretary shall accept the conveyance of the lands described in subsection (c) of this section, and the Outer Hylebos tidelands property referred to in section VIII, A,1,c of the Settlement Agreement, subject to the terms and conditions of the Settlement Agreement and shall hold such lands in trust for the benefit of the Tribe.

(b) Contamination

(1) Contamination audits and cleanup of settlement lands shall be carried out in accordance with the Settlement Agreement and document 1 of the Technical Documents.

(2) The Tribe shall not be liable for the cleanup costs or in any other manner for contamination on properties described in subsection (c) of this section except any contamination caused by the Tribe's activities after conveyance of these properties to the Tribe under the terms of the Settlement Agreement and document 1 of the Technical Documents.

(c) Lands described

The lands referred to in subsection (a) of this section, and more particularly described in the Settlement Agreement, are as follows:

(1) The Blair Waterway property, comprised of approximately 43.4 acres.

(2) The Blair Backup property, comprised of approximately 85.2 acres.

(3) The Inner Hylebos property, comprised of approximately 72.9 acres.

(4) The Upper Hylebos property, comprised of approximately 5.9 acres.

(5) The Union Pacific property (Fife), comprised of a parcel of approximately 57 acres, and an adjoining 22-acre parcel if the option relating to the Union Pacific property (Fife) (as described in document 1 of the Technical Documents) is exercised.

(6) The Torre property (Fife), comprised of approximately 27.4 acres, unless the Port elects to provide the cash value of such property.

(7) The Taylor Way and East-West Road properties, two properties totaling approximately 7.4 acres.

(8) The submerged lands in the Puyallup River within the 1873 Survey Area below the mean high water line, as provided in section I. B. of the Settlement Agreement. To the extent that the United States has title to any of the lands described in this subpart, then such lands shall be held by the United States in trust for the use and benefit of the Puyallup Tribe.

(9) The approximately 600 acres of open space, forest, and cultural lands to be acquired by the Tribe with cash received pursuant to section I of the Settlement Agreement or other tribal funds.

(d) Reservation status

Nothing in this subchapter is intended to affect the boundaries of the Puyallup Reservation, except that the lands described in subsection (c) of this section above in paragraphs (1) through (8), and the Outer Hylebos tidelands property referred to in section VIII of the Settlement Agreement, shall have on-reservation status.

(e) Authorization of appropriations

There is authorized to be appropriated $500,000 for the Federal share for the purchase of the lands referred to in subsection (c)(9) of this section.

(Pub.L. 101-41, § 4, June 21, 1989, 103 Stat. 85.)

LIBRARY REFERENCES

Indians ⇐9 et seq.
WESTLAW Topic No. 209.
C.J.S. Indians § 28 et seq.

§ 1773c. Future trust lands

In accepting lands in trust (other than those described in section 1773b of this title), for the Puyallup Tribe or its members, the Secretary shall exercise the authority provided him in section 465 of this title, and shall apply the standards set forth in part 151 of title 25, Code of Federal Regulations, as those standards now exist or as they may be amended in the future.

(Pub.L. 101-41, § 5, June 21, 1989, 103 Stat. 86.)

LIBRARY REFERENCES

Indians ⇐9 et seq.
WESTLAW Topic No. 209.
C.J.S. Indians § 28 et seq.

§ 1773d. Funds to members of Puyallup Tribe

(a) Payment to individual members

(1) To the extent provided in advance in appropriation Acts or to the extent funds are provided by other parties to the Settlement Agreement, the Secretary shall place with a financial institution the amount of $24,000,000 in an annuity fund or other investment program (hereafter in this subsection referred to as the "fund"). The selection of the institution or institutions where the funds will be held and the administration of the funds shall be in accordance with section II of the Settlement Agreement and documents 2 and 3 of the Technical Documents. Amounts earned pursuant to any investment of the fund shall be added to, and become part of, the fund.

(2) Upon attaining the age of 21 years, each enrolled member of the Tribe (determined by the Tribe pursuant to its constitution to have been a member as of the date of ratification of the Settlement Agreement by the Tribe) shall receive a one-time payment from the fund. The amount of such payment shall be determined in accordance with section II of the Settlement Agreement and document 2 of the Technical Documents.

(3) A reasonable and customary fee for the administration of the fund may be paid out of the income earned by the fund to the financial institution with which the fund is established.

(4) Upon payment to all eligible members of the Tribe pursuant to paragraph (2), any amount remaining in the fund shall be utilized in the manner determined by a vote of the members of the Tribe.

(5) There is authorized to be appropriated $22,850,000 for the Federal share of the fund.

(b) Permanent trust fund for tribal members

(1) In order to provide a permanent resource to enhance the ability of the Tribe to provide services to its members, there is established the Puyallup Tribe of Indians Settlement Trust Fund (hereafter in this subsection referred to as the "trust fund").

(2) Upon appropriation by Congress or to the extent funds are provided by other parties to the Settlement Agreement, the Secretary shall deposit $22,000,000 into the trust fund. The trust fund shall be invested in accordance with the Act of June 24, 1938 (25 U.S.C. 162a), so as to earn the maximum interest on principal and interest available under that Act. No part of the $22,000,000 principal may be expended for any purpose. Income earned on the principal or interest of the trust fund shall be available for expenditure as provided in paragraph (3).

(3)(A) The trust fund shall be administered and the funds shall be expended in accordance with section III of the Settlement Agreement and document 8 of the Technical Documents. Income from the trust fund may be used only for the following purposes unless modified in accordance with subparagraph (B):

(i) Housing.

(ii) Elderly needs.

(iii) Burial and cemetery maintenance.

(iv) Education and cultural preservation.

(v) Supplemental health care.

(vi) Day care.

(vii) Other social services.

(B) The purposes of the trust fund may be modified only as provided in document 8 of the Technical Documents.

(4) The fund established under this subsection shall be in perpetuity and inviolate.

(5) There is authorized to be appropriated $18,800,000 for the Federal share of the trust fund.

(Pub.L. 101-41, § 6, June 21, 1989, 103 Stat. 86.)

HISTORICAL AND STATUTORY NOTES

References in Text

Act of June 24, 1938, referred to in subsec. (b)(2), is Act June 24, 1938, c. 648, 52 Stat. 1037, which enacted section 162a of this title, repealed section 162 of this title, and enacted provisions set out as notes under section section 162a of this title.

Use of Funds to Fulfill Board of Trustees' Fiduciary and Administrative Responsibilities

Pub.L. 102-154, Title I, Nov. 13, 1991, 105 Stat. 1005, provided in part: "That income earned on funds appropriated by Public Law 101-121, October 23, 1989, 103 Stat. 701, 715 [known as the Department of the Interior and Related Agencies Appropriations Act, 1989] for the purposes of section 6(b) of the Puyallup Tribe of Indians Settlement Act of 1989, Public Law 101-41, June 21, 1989, 103 Stat. 83 [subsec. (b) of this section], may be utilized by the Permanent Trust Fund Board of Trustees to secure necessary and appropriate financial, auditing, accounting, insurance and other administrative services to fulfill the Board of Trustees' fiduciary and administrative responsibilities: *Provided further*, That no more than 5 per centum of the income in any year may be utilized for such purposes."

Similar provisions were contained in the following prior appropriations Act:

Pub.L. 101-512, Title I, Nov. 5, 1990, 104 Stat. 1931.

LIBRARY REFERENCES

Indians ⇐9 et seq.
United States ⇐103.
WESTLAW Topic No. 209, 393.

C.J.S. Indians § 28 et seq.
C.J.S. United States §§ 143, 155.

§ 1773e. Fisheries

In order to carry out the Federal part of the fisheries aspect of the Settlement Agreement, there is authorized to be appropriated $100,000 for navigation equipment

at Commencement Bay to be used in accordance with section A of document 4 of the Technical Documents.

(Pub.L. 101-41, § 7, June 21, 1989, 103 Stat. 87.)

LIBRARY REFERENCES

Indians ⇐9 et seq.
United States ⇐105.
WESTLAW Topic Nos. 209, 393.

C.J.S. Indians § 28 et seq.
C.J.S. United States §§ 143, 155.

§ 1773f. Economic development and land acquisition

(a) Economic development and land acquisition fund

To the extent provided in advance in appropriation Acts, the Secretary shall disburse $10,000,000 to the Tribe of which—

(1) $9,500,000 shall be available for the Tribe to carry out economic development consistent with section VI of the Settlement Agreement or to acquire lands; and

(2) $500,000 shall be available only to support and assist the development of business enterprises by members of the Tribe in a manner consistent with the Settlement Agreement.

There is authorized to be appropriated $10,000,000 to carry out this subsection.

(b) Foreign trade

The Congress recognizes the right of the Tribe to engage in foreign trade consistent with Federal law and notwithstanding article XII of the treaty with the Nisqually and other bands of Indians entered into on December 26, 1854, and accepted, ratified, and confirmed on March 3, 1855 (11 Stat. 1132).

(c) Blair project

There is authorized to be appropriated to the Secretary the amount of $25,500,000 for the Federal share of the costs associated with the Blair project, which shall be carried out in accordance with document 6 of the Technical Documents. For the purpose of this subsection, the Secretary shall transfer such amount to the Department of Transportation of the State of Washington. Such amount may only be used by the Department of Transportation of the State of Washington to carry out the Blair project in accordance with document 6 of the Technical Documents. Operation and maintenance of the Blair Waterway channel shall remain the responsibility of the Secretary of the Army, acting through the Chief of Engineers.

(Pub.L. 101-41, § 8, June 21, 1989, 103 Stat. 87.)

LIBRARY REFERENCES

Indians ⇐9 et seq.
United States ⇐105.
WESTLAW Topic Nos. 209, 393.

C.J.S. Indians § 28 et seq.
C.J.S. United States §§ 143, 155.

§ 1773g. Jurisdiction

The Tribe shall retain and exercise jurisdiction, and the United States and the State and political subdivisions thereof shall retain and exercise jurisdiction, as provided in the Settlement Agreement and Technical Documents and, where not provided therein, as otherwise provided by Federal law.

(Pub.L. 101-41, § 9, June 21, 1989, 103 Stat. 88.)

Effective Date

Section 13 of Pub.L. 101-41 provided that this section is effective on the effective date of the Settlement Agreement and when all terms are met as stated under section X of the Settlement Agreement.

LIBRARY REFERENCES

Indians ⟹9 et seq.
WESTLAW Topic No. 209.
C.J.S. Indians § 28 et seq.

§ 1773h. Miscellaneous provisions

(a) Liens and forfeitures, etc.

(1) None of the funds, assets, or income from the trust fund established in section 1773d(b) of this title which are received by the Tribe under the Settlement Agreement shall be subject to levy, execution, forfeiture, garnishment, lien, encumbrance, or seizure.

(2) The annuity fund, or other investment program, established in section 1773d(a) of this title shall not be subject to levy, execution, forfeiture, garnishment, lien, encumbrance, or seizure. Payments from the fund shall be in accordance with the Act of August 2, 1983 (25 U.S.C. 117a et seq.; commonly referred to as the "Per Capita Act").

(b) Eligibility for Federal programs; trust responsibility

Nothing in this subchapter or the Settlement Agreement shall affect the eligibility of the Tribe or any of its members for any Federal program or the trust responsibility of the United States and its agencies to the Tribe and members of the Tribe.

(c) Permanent trust fund not counted for certain purposes

None of the funds, assets, or income from the trust fund established in section 1773d(b) of this title shall at any time be used as a basis for denying or reducing funds to the Tribe or its members under any Federal, State, or local program.

(d) Tax treatment of funds and assets

None of the funds or assets transferred to the Tribe or its members by the Settlement Agreement of[1] this subchapter, and none of the interest earned or income received on amounts in the funds established under section 1773d(a) and (b) of this title, shall be deemed to be taxable, nor shall such transfers be taxable events.

(Pub.L. 101-41, § 10, June 21, 1989, 103 Stat. 88.)

[1] So in original. Probably should be "or".

HISTORICAL AND STATUTORY NOTES

References in Text

Act August 2, 1983 (25 U.S.C. 117a et seq.; commonly referred to as the "Per Capita Act"), referred to in subsec. (a)(2), is Pub.L. 98-64, Aug. 2, 1983, 97 Stat. 365, which enacted sections 117a to 117c of this title. For complete classification of this Act to the Code, see Tables.

LIBRARY REFERENCES

Indians ⟹9 et seq.
United States ⟹105.
WESTLAW Topic Nos. 209, 393.
C.J.S. Indians § 28 et seq.
C.J.S. United States §§ 143, 145.

§ 1773i. Actions by the Secretary

The Secretary in administering this subchapter shall be aware of the trust responsibility of the United States to the Tribe and shall take such actions as may be necessary or appropriate to carry out this subchapter and the Settlement Agreement.

(Pub.L. 101-41, § 11, June 21, 1989, 103 Stat. 89.)

§ 1773j. Definitions

For the purposes of this subchapter—

(1) the term "1873 Survey Area" means the area which is within the area demarked by the high water line as meandered and the upland boundaries, as shown on the plat map of the 1873 Survey of the Puyallup Indian Reservation, conducted by the United States General Land Office, and filed in 1874;

(2) the term "Secretary" means the Secretary of the Interior;

(3) the term "Settlement Agreement" means the document entitled "Agreement between the Puyallup Tribe of Indians, Local Governments in Pierce County, the State of Washington, the United States of America, and certain private property owners", dated August 27, 1988;

(4) the term "State" means the State of Washington;

(5) the term "Technical Documents" means the 7 documents which comprise the technical appendix to the Settlement Agreement and are dated August 27, 1988;

(6) the term "Tribe" means the Puyallup Tribe of Indians, a tribe of Indians recognized by the United States;

(7) the term "below the mean high water line" in reference to the submerged lands of the Puyallup Riverbed means "below the ordinary high water mark" in that portion of the river not subject to tidal influence and "below the mean high water line" in that portion of the river which is subject to tidal influence; and

(8) the term "on-reservation status" means a status under which Federal laws and regulations, treaty rights, and rights of sovereignty, which define the rights and responsibilities on trust or restricted lands (including rights-of-way and easements running through such lands within a Federal Indian reservation) apply: *Provided*, That such application is not inconsistent with any provision of the Settlement Agreement.

(Pub.L. 101-41, § 12, June 21, 1989, 103 Stat. 89.)

LIBRARY REFERENCES

Indians ⚷9 et seq.
WESTLAW Topic No. 209.
C.J.S. Indians § 28 et seq.

SUBCHAPTER VIII—SENECA NATION (NEW YORK) LAND CLAIMS SETTLEMENT

§ 1774. Findings and purposes

(a) City of Salamanca and Congressional Villages

The Congress finds and declares that:

(1) Disputes concerning leases of tribal lands within the city of Salamanca and the Congressional Villages, New York, have strained relations between the Indian and non-Indian communities and have resulted in adverse economic impacts affecting both communities.

(2) Some of the significant historical events which have led to the present situation include—

(A) beginning in the mid-nineteenth century, several railroads obtained grants or leases of rights of way through the Allegany Reservation without Federal authorization or approval and on terms which did not adequately protect the interests of the Seneca Nation;

(B) after construction of these railroads, Allegany Reservation lands were leased to railroad employees, persons associated with the railroads, residents of the city and farmers without Federal authorization or approval and on terms which did not adequately protect the interests of the Seneca Nation;

(C) none of these leases had Federal authorization or approval and, after the courts ruled these leases invalid, Congress enacted the Act of February 19, 1875 (18 Stat. 330), confirming existing leases of Allegany Reservation lands, authorizing further leasing by the Seneca Nation, and making the confirmed leases renewable for a twelve year period;

(D) the Act of September 30, 1890 (26 Stat. 558), amended the 1875 Act by substituting a renewal term of "not exceeding ninety-nine years" for the original renewal term of twelve years; and

(E) in 1952 the Seneca Nation filed a claim with the Indian Claims Commission against the United States for use of improper lease fees, and in

"I am returning herewith, without my approval as to section 202(2), Substitute House Bill No. 1479 entitled:

"AN ACT Relating to the budget."

My reason for vetoing this portion of the 1987-89 supplemental budget is as follows:

Section 202(2) restricts the amount that the Department of Social and Health Services may transfer into the General Assistance-Unemployable (GA-U) program. The GA-U caseload will experience significant growth in the last two months of the current biennium because of the Thurston County Superior Court's April 24, 1989 ruling directing that clients who are terminated from ADATSA shelter receive GA-U until they are assessed for GA-U eligibility. The Department of Social and Health Services has estimated the cost of this caseload growth will be $1.7 million. The proviso in section 202(2) restricts the transfer to the estimated amount. The estimate is not precise, however.

The ADATSA shelter program has experienced volatile and unpredictable caseload growth, and it is difficult to predict the cost of shifting that population to GA-U. If the actual cost exceeds the estimate by any amount, the Department would have to impose a ratable reduction to remain within appropriated funds. It is not possible for the Department to implement a ratable reduction this late in the biennium. Furthermore, the other clients on GA-U, with physical and mental disabilities, would be faced with a sudden and unanticipated reduction in their living allowances. The Department must have unrestricted transfer authority in order to fund the actual cost of the GA-U caseload at the close of the biennium.

With the exception of section 202(2), Substitute House Bill No. 1479 is approved."

CHAPTER 4

[Substitute House Bill No. 1788]

PUYALLUP TRIBAL CLAIMS SETTLEMENT

AN ACT Relating to the Puyallup tribe of Indians claims settlement; adding a new section to chapter 35.43 RCW; adding a new section to chapter 36.32 RCW; and creating a new section.

Be it enacted by the Legislature of the State of Washington:

NEW SECTION. Sec. 1. The governor is empowered to execute the appropriate documents to relinquish the state's claims to title of the current riverbed of the Puyallup river within the 1873 survey area to the United States in trust for the tribe subject to the provisions on existing rights of way, discharges, easements, flood control, and fishing rights as set forth in the settlement agreement.

NEW SECTION. Sec. 2. A new section is added to chapter 35.43 RCW to read as follows:

(1) The settlement of Indian land and other claims against public and private property owners is declared to be in the interest of public health and safety, orderly government, environmental protection, economic development, and the social well-being of the citizens of this state, and to specifically benefit the properties released from those claims.

It is the purpose of this act to encourage the settlement of such Indian land and other claims lawsuits by permitting the establishment and use of local improvement districts to finance all or a portion of the settlement costs of such lawsuits.

(2) A local improvement district may be established by a local government legislative authority to finance all or part of the settlement costs in an Indian land and other claims settlement related to public and private property located within the local government. The settlement of an Indian land claim lawsuit shall be deemed to be an improvement that may be financed in whole or in part through use of a local improvement district.

Except as expressly provided in this section, all matters relating to the establishment and operation of such a local improvement district, the levying and collection of special assessments, the issuance of local improvement district bonds and other obligations, and all related matters, shall be subject to the provisions of chapters 35.43 through 35.54 RCW. The resolution or petition initiating the creation of a local improvement district used to finance all or a portion of an Indian land and other claims settlement shall describe the general nature of the Indian land and other claims and the proposed settlement. The value of a contribution by any person, municipal corporation, political subdivision, or the state of money, real property, or personal property to the settlement of Indian land and other claims shall be credited to any assessment for a local improvement district under this section.

NEW SECTION. Sec. 3. A new section is added to chapter 36.32 RCW to read as follows:

(1) The settlement of Indian land and other claims against public and private property owners is declared to be in the interest of public health and safety, orderly government, environmental protection, economic development, and the social well-being of the citizens of this state, and to specifically benefit the properties released from those claims.

It is the purpose of this act to encourage the settlement of such Indian land and other claims lawsuits by permitting the establishment and use of local improvement districts to finance all or a portion of the settlement costs of such lawsuits.

(2) A local improvement district may be established by a county legislative authority to finance all or part of the settlement costs in an Indian land and other claims settlement related to public and private property located within the incorporated or unincorporated areas of the county. The settlement of an Indian land and other claims lawsuit shall be deemed to be an improvement that may be financed in whole or in part through use of a local improvement district.

(3) Except as expressly provided in this section, all matters relating to the establishment and operation of such a local improvement district, the

levying and collection of special assessments, the issuance of local improvement district bonds and other obligations, and all related matters, shall be subject to the provisions of chapter 36.94 RCW concerning the use of local improvement districts to finance sewer or water facilities. The requirements of chapter 36.94 RCW concerning the preparation of a general plan and formation of a review committee shall not apply to a local improvement district used to finance all or a portion of Indian land and other claims settlements. The resolution or petition that initiates the creation of a local improvement district used to finance all or a portion of an Indian land and other claims settlement shall describe the general nature of the Indian land and other claims and the proposed settlement. The value of a contribution by any person, municipal corporation, political subdivision, or the state of money, real property, or personal property to the settlement of Indian land and other claims shall be credited to any assessment for a local improvement district under this section.

NEW SECTION. Sec. 4. If any provision of this act or its application to any person or circumstance is held invalid, the remainder of the act or the application of the provision to other persons or circumstances is not affected.

Passed the House May 8, 1989.
Passed the Senate May 7, 1989.
Approved by the Governor May 13, 1989.
Filed in Office of Secretary of State May 13, 1989.

CHAPTER 5

[Substitute House Bill No. 1737]

VICTIMS OF CRIMES—COMPENSATION

AN ACT Relating to crime victims' compensation; amending RCW 7.68.030, 7.68.070, 7.68.080, 82.08.020, 82.08.010, and 82.12.020; amending section 223, chapter 7, Laws of 1987 1st ex. sess. as amended by section 218, chapter 289, Laws of 1988 (uncodified); adding new sections to chapter 7.68 RCW; adding a new section to chapter 82.32 RCW; creating new sections; repealing RCW 7.68.010; providing an effective date; and declaring an emergency.

Be it enacted by the Legislature of the State of Washington:

NEW SECTION. Sec. 1. The department of labor and industries shall operate the crime victims' compensation program within the appropriations and the conditions and limitations on the appropriations provided for this program.

Sec. 2. Section 3, chapter 122, Laws of 1973 1st ex. sess. as amended by section 12, chapter 443, Laws of 1985 and RCW 7.68.030 are each amended to read as follows:

It shall be the duty of the director to establish and administer a program of benefits to innocent victims of criminal acts within the terms and limitations of this chapter. In so doing, the director shall, in accordance

D

C

B

A

Agreement

between
the Puyallup Tribe of Indians,
local Governments in Pierce County,
the State of Washington,
the United States of America,
and certain private property owners.

August 27, 1988

AGREEMENT

August 27, 1988

AGREEMENT
August 27, 1988

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AGREEMENT

PURPOSE AND SCOPE OF AGREEMENT; PARTIES

This Agreement establishes a framework for cooperation an mutually beneficial future for the community. The Agreement: adds to the Tribe's land base and provides resources for econc development; (2) provides each enrolled adult member of the Tr with funds to meet personal needs, (3) provides resources for Tribe to meet its members' health, education, and social nee (4) provides for substantial restoration of the fishery resour and allows for future development while lessening impacts fisheries; (5) provides for significant employment and train opportunities for Puyallup Tribal members; (6) provides funds land acquisition and development, and small business assistan (7) provides for construction of Blair Project; (8) resol conflicts over governmental jurisdiction; and (9) resolves land claims by the Puyallup Indian Tribe, except as reserved this Agreement.

This is an agreement between the Puyallup Indian Tribe and United States, the State of Washington, and the signatory lo governments and private parties. The Agreement will bec effective when the steps shown in Section X. have been complet At that time, this document and the documents specified in Sect X. will become the Agreement of the parties.

Throughout the negotiations leading to this Agreement, both si had the benefit of legal counsel and technical consultants. It therefore agreed that all parties had the necessary resources understand and make the difficult decisions required.

The following are the parties to this Agreement:

1. United States of America
2. Puyallup Indian Tribe
3. State of Washington
4. Port of Tacoma
5. Pierce County
6. City of Tacoma
7. City of Fife
8. City of Puyallup
9. Union Pacific Railroad Company
10. Burlington Northern Inc.
11. Commencement Bay Tideland Owners Committee, non-profit corporation
12. Riverbed Owners Committee

All parties recognize that this Agreement cannot reverse or erase all of the injustices and problems that have occurred, and no one pretends that it does. Instead, the parties, although mindful of the past, have negotiated this Agreement to allow the Tribe and its members to provide themselves a secure future, to give greater certainty to Indians and non-Indians alike, and to encourage a cooperative relationship which will reduce the danger of continued injustice and continuing conflicts in the future.

I. SETTLEMENT LANDS

A. Property Conveyed Other Than Current Riverbed

The Tribe will receive an estimated 899 acres of land. Those properties and certain improvements have an estimated current value of $37,460,000. Legal descriptions, improvements, restrictions and encumbrances are contained in Document 1. Two location drawings of the properties are included in this section.

Blair Waterway Property

The Tribe will receive 43.4 acres fronting on the Blair Waterway. The value of this property will increase substantially with completion of the Blair Project.

Blair Backup Property

The Tribe will receive 85.2 acres located between Taylor Way and Alexander Avenue, together with the buildings on the property. This property will retain its current designation as a Foreign Trade Zone. The value of this property will increase substantially with completion of the Blair project.

Inner Hylebos Property

The Tribe will receive 72.9 acres of property on the Inner Hylebos, including a marina and a log storage site.

Upper Hylebos Property

The Tribe will receive 5.9 acres of property located at the head of the Hylebos Waterway.

Union Pacific Property (Fife)

The Tribe will receive 57 acres, subject to an easement for a roadway of approximately 4 acres. The Tribe will have an option to buy an additional 22 acres of land at its appraised fair market value.

Union Pacific and the City of Fife agree to fund up to million of the cost of construction of an underpass overpass at Frank Albert Road. For purposes of this Agr ment, the improvement value to the property will be $800,0

Torre Property (Fife)

The Tribe will receive 27.4 acres located on Frank Alb Road in Fife, or the cash value of that property. The P will determine which option will be implemented.

Taylor Way/East-West Road Properties

The Tribe will receive two pieces of property totalling 7 acres, one on Taylor Way, the other on East-West Road. The properties will retain their current designation as a Forei Trade Zone.

Forest, Recreation and Cultural Areas

The Tribe will receive $500,000 for the purchase of ope space, forest and cultural lands for uses to be determined b the Tribe and its members. It is estimated this amount woul purchase approximately 600 acres.

General Requirements for Lands Conveyed to Tribe Under This Agreement

The parties agree that lands conveyed by this Agreement will be placed in trust with on-reservation status by federal legislation enacting this Agreement, subject to the uses specified in Document 1. However, nothing in that designation shall be construed as a precedent for or against the granting of on-reservation status to other lands interior or exterior to the 1873 Survey Area. Forest, recreation and cultural lands will be placed in trust and designated as off-reservation status.

Final transfers of property will be consistent with established land exchange procedures. Contamination audits will be completed by the Port on its properties for the purpose of establishing that each property complies with applicable federal or state contamination law, and is reasonably useful for commercial/industrial development by the Tribe. See Document 1 for details.

B. Current Riverbed

The non-Indian parties will convey any right, title or interest they have in the submerged lands in the Puyallup

River within the 1873 survey area below the mean high water line to the United States in trust for the Tribe.

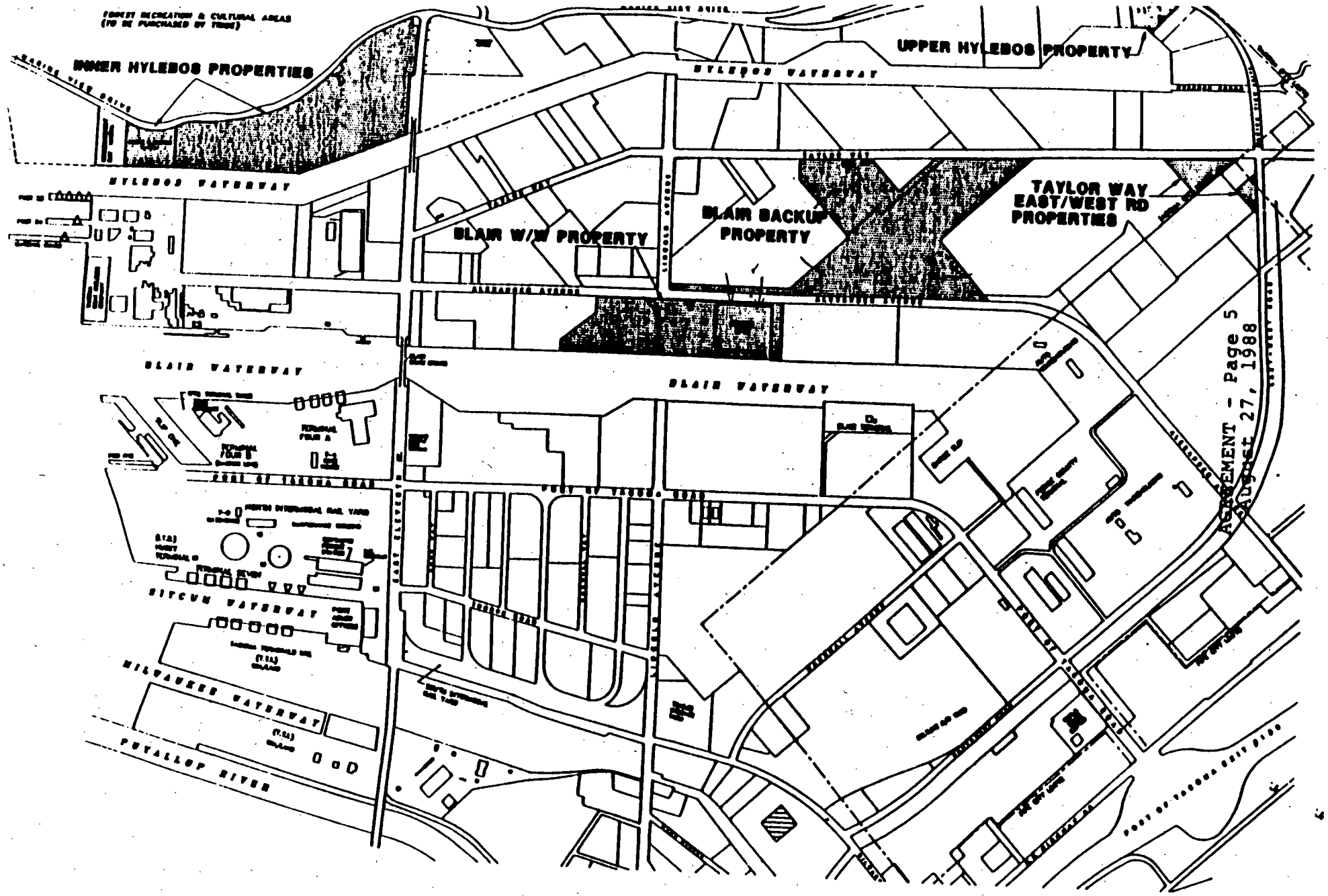
1. The United States and the Tribe confirm all existing rights-of-way across the river bed and the right to maintain them. The Tribe agrees it will not impose any charge for or regulate the use and maintenance of such rights-of-way.

2. The Tribe shall not deny, condition or impose any charge for discharges of waste water, storm water, or sanitary waters which discharges comply with applicable federal water standards and do not interfere with the Tribe's treaty protected fishing rights.

3. Any other easements for public purposes or utilities shall not be unreasonably withheld, but reasonable charges can be imposed by the Tribe for such easements valued in the same manner as the valuation of property in eminent domain proceedings. However, the Tribe, because of funds advanced by the State in this Agreement agrees that it will not charge the State for an additional transportation easement, including necessary support structures, to cross the river so long as the structure is substantially completed within 15 years of the effective date of this Agreement.

4. Within 3 years of the effective date of this Agreement, the Tribe, State, Federal Government, and the County will agree to a plan for flood control. That plan is to address the location, amount and timing of necessary gravel removal, vegetation control, and the roles and responsibilities of the Tribe, State, County and Federal Government in the plan development and implementation.

5. The Tribal Trust ownership of the river bed shall not enlarge or diminish the fishing rights of any person or party.



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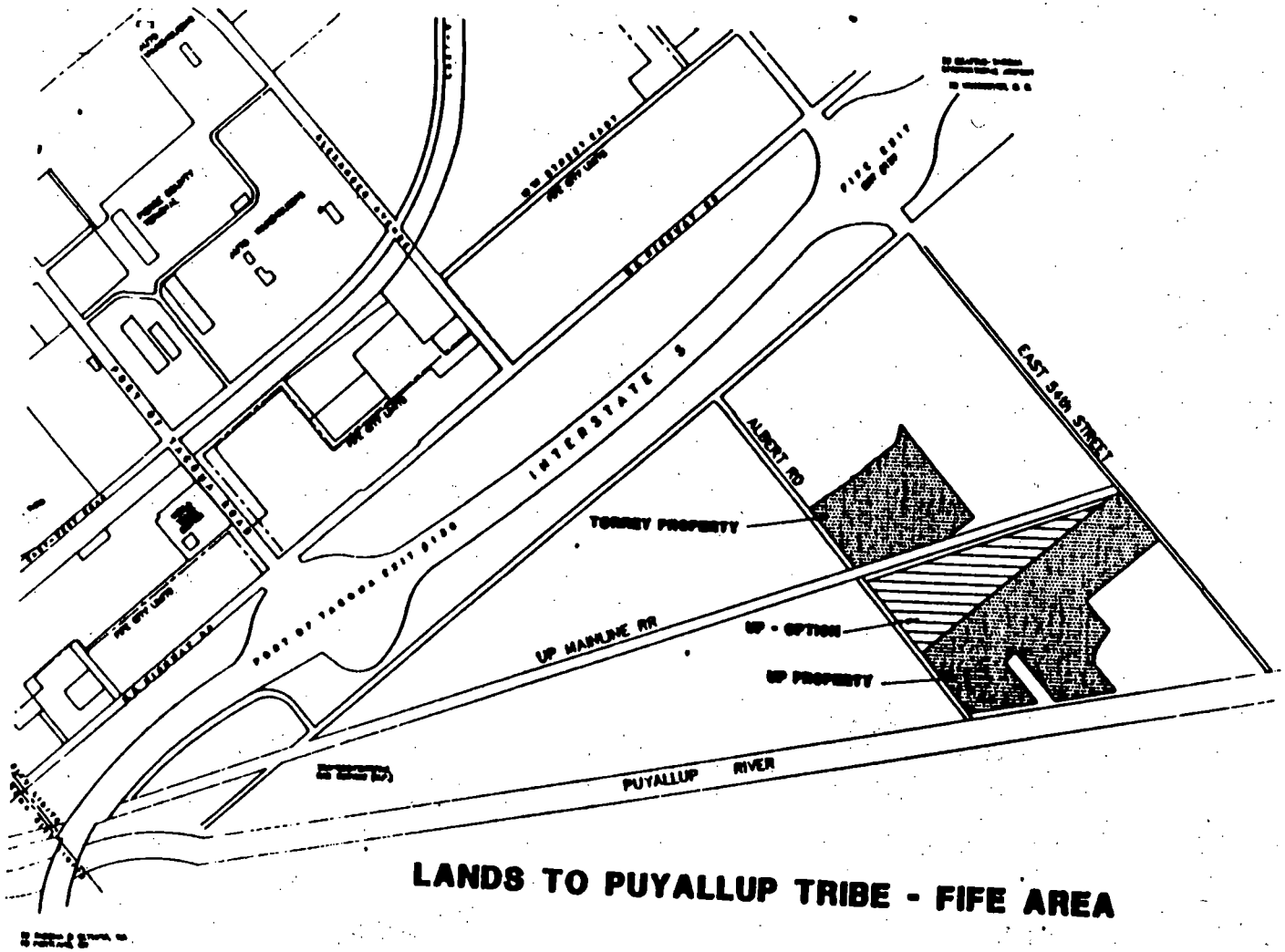


LANDS TO PUYALLUP TRIBE - FIFE AREA

II. PAYMENTS TO MEMBERS OF PUYALLUP TRIBE

The Tribal members will receive $24 million that will be placed an annuity fund or other investment program. Each person who an enrolled member of the Tribe at the time of ratification this Agreement by an affirmative vote of the Tribe's members w receive a one-time payment from the fund. Each enrolled mem who has reached the age of 21 at the time that the Agreem becomes effective will receive the payment as soon as possi after that date. All other members will receive payment u reaching the age of 21.

The $24 million will be placed in an annuity fund or other fin cial investment program so that each member of the Tribe w. receive a payment of approximately $20,000. The Board of Trust described in Section III below will be responsible for selectin financial institution or institutions to administer the func The financial institution(s) shall be selected by the Board later than 60 days after the Board is elected. It is the inte tion of the parties to this Agreement that the payments to ea qualified member be made as soon as is practicable and financial prudent, as determined by the Board in consultation with t financial institution(s). No payments of any kind except t approximately $20,000 per capita payable to all Tribal membe shall be paid to the Board or its members out of this fund. reasonable and customary fee may be paid out of income from t fund to the financial institution(s) for administration of t fund.

This estimate of $20,000 per member is based on an assumed e rolled membership of 1,400 on the date of ratification. The exa amount which each member will receive may be slightly higher lower depending on interest rates at the time the Agreement implemented, and the ages of members at the time the Agreement ratified. This program will last for 21 years from the date c ratification.

For details, see Document 2.

III. PERMANENT TRUST FUND FOR TRIBAL MEMBERS

A. Trust Fund

The Tribe shall receive a trust fund totalling $22 millic for the benefit of the Tribe and its members. The ful amount provided by this Agreement shall be held in trust b the United States. Only the income may be spent in any on year. Income earned from the fund shall be used solely fo the following purposes:

1. Housing
2. Elderly Needs
3. Burial and Cemetery Maintenance
4. Education and Cultural Preservation
5. Supplemental Health Care
6. Day Care
7. Other Social Services

B. Distribution of Trust Fund Income and Review of Trust Fund Management:

Distribution of the income from the trust fund shall be directed by a nine-member Board of Trustees. The Board shall also oversee the trustees' administration of the fund. The Board will have three Trustees elected by the Tribe from its members; three Trustees elected by the Tribal Council; one Trustee designated by the Department of Interior; and two Trustees from the financial or social service community, selected by the Tribal and Federal Trustees.

C. Duration of Trust:

The Trust Fund shall be in existence for the duration of the existence of the Tribe, as recognized by the United States Government.

See Document 3 for details of Permanent Trust Fund.

IV. FISHERIES

Introduction: The goal of the fisheries portion of this Agreement is to enhance the fisheries resource, including protection of necessary habitat, while allowing construction and development to occur. The total value of the fisheries program is $10,165,000, and an unspecified value for mitigation and enhancement for approved development projects. These funds will be used by the State and Tribal fisheries managers, through their cooperative management programs, to develop and implement a comprehensive production plan for the Basin. These funds are separate from any additional money that may be provided through the Congress, and do not include any monies previously agreed to by the State of Washington as a result of prior cooperative management projects.

A. Fisheries Enhancement Program

1. The Tribe will receive $7,935,000 from the State of Washington for its use in improving the Puyallup River and Commencement Bay Basins fishery through: (a) site acquisition; (b) facilities construction and improvement; (c) habitat improvement; (d) equipment purchase;

(e) research; and (f) operation and maintenance facilities. In addition, the State will make impro ments to existing state facilities in the Puyallup Ri Basin to achieve increased production in the Basin, a cost of $800,000.

2. The Port of Tacoma will provide $1,300,000 to Tribe for fisheries enhancement. These funds are addition to $675,000 transferred from the Port of Tac to the Tribe under the Terminal 3 Agreement.

3. The parties recognize the Tribe's program fisheries enhancement through the siting and developm of Tribal net pen facilities. The Tribe and the St Departments of Fisheries and Wildlife will joint identify those potential sites which are biologica and environmentally suitable for Tribal net pens. parties with permitting authority will use their be efforts to facilitate the permitting of pen sit necessary to the implementation of the fisheries e hancement goals of this Agreement.

4. The Federal Government will spend $100,000 f Commencement Bay navigation equipment. Additionall $30,000 will be provided by the Port for replacement damaged fishing equipment.

B. Fisheries Protection

1. Mitigation and Enhancement Measures for Specif Port of Tacoma Development Projects

The approval given to the projects listed in the ne subsection is conditioned on completion of the followir mitigation and enhancement measures, as they relate t those individual projects:

a. Reduced Fill Area and Milwaukee Waterway Shallowing
b. Sitcum Waterway End Slope Revision
c. Pier Construction Standards
d. Slip 5 Shallowing
e. Slip 1 Fill Slopes
f. Blair Waterway Dredging Slopes
g. Blair Waterway Bank Improvements
h. Wapato Creek-Blair Waterway Outfall
i. Wapato Creek Bridging
j. Inner Hylebos Shallowing

These mitigation and enhancement projects will be constructed in coordination with the development projects listed below.

In addition to the above mitigation and enhancement measures to be carried out by the Port, the Port will provide a $1,300,000 cash payment, both as part of the Fisheries Enhancement program outlined in Section IV.A. above.

The Port will work with Tribal biologists in developing the Port's plans. Within the cost parameters of meeting the area requirements, the Port staff will work with the Tribal staff to maximize the fisheries benefits from the proposed activities and construction design.

2. Tribe's Approval of Specified Port of Tacoma Projects

The Port of Tacoma has proposed certain construction projects listed below, with the provisions for specified mitigation and enhancement stated above. The Tribe agrees to give approval to the following projects, on the condition that the Port constructs them in the manner described in Document 4. If the conditions are met, the Tribe agrees not to oppose the projects in any federal, state, or local permitting processes. Projects are fully defined in Document 4, Fisheries, and Document 6, Blair Project.

a. Milwaukee Waterway Fill. Filling of 72.5 percent of the Milwaukee Waterway using Blair Waterway dredged material.

The Port will not begin the dredging or construction of this project and will stop all further processing of permits for this project prior to reaching the comment stage for the FEIS, and delay the restart of that process until the effective date of this Agreement. The Tribe shall not oppose the application during this delay period, but reserves all rights to oppose the project if the Agreement does not become effective.

As part of this stoppage of further processing, the Port will request the Corps of Engineers to delay its formal review and publication of the Draft Supplemental FEIS currently being prepared. The Tribe will notify the Corps that their letters of March 1 and May 17, 1988 relating to that draft document are to be held in abeyance pending the

Tribe's reevaluation of the project and the eff tive date of this Agreement.

b. Expansion of Terminal 3. Filling of Sli and extension of Terminal 3 pier by up to 1,(feet.

c. Northeast Blair Pier. Construction of a pi at the Blair Waterway turning basin of a length r to exceed 1,000 feet.

d. Blair Navigation Project. Widening a deepening of the Blair Waterway navigation channel to include dredging and placement of t dredge material into the Milwaukee Fill project a replacement or bypass of the East 11th Stre (Blair) bridge across the Waterway. Also includ in this project is long-term maintenance dredgi of both the Blair and Sitcum Waterways.

The bypass road portion of the Blair Navigati Project includes an elevated bridge crossing over portion of Tribal land located along the east ba of the Puyallup River, downstream from the existi Highway 99 Bridge. As part of the Tribe's approv of this project which is to be completed by t Washington State Department of Transportation, i is agreed that land will be provided by the Trit for bridge construction. Details of agreed compen sation and continued access by Tribal fishermen i in Document 6.

The Port agrees to schedule construction of the liste projects and their mitigation and enhancement measure in a manner which minimizes fisheries impacts, i accordance with agency requirements. Mitigation an enhancement measures shall be completed concurrentl with the project.

3. General Purpose Local Government Actions

a. Definition

For purposes of this Section IV, the phrase "gener al purpose local government" (hereinafter "loca government") refers to cities and the county wh are parties to this Agreement.

significantly to public acceptance and therefore the effectiveness of regulatory programs. The Agency encourages all tribes to follow the example of those tribes that have already enacted an APA.

6. Where tribal and State governments, managing regulatory programs for reservation and state areas, respectively, may encounter transboundary problems arising from inconsistent standards, policies, or enforcement activities, EPA encourages the tribal and state governments to resolve their differences through negotiation at the local level. EPA, in such cases, is prepared to act as a moderator for such discussions, if requested. Where a statute such as the Clean Water Act designates a conflict-resolution role for EPA in helping to resolve tribal/state differences, EPA will act in accordance with the statute. Otherwise, EPA will respond generally to such differences in the same manner that EPA responds to differences between states.

V. CONCLUSION

The Agency believes that where an ecosystem crosses political boundaries, effective regulation calls for coordination and cooperation among all governments having a regulatory role impacting the ecosystem. Many differences among tribes and states, like differences among states, are a natural outgrowth of decentralized regulatory programs; these differences are best resolved locally by tribes and states acting out of mutual concern for the environment and the health of the affected populace. EPA actions and decisions made in carrying out its role and responsibilities will be consistent with federal law and the EPA Indian Policy. Within this framework, the Agency is convinced that the environmental quality of reservation lands can be protected and enhanced to the benefit of all.

reservation sources, the Agency will retain enforcement primacy for those sources. Until EPA formally authorizes a state or tribal program, the Agency retains full responsibility for program management. Where EPA retains such responsibility, it will carry out its duties in accordance with the principles set forth in the EPA Indian Policy.

3. Under both authorized and EPA-administered programs for reservations, the Agency encourages cooperation between tribes and states, acting in the spirit of neighbors with a mutual self-interest in protecting the environmental and the health and welfare of the reservation populace. Such cooperation can take many forms, including notification, consultation, sharing of technical information, expertise and personnel, and joint tribal/state programming. While EPA will in all cases be guided by federal Indian law, EPA Indian Policy and its broad responsibility to assure effective protection of human health and the environment, the Agency believes that this framework allows flexibility for a wide variety of cooperative agreements and activities, provided that such arrangements are freely negotiated and mutually agreeable to both tribe and state. The Agency will not act in such a manner as to force such agreements.

4. The Agency urges states to assist tribes in developing environmental expertise and program capability. The Agency has assisted in funding state environmental programs for two decades, with the result that, today, state governments have a very capable and sophisticated institutional infrastructure to set and enforce environmental standards consistent with local state needs and policies. As the country now moves to develop an infrastructure of tribal institutions to achieve the same goals, state governments can play a helpful and constructive role in helping to develop and support strong and effective tribal institutions. The State of Wisconsin has worked with the Menominee Tribe to develop a joint tribal/state RCRA program that can serve as a model of mutually beneficial cooperation for other states and tribes.

5. The Agency urges tribes to develop an Administrative Procedures Act (APA) or other means for public notice and comment in the tribal rule-making process. Many tribes now working with EPA to develop environmental standards and regulatory programs have already taken the initiative in establishing such techniques for obtaining community input into tribal decision-making. Such tribes have enacted APAs and held public meetings to gather input from both Indian and non-Indian residents of the reservation prior to setting tribal environmental standards for their reservations. The Agency generally requires states and tribes to provide for adequate public participation as a prerequisite for approval of state or tribal environmental programs. The Agency believes that public input into major regulatory decisions is an important part of modern regulatory governance that contributes

"In keeping with the principle of Indian self-government, the Agency will view Tribal Governments as the appropriate non-Federal parties for making decisions and carrying out program responsibilities affecting Indian reservations, their environments, and the health and welfare of the reservation populace. Just as EPA's deliberations and activities have traditionally involved the interests and/or participation of State Governments, EPA will look directly to Tribal Governments to play this lead role for matters affecting reservation environments."

2) Second, the Agency encourages cooperation between state, tribal and local governments to resolve environmental issues of mutual concern:

"Sound environmental planning and management require the cooperation and mutual consideration of neighboring governments, whether those governments be neighboring States, Tribes or local units of government. Accordingly, EPA will encourage early communication and cooperation among Tribes, States and local governments. This is not intended to lend Federal support to any one party to the jeopardy of the interests of the other. Rather, it recognizes that in the field of environmental regulation, problems are often shared and the principle of comity between equals often serves the best interests of both."

IV. PRINCIPLES AND PROCEDURES FOR EPA ACTION

EPA program managers will be guided by the following principles and procedures regarding tribal and state roles in the management of programs to protect reservation environments.

1. The Agency will follow the principles and procedures set forth in the EPA Policy for the Administration of Environmental Programs on Indian Reservations and the accompanying Implementation Guidance, both signed on November 8, 1984.

2. The Agency will, in making decisions on program authorization and other matters where jurisdiction over reservation pollution sources is critical, apply federal law as found in the U.S. Constitution, applicable treaties, statutes and federal Indian law. Consistent with the EPA Indian Policy and the interests of administrative clarity, the Agency will view Indian reservations as single administrative units for regulatory purposes. Hence, as a general rule, the Agency will authorize a tribal or state government to manage reservation programs only where that government can demonstrate adequate jurisdiction over pollution sources throughout the reservation. Where, however, a tribe cannot demonstrate jurisdiction over one or more

State governments, in turn, recognize that the environmental integrity of entire ecosystems cannot be regulated in isolation. Pollution in the air and water, even the transportation of hazardous materials in everyday commerce, is not restricted to political boundaries. Accordingly, state governments claim a vital interest in assuring that reservation pollution sources are effectively regulated and, in many cases, express an interest in managing reservation environmental programs themselves, at least for non-Indian sources located on the reservations. In addition, some state officials have voiced the concerns of various non-Indians who live or conduct business within reservation boundaries, many of whom believe that their environmental or business interests would be better represented by state government than by the tribal government.

Although the Agency hears these particular concerns expressed most often through tribal and state representatives, respectively, the Agency is aware that most of these concerns are shared by both tribes and states. For example, tribal governments are not alone in holding the view that future generations depend on today's leaders to manage the environment wisely. Many state officials argue the same point with the same level of conviction as tribal leaders. Conversely, tribal governments share with states the awareness that individual components of whole ecosystems cannot be regulated without regard to management of the other parts. Tribal governments have also shown themselves to share the states' sensitivity to the concerns and interests of the entire reservation populace, whether those interests are the interests of Indians or non-Indians. In the Agency's view, tribes and states do not differ on the importance of these goals. Where they differ at all, they differ on the means to achieve them.

EPA fully shares with tribes and states their concerns for preservation of the reservation as a healthy and viable environment, for rational and coordinated management of entire ecosystems, and, thirdly, for environmental management based on adequate input both from regulated businesses and from the populace whose health the system is designed to protect. Moreover, the Agency believes that all of these interests and goals can be accommodated within the framework of federal Indian policy goals and federal Indian law.

III. EPA POLICY

The EPA Indian Policy addresses the subject of state and tribal roles within reservation boundaries as follows:

1) First, consistent with the President's policy, the Agency supports the principle of Indian self-government.

FEDERAL, TRIBAL AND STATE ROLES IN THE PROTECTION AND REGULATION OF RESERVATION ENVIRONMENTS

A Concept Paper

I. BACKGROUND

William Reilly, in his first year as EPA Administrator, reaffirmed the 1984 EPA Indian Policy and its implicit promise to protect the environment of Indian reservations as effectively as the Agency protects the environment of the rest of the country. The EPA Indian Policy is premised on tribal self-determination, the principle that has been set forth as federal policy by Presidents Nixon, Reagan, and Bush. Self-determination is the principle recognizing the primary role of tribal governments in determining the future course of reservation affairs. Applied to the environmental arena in the EPA Indian Policy, this principle looks to tribal governments to manage programs to protect human health and the environment on Indian reservations.

II. TRIBAL, STATE AND FEDERAL EXPECTATIONS

The Agency is sensitive to the fact that tribal and state governments have serious and legitimate interests in the effective control and regulation of pollution sources on Indian reservations. EPA shares these concerns and, moreover, has a responsibility to Congress under the environmental statutes to assure that effective and enforceable environmental programs are developed to protect human health and the environment throughout the nation, including Indian reservations.

Indian tribes, for whom human welfare is tied closely to the land, see protection of the reservation environment as essential to preservation of the reservations themselves. Environmental degradation is viewed as a form of further destruction of the remaining reservation land base, and pollution prevention is viewed as an act of tribal self-preservation that cannot be entrusted to others. For these reasons, Indian tribes have insisted that tribal governments be recognized as the proper governmental entities to determine the future quality of reservation environments.

APPENDIX B

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 10 1991

RECEIVED
BY GENERAL COUNSEL

AUG 2 1991

THE ADMINISTRATOR

MEMORANDUM

SUBJECT: EPA/State/Tribal Relations

TO: Assistant Administrators
General Counsel
Inspector General
Regional Administrators
Associate Administrators
Staff Office Directors

Earlier this year I shared with you my views concerning EPA's Indian Policy, its implementation and its future direction. I would now like to further emphasize my commitment to the Policy by endorsing the attached paper that was coordinated by Region VIII on EPA/State/Tribal Relations.

This paper was prepared to formalize the Agency's role in strengthening tribal governments' management of environmental programs on reservations. The paper notes that the differences between the interests of tribal and state governments can be very sensitive and sometimes extend well beyond the specific issues of environmental protection. It reaffirms the general approach of the Agency's Indian Policy and recommends the strengthening of tribal capacity for environmental management. I believe the Agency should continue its present policy, making every effort to support cooperation and coordination between tribal and state governments, while maintaining our commitment to environmental quality.

I encourage you to promote tribal management of environmental programs and work toward that goal.

Please distribute this document to states and tribes in your region.

William K. Reilly

William K. Reilly

Attachment

cc. Headquarters Program Office Directors
Regional Office Directors

F
E
D
C
B
A

inaction proximately caused the violation. There shall be n joint and several liability among the parties to thi Agreement.

B. Consent to Sue

All parties to this Agreement consent to suit in the Feder District Court for the Western District of Washingto Southern Division, and agree that the Federal Court sha have jurisdiction over any disputes arising from this Agre ment. All parties shall enter into a limited waiver of the sovereign immunity from suit, if any, to the extent that th consent to actions seeking to remedy violations of th Agreement or its implementing contracts, and for declarato judgment actions regarding their provisions.

This waiver of sovereign immunity will be limited to t forms of relief which will be authorized by the Federal Cou consent decree: 1) specific performance of the terms of t Agreement or, if the court determines that specific perfo mance is not feasible, 2) a remedy specified by the cou which will provide a benefit equivalent to that which w contemplated by the provision of the Agreement in questic or 3) consequential damages in the event a court finds tl the party has knowingly and intentionally acted in a manr so as to frustrate the purposes of this Agreement, notwit standing Section X.C.3.(a).

XII. LEGAL DISCLAIMER

This Agreement, its accompanying Documents 1-7, and all negot tions and exchanges of technical information leading to tl Agreement constitute offers of settlement and compromise disputed issues entered into between the parties expressly pur ant to Rule 408 of the Federal Rules of Evidence. Accordingly, the event that the above conditions are not met and this Agreem does not become effective, all statements and agreements contai herein and in Documents 1-7, all technical reports exchanged the parties, and all negotiations conducted by them are in str confidence and will not be admissible or used in any way agai any of the parties to this Agreement, or the beneficiaries of t Agreement, in any legal or administrative proceeding.

1. Approval of the Agreement by all of the parties, except the State of Washington and the United States;

2. Enactment of State legislation necessary to effectuate the Agreement (excluding actions specifically listed as having a period of time after the effective date for completion); concurrently with

3. Enactment of federal legislation necessary to effectuate the Agreement, including appropriation of funds and provisions for receiving property in trust (excluding actions specifically listed as having a period of time after the effective date for completion);

4. The conveyance of the Settlement lands to the United States in trust for the Tribe, and payment of all funds required by the Agreement to the Tribe (excluding actions specifically listed as having a period of time after the effective date for completion). This shall be completed within 30-days of the completion of Steps 2 and 3. If the conveyance of any Port lands are delayed solely because of contamination audits and/or cleanup actions required by this Agreement, their delayed conveyance will not constitute a reason for delay of the effective date of this Agreement.

5. Entry of an order of dismissal with prejudice in Puyallup Indian Tribe v. Union Pacific Railroad Company, et al, C84-359T. The motion for an order of dismissal shall be filed within thirty days of completion of Step 4.

E. Modification

The parties recognize that they may at various times in the future wish to modify this Agreement and provisions of Documents 1-7. After ratification of this Agreement by the Tribal members, the parties will develop procedures for modification of the documents.

This Agreement shall not preclude the Tribe and any other parties from agreeing to early implementation or action on provisions of this Agreement.

XI. FEDERAL COURT JURISDICTION

A. Liability

Remedies for violation of any provision of this Agreement shall be solely against the party or parties whose action or

immediately convene to develop a plan for implementing the Agreement at the earliest possible date.

C. Federal and State Participation

1. In order to go into effect, this Agreement requires certain actions by the United States Congress as specified in this document, including contribution of approximately $77,250,000. To implement this Agreement, the parties shall request that Congress enact legislation, provided that the language of such legislation shall not alter in any way the terms of this Agreement, except with the consent of the parties.

2. In order to go into effect, this Agreement requires certain actions by the Washington State Legislature as specified in this document, including contribution of approximately $21,000,000. To implement this Agreement, the parties shall request that the Legislature enact legislation, provided that the language of such legislation shall not alter in any way the terms of this Agreement, except with the consent of the parties.

3. Among other provisions, these legislative acts will specify, and the parties agree, that (a) none of the funds, assets or income from the permanent trust fund received by the Tribe as part of this Agreement shall be subject to levy, execution, forfeiture, lien, encumbrance, or seizure; (b) nothing in the Agreement shall affect the eligibility of the Tribe or any of its members for any federal program or the trust responsibility of the United States and its agencies to the Tribe and Tribal members; (c) none of the funds, assets or income from the permanent trust fund thereof contained in or resulting from this Agreement shall at any time be used as a basis for denying or reducing funds to the Tribe or its members under any federal, state, or local program, provided the federal legislation implementing this Agreement authorizes such action by the state and local governments; and (d) none of the funds or assets transferred to the Tribe or its members by this Agreement shall be deemed to be taxable, nor shall such transfer be a taxable event.

D. Effective Date

This Agreement shall become effective when all of the following steps have been accomplished. It is contemplated that the steps will be fulfilled in the following order:

the Tribe. The Tribe and federal government will confirm to Burlington Northern Railroad Company and its assigns that all existing easements, permits, leases and licenses for communications or other utility facilities shall continue to exist with the same rights, duties and benefits.

The Tribe will not impose any tax or fee upon any Union Pacific Railroad or Burlington Northern Railroad property, right of way, or railroad traffic for a period of 30 years from the date of this Agreement. The Tribe further agrees, when the 30 years expire, to limit, in perpetuity, any such taxation or fees to a proportionate share of the taxes or fees which otherwise would be paid to the State of Washington, Pierce County or other taxing district based upon the State-determined value of railroad operating property within Pierce County. The State agrees to exempt such taxes or fees, to the extent the Tribe imposes such taxes or fees, which otherwise would be paid to the State of Washington, Pierce County, or other taxing district.

E. This Agreement shall be for the benefit of all public and private landowners whose land titles might or would otherwise be affected by the Tribal claims described above.

X. IMPLEMENTATION AND MODIFICATION

A. Structure of Agreement

This Agreement will consist of this document entitled "Agreement" and several separate documents contained in a technical appendix which will be an integral part of the Agreement:

1. Settlement lands
2. Payments to Members of Puyallup Tribe
3. Permanent Trust Fund for Tribal Members
4. Fisheries
5. Job Training & Placement Program; Social & Health Service Improvements
6. Blair Navigation Project
7. Future Governmental Authority, Responsibility and Cooperation

Upon ratification by the Puyallup Tribe of this Agreement, a Court Order, Congressional Act, and State of Washington legislation will be prepared.

B. Ratification By the Tribal Members

The Tribal members must ratify this Agreement by no later than August 27, 1988. Upon ratification, the parties shall

the Tribe by record title or by B.I.A. land recor

4. The lands transferred to the Tribe pursuant to tl Agreement.

5. The rights to underlying lands or the reversiona interest of the Puyallup Tribe, if any, in the Uni Pacific and/or Burlington Northern rights-of-way acrc the 1873 Survey Area, where the property over which tl were granted belonged, at the time of the grant, to t United States in trust for the Tribe, or to the Trib

6. The presently submerged lands in the Puyallup Riv within the 1873 Survey Area below the mean high wat line.

However, with regard to these above-mentioned s exceptions, the Tribe agrees not to infringe upon impair current public uses or easements on such land: The Tribe also agrees not to impair or infringe title any existing railroad easements, permits, leases a licenses for communications or other utility facilitie on such lands listed in the above-mentioned exception

B. Subject to the explicit provisions of this Agreement the terms "land claims" and "claims" as used in this sectic include rights and claims to minerals and other usual inter ests in land and claims related to alleged past trespass c damage. The Tribe waives any claim for trespass or damage against the parties to this Agreement as to claims which th Tribe is relinquishing in this Agreement.

C. Nothing in this section nor in this Agreement shall b construed to impair, eliminate, or in any way affect th title of any individual Indian to land held by him in fee o in trust, nor shall it affect the personal claim of an individual Indian as to claims regarding past sales o allotted lands or any claim which is pursued under any law o general applicability that protects non-Indians as well a Indians.

D. The Tribe and the federal government will confirm tc Burlington Northern Railroad Company and its assigns owner-ship of the former riverbed land and any tidelands or harbor areas owned, occupied or used by Burlington Northern or its assigns in Commencement Bay. Further, the Tribe agrees not tc revoke its consent to Burlington Northern, or any other railroad with lines or rights-of-way, for acts or omissions through the date of this Agreement. The Tribe will also grant a right-of-way to Burlington Northern for its existing line through the former riverbed land now in possession of

IX. RESOLUTION OF PUYALLUP TRIBAL LAND CLAIMS

A. In return for the land and other benefits derived from this Agreement, the Puyallup Indian Tribe and the United States government, as trustee for the Tribe and its members, agree to relinquish all claims to any land, present or former tidelands, submerged lands, mineral claims, non-fisheries water rights connected with such relinquished land, known or unknown, within the State of Washington, and all water claims associated with or arising from such claims, subject only to the following exceptions:

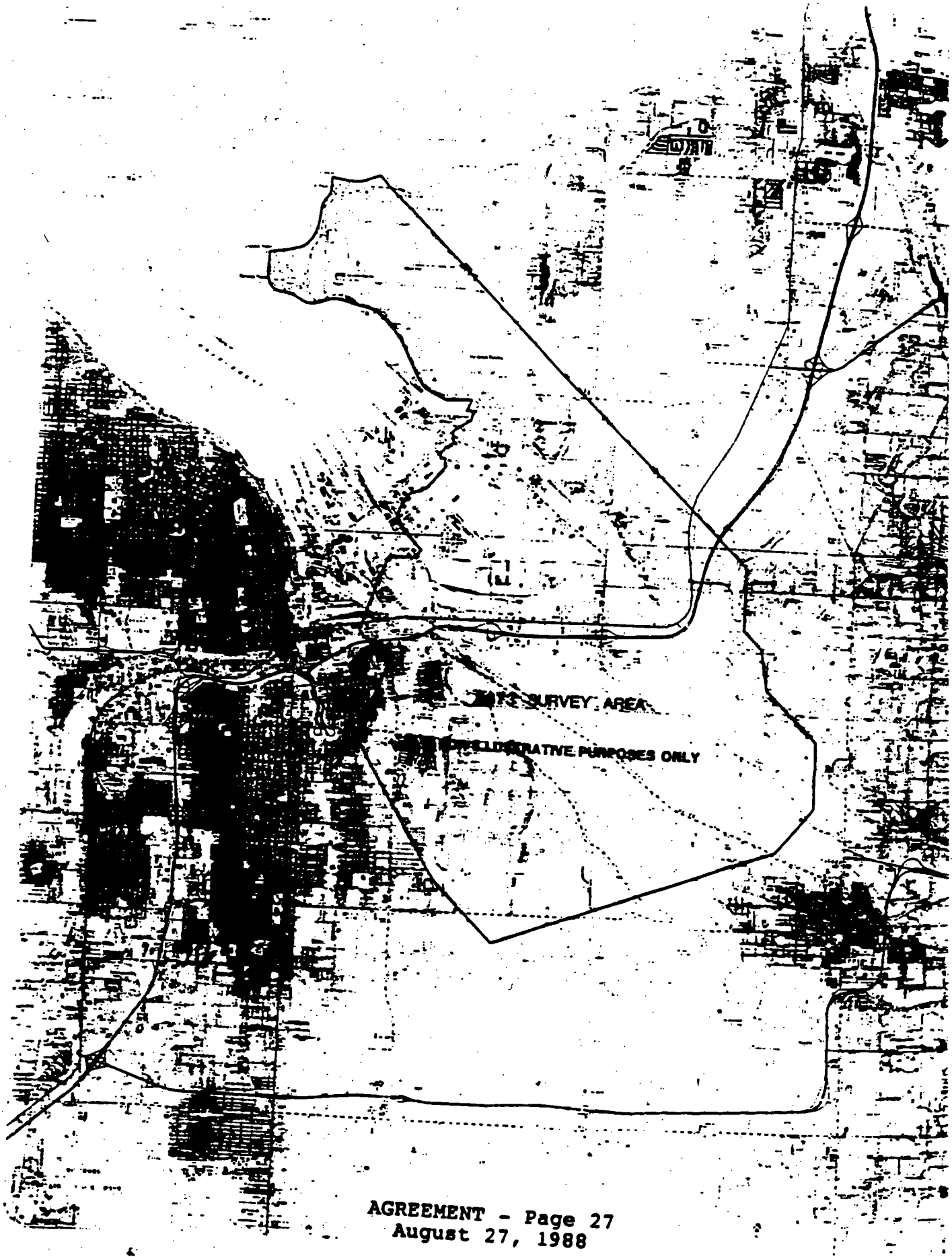
1. 12.5 acres of former riverbed land confirmed to the Tribe in Puyallup Tribe of Indians v. Port of Tacoma, U.S. District Court, Western District of Washington, Cause No. C80-164T. Provided that the Tribe agrees to provide an easement for crossing and property for bridge supports to the State or a political subdivision at just compensation, for the purpose of construction of a bypass road as specified in Document 6.

2. All land to which record title in the Tribe or the United States in trust for the Tribe or its members derives from a patent issued by the United States or from a conveyance of tideland by the State of Washington. Record title means title documented by identifiable conveyances reflected in those records imparting constructive notice of conveyances according to the laws of the State of Washington, RCW Chapters 65.04 and 65.08, and the final judgments of state or federal courts.

3. Certain land presently recognized to be owned by the Tribe or the United States in trust for the Tribe within The Indian Addition to the City of Tacoma as recorded in book 7 of plats at pages 30 and 31, records of Pierce County, Washington, as follows:

   a. Portions of Tracts 2, 5, 6, 10 and 11
   b. Tracts 7 (school site)
   c. Tract 8 (church site)
   d. Tract 9 (cemetery site)
   e. Approximately 38 lots in blocks 8150, 8249, 8350 and 8442, inclusive.

No later than December 1, 1988, the Tribe may expand this list of parcels, wherever located, provided, the Tribe provides the non-Indian parties with the legal description of any such parcel, and with evidence of ownership and/or trust status of such parcel(s) being vested in the Tribe or the United States in trust for


SURVEY AREA
ILLUSTRATIVE PURPOSES ONLY

the employing jurisdiction or of other jurisdictions under deputization. The employing jurisdiction will hold harmless other jurisdictions whose authority is being exercised by the officer.

3. All parties agree to minimize jurisdictional disputes by formal and informal consultation on matters of mutual interest. Specific jurisdictional problems shall be the subject of continuing and regular consultations.

then these issues shall be arbitrated. The parties first attempt to reach agreement using a single arbi tor; if they cannot agree, they will use a three-me arbitration panel. The three-member panel shall chosen as follows: the Tribe and City shall each ch one arbitrator, and those two arbitrators shall choo third.

d. The decision of the arbitrators shall be bindin the parties and may be enforced in the United St. District Court for the Western District of Washing

e. The boundaries of Fife as of July 1, 1988 shall used for purposes of determining the above percent unless Fife and the Tribe agree otherwise. Sect VIII.E. shall remain in full force and effect unl Fife is disestablished as a municipality; then and c then shall this agreement between Fife and the Tribe terminated.

f. The City of Fife and the Tribe share a common g to assure that the future development within the City Fife will balance the need for commercial and industr growth with the need for the preservation, enhancem and expansion of Indian and non-Indian residential ar and the protection and rebuilding of Wapato Creek as viable fish run. The Tribe and the City of Fife w consult with and cooperate with each other in develop their respective land use plans in order to effectu this goal.

F. Law Enforcement

In order to exercise the highest degree of cooperation, t Puyallup Indian Tribe and the state and its political subc visions, through their respective law enforcement author ties, agree to the following program, as described Document 7:

1. The Puyallup Tribal police will be primari responsible for law enforcement over Tribal members trust lands in the 1873 Survey Area. Local and sta police agencies shall be primarily responsible for l enforcement over non-Tribal members and on non-tru lands, as presently provided by law.

2. Each jurisdiction is responsible for its o criminal investigations, pursuit of alleged criminal and arrests, and for all liability or damage arisi from incidents or actions involving its officers whether or not the authority being exercised is that c

The state and local governments shall be responsible for providing such services to non-trust lands. The Tribe may choose to provide governmental services to Indians on trust lands or may contract with another governmental unit for services it chooses not to provide to its members, unless such contracting would result in a significant disruption of service or the ability to deliver service by either contracting party. Residential services such as water, power, heat and other utilities for individual Tribal members will remain the responsibility of Tribal members unless the Tribe undertakes a housing program of the type provided by housing authorities, in which case the Tribe will be responsible. The provision of public facilities and services for trust lands will be covered by intergovernmental agreements.

E. Agreement for Fife

The Tribe and the City of Fife agree to a development fee for general governmental services and school district operational expenses as set forth herein.

a. If the total amount of trust land within the City of Fife exceeds 17% of the land area within the City of Fife, or exceeds in value an amount equal to 17% of the assessed valuation of all real property within the City of Fife, then, as to any additional lands placed into Trust, the Tribe shall compensate the City of Fife and the Fife School District in an amount and manner to be agreed to between the Tribe and the City of Fife.

b. The standard to be applied in determining the amount and manner of payment shall be that the City of Fife and the Fife School District shall receive in annual payments from the Tribe the amount of income the City and School District would have continued to receive for general governmental services and school district operations if the property would have remained in fee status (any federal impact monies received by the city or school district as a result of land achieving trust status or Indian students attending Fife School District schools shall be credited towards the above payments). The valuation of each property shall be based upon the actual use of the property, or its zoning classification, whichever yields the highest property value. For this purpose the zoning classification in the City of Fife zoning map shall be used until the Tribe adopts its own comprehensive zoning map, at which time the Tribe's zoning map shall be used for all subsequent years.

c. If the City and Tribe cannot agree upon the valuation of trust properties or upon the amount of payment,

d. Avoidance of adverse effects on other current a planned development and uses, on adjacent lands a within surrounding neighborhoods;

e. Protection of the health, safety, and welfare the community;

f. Preservation of open space;

g. Protection of the physical environment from adver impacts;

h. Opportunity for economic growth and diversit

i. Provisions for providing public facilities;

j. Concern that land may be put into trust for th primary purpose of allowing non-Indian businesses t avoid state and local taxation or where the Trib receives no significant immediate benefits from th transaction; and

k. The impact resulting from the removal of the lan from state and local governments' tax rolls.

No predetermination of the applicable factors is contained in this Agreement, except that the non-Tribal parties agree to not raise objections to the trust applications for lands conveyed to the Tribe by this Agreement. When other land is proposed to be placed in trust, it shall be subject to the provisions of this section. Before the Tribe or a member of the Tribe files any trust land application in the future, or the Tribe authorizes a substantial change in use of land in trust, the Tribe will use the consultation process described in this Agreement.

The parties agree that the Federal District Court shall have jurisdiction in the event any party fails to follow this consultation procedure.

D. Governmental Services

The Tribe or Tribal members shall be responsible for the costs of all governmental services to the Tribe or Tribal members (whether provided by the Tribe or contracted for with the local governments) where those services are requested by the Tribe or Tribal members. The local governments have no duty to provide services to trust lands unless the Tribe or its members request such services, and there is a mutually satisfactory agreement regarding payment for such services.

B. Future Trust Lands

For placing new land in trust, the parties, including the Secretary of Interior, shall abide by 25 CFR (Code of Federal Regulations) Part 151 -- Land Acquisitions, as all of those standards now exist or as they may be amended in the future.

Nothing in this Agreement shall limit or modify any party's right to appeal the decision of the Secretary.

The non-Indian parties agree to support applications to place land in trust for residential purposes filed by the Tribe or its members before July 1, 1988, if the land is within the 1873 Survey Area.

Any disputes regarding violations of conditions or agreements on lands placed in trust may be reviewed by the Federal Courts, pursuant to Section XI of this Agreement.

C. Future Consultation Between the Tribal Government and Local Governments

The Tribe and local governments need to communicate and coordinate on land use and related matters. This section provides a new mechanism to facilitate these necessary communications.

The parties agree that when the Tribe or any general purpose local government which is a party to this agreement receives an application for trust or a permit which is defined as a "substantial action" in Document 7, or itself proposes to take a "substantial action" concerning property located within the 1873 Survey Area, the issuing government agency will notify the other affected governments and give an opportunity for consultation and discussion. This consultation process applies to any land proposed for future trust status, or to a change in use on trust property. Each government retains the right to make the final decision on every such matter.

In the consultation process, the parties shall discuss the following factors as applicable:

a. The need of the Tribe and its members for increased land;

b. The objectives of federal Indian policy;

c. The protection of established or planned residential areas from uses or developments which would adversely affect those areas;

Prior to the delegation to the Tribe or State of fede programs, or for those areas where there are no fede programs, the State and the Tribe agree to consult such a manner as to provide consistent and cooperat environmental programs.

Subject to the limitations set forth above, and sol for the purpose of qualifying for federal contract grant funding under federal environmental laws, Tribe may utilize the 1873 Survey Area for prog planning purposes. The Tribe's governmental status not diminished by this Agreement, and the Tribe shall deemed to qualify for the receipt of environmen program delegation and funding under federal environme tal law subject only to the Tribe's ability to dem strate its reasonable capability to administer effective program on trust land in a manner consiste with applicable federal law.

Consistent with the terms of this Agreement it is t intent of the parties hereto to confirm the government authority of the Puyallup Tribe of Indians and recognize the Tribe's continuing right to participa under the federal environmental programs, as provic for herein, and to receive grant assistance, devel cooperative agreements, and receive technical assistan from EPA or other federal agencies to the full extent the law.

The terms of this Agreement or any cooperative agreeme entered into hereunder shall not act to diminish t trust responsibility owed to the Tribe by the Unit States or preclude the Tribal government from partic pating in any federal environmental program consiste with applicable federal law.

The Tribe retains its rights and responsibilities consult and otherwise participate in programs a regulatory activities of environmental agencies.

4. <u>Jurisdiction and Governmental Authority - Oth Governments</u>

The state and its political subdivisions will retain a exercise all jurisdiction and governmental authori over all non-trust lands and the activities conduct thereon and as provided in federal law over non-Indian

authority over non-trust lands and non-Indians on those lands for that purpose.

b. Nothing in this Agreement shall have any effect on the Tribe's or its members' water rights as related to fisheries protection or to lands owned by the Tribe or its members, hunting, gathering, or fishing rights based on aboriginal rights, treaty or executive order. These issues are not resolved by this Agreement, and this Agreement does not in any way affect the legal position of any party concerning these issues.

c. The fishery is an important cultural and economic resource to the Puyallup Indian Tribe. Therefore, the Tribe will adopt standards for trust lands which meet or exceed the highest standards of federal and state environmental protection. The Tribe will also confer with local governments to try to work out uniform standards for environmental protection.

3. Tribal Jurisdiction and Governmental Authority - Environmental

For the purposes of this Agreement, the federal, state and local governments have exclusive jurisdiction for the administration and implementation of federal, state and local environmental laws on non-trust lands within the 1873 Survey Area. The federal and Tribal government have exclusive jurisdiction for the administration and implementation of federal and Tribal environmental laws on trust lands within the 1873 Survey Area. Any federal delegation under the federal environmental laws within the 1873 Survey Area for non-trust lands will be solely to the State of Washington or its political subdivisions, and any federal delegation under the federal environmental laws within the 1873 Survey Area for trust lands will be solely to the Tribe. In carrying out such delegated authority, the State, local and Tribal governments agree to involve each other in a consultative manner and to work cooperatively where practicable.

Each party reserves the right to comment on any other party's application for delegation. If the State or the Tribe receives delegation of a federal environmental program, the parties agree to enter into discussions which will result in a complementary approach to environmental issues, with the overall objective of consistent or compatible environmental controls in the areas under respective State and Tribal jurisdictions.

jurisdiction shall be determined as provided federal law.

b. Except as otherwise provided in this Agr ment, the Tribe agrees not to assert or attempt assert any type of jurisdiction and governmen authority, existing or potential, including but limited to the power to tax, as to (a) non-tr lands; (b) any activity on non-trust lands; (c) non-Indian individual or business, on non-tr lands.

c. The settlement lands, including the Ou *Hylebos parcel* conveyed to the Tribe by t Terminal-3 Agreement with the Port, shall ha on-reservation status; forest, recreation a cultural lands shall have off-reservation stat The reservation status of other lands shall be provided in federal law.

d. The parties agree that all claims of ownersh and governmental jurisdiction by the Tribe over t Initial Reservation or Intended Reservation on t south side of Commencement Bay will be terminat and extinguished by this Agreement.

e. The Tribe retains its authority under t Indian Child Welfare Act.

f. Notwithstanding any other provision of th Agreement, application of criminal law, family la and the Tribe's authority over its members a other Indians remains unchanged.

g. The Tribe retains and nothing in this Agree ment shall affect the Tribe's status as an India Tribal government for purposes of the India Governmental Tax Status Act, 26 U.S.C. §7871, e seq, including for purposes of issuing tax exemp bonds.

2. Tribal Jurisdiction and Governmental Authority Fisheries

a. This Agreement does not limit the Tribe' authority to prevent negative impacts on th fishery through the federal courts or federal State and local permitting procedures, subject t Section IV of the Agreement. However, the Trib will not exercise jurisdiction and governmenta

authority issues between the Tribe, United States of America, and State and local governments.

Because of the importance of these issues to both the Tribe and the other parties, these issues are extensively described below, and fully described in Document 7.

A. Governmental Jurisdiction and Authority

The Puyallup Indian Reservation has been historically defined in various ways; one of those is as "the land within the high water line as meandered, and the upland boundaries as shown on the Plat Map of the 1873 Survey conducted by the United States General Land Office and filed in 1874, referred to as 'the 1873 Survey Area' in this Agreement." The parties agree that this Agreement does not resolve their differences as to the current boundaries of the Puyallup Indian Reservation. For purposes of this Agreement, the parties will use this Survey Area; a map is shown on page 27 for illustrative purposes.

The 1873 Survey Area shall not be used as basis for asserting Tribal jurisdiction or governmental authority over non-Indians, except as specifically provided by this Agreement. The Federal definitions of "Indian country", "Indian lands", and/or "Indian reservation" shall not be used by the Tribe or the United States as a basis for asserting Tribal control over non-trust lands either inside or outside the 1873 Survey Area, or the activities conducted on those lands, except as provided by the Agreement, or as otherwise agreed to between the Tribe and State, and/or local governments.

"Trust land" or "land in trust status" means land or any interest in land the title to which is held in trust by the United States for an individual Indian or Tribe; "restricted land" or "land in restricted status" means land the title to which is held by an individual Indian or a Tribe and which can be alienated or encumbered by the owner only with the approval of the Secretary of the Interior, because of limitations contained in the conveyance instrument pursuant to federal law or because of a federal law directly imposing limitations. Wherever the term "trust land" is referred to in this Agreement, it shall be deemed to include both trust and restricted lands.

1. Tribal Jurisdiction and Governmental Authority - General

a. The jurisdiction of the Puyallup Indian Tribe shall extend to existing and future restricted and trust lands. The extent of the Tribe's

provided. Annual payments totalling $2,500,000 over 20 ye will be made to the Tribe for their participation in Bl Waterway East 11th Street Bridge Navigation Opening Proje Details of these participatory payment schedules are Document 6, Blair Navigation Project.

VII. BLAIR NAVIGATION PROJECT

This project, which has been determined by the parties to be common benefit to the United States, Tribe, non-Indian entitie and entire community, is included as an element of this Agreemer Federal legislation shall expressly recognize the Tribe's right engage in foreign trade, consistent with federal law. It w widen and deepen the Blair Waterway navigation channel to me both national and local domestic and foreign trade objective Incentives for the Tribe's participation in this important Wat Resources Project are as follows:

A. Unlocking of the Tribe's Blair Waterway and Backup lan provided in this Agreement. As with all other land along t Blair Waterway, these lands will be able to be developed their optimum with the aid of these navigation improvement

B. Provision of $2,500,000 in long-term annual particip tion payments to the Tribe. These payments will be availabl for short and long-term economic development purposes, suc as their potential use on the Tribe's Blair Waterwa properties.

A full project description, estimated costs, basis of fundin within this Agreement, accomplishment plan, and Tribal incentiv payments is found in Document 6.

VIII. FUTURE GOVERNMENTAL AUTHORITY, RESPONSIBILITY, AND COOPERATION

In the area of governmental jurisdiction and the exercise o police powers, certainty and stability are important to the Tribe, local governments, the business sector, and private citizens, i order to achieve sustained and rational economic growth in the future, certainty for landowners, and an acceptable method o governing the area.

The restricted and trust lands of the Puyallup Indian Tribe no lie primarily within Pierce County, the City of Tacoma, and the City of Fife. The county is the second most populated county in the state and the area is highly urbanized and intensively developed. This section is intended to resolve governmental

C. Social & Health Service Improvements

1. Capital Projects

The State Department of Social and Health Services (DSHS) will provide to the Tribe funds for a 20-bed elder care facility, 20-bed youth substance abuse facility, a 42-child day care center, as well as computer equipment for the Tribal mental health center, at a cost of $1,255,000. DSHS shall provide these funds upon its acceptance of facilities plans prepared by the Tribe to meet these needs. A final accounting of the costs and expenditures of each project shall be provided to DSHS by the Tribe.

2. Training Trust Fund

Tribal members will receive funds for training in alcoholism counseling, day care, child welfare, mental health and social service management. This will be accomplished by the Department through a fund of $127,000. Training will be provided through the Department's programs, or through local educational programs.

VI. ECONOMIC DEVELOPMENT

A. Economic Development and Land Acquisition Fund

The Tribe will receive $9,500,000 to develop Tribal lands, and to make future purchases of land.

These funds can be used to acquire lands and to develop business and commercial ventures which will provide income to the Tribe for the operations and programs of the Tribal government, as well as additional jobs for Tribal members.

B. Small Business Fund For Tribal Members

The Tribe will receive $2 million to be used to support and assist in the development of business enterprises by Tribal members.

This fund could provide start-up funds and/or low interest loans to Tribal members to begin or expand their own businesses, wherever they may live.

C. Blair Navigation Project Participatory Payments

Tribal incentives in the form of long-term annual participatory payments to the Tribe for economic development will be

reasonable period of time comparable to what could h been expected for the undisturbed habitats.

V. JOB TRAINING & PLACEMENT PROGRAM; SOCIAL & HEALTH SERV IMPROVEMENTS

A. Job Training and Placement

265 Tribal members will have the opportunity to particip in a Job Training program, directed by the State Departm of Employment Security in cooperation with the Tribe. T program includes the job training program developed as result of the Terminal 3 agreement between the Port and Tribe. The program will last for 4 years and cost $937,0 It will provide: 1) pre-employment training, 2) basic ski remediation, 3) job search workshops and on-the-job traini 4) vocational training, 5) support services and follow- 6) job placement program, and 7) technical assistance development of Tribal industries.

The program will be administered under the guidance of steering committee composed of representatives from t Tribe, Employment Security Department, Bates Vocationa Technical Institute, Tacoma-Pierce County Private Indust Council, Commencement Bay Tideland Owners Committee and oth employers providing jobs to Tribal members under Section V. of the Agreement. Specific implementation provisions a described in Document 5.

As a part of this program, the State will provide traini for at least four Tribal members in culture activities.

B. Private Sector Jobs

A job placement program will be implemented by the Employme Security Department to provide for placement of Trib members in jobs to match the members' skill and training One hundred fifteen jobs for Tribal members, valued $2,500,000, will be provided by members of the Commencemer Bay Tideland Owners Committee and other private businesses the community, with placement through the Employment Securit Department. In addition, the private sector will provide coordinator for implementation of this commitment, at a co of $100,000.

See Document 5 for details.

2. Milwaukee Peninsula/Puyallup River-Mouth Fishing Station.

The Port will provide and maintain a 12-foot gravel road access and turn-around to this site, and permit emergency vehicle access through the Sea-Land site. Details of the above access assurances are provided in Document 4.

D. Resolving Conflicts Between Development and Fisheries Protection

1. This section establishes a process and standards to resolve conflicts between specific proposed development projects and protection of the fishery. A schedule and procedures will be provided to ensure communication between developers and the Tribe in order to encourage resolution of disputes, and to provide a voluntary arbitration system for unresolved disputes.

2. The standards for determining appropriate mitigation and/or enhancement are contained in Document 4. At a minimum, mitigation and enhancement will meet all applicable Federal and State requirements. Some developers may choose to reach an agreement with the Tribe which exceeds those requirements.

3. Projects undertaken by the parties to this system will be done in a manner that results in no net degradation to the fisheries resource and in addition provides, in appropriate cases, an enhancement element to improve the resource. The technical standards for determining appropriate mitigation and/or enhancement are contained in Document 4.

4. A developer who complies with the requirements for mitigation and enhancement as set forth in Document 4 will receive the concurrence of the Tribe and an agreement not to oppose the project in any federal, state or local permitting processes, or to seek a restraining order or injunction or otherwise seek to delay or stop construction of the project.

When the developer has completed the required mitigation and enhancement measures, the developer shall have met the conditions of this Agreement; provided, however, that the developer is fully responsible for ensuring that the measures are properly implemented, and that the intended operation and functioning of the mitigation and enhancement elements do take place, and that the mitigation and enhancement measures continue to function for a

which takes into account protection of fis ies habitat;

(6) Develop culvert and floodgate designs installation, maintenance and inspec guidelines and programs for improved passage;

(7) Dechlorinate treated sewage discharges fresh water if necessary to protect fisheries resource;

In addition, the Tribe may review existing land plans, regulations and policies and consi whether changes are needed to afford grea protection of the fisheries resource. Lo governments will provide the Tribe with access necessary information to accomplish such revi The local government shall consider any recommen tion from the Tribe regarding fisheries habi concerns.

C. Access to Fishery

1. Navigation

Conflicts between Tribal fishing and commercial shippi will be reduced through a Navigation Agreement whi will:

(a) Establish vessel traffic lanes for shippi traffic;

(b) Identify anchoring sites for ships;

(c) Set forth operation and communication proc dures for implementation of the Agreement.

In addition, the Federal Government will spend $100,0 to provide navigational lights and other equipment t reduce conflict between Tribal fishing and commercia shipping traffic in Commencement Bay.

Additionally, $30,000 will be provided by the Port fo establishment of a revolving fund to pay for the cost c equipment damaged by shipping traffic, as part of th Terminal 3 agreement.

b. Goals

The Tribe's treaty fishery must be managed to achieve increased salmon and steelhead production, including protection of necessary habitat, while providing for residential, commercial, industrial and other development, natural resource use, and protection of lives and property from flooding. These goals will be recognized by the local governments which are parties to this Agreement and after review they may adopt or modify as needed: (1) watershed action plans; (2) shoreline master programs; (3) land and resource use plans and regulations; and (4) environmental protection regulations. In addition, the local government parties, in consultation with the Tribe, will develop procedures for land use matters as a part of this Agreement.

c. Implementation

The appropriate local governments will take the following actions as needed to implement the goals:

(1) Prepare action plans for drainage basins in Water Resource Inventory Area (WRIA) #10, including the Puyallup River and Commencement Bay drainage basins, in accordance with Puget Sound Water Quality Management Plan or other appropriate standards.

(2) Develop and implement a County wetland management program, in consultation with the Tribe;

(3) Provide regulations to preserve or provide streamside vegetation, for the purpose of maintaining water temperature, minimizing erosion sedimentation, providing food, and retaining protection from predation;

(4) Modify flood control activities to offer increased protection to the fisheries habitat;

(5) Expand or modify County Basin Flood Control Study to evaluate alternative measures for flood control regarding fisheries and flood control benefits and impacts; provide the Tribe with copies of County Hydraulic Permit applications on request; work with Tribe to carry out gravel removal in a manner

902-2525

Tacoma

City of Tacoma
Public Works Department

January 29, 1993

Mr. Duane E. Phinney, Chief
Habitat Management Division
Department of Fisheries
P.O. Box 3155
Olympia, WA 98504-3155

Subject: Hydraulic Project Approval - Storm Drain Outfall Construction - Blair Waterway, Tributary to Commencement Bay, Section 35, Township 21 North, Range 03 East, Pierce County, WDF Log No. 00-57172-01, WRIA 10.MARI

Dear Mr. Phinney:

The City of Tacoma Public Works Department recently discovered tide gates on the downstream ends of the three culverts draining the ditch proposed to be filled under the subject project. Two of the tide gates are active and the third is serviceable. A photocopy of a photograph showing the tide gates is attached for your use.

The ditch is not subject to WDF jurisdiction since the tide gates were designed and installed to prevent tidal influence of the ditch. Therefore, please remove all conditions from the HPA related to the ditch.

Please advise us of your decision so we may proceed with the subject project. Please call me at 591-5588 if you have any questions. I hope that we may expeditiously resolve this matter.

Sincerely,

Carol M. Hutchinson
for Karen J. Larkin, P.E.
Division Manager
Utility Services Engineering

KJL:MPY:psng(0782G)

Attachment

File: Blair Waterway Storm Drain Relocation - W.O. No. CR1035

The sequencing itself is a substantive requirement. First, an applicant must demonstrate that its activity must occur in the water (the water dependency issue), and thus cannot be avoided. Part of this avoidance analysis involves identifying alternatives to the proposed discharge and evaluating whether each alternative is "practicable." The definition of the proposed project purposes is important since, in this case, the purposes include both commercial development and cleanup. A number of factors, including costs, existing technology, and logistics, are factors of consideration in evaluating whether an alternative is "practicable." The adverse impact of each practicable alternative should be described and compared to the adverse impact of the proposed discharge to show there is no practicable alternative that would have less adverse impact to the aquatic environment. Second, to satisfy the minimization portion of the sequence, alternatives must be evaluated to demonstrate that the proposed project includes all appropriate and practicable measures to minimize potential adverse discharge effects, while still accomplishing the project purpose. Third, unavoidable impacts must be compensated. This letter does not address whether the Tribe has met the third test of showing adequate compensatory mitigation, since we just received the draft mitigation plan as a separate submission on February 9, 1993. EPA will provide additional comments on that submission in the near future.

For the first test in this case, we agree that the Tribe's submission demonstrates that the proposed activity cannot be avoided at the proposed project location. The Settlement Agreement provides some justification that there are no practicable alternative locations in Commencement Bay for the Tribe's proposed activity. However, there is no discussion of whether there is a practicable alternative to the proposed fill that could meet the objectives of the proposed project but would have less adverse impact to the aquatic environment. Your submission also does not address whether the proposed project involves discharges into a special aquatic site, as suggested by the U.S. Army Corps of Engineers in their letter dated December 21, 1992. There are several additional considerations for special aquatic sites, including a rebuttable presumption that all practicable alternatives which do not involve a discharge into a special aquatic site have less adverse impact on the aquatic ecosystem (see 40 CFR § 230.10(a)(3) of the Guidelines). The information should also present the site's relative value to the Commencement Bay system in its current form and as it could be in the future, which will make it easier to evaluate appropriate mitigation.

For the second test of minimization, your analysis does not evaluate whether there are practicable alternatives to the proposal that could reduce the impact of the fill while still meeting the purposes of the project. The discussion of minimization in your letter addressed only how the proposed fill would minimize the release of contamination in the sediments.

As described above, the Tribe needs to provide additional information on alternatives to the proposed fill. Alternatives should be identified, and then each should be evaluated to show whether the alternative is "practicable." For example, can the ditch be bridged, entirely or in part, to satisfy the access requirement of the proposed project? Alternatively, must the entire ditch be filled to allow use of the site? To address the secondary, cleanup purpose for the contaminated sediments in the ditch, alternatives available to clean up the ditch also need to be addressed. Removal of the contaminated sediments is one option, as is the approach of Alternative 4 to contain the contamination in place. Remediation and restoration of the ditch as a fully functioning wetland complex is an alternative that EPA will consider in the evaluation of the proposal, and the Tribe should provide information on whether that alternative is practicable. While such remediation may be a practicable alternative for cleanup of the ditch, it may not be a practicable alternative for the proposed project, when considering all of the project purposes.

Compliance with the Guidelines is based on factual determinations regarding the proposed activity. Attached for your information is an annotated outline of a Section 404(b)(1) Evaluation that EPA will follow to assess the project proposal. Please look at paragraphs 9 through 11, which contain the sections that are directly applicable to the discussion in this letter. The notes with each element identify the major concern or type of information that the decision agency evaluates for compliance. Cross-referencing the evaluation outline with information provided in your most recent submission will help you identify the elements that need further support to meet the concerns described above. The examples provided describe the types of alternatives typically considered for fill projects. It will also help EPA to complete its evaluation if you provide a complete analysis that follows the organization in the attachment. Responses to each item need not be exhaustive (e.g., if it is not applicable, that is an appropriate response); however, where a specific reference to an existing document cannot be made, then additional information should be provided. EPA personnel can be available to answer questions as needed.

Please feel free to call me at (206) 553-8203 about this matter, or you may speak directly with John Malek at (206) 553-1286, or Karen Keeley at (206) 553-2141.

Sincerely yours,

Richard McAllister
Assistant Regional Counsel

Enclosures

cc: Karen Keeley
John Malek
Bill Riley
Curtis Ratcliffe

MEMORANDUM OF AGREEMENT BETWEEN THE ENVIRONMENTAL PROTECTION AGENCY AND THE DEPARTMENT OF THE ARMY CONCERNING THE DETERMINATION OF MITIGATION UNDER THE CLEAN WATER ACT SECTION 404(b)(1) GUIDELINES

I. Purpose

The United States Environmental Protection Agency (EPA) and the United States Department of the Army (Army) hereby articulate the policy and procedures to be used in the determination of the type and level of mitigation necessary to demonstrate compliance with the Clean Water Act (CWA) Section 404(b)(1) Guidelines ("Guidelines"). This Memorandum of Agreement (MOA) expresses the explicit intent of the Army and EPA to implement the objective of the CWA to restore and maintain the chemical, physical, and biological integrity of the Nation's waters, including wetlands. This MOA is specifically limited to the Section 404 Regulatory Program and is written to provide guidance for agency field personnel on the type and level of mitigation which demonstrates compliance with requirements in the Guidelines. The policies and procedures discussed herein are consistent with current Section 404 regulatory practices and are provided in response to questions that have been raised about how the Guidelines are implemented. The MOA does not change the substantive requirements of the Guidelines. It is intended to provide guidance regarding the exercise of discretion under the Guidelines.

Although the Guidelines are clearly applicable to all discharges of dredged or fill material, including general permits and Corps of Engineers (Corps) civil works projects, this MOA focuses on standard permits (33 CFR 325.5(b)(1))[1]. This focus is intended solely to reflect the unique procedural aspects associated with the review of standard permits, and does not obviate the need for other regulated activities to comply fully with the Guidelines. EPA and Army will seek to develop supplemental guidance for other regulated activities consistent with the policies and principles established in this document.

This MOA provides guidance to Corps and EPA personnel for implementing the Guidelines and must be adhered to when considering mitigation requirements for standard permit applications. The Corps will use this MOA when making its determination of compliance with the Guidelines with respect to mitigation for standard permit applications. EPA will use this MOA in developing its positions on compliance with the Guidelines for

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[1]Standard permits are those individual permits which have been processed through application of the Corps public interest review procedures (33 CFR 325) and EPA's Section 404(b)(1) Guidelines, including public notice and receipt of comments. Standard permits do not include letters of permission, regional permits, nationwide permits, or programmatic permits.

proposed discharges and will reflect this MOA when commenting on standard permit applications.

II. Policy

A. The Council on Environmental Quality (CEQ) has defined mitigation in its regulations at 40 CFR 1508.20 to include: avoiding impacts, minimizing impacts, rectifying impacts, reducing impacts over time, and compensating for impacts. The Guidelines establish environmental criteria which must be met for activities to be permitted under Section 404.[2] The types of mitigation enumerated by CEQ are compatible with the requirements of the Guidelines; however, as a practical matter, they can be combined to form three general types: avoidance, minimization and compensatory mitigation. The remainder of this MOA will speak in terms of these more general types of mitigation.

B. The Clean Water Act and the Guidelines set forth a goal of restoring and maintaining existing aquatic resources. The Corps will strive to avoid adverse impacts and offset unavoidable adverse impacts to existing aquatic resources, and for wetlands, will strive to achieve a goal of no overall net loss of values and functions. In focusing the goal of no overall net loss to wetlands only, EPA and Army have explicitly recognized the special significance of the nation's wetlands resources. This special recognition of wetlands resources does not in any manner diminish the value of other waters of the United States, which are often of high value. All waters of the United States, such as streams, rivers, lakes, etc., will be accorded the full measure of protection under the Guidelines, including the requirements for appropriate and practicable mitigation. The determination of what level of mitigation constitutes "appropriate" mitigation is based solely on the values and functions of the aquatic resource that will be impacted. "Practicable" is defined at Section 230.3(q) of the Guidelines.[3] However, the level of mitigation determined to be appropriate and practicable under Section 230.10(d) may lead to individual permit decisions which do not fully meet this goal because the mitigation measures necessary to meet this goal are not feasible, not practicable, or would accomplish only inconsequential reductions in impacts. Consequently, it is recognized that no net loss of wetlands functions and values may not be achieved in each and every permit action. However, it remains a goal of the Section 404 regulatory program to contribute to the national goal of no overall net loss of the nation's remaining wetlands base. EPA and Army are committed to working with others through the Administration's interagency task force and other avenues to help achieve this national goal.

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[2](except where Section 404(b)(2) applies).

[3]Section 230.3(q) of the Guidelines reads as follows: "The term practicable means available and capable of being done after taking into consideration *cost, existing technology, and logistics in light of overall project purposes.*" (Emphasis supplied)

C. In evaluating standard Section 404 permit applications, as a practical matter, information on all facets of a project, including potential mitigation, is typically gathered and reviewed at the same time. The Corps, except as indicated below, first makes a determination that potential impacts have been avoided to the maximum extent practicable; remaining unavoidable impacts will then be mitigated to the extent appropriate and practicable by requiring steps to minimize impacts and, finally, compensate for aquatic resource values. This sequence is considered satisfied where the proposed mitigation is in accordance with specific provisions of a Corps and EPA approved comprehensive plan that ensures compliance with the compensation requirements of the Section 404(b)(1) Guidelines (examples of such comprehensive plans may include Special Area Management Plans, Advance Identification areas (Section 230.80), and State Coastal Zone Management Plans). It may be appropriate to deviate from the sequence when EPA and the Corps agree the proposed discharge is necessary to avoid environmental harm (e.g., to protect a natural aquatic community from saltwater intrusion, chemical contamination, or other deleterious physical or chemical impacts), or EPA and the Corps agree that the proposed discharge can reasonably be expected to result in environmental gain or insignificant environmental losses.

In determining "appropriate and practicable" measures to offset unavoidable impacts, such measures should be appropriate to the scope and degree of those impacts and practicable in terms of cost, existing technology, and logistics in light of overall project purposes. The Corps will give full consideration to the views of the resource agencies when making this determination.

1. Avoidance.[4] Section 230.10(a) allows permit issuance for only the least environmentally damaging practicable alternative.[5] The thrust of this section on alternatives is avoidance of impacts. Section 230.10(a) requires that no discharge shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact to the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences. In addition, Section 230.10(a)(3) sets forth rebuttable presumptions that 1) alternatives for non-water dependent activities that do not involve special aquatic sites[6] are available and 2) alternatives that do not involve special aquatic sites have less adverse impact on the aquatic environment.

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[4]Avoidance as used in the Section 404(b)(1) Guidelines and this MOA does not include compensatory mitigation.

[5]It is important to recognize that there are circumstances where the impacts of the project are so significant that even if alternatives are not available, the discharge may not be permitted regardless of the compensatory mitigation proposed (40 CFR 230.10(c)).

[6]Special aquatic sites include sanctuaries and refuges, wetlands, mud flats, vegetated shallows, coral reefs and riffle pool complexes.

Compensatory mitigation may not be used as a method to reduce environmental impacts in the evaluation of the least environmentally damaging practicable alternatives for the purposes of requirements under Section 230.10(a).

2. Minimization. Section 230.10(d) states that appropriate and practicable steps to minimize the adverse impacts will be required through project modifications and permit conditions. Subpart H of the Guidelines describes several (but not all) means for minimizing impacts of an activity.

3. Compensatory Mitigation. Appropriate and practicable compensatory mitigation is required for unavoidable adverse impacts which remain after all appropriate and practicable minimization has been required. Compensatory actions (e.g., restoration of existing degraded wetlands or creation of man-made wetlands) should be undertaken, when practicable, in areas adjacent or contiguous to the discharge site (on-site compensatory mitigation). If on-site compensatory mitigation is not practicable, off-site compensatory mitigation should be undertaken in the same geographic area if practicable (i.e., in close physical proximity and, to the extent possible, the same watershed). In determining compensatory mitigation, the functional values lost by the resource to be impacted must be considered. Generally, in-kind compensatory mitigation is preferable to out-of-kind. There is continued uncertainty regarding the success of wetland creation or other habitat development. Therefore, in determining the nature and extent of habitat development of this type, careful consideration should be given to its likelihood of success. Because the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, restoration should be the first option considered.

In the situation where the Corps is evaluating a project where a permit issued by another agency requires compensatory mitigation, the Corps may consider that mitigation as part of the overall application for purposes of public notice, but avoidance and minimization shall still be sought.

Mitigation banking may be an acceptable form of compensatory mitigation under specific criteria designed to ensure an environmentally successful bank. Where a mitigation bank has been approved by EPA and the Corps for purposes of providing compensatory mitigation for specific identified projects, use of that mitigation bank for those particular projects is considered as meeting the objectives of Section II.C.3 of this MOA, regardless of the practicability of other forms of compensatory mitigation. Additional guidance on mitigation banking will be provided. Simple purchase or "preservation" of existing wetlands resources may in only exceptional circumstances be accepted as compensatory mitigation. EPA and Army will develop specific guidance for preservation in the context of compensatory mitigation at a later date.

III. Other Procedures

A. Potential applicants for major projects should be encouraged to arrange preapplication meetings with the Corps and appropriate federal, state or Indian tribal, and local authorities to determine requirements and documentation required for proposed permit evaluations. As a result of such meetings, the applicant often revises a proposal to avoid or minimize adverse impacts after developing an understanding of the Guidelines requirements by which a future Section 404 permit decision will be made, in addition to gaining an understanding of other state or tribal, or local requirements. Compliance with other statutes, requirements and reviews, such as NEPA and the Corps public interest review, may not in and of themselves satisfy the requirements prescribed in the Guidelines.

B. In achieving the goals of the CWA, the Corps will strive to avoid adverse impacts and offset unavoidable adverse impacts to existing aquatic resources. Measures which can accomplish this can be identified only through resource assessments tailored to the site performed by qualified professionals because ecological characteristics of each aquatic site are unique. Functional values should be assessed by applying aquatic site assessment techniques generally recognized by experts in the field and/or the best professional judgment of federal and state agency representatives, provided such assessments fully consider ecological functions included in the Guidelines. The objective of mitigation for unavoidable impacts is to offset environmental losses. Additionally for wetlands, such mitigation should provide, at a minimum, one for one functional replacement (i.e., no net loss of values), with an adequate margin of safety to reflect the expected degree of success associated with the mitigation plan, recognizing that this minimum requirement may not be appropriate and practicable, and thus may not be relevant in all cases, as discussed in Section II.B of this MOA.[7] In the absence of more definitive information on the functions and values of specific wetlands sites, a minimum of 1 to 1 acreage replacement may be used as a reasonable surrogate for no net loss of functions and values. However, this ratio may be greater where the functional values of the area being impacted are demonstrably high and the replacement wetlands are of lower functional value or the likelihood of success of the mitigation project is low. Conversely, the ratio may be less than 1 to 1 for areas where the functional values associated with the

[7]For example, there are certain areas where, due to hydrological conditions, the technology for restoration or creation of wetlands may not be available at present, or may otherwise be impracticable. In addition, avoidance, minimization, and compensatory mitigation may not be practicable where there is a high proportion of land which is wetlands. EPA and Army, at present, are discussing with representatives of the oil industry, the potential for a program of accelerated rehabilitation of abandoned oil facilities on the North Slope to serve as a vehicle for satisfying necessary compensation requirements.

area being impacted are demonstrably low and the likelihood of success associated with the mitigation proposal is high.

C. The Guidelines are the environmental standard for Section 404 permit issuance under the CWA. Aspects of a proposed project may be affected through a determination of requirements needed to comply with the Guidelines to achieve these CWA environmental goals.

D. Monitoring is an important aspect of mitigation, especially in areas of scientific uncertainty. Monitoring should be directed toward determining whether permit conditions are complied with and whether the purpose intended to be served by the condition is actually achieved. Any time it is determined that a permittee is in non-compliance with mitigation requirements of the permit, the Corps will take action in accordance with 33 CFR Part 326. Monitoring should not be required for purposes other than these, although information for other uses may accrue from the monitoring requirements. For projects to be permitted involving mitigation with higher levels of scientific uncertainty, such as some forms of compensatory mitigation, long term monitoring, reporting and potential remedial action should be required. This can be required of the applicant through permit conditions.

E. Mitigation requirements shall be conditions of standard Section 404 permits. Army regulations authorize mitigation requirements to be added as special conditions to an Army permit to satisfy legal requirements (e.g., conditions necessary to satisfy the Guidelines) [33 CFR 325.4(a)]. This ensures legal enforceability of the mitigation conditions and enhances the level of compliance. If the mitigation plan necessary to ensure compliance with the Guidelines is not reasonably implementable or enforceable, the permit shall be denied.

F. Nothing in this document is intended to diminish, modify or otherwise affect the statutory or regulatory authorities of the agencies involved. Furthermore, formal policy guidance on or interpretation of this document shall be issued jointly.

G. This MOA shall take effect on February 7, 1990, and will apply to those completed standard permit applications which are received on or after that date. This MOA may be modified or revoked by agreement of both parties, or revoked by either party alone upon six (6) months written notice.

2/6/90

Robert W. Page (date)
Assistant Secretary of the Army
(Civil Works)

LaJuana S. Wilcher 2/6
LaJuana S. Wilcher
Assistant Administrator for Water
U.S. Environmental Protection Agency

APPENDIX A
(title of project)
Section 404(b)(1) Evaluation

1. Introduction. Briefly describe the purpose of the Section 404(b)(1) evaluation. Identify the title of the project involving the proposed discharge of dredged or fill material (normally one paragraph in length).

NOTE: The following outline should be used in conjunction with the Section 404(b)(1) Guidelines (40 CFR 230). If the Section 404(b)(1) evaluation is attached to a supporting project document (Feasibility Report, EIS/EA, Findings of Fact, etc.), the evaluation should refer to the document where appropriate. Information in the evaluation should be complementary to, rather than repeat, information in the project document. The project document should refer to the findings of the evaluation.

2. Description of Proposed Discharge. Identify the element(s) of the project that result in placement of fill or disposal of dredged material into waters of the United States (including adjacent wetlands).

NOTE: For projects with more than one separable element, the discusion and evaluation of each element should be distinguished throughout the Section 404(b)(1) evaluation.

2.1 Need for Discharge. Describe need for the project and need for the proposed discharge(s).

2.2 Location. Refer to a map or figure showing discharge location(s). Indicate nearest well-known town or city and its approximate distance from the discharge site.

2.3 Description of Discharge Site. Describe type of site (riverine, marine, confined-diked, open water, backfill trench, etc.) and site features (area, bathymetry, dike height, capacity, etc.).

2.4 Method of Discharge. For each discharge element, indicate method of discharge (bottom dump, hydraulic slurry, effluent from a confined disposal area, etc.), equipment to be used during discharge (dozer, bottom-dump hopper dredge, etc.), and estimated discharge rate.

2.5 Timing of Discharge. Provide schedule for proposed discharge(s). Address any prohibited times for discharge.

2.6 General Characteristics of Material. Briefly describe material grain size(s) and other general characteristics. (Sediment chemistry should be addressed in paragraph 7 below.)

2.7 Quantity of Material. Provide estimate of volume of material to be discharged.

2.8 Source of Material. Identify type (borrow site, navigation channel, etc.), location, and/or production source(s) of material to be discharged.

2.9 Projected Life of Disposal Site. If appropriate to the type of discharge being addressed, indicate volume capacity of the site, estimated rate of material discharge, and anticipated life of proposed disposal site(s).

NOTE: Impact description in the following paragraphs 3 through 6 of the evaluation outline will necessarily vary in length based on presence and magnitude of impact. Values of particular resources and potential impacts to these values are discussed in the appropriate subsections of the Section 404(b)(1) Guidelines. The appropriate subsections are listed in parentheses after the title of each subparagraph below. Paragraphs 3 through 7 below should provide discussion and evaluation of discharge effects from a predominantly factual basis. The significance of an effect should be discussed primarily in paragraph 8.

3. Potential Impacts on Physical and Chemical Characteristics of the Aquatic Ecosystem (Subpart C).

3.1 Substrate (230.20). Describe potential discharge impacts on the substrate of the aquatic ecosystem, including wetland soils.

3.2 Suspended Particulates/Turbidity (230.21). Describe potential discharge impacts on existing concentrations of suspended particulates and turbidity levels.

3.3 Water Quality (230.22). Describe potential discharge impacts to chemical and physical water characteristics of the aquatic ecosystem.

3.4 Current Patterns and Water Circulation (230.23). Describe potential discharge impacts to physical movements of water in the aquatic ecosystem.

3.5 Normal Water Fluctuations (230.24). Describe potential discharge impacts to daily, seasonal, and annual tidal and flood fluctuations in water level.

3.6 Salinity Gradients (230.25). Describe potential discharge impacts to formation, location, and movement of salinity gradients.

4. Potential Impacts on Biological Characteristics of the Aquatic Ecosystem (Subpart D).

4.1 Threatened and Endangered Species (230.30). Describe potential discharge impacts to threatened and endangered species, including potential impairment or destruction of habitat to which these species are limited and the potential facilitation of activities that may disrupt a species use of this habitat.

4.2 Aquatic Food Web (230.31). Describe potential discharge impacts to aquatic organisms in the food web, including fish, invertebrates, planktonic organisms, and the plants and animals on which they feed.

4.3 Wildlife (230.32). Describe potential discharge impacts on resident and transient mammals, birds, reptiles, and amphibians.

5. Potential Impacts on Special Aquatic Sites (Subpart E).

NOTE: Special aquatic sites are those listed in Subpart E of the 404(b)(1) Guidelines.

5.1 Sanctuaries and Refuges (230.40). Describe potential discharge impacts to areas designated under state and Federal laws or local ordinances to be managed principally for the preservation and use of fish and wildlife resources.

5.2 Wetlands (230.41). Describe potential discharge impacts to physical, chemical, and biological values of wetlands.

5.3 Mudflats (230.42). Describe potential discharge impacts to mudflats (in saltwater or freshwater systems) that are unvegetated or vegetated only by algal mats.

5.4 Vegetated Shallows (230.43). Describe potential discharge impacts to permanently inundated areas that, under normal circumstances, support communities of rooted aquatic vegetation (e.g., subtidal seagrass beds).

5.5 Coral Reefs (230.44). Describe potential discharge impacts to coral reefs.

5.6 Riffle and Pool Complexes (230.45). Describe potential discharge impacts to the riffle and pool complexes usually found in the steep gradient sections of streams.

6. Potential Effects on Human Use Characteristics (Subpart F).

6.1 Municipal and Private Water Supplies (230.50). Describe potential discharge effects on surface or ground water which is directed to the intake of a municipal or private water supply system.

6.2 Recreational and Commercial Fisheries (230.51). Describe potential discharge effects on harvestable fish, crustaceans, shellfish, and other aquatic organisms used by man.

6.3 Water Related Recreation (230.52). Describe potential discharge effects on consumptive and nonconsumptive human activities undertaken for amusement, relaxation, and recreation.

6.4 Esthetics (230.53). Describe potential discharge effects on the perception of beauty by one or a combination of the senses, and the quality of life enjoyed by the general public and property owners.

6.5 Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves (230.54). Describe potential discharge effects on areas designated under Federal and state laws or local ordinances to be managed for their esthetic, educational, historical, recreational, or scientific value.

7. Evaulation and Testing of Discharge Material (Subpart G).

NOTE: The evaluation procedures and the chemical and biological testing sequence outlined in 40 CFR 230.60-230.61 are designed to provide the information needed to prepare the contaminant determinations required by 40 CFR 230.11(d).

NOTE: Subpart G of the Section 404(b)(1) Guidelines is presently being revised by the Environmental Protection Agency (EPA). Proposed modifications were published for review in the Federal Register on 24 December 1980. Paragraph 7 below will need to be revised if/when the modifications become final.

7.1 General Evaluation of Dredged or Fill Material (230.60). Utilizing existing information, evaluate whether the discharge material is a potential carrier of contaminants and describe potential contaminant effects of the discharge. Factors to be considered in this evaluation should include:

a. potential routes of contaminants to extraction site,
b. results of previous tests,
c. potential for introduction of contaminants from land runoff,
d. records of spills or disposal of hazardous substances,
e. records of waste material discharge, and
f. the presence of substantial natural deposits of harmful substances.

7.2 Evaluation of Chemical-Biological Interactive Effects (230.61(b)).

7.2.1 Exclusion of Material from Testing. Discuss and document whether the discharge material should undergo physical, chemical, and/or biological testing based on the requirements of the 404(b)(1) Guidelines.

7.2.2 Water Column Effects. If water column elutriate or bioassay tests are performed, discuss purpose, methods, and results. Include

discussion of decisions based on the test results. If necessary, determine mixing zone for parameters which exceed applicable water quality criteria or standards.

7.2.3 Effects on Benthos. If benthic bioassay tests are performed, discuss purpose, methods, and results. Include discussion of decisions based on the test results.

7.3 Comparison of Excavation and Discharge Sites (230.61(c)).

7.3.1 Total Sediment Chemical Analysis. Discuss whether an inventory of the total concentration of contaminants would be of value in comparing the discharge material to the sediment at the disposal site. If sediment chemical analysis is performed, describe contaminant differences between excavated material and discharge site and assess the potential for environmental impact as a result of these differences.

7.3.2 Biological Community Structure Analysis. Discuss whether a comparison between biological communities at the excavation site and the discharge site would be of value in assessing potential environmental impact of the discharge. If performed, site differences in species abundance, diversity and distribution, and the presence of sensitive and/or indicator species should be used to evaluate the potential discharge effects.

7.4 Physical Tests and Evaluation (230.61(d)). If physical substrate tests are performed, discuss purpose, methods, and results. Include discussion of decisions based on the test results.

8. Factual Determinations. (230.11)

NOTE: The following determinations should be based on the factual information contained in paragraphs 3 through 7 above. These determinations should very briefly summarize discharge effects and discuss the significance of these effects.

8.1 Physical Substrate Determinations (230.11(a)). Summarize the degree and significance of the effect that the proposed discharge will have, individually and cumulatively, on the characteristics of the substrate at the proposed disposal sites.

8.2 Water Circulation, Fluctuation, and Salinity Determinations (230.11(b)). Summarize the degree and significance of the effect that the proposed discharge will have individually and cumulatively on water current patterns, circulation, downstream flows, normal water-level fluctuations, and salinity distribution.

8.3 Suspended Particulate/Turbidity Determinations (230.11(c)). Summarize the degree and significance of the effect that the proposed

discharge will have, individually and cumulatively, on types and concentrations of suspended particulate/turbidity in the vicinity of the disposal site.

8.4 Contaminants Determinations (230.11(d)). Summarize the degree to which the material proposed for discharge will introduce, relocate, or increase concentrations of contaminants. The significance of these effects should also be addressed.

8.5 Aquatic Ecosystem and Organism Determinations (230.11(e)). Summarize the degree and significance of the effect that the proposed discharge will have, individually and cumulatively, on the structure and function of the aquatic ecosystem and organisms.

8.6 Proposed Disposal Site Mixing Zone Determinations (230.11(f)). Determine whether the discharge mixing zone will be confined to the smallest practicable zone which is consistent with the type of dispersion that will produce the lowest potential for adverse environmental effects. Determine whether the proposed mixing zone is acceptable by application of the 404(b)(1) guidelines.

8.7 Determination of Cumulative Effects on the Aquatic Ecosystem (230.11(g)). Determine how, and to what extent, the proposed discharge will contribute to cumulative impacts on the aquatic ecosystem.

8.8 Determination of Secondary Effects on the Aquatic Ecosystem (230.11(h)). Determine the nature and degree of indirect or secondary effects of the proposed discharge on the aquatic ecosystem.

9. Proposed and Alternative Actions to Minimize Adverse Effects (Subpart H).

NOTE: The following subparagraphs should address all actions to minimize adverse effects that are appropriate and practicable for the proposed discharge. The basis for not including alternative actions in the proposed discharge should also be provided.

9.1 Actions Concerning the Location of the Discharge (230.70). Describe all proposed and alternative actions that would minimize the discharge effects by the location of the discharge point within the disposal site or to the adjacent environment. (Alternative sites should be discussed in paragraph 10 below.)

9.2 Actions Concerning the Material to be Discharged (230.71). Describe all proposed and alternative actions that would minimize the discharge effects by the treatment of the material (e.g., floculation) or limitations (e.g., confinement) to the discharge.

9.3 Actions Controlling the Material After Discharge (230.72). Describe all proposed and alternative actions that would minimize discharge

effects through material containment, material isolation from the aquatic system, or timing of the discharge.

9.4 Actions Affecting the Method of Dispersion (230.73). Describe all proposed and alternative actions that would minimize adverse discharge effects by the manner in which the material is dispersed.

9.5 Actions Related to Technology (230.74). Describe all proposed and alternative actions that would minimize adverse discharge effects by use of appropriate equipment and methods.

9.6 Actions Affecting Plant and Animal Populations (230.75). Describe all proposed and alternative actions that would minimize adverse discharge effects to plant and animal populations, habitat, reproduction, migration, and other ecological characteristics.

9.7 Actions Affecting Human Use (230.76). Describe all proposed and potential actions that would minimize adverse discharge effects to human use potential (e.g., recreation, esthetics, incompatible human activities).

9.8 Other Actions (230.77). Describe other proposed and potential actions that would minimize the adverse effects of the proposed discharge.

10. Analysis of Practicable Alternatives (230.10(a)).

10.1 Identification and Evaluation of Practicable Alternatives. Identify and describe alternatives to the proposed discharge. Discussion of each alternative should demonstrate whether the alternative is practicable. The adverse impact of each practicable alternative on the aquatic ecosystem should be described and compared to the adverse impact of the proposed discharge.

NOTE: Factors to be considered in determining if an alternative is practicable include cost, existing technology, and logistics in light of overall project purposes. The 404(b)(1) Guidelines further define the range of alternatives to be considered.

10.2 Evaluation of Alternatives to Discharge in Special Aquatic Sites.

NOTE: For proposed discharges into special aquatic sites (as listed in paragraph 5), the 404(b)(1) Guidelines have established two basic assumptions:

(1) Where the activity associated with a discharge which is proposed for a special aquatic site is not water dependent, practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise; and

(2) Where a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise.

The appropriate evaluations and demonstrations should be provided for each of these assumptions in this subparagraph.

Indicate whether the activity associated with the proposed discharge is water dependent. If the activity is shown to be water dependent, discuss and determine whether identified practicable alternatives not involving discharge into special aquatic sites have less or more adverse impact to the aquatic ecosystem. If the activity is not water dependent, discuss the availability of practicable alternatives not involving discharge into special aquatic sites.

11. Review of Conditions for Compliance (230.10).

NOTE: The review provided in the following subparagraphs should briefly state and document whether the proposed discharge meets the conditions for compliance with the 404(b)(1) Guidelines.

11.1 Availability of Practicable Alternatives (230.10(a)). Indicate whether there are practicable alternatives to the proposed discharge which would have less adverse impact on the aquatic ecosystem.

11.2 Compliance with Pertinent Legislation (230.10(b)). Indicate whether the proposed discharge is in compliance with the requirements of the legislation listed below.

11.2.1 State Water Quality Standards and Federal Toxic Effluent Standards (Section 307 of the Clean Water Act).

11.2.2 Threatened and Endangered Species (Endangered Species Act of 1973).

11.2.3 Marine Sanctuaries (Marine Protection, Research, and Sanctuaries Act of 1972).

11.3 Potential for Significant Degradation of Water as a Result of the Discharge of Polluted Material (230.10(c)). Discuss whether the proposed discharge will result in the release of pollutants that will have significant adverse effects on human health or welfare, the aquatic ecosystem and wildlife dependent on this ecosystem, and recreational, esthetic and economic values.

11.4 Steps to Minimize Potential Adverse Impacts on the Aquatic Ecosystem (230.10(d)). Indicate whether all appropriate and practicable measures to minimize potential adverse discharge effects have been included in the proposed discharge.

12. Findings (230.12). Based on the information provided in paragraphs 2-11 above, prepare a findings for the proposed discharge.

NOTE: 40 CFR 230.12 provides three basic findings to be used for a proposed discharge. The discharge will either:

(1) comply with requirements of the Guidelines,

(2) comply with requirements of the Guidelines by inclusion of appropriate and practicable measures to minimize adverse impact, or

(3) fail to comply with the requirements of the Guidelines for any of four reasons (availability of practicable alternatives, significant degradation of the aquatic ecosystem, appropriate and practicable measures to minimize harm are not included, insufficient information).

Details on the possible findings can be found in subsection 230.12(a) of the 404(b)(1) Guidelines.

NOTE: ~~corps~~ DECISION AGENCY COMPLETES THIS SECTION.

Robert Turner
cting Director

STATE OF WASHINGTON

DEPARTMENT OF FISHERIES

115 General Administration Building, M.S. AX-11 • Olympia, Washington 98504 • (206) 753-6600 • (SCAN) 234-6600

February 23, 1993

City of Tacoma Public Works Department
ATTENTION: Ms. Karen J. Larkin
Division Manager
Utility Services Engineering
747 Market Street, Room 408
Tacoma, Washington 98402-3769

SUBJECT: Hydraulic Project Approval - Storm Drain Outfall Construction - Blair Waterway, Tributary to Commencement Bay, Section 35, Township 21 North, Range 03 East, Pierce County, WDF Log No. 00-57172-01, WRIA 10.MARI

Dear Ms. Larkin:

In response to your letter of January 29, 1993, regarding the above-referenced Hydraulic Project Approval (HPA), Randy Carman, Regional Habitat Manager, visited the project location on February 11, 1993, to observe and photograph the culverts referenced in your letter.

Mr. Carman observed that two of the three tide gates are functional. The third has fallen off the culvert and apparently has not been functional for an extended period of time. Therefore, even though the gates may have been originally designed and operated so that tidal influence was precluded from the ditch, they have not been effective in this regard. Thus, the area has been functioning as a part of the Commencement Bay ecosystem.

I too had hoped we could expeditiously resolve this matter. When you and Mr. Yamashita came to Olympia to meet with Randy Carman and me, it was our belief we had reached an agreement on language for a permit condition that would address the mitigation issue. If you will draft a proposed condition reflecting the concept we discussed or agree to the language we proposed to you in our letter of January 11, 1993, we can amend the HPA accordingly.

Sincerely,

Duane E. Phinney, Chief
Habitat Management Division

DEP:dmm

cc: Randy Carman

AR 1.2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

February 23, 1993

Reply To
Attn Of: HW-113

MEMORANDUM

SUBJECT: Approval of the CERCLA Administrative Order on Consent for a Removal Action by the Port of Tacoma at the Blair Waterway and Blair Backup Properties, Commencement Bay Nearshore/Tideflats Superfund Site, Tacoma, Washington

FROM: Carol Rushin, Chief
Superfund Remedial Branch

TO: Randall F. Smith, Director
Hazardous Waste Division

The purpose of this memorandum is to document the basis for issuing an administrative order on consent (the Order) to the Port of Tacoma for performance of a non-time-critical removal action under Section 106(a) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). By approval of this memorandum, the U.S. Environmental Protection Agency (EPA) Region 10 determines (1) the conditions at this site may present an imminent and substantial endangerment to public health, or welfare, or the environment, and (2) the site conditions meet the criteria of the National Contingency Plan (NCP), 40 CFR § 300.415, for a removal action. An administrative record will be prepared for this removal action.

EPA's designated Remedial Project Manager/On-Scene Coordinator for this project will be Karen Keeley. Richard McAllister is the case attorney.

1.0 PURPOSE

The removal action will occur at the Blair Waterway and Blair Backup Properties (the Properties), which are located within the boundaries of the Commencement Bay Nearshore/Tideflats Superfund Site, Tacoma, Washington. The properties are owned by the Port of Tacoma (the Port), and are the two remaining properties in the area to be transferred by the Port to the Puyallup Indian Tribe (the Tribe) pursuant to the August 27, 1988 Puyallup Land Settlement Agreement (the Settlement Agreement).

There are two purposes of this removal action. First, this removal will reduce the threat to the public health and the environment at the Blair Waterway and Blair Backup Properties.

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The second purpose is to clean up the Properties to meet federal and state environmental standards as required under the Settlement Agreement (see Section 2.0). This Order also specifies property use restrictions that must be complied with as institutional controls to protect against potential exposure to contaminants that will remain at the properties.

The cleanup objectives for the Blair Waterway Property are to: 1) prevent persons from coming into direct contact with and incidentally ingesting arsenic-contaminated ditch sediments and arsenic slag; 2) to protect marine waters by minimizing the potential leaching of arsenic into groundwater that may subsequently discharge into the marine environment; and 3) to ensure that stormwater runoff with suspended sediments from the ditches does not contaminate marine sediments. Institutional controls will prevent use of shallow groundwater as a drinking water supply, and will minimize potential human health exposure by restricting future use of the Blair Waterway Property to industrial uses.

The cleanup objectives at the Blair Backup Property are to minimize: 1) direct contact with polycyclic aromatic hydrocarbons (PAH) contaminated charcoal briquettes and associated soils; 2) direct contact through inhalation of the chromium slag/soil mixture in the Ohio Ferro-Alloys (OFA) area of the Property; 3) direct contact with sandblast grit; and 4) the mobilization and transport of chromium slag particulates and sandblast grit from the Property in surface water discharges. Institutional controls will: 1) prevent use of shallow groundwater as a drinking water supply; 2) minimize potential human health exposure by restricting future use of the Blair Backup Property to industrial uses; 3) minimize potential human health exposure to contaminants that remain under the cap or cover by restricting subsurface work, requiring notification and oversight of any subsurface work that potentially penetrates/damages the cap or cover, and requiring that work by conducted under an appropriate Health & Safety Plan; and 4) minimize potential damage to the cap and cover by restricting construction activities that could damage the cap or cover, and requiring notification and oversight of any development on the capped or covered area. Long-term groundwater monitoring and a long-term operation and maintenance plan of the cover and cap will be implemented.

2.0 BACKGROUND

The Blair Waterway Property is located along the northern shore of the Blair Waterway in the vicinity of the intersection of Alexander Avenue and vacated Lincoln Avenue in Tacoma, Washington. The property is about 43 acres in size, approximately 8 acres of which is submerged at high tide. With the exception of a graving dock (an excavated impoundment

formerly used for construction of floating bridge pontoons), the property is undeveloped.

The Blair Backup Property is located between the Blair Waterway and the Hylebos Waterway and is bounded by Taylor Way and Alexander Avenue in Tacoma, Washington. The property is about 85 acres in size. With the exception of buildings along Taylor Way, the property is currently vacant.

The Port of Tacoma has agreed to transfer the Blair Waterway and Blair Backup Properties to the Tribe pursuant to the Settlement Agreement. The Settlement Agreement provides that the Port will perform cleanup actions on properties to be transferred from the Port to the Tribe in order to assure that such properties comply with applicable federal and state contamination law and can be used for commercial and industrial purposes. The Port, EPA, the Washington Department of Ecology (Ecology), and the Tribe have determined that cleanup actions are necessary at the Properties. The Settlement Agreement has been incorporated into federal law, the Puyallup Tribe of Indians Settlement Act of 1989 (P.L. 101-41, 25 U.S.C. 1773), and state law, the Puyallup Tribal Claims Settlement (Ch. 4, Laws of 1989 1st Ex. Sess.).

The Port of Tacoma has entered into a Memorandum of Agreement (the MOA) regarding the implementation of the Settlement Agreement. EPA, Ecology, and the Tribe were parties to the MOA, which became effective on March 21, 1990. Among other things, the MOA provides for the parties to review and comment on: 1) investigations of contamination; 2) analyses of cleanup alternatives; and 3) cleanup plans that are completed, as necessary, by the Port for each of the properties to be transferred. The MOA further provides that EPA will issue administrative orders under CERCLA for implementation of a cleanup plan, and that full and timely compliance with each and every enforcement order issued by EPA pursuant to the MOA is contemplated by the parties to the MOA. The MOA provided that the cleanup and transfer of the Properties were to be concluded by March 1993. Under an Implementing Agreement with the Port, the Tribe has agreed to delay transfer of these properties until June 1993. In Addenda to the Implementing Agreement, the Port and the Tribe agree with the actions and institutional controls specified in the Order.

Coordination of the details of this project with the Washington Department of Ecology will take place prior to and during this removal. In addition, regional and local agencies with jurisdiction over actions, including the Puget Sound Air Pollution Control Agency and the City of Tacoma Building and Land Use Department, have reviewed the substantive requirements of the work to be performed. All ARARs have been identified and will be met.

As explained in Section 5.1.(a) of this memorandum, contaminated sediments in the Lincoln Avenue Ditch (the Ditch) should also be remediated in order to meet the cleanup objectives. The Ditch, which is tidally connected to the Blair Waterway, is an active drainage ditch that receives stormwater runoff from upland areas including nearby streets, facilities, and properties. The Ditch supports wetland vegetation, and is considered to be waters of the United States. The cleanup alternative proposed by the Port and agreed to by the Tribe will contain the sediments by filling the large segment of the Ditch. The Tribe plans to use the property as a vessel container unloading terminal, but the Ditch bisects the waterfront. As a result, the Tribe has requested that EPA authorize filling of the Ditch, which is governed by Section 404 of the Clean Water Act. However, the Order does not authorize cleanup of the Ditch because EPA has not yet determined that filling the Ditch satisfies 404(b)(1) Guidelines, 40 CFR Section 230.10. On January 26, 1993, the Tribe submitted a letter intended to demonstrate that the proposed fill project complies with the 404(b)(1) Guidelines. On February 9, 1993, the Tribe submitted a mitigation plan that is intended to off-set any unavoidable impacts of the fill. EPA and the relevant resource agencies are reviewing the submissions and working with the Tribe to develop a record that can support an EPA determination. If the Agency approves the 404(b)(1) analysis and mitigation plan, EPA intends to amend the Order to require cleanup of the ditch. The Order contains reserved paragraphs under the Findings of Fact, the Conclusions of Law, and the Order sections that will be utilized to amend the Order if EPA determines that the fill project complies with the 404(b)(1) Guidelines.

3.0 SITE CONDITIONS

3.1 Blair Waterway Property

Investigations of contamination at the Blair Waterway Property have found sediments contaminated with arsenic in the central ditch (the Lincoln Avenue Ditch Sediments), sediments contaminated with arsenic in the eastern boundary ditch (the Weyerhaeuser Ditch Sediments), and slag contaminated with arsenic and other metals in the graving dock and central portion of the property.

a. The Lincoln Avenue Ditch is an active drainage ditch that receives stormwater runoff from upland areas including nearby streets, facilities, and properties. Investigation results show that sediments in the Ditch are contaminated with arsenic; concentrations range from 27 mg/kg to 288 mg/kg arsenic. A likely source of contaminants to the Ditch is contaminated stormwater runoff. Arsenic concentrations in 1 of 6 sediment samples exceed the Industrial Method A Soil Cleanup Levels of 200 mg/kg dry weight arsenic contained in

the State of Washington Model Toxics Control Act (MTCA) Cleanup Regulations (Chapter 173-340 WAC). Arsenic, polychlorinated biphenyls, and bis(2-ethylhexyl) phthalate in 3 of 6 samples exceed the marine sediment quality objectives defined in the CB/NT Record of Decision (September 1989). The volume of contaminated material is estimated to be less than 4,000 cubic yards.

b. The Weyerhaeuser Ditch, which is not tidally connected to the Blair Waterway, is a relatively shallow drainage feature that discharges to the Blair Waterway. Arsenic concentrations in ditch sediment samples range from 43 mg/kg to 1,890 mg/kg; concentrations in 2 of 5 samples exceed the MTCA Industrial Method A Soil Cleanup Level of 200 mg/kg dry weight arsenic. A likely source of arsenic to the ditch sediment is a small area of adjacent slag. The volume of contaminated material is estimated to be less than 100 cubic yards.

c. Arsenic slag is found at the Property. A layer of arsenic slag, approximately 1-2 feet in thickness, was placed along three of four sides of the graving dock and at the near-surface of the central area of the property. Arsenic is the chemical of concern; slag has been found to contain concentrations of arsenic above the MTCA Cleanup Regulations. The volume of contaminated material is estimated to be about 20,000 cubic yards.

d. About 32,500 cubic yards of contaminated marine sediments that were dredged from Blair Waterway in the early 1980s were contained in a lined, shallow impoundment on the property, referred to as Mud Lake.

3.2 Blair Backup Property

Investigations of contamination at the Blair Backup Property have found piles of sandblast grit and associated contaminated soils, buried charcoal briquettes and associated contaminated soils, and a mixture of chromium slag and associated soils.

a. Sandblast grit was discovered at several locations on the Blair Backup Property. Investigation results show that the grit and associated soils are contaminated with arsenic. Arsenic concentrations in sandblast grit samples (140-660 mg/kg) exceed the MTCA Industrial Method A Soil Cleanup Level of 200 mg/kg dry weight arsenic. The volume of contaminated material is estimated to be about 1,200 cubic yards.

b. Charcoal briquettes and associated soils contaminated with PAHs from the briquettes impact about 2 acres of the property. The charcoal briquettes, which had been used to fuel the former Ohio Ferro-Alloys (OFA) smelter at the property, were buried and mixed with site soils after demolition of the OFA

smelter. Carcinogenic PAH concentrations in the briquettes and soil exceed the MTCA Industrial Method A Soil Cleanup Level of 20 mg/kg dry weight carcinogenic PAHs (cPAHs). Analytical results show concentrations of total cPAHS in soil samples range from 68 mg/kg to 2,980 mg/kg and in charcoal briquettes range from 1,835 mg/kg to 9,370 mg/kg. The charcoal briquettes and associated soils are not a federal hazardous waste under RCRA, but designate as a state-only dangerous waste under Washington Dangerous Waste Regulations (WAC 173-303). About 4,100 cubic yards of buried charcoal briquettes and about 8,900 cubic yards of PAH-contaminated soils are found up to six feet deep.

c. Chromium slag associated with the OFA smelter and a small quantity of arsenic slag are mixed with about 80,000 cubic yards of soil over about 14 acres of the Blair Backup Property. A risk assessment was completed to consider the potential risks for people who might work at or adjacent to the Property, and be exposed to the contamination either by inhaling contaminated dust or ingesting soil. The problem chemicals associated with the slags are chromium and arsenic. Chromium present in the chromium slag presents a minor potential for risk to human health through inhalation of dust particles. The estimated lifetime excess cancer risk for a future site worker is 4 x 10-6 for the average case and 2 x 10-5 for the Reasonable Maximum Exposure (RME) case using risk assessment methodology approved by EPA Region 10. Arsenic potentially poses a minor human health risk through direct contact and ingestion of on-site soils. The potential risk identified from long-term human exposure to existing conditions is between 2 x 10-6 (average case) and 3 x 10-5 (RME case). Under MTCA Cleanup Regulations, total site risk must be no greater than 1 X 10-5 potential excess cancer risk.

4.0 THREATS AND ENDANGERMENT DETERMINATION

The hazardous substances present at the Properties are known or suspected to cause a variety of adverse health and environmental effects. The following discussion demonstrates that site conditions meet the requirement of a threat to public health or welfare or a threat to the environment for initiating a removal by meeting one or more criteria from Section 300.415(b)(2) of the National Contingency Plan.

4.1 Threats to Public Health or Welfare

The Properties present actual or potential exposure to hazardous substances. The human population at risk from the release or threat of release of hazardous substances to the environment includes, but may not be limited to, persons working within the industrial setting. Arsenic, carcinogenic PAHs, and chromium are substances of concern. Direct contact with,

ingestion and/or inhalation of, these substances poses a substantial risk to the industrial population, as described in Paragraph 12 of the Administrative Order on Consent. The evaluation of threats to public health or welfare was performed consistent with the Risk Assessment Guidance for Superfund (October 13, 1989).

4.2 Threats to the Environment

Animal and plant species and aquatic life in the marine and upland environment within and adjacent to the Property boundaries may also be exposed to, and are at potential risk from, such hazardous substances.

4.3 Endangerment Determination

Information presented to EPA show that actual or threatened releases of hazardous substances from the Properties, if not addressed by implementing the response action described in the attached Administrative Order on Consent, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

5.0 PROPOSED ACTIONS

5.1 Proposed Action Description

The Administrative Order on Consent provides for the Port to conduct this non-time-critical removal action at the Blair Waterway and Blair Backup Properties. Pursuant to the MOA, the Port has completed Analysis of Alternatives Reports on each property, which have been reviewed and concurred upon by EPA, Ecology, and the Tribe. The Analysis of Alternative Reports have been determined to be equivalent to the Engineering Evaluation and Cost Analysis (EE/CA), consistent with the NCP requirements for non-time-critical removals.

5.1.1. The Administrative Order on Consent includes, as Appendices, the Blair Waterway Property and Blair Backup Property Cleanup Plans. At the Blair Waterway Property, the Port will:

a. Excavate and transport the Weyerhaeuser Ditch sediments and the arsenic slag from the graving dock and the central portions of the Blair Waterway Property to the Blair Backup Property and dispose of the sediments, slag, and accompanying soil on sand and gravel above, and isolated from, groundwater.

b. Excavate contaminated dredged sediments and impoundment liner from Mud Lake. Confirmational sampling will be completed before any backfilling or grading of excavated area to ensure all contaminated material beneath the impoundment is removed. Additional explorations will be accomplished to

document underlying soil conditions and investigate the potential for pre-existing contamination that may have predated the development of Mud Lake. The off-site transport and disposal of the contaminated sediments is provided for under a separate EPA agreement with the Port. Under that agreement, which is a CERCLA remedial action consent decree that EPA is currently negotiating with the Port, the Port will dispose of the material in a nearshore confined disposal site in Milwaukee Waterway as part of the Sitcum Remedial Action Project.

c. Fill the Lincoln Avenue Ditch with clean fill material and complete migration for wetland losses, as approved by EPA under a modification to this Order. The Order does not authorize filling of the ditch because EPA has not determined whether the filling and mitigation plan satisfies 404(b)(1) guidelines of the Clean Water Act. If EPA approves the 404(b)(1) analysis and mitigation plan, the Administrative Order on Consent will be amended to require remediation of the Lincoln Avenue Ditch. This memorandum authorizes such a fill if EPA determines that the action to be conducted under an amended order will comply with the 404(b)(1) guidelines, and therefore comply with Section 404 of the Clean Water Act.

d. Implement institutional controls as set forth in the Paragraph 15 of the Order.

5.1.2. At the Blair Backup Property, all cleanup actions will occur within the 17-acre OFA Area. The Port will:

a. Excavate the charcoal briquettes and the associated charcoal-contaminated soils and transport the material off-site for disposal, in compliance with a Petition for Exemption from State of Washington Dangerous Waste Regulations. The Petition for Exemption is currently under review by Ecology and is intended to be released for public comment in late February, 1993. If the Petition for Exemption is not approved, an alternative cleanup action will be proposed. The focus of the removal will be to remove the source, i.e., the charcoal briquettes. Those soils remaining onsite with concentrations of carcinogenic PAHs greater than 20 ppm dry weight will be covered with 2 feet of sand and gravel; a portion of the charcoal briquette area will also be capped (see below).

b. Excavate and dispose of the sandblast grit and associated soils on sand and gravel above and isolated from groundwater within a 7-acre portion of the OFA Area of the Blair Backup Property.

c. Cap the sandblast grit, and the ditch sediments and arsenic slag from the Blair Waterway Property, within the

7-acre portion of the OFA Area with an asphalt-geotextile cap covered with an 8-inch minimum wearing course. Install an adequate storm drainage network.

d. For the 10-acre portion of the OFA Area that is not capped with an asphalt-geotextile cap, cover the chromium slag and soil mixture with 2 feet of sand and gravel.

e. Implement a long-term groundwater monitoring and a long-term operation and maintenance plan of the cover and cap.

d. Implement institutional controls as set forth in the Paragraph 15 of the Order.

5.2 Applicable or Relevant and Appropriate Requirements

This action will comply with ARARs, which are listed in Paragraph 31 of the Administrative Order on Consent, and in the Analysis of Alternatives Reports for the Blair Waterway Property and Blair Backup Property (Appendices A and F, respectively). The Puyallup Tribe, and State, Regional and local agencies have reviewed the Cleanup Plans, which incorporate their comments.

5.3 Community Relations

The following community relations activities were implemented. The proposed cleanup alternatives were summarized in a Superfund Fact Sheet entitled, "Puyallup Settlement Land Transfer, Blair Waterway and Blair Backup Properties, Tacoma, Washington", November 20, 1992. This fact sheet was mailed to over 1,200 people interested in Commencement Bay activities. As described in the Fact Sheet, the Analysis of Alternatives Reports for the Blair Waterway and Blair Backup Properties were made available for public review and comment from November 23, 1992 to December 23, 1992. A responsiveness summary, which has been prepared to respond to significant comments received, is Attachment A to this memorandum. EPA also provided briefings to the Puyallup Tribe, the Commencement Bay Cleanup Action Committee, and the CB/NT Technical Discussion Group.

Documents available at the main information repository in Tacoma will be supplemented with all documents that bear on the removal action authorized by this memo, including this Action Memorandum and the EE/CA, to constitute the Administrative Record.

Upon signature of this Memorandum and prior to initiating any on-site activities, EPA will publish a notice in the newspaper informing the public that EPA has approved the final Cleanup Plans for the Blair Waterway and Blair Backup Properties and that the Administrative Record is available for review. EPA will inform the public that the Administrative Record includes EPA's

approval of the final cleanup plans in this Action Memorandum, and EPA's responses to significant comments in the Responsiveness Summary. The notice will also inform the public that the Lincoln Avenue Ditch component of the Blair Waterway Property cleanup is not being authorized at this time. If EPA determines that the proposal to fill the Lincoln Avenue Ditch and the proposed mitigation plan meet the 404(b)(1) Guidelines, EPA will provide additional notice to the public when the Order is amended.

6.0 ENFORCEMENT

This removal action will be carried out by the Port, which is the owner of the Blair Waterway and Blair Backup Properties. The action will be conducted under the Administrative Order on Consent. The Port is expected to comply with the order; under the MOA, the Port has already agreed to full and timely compliance with each and every order issued by EPA pursuant to the MOA.

7.0 RECOMMENDATION

Conditions at the Blair Waterway and Blair Backup Properties meet the NCP Section 300.415(b)(2) criteria for removal. Information presented to EPA show that actual or threatened releases of hazardous substances from the Properties, if not addressed by implementing the response action described in the attached Administrative Order on Consent, may present an imminent and substantial endangerment to public health, or welfare, or the environment. I recommend your approval by concurring below. By such approval, you will make a determination of imminent and substantial endangerment, pursuant to EPA Delegations Manual Section 14-14-A and Regional Redelegation Order 1290.19.

8.0 APPROVAL/DISAPPROVAL

I approve the removal action recommended in Paragraph 7.0 and the determination of imminent and substantial endangerment described in Paragraph 4.3.

Randall F. Smith Date: 2/24/93

Randall F. Smith, Director
Hazardous Waste Division

I do not approve the submitted recommendations for the following reasons, and I direct the following actions to be taken:

_____ Date: _____

ATTACHMENT A

Responsiveness Summary

Puyallup Settlement Land Transfer
Blair Waterway and Blair Backup Properties
February 23, 1993

The purpose of this document is to summarize and respond to the public comments submitted in regard to the preferred alternatives for cleanup of the Blair Waterway and Blair Backup Properties, Tacoma, WA. Cleanup of the properties is being performed pursuant to the Puyallup Settlement Agreement and the 1990 Memorandum of Agreement among the EPA, Ecology, Port of Tacoma, and Puyallup Tribe. The two properties are located within the boundaries of the Commencement Bay Nearshore/Tideflats (CB/NT) Superfund Site.

The U.S. Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology) identified preferred alternatives for cleanup of the Blair Waterway and Blair Backup Properties in Analysis of Alternatives Reports, which were made available for public review and comment from November 23, 1992 to December 23, 1992. The proposed cleanup alternatives were summarized in a Superfund Fact Sheet entitled "Puyallup Settlement Land Transfer, Blair Waterway and Blair Backup Properties, Tacoma, Washington", November 20, 1992. EPA provided briefings to the Puyallup Tribe, the Commencement Bay Cleanup Action Committee, and a brief summary to the CB/NT Technical Discussion group.

The Agencies' preferred cleanup alternatives addressed contaminated soils and ditch sediments in upland areas of the two properties. The Agencies recommended removal, covering, and capping of soils and ditch sediments.

EPA mailed the Superfund Fact Sheet to over 1,200 addressees. EPA received two comment letters during the public comment period and one comment letter after the comment period closed. EPA has included responses to all comment letters. EPA also received one phone call regarding site cleanups, but the caller did not leave his name. All comments pertained to the preferred cleanup alternative for the Blair Waterway Property.

The Agencies' response to public comments is provided below. In response to public comment, it will not be necessary to modify the preferred alternatives for cleanup of the Blair Waterway and Blair Backup Properties.

Response to Comments

1. **Comment:** In regards to filling the Lincoln Avenue Ditch at the Blair Waterway Property, the Army Corps of Engineers (Corps) requested that EPA ensure the project complies with Clean Water Act Section 404 (b)(1) guidelines, at 40 CFR 230.10. The Corps recommended that the preferred alternative for cleanup of contaminated sediments in the Lincoln Avenue Ditch be excavation of sediments (with proper disposal). The Corps stated that filling of the ditch and mitigation for impacts should only be considered after all practicable measures to avoid or minimize have been implemented. In addition, the U.S. Fish and Wildlife Service stated that the proposed project may have more than minimal individual or cumulative adverse effects on the environment and may be contrary to the public interest because the proposed project may preclude restoration and remediation options available to the natural resource trustees.

   Response: As part of the cleanup of the Lincoln Avenue Ditch, EPA will ensure that the activity will substantively comply with Clean Water Act Section 404 (b)(1) guidelines. Currently, the EPA, the Port of Tacoma, and the Puyallup Tribe are discussing the proposed activity with the Corps, City of Tacoma, U.S. Fish and Wildlife Service, and other federal and state resource agencies. The Tribe has submitted a written description of why it believes that the project meets the 404 (b)(1) guidelines, and has included a mitigation plan. The Tribe believes that there is no practicable alternative to filling the Lincoln Avenue Ditch and the Tribe will provide adequate compensatory mitigation to offset unavoidable impacts. EPA has not determined whether the filling and mitigation plan satisfies 404(b)(1) guidelines of the Clean Water Act. If EPA approves the 404(b)(1) analysis and mitigation plan, the Administrative Order on Consent will be amended to require remediation of the Lincoln Avenue Ditch. EPA will provide additional notice to the public if the Order is amended.

2. **Comment:** The Army Corps of Engineers asked whether any wetlands are associated with the Ohio Ferro-Alloys portion of the Blair Backup Property.

   Response: Wetlands have not been identified in the Ohio Ferro-Alloys portion of the Blair Backup Property.

Response to Comments (continued)

3. **Comment:** The Citizens for a Healthy Bay requested that the public comment period be extended.

   Response: The EPA Site Manager discussed this issue with the requestor. It was agreed that it was not necessary to extend the public comment period, as all relevant information is currently available and it is not anticipated that new information will be prepared relative to the preferred cleanup alternatives. Also, the public comment letter requesting the extension was received on December 22, which was one day before the public comment period closed.

References

Analysis of Alternatives, Blair Backup Property, Port of Tacoma, Tacoma, Washington. Prepared for the Port of Tacoma by Hart Crowser, Seattle, WA. Dated November 19, 1992.

Analysis of Alternatives, Blair Waterway Property, Port of Tacoma, Tacoma Washington. Prepared for the Port of Tacoma by Landau Associates, Edmonds, WA. Dated November 18, 1992.

Comment Letters

Letter from Karen Northup (Army Corps of Engineers, Environmental Resources Section) to Karen Keeley (EPA Superfund), dated December 21, 1992.

Letter from Ione Claggett (coordinator for Citizens for a Healthy Bay) to Karen Keeley (EPA Superfund), dated December 22, 1992.

Letter from David Frederick (U.S. Fish and Wildlife Service) to Karen Keeley (EPA Superfund), dated January 12, 1993.

United States Department of the Interior

TAKE PRIDE IN AMERICA

FISH AND WILDLIFE SERVICE
Ecological Services
3704 Griffin Lane SE, Suite 102
Olympia, Washington 98501-2192
(206) 753-9440 FAX: (206) 753-9008

March 8, 1993

Karen Keeley, Project Manager
Environmental Protection Agency
1200 Sixth Avenue, HW-113
Seattle, Washington 98101

Re: Lincoln Ditch Mitigation Plan

Dear Ms. Keeley:

The U.S. Fish and Wildlife Service (Service) has reviewed the draft Lincoln Ditch Mitigation Plan (plan) submitted by the Puyallup Tribe of Indians (applicant) addressing proposed impacts to the open ditches along Lincoln Avenue adjacent to the Blair Waterway in Commencement Bay, City of Tacoma, T21, R3E, S35 in Pierce County, Washington. The following comments are provided for your consideration.

PROPOSED PROJECT

The applicant proposes to fill tidally influenced "ditches" or intertidal estuarine wetlands (Cowardin, et. al., 1979) from activities associated with commercial development along the Blair Waterway waterfront. Puyallup International, Inc., in association with the applicant, has proposed a deep draft port facility in conjunction with a container terminal which would eliminate approximately 0.8 acres of intertidal wetlands. The applicant proposes to mitigate for these losses by creating 0.57 acres of intertidal and saltmarsh wetland, enhancing 0.69 acres of partially degraded intertidal wetland, and enhancing 0.62 acres of upland on a parcel of land near the mouth of Hylebos Waterway and waterward of Marine View drive. The mitigation area would be preserved in perpetuity as a conservation area.

FISH AND WILDLIFE RESOURCES

Under the authority of the National Contingency Plan, the Service and other natural resource trustees are currently assessing and seeking damages for injured natural resources in the Commencement Bay Superfund Site as provided for under the Comprehensive Environmental Response, Compensation, and Liabilities Act of 1980 and the Clean Water Act. Commencement Bay, its

waterways, and surrounding areas provide habitat for the Department of Interior's trust resources including anadromous fish such as coho, chinook, chum and pink salmon and sea-run cutthroat and steelhead trout; migratory birds such as great blue heron, and surf scoter; and federally listed threatened and endangered species including bald eagle and peregrine falcon.

On June 10th and 12th of 1992 a Service biologist visited the proposed project site. Field observations and identification of onsite fauna and flora confirmed that the ditches proposed for fill are tidally influenced by the Blair Waterway and are currently functioning as intertidal estuarine wetlands. Indicative intertidal estuarine wetland flora identified onsite included pickleweed (*Salicornia virginica*), saltgrass (*Distichlis spicata*), gumweed (*Grindelia integrifolia*), and green algae (*Enteromorpha spp.*). Fauna observed onsite included saltwater invertebrates (barnacles), and migratory birds including northern harrier, killdeer, and great blue heron. Additional information provided by the Environmental Protection Agency and the applicant indicate these wetland areas are known to be contaminated with PCB's, dioxin, arsenic and other heavy metals and organic chemicals.

SERVICE COMMENTS

On February 22, 1993, Service biologists visited the proposed mitigation site. From information collected from the site visit and review of information provided by the applicant's consultant, the Service submits the following concerns and recommendations for your consideration.

<u>Site Sustainability</u> - In order to create the proposed intertidal mudflats and saltmarsh components of the plan, a certain amount of substrate is proposed to be removed from the site and placed upland. However, it is not clear if the site configuration would be self-sustaining at the elevations and slopes being proposed. Site plans should consider that the mitigation site is situated in Commencement Bay such that it is exposed to at least a five-mile fetch from the north-northwest. In addition, flows from Hylebos Creek via the Hylebos Waterway presumably impact the mitigation site. These combined forces of wave action, erosion, accretion, and sediment transport in general may have a substantial role in how the site is configured.

<u>Site Suitability</u> - From the figures provided by the applicant, the majority of the proposed created and enhanced saltmarsh habitat would be situated between the +14-foot and +16-foot Mean Lower Low Water (MLLW) level. However, tidal information from Commencement Bay indicates that tides occurring above the +12-foot level are infrequent and tides above +13-foot level are practically nonexistent. Optimum salt marsh development occurs in areas that receive daily tidal inundation between +8 and +12 MLLW.

The plan also identifies a created island in the wetland area as one of the most important features for increasing the waterfowl breeding potential of the site. Although the Service would generally agree with this concept, the scale at which this is proposed would provide only limited refuge from predation and disturbance. This concept is further compromised by the proximity of the

proposed public access area. This concern is further addressed subsequently under the Public Access section.

Net Loss of Habitat - Approximately 0.8 acres of intertidal wetland would be eliminated as a result of the proposed project. In Commencement Bay, less than 2% of these special aquatic sites remain (U.S. Army Corps of Engineers, 1991). Therefore, it is critical that these remaining wetlands be adequately mitigated. The applicant has proposed creating 0.57 acres of intertidal and saltmarsh habitat, and enhancing 0.69 acres of partially degraded intertidal habitat using an enhancement credit ratio of 2.0:1.0 (two acres enhanced for every acre of fill). Typically, the Washington Department of Ecology has recommended enhancement credit ratios of 3.0:1.0 for replacement of a given category wetland. As proposed, the mitigation plan does not adequately address net loss of habitat.

In addition, the plan identifies that: *"This compensatory mitigation is one phase in a series of conservancy centered enhancements proposed for the site."* To better understand and review the current proposal, it would be valuable to have information on a larger scale of what additional "conservancy centered enhancements" are being considered for this site.

Public Access - The mitigation plan indicates that *"future recreation and access area[s]"* are proposed along the eastern and southern boundaries of the site. It is not clear what types of recreation activities would be occurring in these areas of the site. The applicant states that: *"one of the primary goals of the mitigation plan . . . is to enhance the waterfowl migration/wintering functions lost at the Ditch site."* Disturbance from uncontrolled public access to the mitigation site would directly compromise or significantly reduce the potential to fulfill this primary goal.

Upland Enhancement - The Service recognizes the importance of a complete mitigation project which incorporates the many required components of a truly functional ecosystem. Establishing an adequate upland buffer component for the proposed saltmarsh is crucial for meeting the goals the applicant has proposed. Upland buffers reduce disturbance (noise) from adjacent uses, and link hydrology, water chemistry, and aquatic and terrestrial food chains to wetlands and intertidal systems. Although the Service does not accept upland enhancement by itself as compensatory mitigation for wetland fills, we fully expect a compensatory mitigation plan to include all components necessary to meet the goals and objectives set forth in a proposal.

Based on the Service's Habitat Evaluation Procedures (HEP) Models, some of the evaluation species in the proposed project area (e.g. migratory birds) would require a minimum of 300 feet of upland buffer (USFWS 1985). The models show that the larger the buffers, the more types of wildlife can be supported in the wetland/buffer system. However, the Service recognizes the physical constraints the applicant has with this project. None-the-less, the interdependency of these systems should not be overlooked with respect to creating a complete and successful (functioning) wetland and intertidal system in the proposed project area. From our review of the proposed plan, the upland enhancement component of the mitigation plan, in conjunction with proposed public access and recreation areas, falls far short in providing the

buffering functions necessary for replacing waterfowl and other migratory bird habitat lost due to the proposed wetland fill project.

SERVICE RECOMMENDATIONS

The mitigation plan as proposed does not adequately mitigate fish and wildlife habitat losses that would be incurred by the proposed project. The Service recommends that the applicant amend the plan to incorporate the following conditions:

1. Sustainability - The applicant should demonstrate that the modifications and subsequent planting of saltmarsh vegetation would be persistent relative to sediment transport conditions in the area (i.e. erosion, accretion, wave action, etc.). The monitoring plan should include yearly collection of site elevation data to confirm the relative stability of the site.

2. Suitability - The elevations proposed for the intertidal and saltmarsh habitat are not consistent with the known tidal regime in Commencement Bay. The applicant should modify substrate depths to between the +8 to +12 foot MLLW range in areas slated for saltmarsh creation. In addition, the plan proposes several saltmarsh plant species above and beyond what is known to be successful in Commencement Bay. In order to give the plan a greater potential for success, we request that the applicant base plant species and planting elevations on at least two reference saltmarshes which have similar aspect, slope, fetch, and other disturbance attributes. The reference sites can be further utilized as a basis for developing performance standards.

   Salt marshes generally either have a thick organic layer or grow on organic soils. This will not be the case at the created site. It will be difficult to determine exact elevations for planting. Therefore, planting should be done over a wide range of elevations allowing natural events to select the best elevation for survival. Furthermore, salt marshes do not naturally occur on 7:1 slopes. We recommend that enhancement not be conducted on these slopes, or that the slopes be terraced to provide suitable planting areas.

   We also noted the 1988 Drainage Map for Commencement Bay prepared by the Tacoma-Pierce County Health Department identifies a pipe or closed channel and catch basin parallel to Marine View Drive. We request the applicant to: (a) identify any impacts the plan could have to this drainage system; and (b) investigate the potential for this drainage system to enhance the mitigation area by creating dendritic channeling.

3. Buffer - The proposed upland buffer component of the plan would not be protective of the fish and wildlife habitats in the mitigation area. This problem is further exacerbated by allowing public access and recreation areas directly adjacent to created and enhanced habitat areas. In order to be more protective of these resources, the Service recommends that a well-stratified upland buffer component be established

in those areas currently proposed for future recreation and public access. The buffer should include an evergreen canopy layer. This will provide a year-round visual screen and will be more persistent in the landscape than the proposed successional red alder. We recommend tree plantings include: western hemlock (*Tsuga heterophylla*), western red cedar (*Thuja plicata*), and Douglas fir (*Pseudotsuga menziessi*). In order to provide greater diversity, wildlife forage, cover, and to help discourage predators and public access, we recommend planting understory species such as: hawthorne (*Crataegus douglasii*), rose (*Rosa nutkana*), Oregon grape (*Berberis nervosa*), and along the freshwater inflow, salmonberry (*Rubus spectabilis*).

Secondly, we request the applicant limit future recreation and public access to areas where these activities are not in direct conflict with the goals of the mitigation plan.

4. Performance Standards - The plan should include more specifics regarding performance standards. The desired plant community should be well stratified and reflect appropriate performance standards. The Service could request specifics (e.g., upland shrub plantings should reach 95% cover by the third year); however, it is more appropriate to select a similar reference site in Commencement Bay and base performance standard criteria on that site. We request the applicant investigate this potential and propose appropriate criteria for both intertidal and upland communities.

   To assist the applicant and lend a greater degree of success to mitigation plans, the Service recommends the following performance criteria, which should be incorporated in this plan:

   - Invasive non-native plant species, such as scotch broom (*Cytisus scoparius*) and Himalayan and evergreen blackberry (*Rubus discolor and laciniatus*), should not exceed 20% cover during any monitoring period;

   - There should be minimum of 85% survivability of planted materials following each monitoring period;

   - If there are voids where vegetation does not become established, even though overall 85% survivability is achieved, these voids should be replanted;

   - A minimum percent coverage that is comparable to an agreed upon reference site should be achieved following identified monitoring periods;

   - There should be a measure of species diversity such that a minimum number of tree, shrub, and herbaceous species become established;

   - There should be a measure of plant vigor and vitality, such as seed production or biomass production similar to an agreed upon reference site;

- There should be a measure of productivity of created sandflat/mudflat habitats such that a comparable composition and abundance of organisms is established within a given time period;

- There should be an agreed upon acreage of created and/or enhanced wetland habitats; and

- There should be a measure of wildlife usage.

5. Monitoring - Monitoring activities should address those items identified under performance standards. Monitoring should include measurement of substrate elevations in the mitigation area to monitor site stability and identify problem areas not stable enough to sustain the habitat areas proposed. A baseline survey should be conducted prior to final design. In addition, we request that comprehensive vegetation monitoring occur throughout the monitoring period. This will allow for contingency plans to be implemented, if needed, and will provide additional information for evaluating reasons for success or failure.

   The current plan also discusses "photographic sampling" in the monitoring plan, but does not specify establishing photo points. It is important to establish fixed points which can be used throughout the monitoring period.

6. Contingencies - The plan should include interim measures which directly address each of the performance standards. If interim measures are not successful within an agreed upon time period, contingency planning should be initiated in consultation with the agencies. Final contingency planning decisions should be agreed to by all regulatory agencies.

7. Reports - The plan provides for information and reports to be sent to *"the Corps of Engineers and other applicable regulatory agencies"*. We request that the Service be specifically identified to receive plans and reports regarding the mitigation site.

We appreciate the opportunity to provide our resource concerns and look forward to resolving these issues with the Puyallup Tribe. If you have any questions regarding our recommendations, please contact Jeff Krausmann or Judy Lantor at (206/753-9440).

Sincerely,

David C. Frederick
State Supervisor

jdk/lk

c: BIA, Portland (Ron Eggers)
COE-Environmental Resources, Seattle (Pat Cagney)
COE-Regulatory, Seattle (Tom Mueller)
DOI, Portland (Barry Stein)
EPA-Superfund, Seattle (Allison Hiltner)
NOAA, Seattle (Robert Clark and Robert Taylor)
Muckleshoot Tribe, Auburn (Rod Malcom)
Puyallup Tribe, Tacoma (Bill Sullivan)
WNR, Olympia (David Jamison)
WDE, Olympia (Fred Gardner)
WDF, Olympia (Thom Hooper and Randy Carman)
WDW, Olympia (John Carleton and Ginna Correa)
City of Tacoma, Utility Services Engineering Division, (Karen Larkin)
City of Tacoma, Public Works Department, (Peter Katich and Kathlyn Mills)
Port of Tacoma, Environmental Planning, (Dick Gilmur and Leslie Sacha)

REFERENCES

U.S. Army Corps of Engineers. 1991. *Commencement Bay Cumulative Impact Study. Historic Review of Special Aquatic Sites*. May 4, 1991. 70 pp.

U.S. Fish and Wildlife Service. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. December 1979. 131 pp.

U.S. Fish and Wildlife Service. 1985. *Habitat Suitability Index Models: Great Blue Heron*. Biological Report 82(10.99). July 1985. 23 pp.

DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-2255

March 8, 1993

REPLY TO ATTENTION OF

RECEIVED
MAR 1 5 1993
SUPERFUND REMEDIAL BRANCH

Karen Keeley, Project Manager
EPA, Region 10, Superfund
1200 Sixth Avenue, HW-113
Seattle Washington

Dear Ms. Keeley;

The Seattle District, Army Corps of Engineers would like to offer the following comments on the proposed Lincoln Ditch Mitigation Plan by Fish PRO.

Page 5, Goals and Objective, #3
We recommend instead of constructing "a structurally complex and species rich plant community" that you try to emulate more a natural plant community that is already functioning in the area. Perhaps a plant community more similar to what is described in the last paragraph of page 6 would more quickly establish itself and have a higher chance of success that a structurally complex plant community.

Page 15, 1st paragraph,
How many rocks? What size? What location? What is the trade off? (for instance will mudflats high in productivity from micro and macro algae be substituted for erosion control?)

Page 23, Performance Standards, 1st bullet,
How many years will this take?

The Corps would like to offer two more **suggestions.**

-1st suggestion. We suggest you reevaluate your planting list and elevations. A reference site approach may be more realistic than literature recommendations. Plants that offer greatest potential for establishment (based on tidal influence and elevation) are **Carex lyngbyei, Distichlis, Salicornia and Grindelia and Spergularia marina.** It should be noted that **Cotula coronopifolia** is an introduced species from South Africa only native species should be encouraged by planting.

-2nd suggestion. Increase the density and length of the upland buffer especially in areas where the potential for disturbance from the road is greatest.

Thank you for allowing us the opportunity to comment. If you have any questions, please contact Patrick Cagney at 764-3624.

Sincerely,

Karen Northup

Karen Northup
Chief, Environmental Resources Section

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

Reply to
ATTN of: WD-128

MEMORANDUM

SUBJECT: Lincoln Ditch Mitigation Plan

FROM: John Malek

TO: Karen Keeley

I reviewed the proposed plan over the weekend. It is not a bad conceptual plan but is still only a beginning. I will be interested in seeing the comments of the other agencies. My few comments follow:

General. The plan makes a big deal of ratios, but I am not specifically familiar with the current state-of-philosophy regarding what ratios are "in" at the present time. I expect that Michael Rylko will catch this in his comments if they are out of line. My one consideration regards the "creation" that is proposed. The site is already a water of the U.S. even if not a vegetated wetlands. Accordingly, I do not think that we would view resculpting and planting as a "creation." I have not been to the site lately and the plan does not include a present configuration drawing. It would have been wiser to have included such a map or photographs. (While I see that they tried to overlay the new design on a base map, my xerox isn't the best.) Unless Michael contradicts, we would tend to regard their whole proposal as "enhancement" rather than the mix with "creation" that is described. We would take note and allow some credit for the enhancement of upland habitat. This would be most important if they were close regarding the wetlands mitigation. By my reading, however (and setting aside the issue of "ratios"), I do not see that the wetlands mitigation proposed by itself fills even the 2:1 ratio.

Regarding the value of the ditch. Although it is a ditch, does have contaminated sediments in the bottom, it technically is a wetland. Due to the dearth of aquatic habitat in Commencement Bay, it is by default and political reality a high to very high value. The WET analysis is nice bookkeeping, but is really nothing more than that.

The performance standards are weak and tentative. Typically, performance standards are defined in terms of a "representative ideal" or a reference site that approximates the habitat types that are expected to result.

In a couple locations, the report references that notification/copies of reports/etc. will be provided to the Corps of Engineers. This is an EPA

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action. Accordingly, those reports etc. should be provided to us. I would recommend that this office be named by Superfund to receive, review, and act as your agent to coordinate these tasks. Alternatively, Superfund should provide copies of these report/etc. to this office. If you chose to do the coordination yourself, this office must be one of the entities consulted.

In conclusion, the draft plan is a good first attempt. It does not appear to provide full compensation consistent within the context of 404, although I will defer to Michael regarding the ratios and enhancement v. creation semantics. If he has no problems, then it looks as though they are close. There is still work to be done before this would be an acceptable package.

cc: M. Rylko

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10

IN THE MATTER OF: BLAIR WATERWAY PROPERTY AND BLAIR BACKUP PROPERTY OF THE COMMENCEMENT BAY NEARSHORE/TIDEFLATS SUPERFUND SITE PORT OF TACOMA, RESPONDENT Proceeding Under Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C § 9606(a)	U.S. EPA Docket No. 1093-03-05-106

ADMINISTRATIVE ORDER ON CONSENT FOR A REMOVAL ACTION
AT THE BLAIR WATERWAY PROPERTY AND THE BLAIR BACKUP PROPERTY

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I. INTRODUCTION

1. This Administrative Order on Consent (the Order) is issued by the United States Environmental Protection Agency (EPA) to the Port of Tacoma (the Port) pursuant to Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) 42 U.S.C. § 9606(a), as amended, for the performance of the immediate removal and response actions regarding the cleanup of contamination at the Blair Waterway Property and the Blair Backup Property (collectively the Site) within the Commencement Bay Nearshore/Tideflats (CB/NT) Superfund site.

II. JURISDICTION

2. This Order is issued pursuant to the authority conferred on the President of the United States by Section 106(a) of CERCLA, 42 U.S.C. § 9606(a), as amended; delegated to the Administrator of the EPA by the Executive Order 12316, dated August 14, 1981, 46 Fed. Reg. 42237; and further delegated to the EPA Regional Administrators and the EPA Assistant Administrator for Solid Waste and Emergency Response by the EPA Delegations Manual Sections 14-14, 14-14-A and 14-14-B. This authority is conferred on the EPA, Region 10, Chief, Superfund Remedial Branch, by Regional Redelegation Order signed by the Regional Administrator.

3. On August 27, 1988, the Puyallup Land Settlement Agreement (Settlement Agreement) was signed. The United States, the Puyallup Tribe of Indians (the Tribe), the State of Washington, and the Port are among the parties to the Settlement Agreement. The Settlement Agreement provides that the Port will transfer certain properties

to the Tribe and will perform cleanup actions, as necessary, in order to assure that such properties comply with applicable federal and state contamination law and can be used for commercial and industrial purposes.

4. Pursuant to the Puyallup Tribe of Indians Settlement Act of 1989, 25 U.S.C. § 1773b (the Settlement Act), the Port agreed, subject to certain conditions, to transfer to the United States in trust for the Tribe six parcels of property (the Settlement Properties), including the Blair Waterway and the Blair Backup Properties (the Settlement Properties subject to this Order). The Settlement Act provides that the transfer of Settlement Properties is to be carried out in accordance with the Settlement Agreement. Under the Settlement Act, the Tribe is not to be liable for the cleanup costs or in any other manner for contamination on Settlement Properties except any contamination caused by the Tribe's activities after conveyance of the Settlement Properties to the Tribe. 25 U.S.C. § 1773b(b)(2). To implement the Settlement Act's provisions regarding compliance with applicable federal and state law, EPA, the Washington State Department of Ecology (Ecology), the Tribe, and the Port entered into a Memorandum of Agreement (MOA) on March 21, 1990. The MOA provides, in part, that implementation of the cleanup activities under the Settlement Agreement will occur under EPA and Ecology oversight, and that EPA will oversee implementation of approved cleanup plans under CERCLA enforcement authorities.

III. PERSONS BOUND

5. This Order shall apply to and be binding upon EPA, the Port, its commissioners, officers, employees, subsidiaries, agents, successors, assigns, contractors, subcontractors and consultants acting under or for the Port. The Port remains obligated by this Order regardless of any change in ownership of the facility or Site, and regardless of its efforts made to carry out the terms through agents, contractors, subcontractors and consultants.

6. The Port shall provide a copy of this Order to any subsequent owners or successors before ownership rights or stock or assets in a corporate acquisition are transferred. The Port shall provide a copy of this Order to all contractors, subcontractors, laboratories, and consultants which are retained to conduct any work performed under this Order, within 14 days after the effective date of this Order or the date of retaining their services, whichever is later. The Port shall condition any such contracts upon satisfactory compliance with this Order. Notwithstanding the terms of any contract, the Port is responsible for compliance with this Order and for ensuring that its subsidiaries, employees, contractors, consultants, subcontractors, agents and attorneys comply with this Order.

IV. STATE COORDINATION

7. Notice of the issuance of this Order has been given to the State of Washington through its Department of Ecology.

V. DEFINITIONS

8. Unless otherwise expressly provided herein, terms used in this Order which are defined in CERCLA or in regulations

promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Order, the following definitions shall apply:

"Commencement Bay Nearshore/Tideflats Superfund Site" ("CB/NT Site") means the entire Commencement Bay Nearshore/Tideflats Superfund Site, which is located in Tacoma, Washington and is described in the Record of Decision, issued September 30, 1989.

"Contractor" or "Subcontractor" means the company or companies retained by or on behalf of the Port to undertake and accomplish the work and associated activities addressed in this Order.

"Ecology" means the Washington State Department of Ecology.

"Historic Contamination" means any contamination that remains on, in, under or about any of the Settlement Properties as of the date that title to such property is conveyed to the United States in trust for the Tribe.

"Implementing Agreement" means that written agreement and all addenda and exhibits incorporated therein by the Port and the Tribe to implement the transfer of Settlement Properties, included as Appendix 1 to this Order. The Implementing Agreement was approved by the Tribal Council of the Puyallup Tribe on February 27, 1992, and subsequently approved by the Commissioners of the Port of Tacoma on March 5, 1992.

"Institutional Controls" means land use restrictions and other regulations, ordinances, covenants, and controls developed pursuant to the Settlement Agreement, the MOA, the Implementing Agreement, or this Order to restrict uses of the Settlement Properties as necessary to maintain the integrity, to prevent the unauthorized

disturbance of any cleanup actions, measures, or structures implemented at the Settlement Properties, and to govern the performance of any future activities at the Settlement Properties.

"Memorandum of Agreement" or "MOA" means the agreement entered into by the Port, EPA, the Tribe, and Ecology, dated March 21, 1990, included as Appendix 2 to this Order.

"National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, including, but not limited to, any amendments thereto.

"Paragraph" means a portion of this Order identified by an arabic numeral or an upper case letter.

"Puyallup Tribe of Indians" or "the Puyallup Tribe" or "the Tribe" shall mean the Puyallup Tribe of Indians, a federally recognized Indian tribe. For the purposes of this Order, the Tribe shall be a Consulted Agency.

"Record of Decision" or "ROD" means the Record of Decision issued by EPA on September 30, 1989, and any amendments thereto, concerning Operable Units 1 and 5 of the CB/NT Site.

"Section" means a portion of this Order identified by a Roman numeral.

"Settlement Properties" means the six (6) properties identified by the Settlement Act to be transferred to the Tribe. The Settlement Properties include:

(1) The Blair Waterway Property.

(2) The Blair Backup Property.

(3) The Inner Hylebos Property.

(4) The Upper Hylebos Property.

(5) The Taylor Way Property.

(6) The East-West Road Property.

"Settlement Properties subject to this Order" and "the Site" means the following Settlement Properties:

(1) The Blair Waterway Property.

(2) The Blair Backup Property.

VI. STATEMENT OF PURPOSE

9. In entering into this Order, the objectives of the parties are: (a) to protect the public health and welfare and the environment by implementing response actions for the Settlement Properties subject to this Order, consistent with the Settlement Act and the Settlement Agreement; and (b) to facilitate implementation of the Settlement Agreement.

10. The Port acknowledges that notwithstanding the transfer of the Settlement Properties subject to this Order to the United States in trust for the Tribe, the Port shall remain responsible for the future cleanup and/or remediation of any Historic Contamination to the extent provided in the Settlement Agreement and the Implementing Agreement.

11. The Port and the Tribe have executed an Implementing Agreement for the purpose of setting forth the manner and conditions for the conveyance of the Settlement Properties to the Tribe. The Implementing Agreement is attached as Appendix 1 to this Order.

12. The Port agrees to undertake all actions required by the

terms and conditions of this Order. In any action by the EPA or the United States to enforce the terms of this Order, the Port consents to and agrees not to contest the authority or jurisdiction of the Regional Administrator to enter into or enforce this Order, and agrees not to contest the validity of this Order or its terms.

VII. FINDINGS OF FACT

13. The Blair Waterway Property and the Blair Backup Property are located within the boundaries of the Commencement Bay Nearshore/Tideflats (CB/NT) Superfund site. The CB/NT Superfund site is located in Tacoma, Washington, at the southern end of the main basin of Puget Sound.

14. The Port of Tacoma is the owner of the Blair Waterway Property and the Blair Backup Property.

15. The Blair Waterway Property is located along the northern shore of the Blair Waterway in the vicinity of the intersection of Alexander Avenue and vacated Lincoln Avenue in Tacoma, Washington. The property is about 43 acres in size, approximately 8 acres of which is submerged at high tide. With the exception of a graving dock (an excavated impoundment formerly used for construction of floating bridge pontoons), the property is undeveloped.

16. The Blair Backup Property is located between the Blair Waterway and the Hylebos Waterway and is bounded by Taylor Way and Alexander Avenue in Tacoma, Washington. The property is about 85 acres in size. With the exception of buildings along Taylor Way, the property is undeveloped.

17. The Port of Tacoma has agreed to transfer the Blair Waterway and Blair Backup Properties to the Puyallup Indian Tribe

pursuant to the August 27, 1988 Puyallup Land Settlement Agreement. The Settlement Agreement provides that the Port will perform cleanup actions on property to be transferred from the Port to the Tribe in order to assure that such property complies with applicable federal and state contamination law and can be used for commercial and industrial purposes. The Settlement Agreement has been incorporated into federal law, the Puyallup Tribe of Indians Settlement Act of 1989 (P.L. 101-41, 25 U.S.C. 1773), and state law, the Puyallup Tribal Claims Settlement (Ch. 4, Laws of 1989 1st Ex. Sess.).

18. The Port of Tacoma entered into a Memorandum of Agreement (the MOA) regarding the implementation of the Settlement Agreement. EPA, the Puyallup Indian Tribe, and Ecology were parties to the MOA, which became effective March 21, 1990 and is attached to this Order as Appendix 2. Among other things, the MOA provides for the parties to review and comment on (A) investigations of contamination, (B) analyses of remedial alternatives, and (C) any cleanup plans that are completed by the Port of Tacoma for property to be transferred to the Tribe under the Settlement Agreement, including the Blair Waterway Property and the Blair Backup Property. The MOA further provides that EPA will issue administrative orders under CERCLA for implementation of a cleanup plan, and that full and timely compliance with each and every enforcement order issued by EPA pursuant to the MOA is contemplated by the parties to the MOA.

19. The Port and the Tribe have executed an Implementing Agreement for the purpose of setting forth the manner and

conditions for the conveyance of the Settlement Properties to the Tribe. The Implementing Agreement, including all addenda and exhibits incorporated therein by the Port and the Tribe to implement the transfer of Settlement Properties, is attached as Appendix 1 to this Order. The Implementing Agreement was approved by the Tribal Council of the Puyallup Tribe on February 27, 1992, and subsequently approved by the Commissioners of the Port of Tacoma on March 5, 1992. Subsequently, Addenda 5 and 6 to the Implementing Agreement were approved by the Tribal Council of the Puyallup Tribe on February 9, 1993, and subsequently approved by the Commissioners of the Port of Tacoma on February 16, 1993.

20. The Port acknowledges that notwithstanding the transfer of the Settlement Properties subject to this Order to the United States in trust for the Tribe, the Port shall remain responsible for the future cleanup and/or remediation of any Historic Contamination to the extent provided in the Settlement Agreement and the Implementing Agreement. Historic Contamination means any contamination that remains on, in, under or about any of the Settlement Properties as of the date that title to such property is conveyed to the United States in trust for the Tribe.

21. Investigations of contamination at the Blair Waterway Property have found sediments contaminated with arsenic in the central ditch (the Lincoln Avenue Ditch Sediments), sediments contaminated with arsenic in the eastern boundary ditch (the Weyerhaeuser Ditch Sediments), and slag contaminated with arsenic and other metals in the graving dock and central portion of the Blair Waterway Property. The Port determined that the arsenic-

contaminated slag (arsenic slag) was produced by the former Asarco copper smelter facility in Ruston, Washington. Groundwater contamination originating from the former Reichhold Chemicals, Inc. (Reichhold) facility impacts portions of groundwater at the Blair Waterway Property bordering the former Reichhold facility boundary and Alexander Avenue, but this contamination is being addressed by Reichhold under a Resource, Conservation and Recovery Act (RCRA) corrective action permit WAD 009 252 891 issued by EPA. The disposal of contaminated marine sediments that were dredged and placed at the Blair Waterway Property in a temporary impoundment, referred to as Mud Lake, are being addressed under a separate EPA agreement with the Port of Tacoma. Investigation results for the Blair Waterway Property are found in the "Final Investigation Report for the Blair Waterway Property", prepared by Landau Associates for the Port of Tacoma, dated February 24, 1992 (amended April 14, 1992). EPA, Ecology, and the Puyallup Tribe reviewed and approved the Final Investigation Report.

a. The Lincoln Avenue Ditch, which is tidally connected to the Blair Waterway, is an active drainage ditch that receives stormwater runoff from upland areas including nearby streets, facilities, and properties. The ditch supports wetland vegetation, and is considered to be waters of the United States, within the meaning of Section 404 of the Clean Water Act, 33 U.S.C. § 1344. Investigation results show that sediments in the ditch are contaminated with arsenic; concentrations range from 27 mg/kg to 288 mg/kg arsenic. The arsenic concentration in 1 of 6 sediment samples exceeds the Industrial Method A Soil Cleanup Levels of 200

mg/kg dry weight arsenic contained in the State of Washington Model Toxics Control Act (MTCA) Cleanup Regulations (Chapter 173-340 WAC). Arsenic, polychlorinated biphenyls, and bis(2-ethylhexyl)phthalate in 3 of 6 samples exceed the marine sediment quality objectives defined in the CB/NT Record of Decision (September 1989). A likely source of contaminants to the ditch is contaminated stormwater runoff. The volume of contaminated material is estimated to be less than 4,000 cubic yards.

b. The Weyerhaeuser Ditch, which is not tidally connected to the Blair Waterway, is a relatively shallow drainage feature that discharges to the Blair Waterway. Arsenic concentrations in ditch sediment samples range from 43 mg/kg to 1,890 mg/kg; concentrations in 2 of 5 sediment samples exceed the MTCA Industrial Method A Soil Cleanup Level of 200 mg/kg dry weight arsenic. A likely source of arsenic to the ditch sediment is a small area of adjacent slag. The volume of contaminated material is estimated to be less than 100 cubic yards.

c. Arsenic slag is found at the Site. A layer of arsenic slag, approximately 1-2 feet in thickness, is present along three of four sides of the graving dock and at the near-surface of the central area of the property. Arsenic is the chemical of concern; slag has been found to contain concentrations of arsenic above the MTCA Cleanup Regulations. The volume of contaminated material is estimated to be about 13,000 cubic yards.

d. About 32,500 cubic yards of contaminated marine sediments that were dredged from Blair Waterway in the early 1980s were contained in a lined, shallow impoundment on the Site (Mud Lake).

e. The Former Lincoln Avenue Ditch, which extended from the small segment of the existing Lincoln Avenue Ditch to the Blair Waterway, was filled in the 1970s. The bottom of the former ditch, which was at about Elevation +2 Mean Lower Low Water (MLLW), is now about 12-13 feet below ground surface. In this area, buried contaminated sediments were found in a thin sediment horizon (about 0.5 feet thick). In one of three samples, concentrations of arsenic and PCBs (291 mg/kg and 14.6 mg/kg, respectively) exceeded the MTCA Industrial Method A Soil Cleanup Levels (200 mg/kg arsenic and 10 mg/kg PCBs). As set forth in Section 8.1 of the Blair Waterway Cleanup Plan, institutional controls will be implemented over the area of the Former Lincoln Avenue Ditch to minimize the potential for uncontrolled exposure to, and release of, buried contaminated sediment.

22. Investigations of contamination at the Blair Backup Property have found piles of sandblast grit and associated contaminated soils, buried charcoal briquettes and associated contaminated soils, and a mixture of chromium slag and associated soils. The chromium slag was produced by the Ohio Ferro-Alloy (OFA) smelter that previously operated at the Blair Backup Property. Groundwater contamination originating from the former Reichhold facility impacts portions of the Blair Backup Property, and this contamination is being addressed by Reichhold through a groundwater treatment system which was installed under a RCRA corrective action plan approved by EPA pursuant to EPA RCRA Permit WAD 009 252 981. Investigation results for the Blair Backup Property are found in the "Final Investigation Report for the Blair

Backup Property", prepared by Hart Crowser, Inc., for the Port of Tacoma, dated January 29, 1992. EPA, Ecology, and the Tribe reviewed and approved the Final Investigation Report.

a. Sandblast grit was discovered at several locations on the Site. Investigation results show that the grit and associated soils are contaminated with arsenic. Arsenic concentrations in sandblast grit samples (140-660 mg/kg) exceed the MTCA Industrial Method A Soil Cleanup Level of 200 mg/kg dry weight arsenic. The sandblast grit and associated soils are not a federal hazardous waste under RCRA, but designate as a state-only dangerous waste under Washington Dangerous Waste Regulations (WAC 173-303). The volume of contaminated material is estimated to be about 1,200 cubic yards.

b. Charcoal briquettes and associated soils contaminated with polycyclic aromatic hydrocarbons (PAH) from the briquettes are present in about 2 acres of the Blair Backup Property. The charcoal briquettes, which had been used to fuel the former OFA smelter at the property, were buried and mixed with site soils after demolition of the OFA smelter. Concentrations of carcinogenic PAHs (CPAHS) in the briquettes and soil exceed the MTCA Industrial Method A Soil Cleanup Level of 20 mg/kg dry weight CPAHS. Analytical results show concentrations of total CPAHS in soil samples range from 68 mg/kg to 2,980 mg/kg and in charcoal briquettes range from 1,835 mg/kg to 9,370 mg/kg. The charcoal briquettes and associated soils are not a federal hazardous waste under RCRA, but designate as a state-only dangerous waste under Washington Dangerous Waste Regulations (WAC 173-303). About 4,100

cubic yards of buried charcoal briquettes and about 8,900 cubic yards of CPAH-contaminated soils are found up to six feet deep.

c. Chromium slag associated with the OFA smelter and a small quantity of arsenic slag are mixed with about 80,000 cubic yards of soil over about 14 acres of the Blair Backup Property. A risk assessment was completed to consider the potential risks for people who might work at or adjacent to the site, and be exposed to the contamination either by inhaling contaminated dust or ingesting soil. The problem chemicals associated with the slags are chromium and arsenic. Chromium present in the chromium slag presents a minor potential for risk to human health through inhalation of dust particles. The estimated lifetime excess cancer risk for a future site worker is 4 x 10-6 for the average case and 2 x 10-5 for the Reasonable Maximum Exposure (RME) case using a risk assessment methodology approved by EPA Region 10. Arsenic potentially poses a minor human health risk through direct contact and ingestion of on-site soils. The total potential risk identified from long-term human exposure to existing conditions is between 2 x 10-6 (average case) and 3 x 10-5 (RME case). Under MTCA Cleanup Regulations, total site risk must be no greater than 1 x 10-5 potential excess cancer risk.

23. The hazardous substances present at the Site are known or suspected to cause a variety of adverse health and environmental effects. Of particular concern are:

a. Arsenic. Arsenic, in its most toxic form, acts in the body to inhibit different types of enzyme pathways, resulting in injurious effects to nearly all organ systems. Less toxic forms of arsenic may replace phosphate in biochemical reactions in the body, resulting in loss of energy to maintain critical cellular

functions. In humans, chronic arsenic ingestion is strongly associated with an increased risk of skin cancer, and may cause cancers of the lung, liver, bladder, kidney and colon; chronic inhalation of arsenicals has been closely linked with lung cancer. EPA lists arsenic as a Class A (Human) Carcinogen. Arsenic has been shown to cause teratogenic effects in animals, and has been suspected of being a human teratogen under certain conditions.

b. Carcinogenic PAHs: PAHs are a group of more than one hundred chemicals. Clear evidence exists to indicate that certain PAHs are carcinogenic in humans and animals. In humans, cancer associated with exposure to PAH-containing mixtures occurs predominantly in the lung and skin following inhalation and dermal exposure, respectively. Certain PAHs have been shown to induce cancer in animals. Listed in rough order of theoretical cancer potency, PAHs of concern at this Site include: benzo(a)pyrene (BaP), dibenz(a,h)anthracene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, indeno(1,2,3-cd)pyrene, and chrysene. These seven PAHs are listed by EPA as Probable Human Carcinogens (Class B2). Benzo(a)pyrene is one of the most potent experimental skin carcinogens known. In terms of cancer causing ability, dibenz(a,h)anthracene is considered to be equally as potent as BaP, with next four PAHs listed being less potent than BaP by about one order of magnitude. With the exception of Benzo(k) fluoranthene, six of the seven PAHs at the site are listed by the Agency for Toxic Substances and Disease Registry (ATSDR) as "complete" carcinogens, which indicates that they are capable of bringing about both of the initiation and the promotion of a cancerous event.

c. Chromium. The toxicity of chromium compounds depends on the oxidation state of the metal. For the Blair Backup Property, chromium slag mineralogy data suggests that only trivalent chromium would be present at the property; however, conservative assumptions were used in the risk assessment, and it was assumed that chromium existed in a 50:50 ratio of trivalent to the hexavalent form. Trivalent chromium is an essential metal that can be toxic at higher doses. Hexavalent chromium (Cr VI), a powerful oxidizing agent, is listed by EPA as a Class A (Human) Carcinogen by inhalation and is also well documented as a mutagenic compound. Cr VI compounds such as chromic acid and dichromates are skin irritants that are capable of causing severe dermatitis and skin ulcers. The target organ of inhaled chromium is primarily the lung; however, the kidneys, liver, skin, and immune system may also be affected. When inhaled, Cr VI is a respiratory tract irritant,

and may also cause chronic irritation, pulmonary sensitization, airway obstruction, and possibly lung cancer.

24. The human population at risk from the release or threat of release of such hazardous substances to the environment includes, but may not be limited to, persons working within an industrial setting. Direct contact with, ingestion and/or inhalation of the above mentioned hazardous substances poses a substantial risk to persons working within an industrial setting. Animal and plant species and aquatic life in surface water within the Site boundaries may also be exposed to, and are at risk from, such hazardous substances.

25. Based on the results of the Final Investigation Reports, the Port of Tacoma prepared an Analysis of Alternatives Report for the Blair Waterway Property ("Analysis of Alternatives, Blair Waterway Property, Tacoma, Washington", prepared by Landau Associates, dated August 14, 1992, amended November 18, 1992) and for the Blair Backup Property ("Analysis of Alternatives, Blair Backup Property, Port of Tacoma, Tacoma, Washington", prepared by Hart Crowser, dated November 19, 1992)(collectively the Alternatives Reports). The Alternatives Reports described cleanup alternatives for each property, including an analysis of applicable or relevant and appropriate requirements, and identification of a preferred cleanup alternative. The Alternatives Reports were made available for public review and comment from November 23, 1992 to December 23, 1992, and a Responsiveness Summary was prepared in response to public comment. EPA, Ecology, and the Tribe reviewed and approved the Alternatives Reports.

26. The Blair Waterway and Blair Backup Cleanup Plans, which include Quality Assurance Project Plans and Health and Safety Plans, and the accompanying Construction Documents, were reviewed and approved by EPA, Ecology, and the Tribe. The Tribe approved the Cleanup Plans and Construction Documents as stated in a letter to EPA dated February 9, 1993. The approved Cleanup Plans utilize the following institutional controls to regulate potential exposures to contaminants, which will remain on the Site following implementation of those Cleanup Plans.

a. Blair Waterway Property. Institutional controls will prevent use of shallow groundwater as a drinking water supply, and will minimize potential human health exposure by restricting future use of the Blair Waterway Property to industrial uses.

b. Blair Backup Property. Institutional controls will: 1) prevent use of shallow groundwater as a drinking water supply; 2) minimize potential human health exposure by restricting future use of the Blair Backup Property to industrial uses; 3) minimize potential human health exposure to contaminants that remain under the cap or cover by restricting subsurface work, requiring notification and oversight of any subsurface work that potentially penetrates/damages the cap or cover, and requiring that work be conducted under an appropriate Health and Safety Plan; and 4) avoid compromising the integrity of the cap and cover by restricting construction activities that could compromise the cap or cover and by requiring notification and oversight of any Tribal development on the capped or covered area. Long-term groundwater monitoring

and a long-term operation and maintenance plan of the cover and cap will be implemented.

27. [Reserved].

VIII. CONCLUSIONS OF LAW

28. The Site is a "facility" within the meaning of Section 101(9) of CERCLA, 42 U.S.C. § 9601(9), as amended.

29. The Port is a "person" within the meaning of Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

30. The Port is a "liable party" as defined in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and is subject to this Order under Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

31. [Reserved].

32. [Reserved].

33. The Port is a current owner of each of the Settlement Properties subject to this Order within the meaning of Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

34. Substances and constituents thereof identified in the Final Investigation Report for each of the Settlement Properties subject to this Order are hazardous substances, pollutants or contaminants, as defined in Sections 101(14) and 101(33) respectively, of CERCLA, 42 U.S.C. § 9601(14) and § 9601(33).

35. The conditions described in the Findings of Fact above constitute an actual or threatened "release" into the "environment," as defined in Sections 101(22) and 101(8) respectively, of CERCLA, 42 U.S.C. § 9601(22), and § 9601(8).

36. The conditions present at the facility constitute a threat to public health, welfare, or the environment based upon the

factors set forth in Section 300.415(b)(2) of the NCP.

37. The actual or threatened release of hazardous substances from the Site may present an imminent and substantial endangerment to the public health or welfare or the environment within the meaning of Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

38. The presence of hazardous substances at each of the Settlement Properties subject to this Order is the result of Historic Contamination.

39. Under the Puyallup Tribe of Indians Settlement Act of 1989, the Tribe is not to be liable for the cleanup costs or in any other manner for contamination on Settlement Properties except any contamination caused by the Tribe's activities after conveyance of the Settlement Properties to the Tribe.

40. The actions to be performed under this Order are necessary to protect the public health, welfare, or the environment, and are in the public interest.

IX. ORDER

Accordingly, based upon the Findings of Fact and Conclusions of Law set forth above, and pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a), it is hereby ORDERED and agreed:

41. The Port agrees that it shall continue to remain responsible for the cleanup and/or remediation of any Historic Contamination to the extent provided in the Settlement Agreement and the Implementing Agreement after the Settlement Properties subject to this Order have been conveyed to the United States in trust for the Tribe. The Port agrees that it will be liable jointly and severally to the United States as an owner or operator

under Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1) with regard to Historic Contamination on each such Settlement Property.

42. The Port shall undertake the following response actions and requirements of this Order, including but not limited to implementing all activities described in the Cleanup Plan for the Blair Waterway Property, which is Appendix 3 to this Order, and in the Cleanup Plan for the Blair Backup Property, which is Appendix 4 to this Order, (collectively the Cleanup Plans), and in the Port's Construction Documents, within the time periods specified therein. The Port shall submit all documents relevant to implementing the Cleanup Plans, including but not limited to Construction Documents, for EPA review and comment pursuant to Paragraph 45. All actions shall be undertaken consistent with Subpart E of the National Contingency Plan, 40 C.F.R. Part 300, as amended.

a. Cleanup of the Lincoln Avenue Ditch, as described in Sections 2.2 and 4.0 of the Blair Waterway Cleanup Plan, is not authorized by this Order. If EPA determines that the proposed response action to fill the Lincoln Avenue Ditch complies with the 404(b)(1) Guidelines, 40 CFR Part 230, EPA intends to amend this Order to authorize cleanup of the Lincoln Avenue Ditch consistent with the Cleanup Plan for the Blair Waterway Property.

b. Cleanup of the charcoal briquette material, as described in Paragraph 44.b.i. shall not proceed until EPA approval of Construction Documents and any associated plans. The Port shall not transport the charcoal briquette material for off-site disposal until after EPA direction, in writing, to proceed.

43. The work by the Respondent pursuant to this Order shall be designed to achieve the following standards:

a. To achieve the cleanup standards set forth in the Cleanup Plans approved by EPA pursuant to this Order.

b. To attain applicable or relevant and appropriate substantive requirements under federal and state environmental laws, including, but not limited to, the following and those listed in the Cleanup Plans and any Cleanup or Work Plan approved pursuant to this Order:

i. The Federal Water Pollution Control Act, 33 U.S.C. 1251 to 1387, including Sections 301, 401 and 404, and the Rivers and Harbors Act, 33 U.S.C. 401 et seq.;

ii. EPA regulations at 40 CFR Parts 122, 125.120-125, 227.22, and 131;

iii. The Coastal Zone Management Act, 16 U.S.C. 1451 et seq., the Washington Shoreline Management Act, RCW 90.58, and the local Shoreline Master Program;

iv. Puyallup Tribe of Indians Settlement Act of 1989, P.L. 101-41, 25 U.S.C.S. 1773;

v. The Washington Water Pollution Control Act, RCW 90.48;

vi. The Puget Sound Air Pollution Control Agency, Regulation 1, Section 9.15;

vii. The Washington Hydraulics Act, RCW 75.20;

viii. The Washington Solid and Hazardous Waste Management Act, RCW 70.105, and dangerous waste regulations, WAC 173-303.

44. The Port shall conduct activities and submit deliverables for EPA review, comment, approval or modification as EPA may deem appropriate, as provided in this Order, in the Cleanup Plans, and any other Cleanup or Work Plan approved by EPA pursuant to this Order. All such work shall be conducted in accordance with the requirements of CERCLA, the NCP, and all applicable EPA guidance, including, but not limited to, guidance referenced therein, and guidance referenced in the Cleanup or Work Plans, as may be amended or modified by EPA. The specific tasks the Port shall perform are described more fully in the Work Plan and guidance. All work performed pursuant to this Order shall be in accordance with the schedules, standards, specifications, and other requirements of this Order, the Cleanup Plans and any other Cleanup or Work Plan and other deliverables, as initially approved or modified by EPA, or as may be amended or modified by EPA from time to time.

a. Blair Waterway Property Cleanup Plan. Within thirty (30) days of the effective date of this Order, the Port shall initiate all activities in conformance with, and according to the schedule of, the Blair Waterway Property Cleanup Plan, which is Appendix 3 to this Order, and the associated Construction Documents. Specifically, the Port shall:

i. Excavate and transport the Weyerhaeuser Ditch Sediments and the arsenic slag from the graving dock and the Upland Area of the Blair Waterway Property to the Blair Backup Property;

ii. Dispose of the sediments, slag, and associated soils on sand and gravel above and isolated from groundwater within a 7-acre portion of the Blair Backup Property in accordance with the

Blair Backup Property Cleanup Plan;

iii. Excavate contaminated dredged sediments from the Mud Lake impoundment, and complete confirmational sampling to ensure all contaminated material is removed (transport and disposal of the sediments will be completed under a separate enforcement agreement with EPA);

iv. The Port shall comply with all institutional controls described in Paragraph 26.

b. Blair Backup Property Cleanup Plan. Within thirty (30) days of the effective date of this Order, the Port shall initiate all activities in conformance with, and according to the schedule of, the Blair Backup Property Cleanup Plan, which is Appendix 4 to this Order, and the associated Construction Documents. Specifically, the Port shall:

i. After receiving the EPA approvals and written notification in accordance with Paragraph 42.b., excavate the charcoal briquettes and the associated charcoal-contaminated soils and transport the material off-site for disposal at the Roosevelt Regional Landfill (Klickitat County, WA), in compliance with a Petition for Exemption from State of Washington Dangerous Waste Regulations (WAC 173-303) as approved by Ecology (the petition has been submitted to Ecology for their review; if the exemption is not approved, a contingency cleanup plan will need to be developed). Subject to EPA approval, the Port may temporarily stockpile the excavated material on-site before transport offsite;

ii. Cover the chromium slag and soil mixture with a minimum of two feet of sand and gravel in the portions of the 17-

acre OFA Area that will not be capped;

iii. Excavate and dispose of the sandblast grit and associated soils on sand and gravel above and isolated from groundwater within a 7-acre portion of the 17-acre OFA Area of the Blair Backup Property;

iv. Cap the sandblast grit from the Blair Backup Property and the sediments and slag from the Blair Waterway Property in the 7-acre portion of the OFA Area of the Blair Backup Property with an asphalt-geotextile cap and sand and gravel.

v. The Port shall comply with all institutional controls described in Paragraph 26.

c. The Blair Waterway Property Removal Completion Report. Within thirty (30) days of construction completion at the Blair Waterway Property, which is defined as the date that the Port determines that the work has been completed in accordance with this Order by its approval of the Contractor's final Specifications documents, the Port shall submit for EPA approval a draft Blair Waterway Property Completion Report (2 copies). The Completion Report shall describe the removal of material from the Site, confirmatory sampling results, deviations from the Cleanup Plan, and actions regarding the disposal of investigation-derived wastes. The Report shall also include photographic documentation of the cleanup project, construction certification by the Port, analytical laboratory data sheets, data validation report, as-built drawings, and any other relevant documentation.

d. The Blair Backup Property Removal Completion Report. Within thirty (30) days of construction completion at the Blair

Backup Property, which is defined as the date that the Port determines that the work has been completed in accordance with this Order by its approval of the Contractor's final Specifications documents, the Port shall submit for EPA approval a draft Blair Backup Property Completion Report (2 copies). The Completion Report shall describe all response actions completed at the Site, excavation and confirmatory sampling results, and any deviations from the Cleanup Plan. The Report shall include photographic documentation of the cleanup project, construction certification by the Port, analytical laboratory data sheets, data validation report, as-built drawings, and any other relevant documentation.

45. EPA reserves the right to comment on, modify and direct changes for all deliverables. At EPA's discretion, the Port shall fully correct all deficiencies and incorporate and integrate all information and comments supplied by EPA either in subsequent or resubmitted deliverables. For each and every deliverable, report, memorandum, plan, or other item required under this Order, if EPA disapproves or requires modification or revision of any portion of such item, the Port shall incorporate EPA's directions, comments, or requirements within thirty (30) days after receiving such directions, comments or requirements from EPA, unless a shorter or longer time is specified by EPA. Failure to incorporate all changes requested by EPA shall constitute a violation of the Order. EPA retains the right to seek stipulated penalties set forth in Paragraph 73 or statutory penalties, and or to seek any other appropriate relief. Deliverables identified at this time include:

a. Deliverables for the Blair Waterway Property:

i. Contractor's Remedial Action Plan and Health & Safety Plan - Submit for EPA review, within 1 day of the Contractor's submittal of the plan to the Port, and prior to any on-site construction activities by the Port or its contractors.

ii. Revisions to Cleanup Plan, as necessary - Submit for EPA approval prior to implementation by the Port or its contractors.

iii. Daily Field Logs - Mail copy to EPA each Thursday during each week of construction activities.

iv. Completion Report - Include Weyerhaueser Ditch and Upland Area/Graving Dock Slag projects.

v. Confirmational Sampling Results, Mud Lake - Submit to the EPA Project Officer by facsimile, within 24 hours of receipt of the data by the Port or its contractors.

vi. Completion Report Addendum - Include Mud Lake project.

b. Deliverables for the Blair Backup Property:

i. Contractor's Remedial Action Plan - Submit for EPA review, within 1 day of the Contractor's submittal of the plan to the Port, and prior to any on-site construction activities by the Port or its contractors.

ii. Contractor's Health & Safety Plan - Submit for EPA review prior to any on-site construction activities by the Port or its contractors.

iii. Revisions to Cleanup Plan, as necessary - Submit for EPA approval prior to implementation by the Port or its contractors.

iv. Contractor's Construction Material Submittals - Submit for EPA review prior to use: asphalt mix design, ballast, sand and gravel cover, crushed aggregate (base course), and wearing course.

v. Daily Construction Observation Field Reports - Mail copy to EPA each Thursday during each week of construction activities. The daily reports will include documentation of work progress and reports of problem identification and corrective measures taken.

vi. Charcoal Briquette Removal: Specifications and Drawings - Submit to EPA for review and acceptance prior to issuing the request for bids.

vii. Charcoal Briquette Removal: Contractor's Remedial Action Plan and Health & Safety Plan - Submit for EPA review, within 1 day of the Contractor's submittal of the plan to the Port, and prior to any on-site construction activities by the Port or its contractors.

viii. Report of Plate Load Test on Cap and Cover - Submit to EPA within 15 days after construction completion. Based on the loading test results, the draft "Footing and Pavement Design Calculations" document (dated February 8, 1993) will be augmented and revised, as necessary.

ix. Completion Report - Include sand and gravel cover and asphalt cap projects. Submit to EPA within 30 days after construction completion.

x. Cover and Cap Inspection Reports - Submit as required in the Cleanup Plan.

xi. Completion Report Addendum - Include summary of charcoal briquette project.

xii. Status Report of Post-Placement Groundwater Sampling Events - After construction completion, submit every six months to EPA.

xiii. Detailed Report of Post-Placement Groundwater Sampling Events - Submit 5 years after construction completion.

46. The Port shall be responsible for monitoring, testing or other ongoing or future requirements regarding Historic Contamination on, in, under, or about a Settlement Property subject to this Order to the extent provided for in the Settlement Agreement and the Implementing Agreement. The Port agrees to comply with the terms of the Implementing Agreement and to keep EPA informed of activities undertaken pursuant to the Implementing Agreement by taking the following measures. All notices or reports to be provided by the Port to EPA under this Order shall also be provided by the Port to the Tribe.

a. The Port shall provide to EPA copies of any notice by the Puyallup Tribe to the Port pursuant to the Implementing Agreement,

including but not limited to copies of Exhibits B and C of the Implementing Agreement, which are submitted by the Tribe to the Port.

b. Upon being notified by the Tribe of a discovery of a release or the threat of a release of hazardous substances on any of the Settlement Properties subject to this Order that may pose a threat to human health or the environment, the Port shall notify EPA within 5 calendar days of receiving the notification from the Tribe. To the extent known, the written notification shall include property name, the identification and location of the hazardous substance(s), circumstances of the release and the discovery, including but not limited to sampling results, any potential imminent and substantial threat to human health and the environment, justifications for decisions pertaining to site activities, notification on whether the release is suspected to involve Historic Contamination, and any remedial actions planned, completed, or underway. Compliance with this paragraph shall not relieve any party of any notification requirements of an applicable federal, tribal or state law or regulation.

c. Within sixty (60) days of the Port notifying EPA of its discovery of a release, the Port shall consult with the Tribe and submit to EPA a written report that shall describe the nature of the release and include complete documentation for all items listed in Paragraph 44.b of this Order. The written report shall also identify whether the Port and/or Tribe have any remedial actions planned. Such a determination shall include comparisons to applicable state, tribal, and federal criteria to be used as

screening criteria.

d. Within ninety (90) days of the Port completing any necessary cleanup actions, the Port shall submit a Completion Report to EPA describing the cleanup action at the property. The Completion Report shall include cleanup actions and compliance monitoring planned or underway.

e. If the cleanup action undertaken by the Port is completed within 90 days of the Port notifying EPA of the discovery of the release, a single written report may be submitted to EPA on both the release and the action taken. The report shall contain all information in Paragraph 46.b of this Order and shall be submitted within 60 days of completion of the cleanup action.

47. For each report submitted pursuant to Paragraph 46 and the following subparagraphs of Paragraph 45 to this Order (45.a.iv, 45.a.vi, 45.b.iv, 45.b.viii, 45.b.ix, 45.b.xi, 45.b.xii, and 45.b.xiii), a responsible official representing the Port shall certify the information contained in the report is true, accurate and complete. The following certification shall be signed by a responsible official on behalf of the Port:

"In accordance with 28 U.S.C. § 1746, I certify under penalty of perjury under the laws of the United States that the information contained in and accompanying this certification is true, accurate, and complete. As to (the) (those) identified portion(s) of this (submission) (document) for which I cannot personally verify (its) (their) truth and accuracy, I certify as the responsible official having supervisory responsibility for the person(s) who, acting under my direct instructions, made the verification that this information is true, accurate, and complete. Dated this __ day of , 1993."

For purposes of this Order, the responsible official is the Port official authorized by the Executive Director of the Port to

execute the certification.

48. The absence of express EPA comment, approval or disapproval of any submission within any specified time period shall not be construed as approval by EPA. The Port is responsible for the timely preparation of deliverables acceptable to EPA.

49. The Port shall, prior to the shipment of hazardous substances from the Site to an out-of-state waste management facility, submit written notification, as set forth below, to the appropriate state environmental official in the receiving state, and to the EPA Project Coordinator. Notification shall include: (1) the name and location of the receiving facility; (2) the type and quantity of hazardous substances to be shipped; (3) the expected shipment schedule; and (4) the mode of transportation. The Port shall submit written notification of any changes in the shipment plan as set forth in the notification. Notification of the selection of the receiving facility and state shall be made at least thirty (30) days before any hazardous substances are actually shipped.

X. MODIFICATION OF THE CLEANUP PLANS

50. If at any time, the Port identifies a need for any change to a Cleanup Plan or Work Plan or Construction Document approved by EPA, the Port shall submit a memorandum to the EPA Project Coordinator immediately after such need has been identified explaining the need for and the nature of the data sought. EPA in its discretion, and acting through the EPA Project Coordinator, will determine whether to modify the Cleanup Plan or Work Plan or Construction Document. The Port shall submit all addenda to

Construction Documents for EPA review and acceptance prior to implementation of any proposed changes. Upon approval or acceptance by EPA of a document submitted pursuant to this Order, such document shall be incorporated into and made enforceable under this Order.

51. In addition to the requirements of Section 103 of CERCLA, 42 U.S.C. § 9603, and all other statutory or regulatory reporting requirements, the Port shall immediately notify EPA and Ecology of any conditions at the Site which may pose an immediate threat to human health or welfare or the environment. In the event of unanticipated or changed circumstances at the Site, the Port shall notify the EPA Project Coordinator by telephone within 24 hours of discovery of the unanticipated or changed circumstances. If, for any reason, the EPA Project Coordinator cannot be reached, the Port shall as immediately as possible thereafter notify the EPA Region 10 Superfund Investigations & Response Branch Chief, or leave detailed messages with both of their respective offices if neither can be reached. In addition to the authorities of the NCP, EPA may modify or amend any work to be performed pursuant to this Order or require additional work if EPA determines that such modification or amendment is warranted by the immediate threat or in response to unanticipated or changed circumstances. The Port shall perform such modified or additional work.

52. EPA may determine that in addition to tasks defined in the in the approved Cleanup Plans, other additional work may be necessary to accomplish the objectives of the removal action, as set forth in this Order. EPA may require the Port to perform such

additional work or other response activity in addition to the work initially approved or modified, if EPA determines that such actions are necessary for a complete removal action. The additional work shall be completed according to the standards, specifications, and schedule set forth or approved by EPA.

XI. QUALITY ASSURANCE

53. The Port shall assure that all work performed, samples taken and analyses conducted, conform to the requirements of the Cleanup Plans and quality assurance project plans approved by EPA, and guidance identified therein, and that all field personnel shall be properly trained for each task they may perform and in the use of field equipment, including strict adherence to EPA chain-of-custody procedures.

XII. PROGRESS REPORTS

54. In addition to the deliverables set forth in this Order, until the termination of this Order, the Port shall provide monthly progress reports to EPA by the 10th day of each month following the effective date of this Order. At a minimum, with respect to the preceding month, these progress reports shall: (1) describe the actions which have been taken to comply with this Order during the previous month; (2) include all results of sampling and tests and all other data received by the Port; (3) describe all work planned for the next two months with schedules relating such work to the overall project schedule, including percentage of completion data; and, (4) describe all problems encountered and any anticipated problems, any actual or anticipated delays, and all solutions developed and implemented or planned to address any actual or

anticipated problems or delays.

XIII. SAMPLING, ACCESS, AND DATA AVAILABILITY/ADMISSIBILITY

55. Except for confirmatory sampling conducted in accordance with Cleanup Plans approved by EPA, all results of sampling, tests, modeling or other data (including all raw data and all laboratory analytical reports) generated by the Port, or on the Port's behalf, during implementation of this Order, shall be submitted to EPA in the subsequent monthly progress report as described in Section XII of this Order. The Port shall arrange for its contractor to submit confirmatory monitoring sampling data concurrently to EPA and the Port.

56. The Port shall notify EPA at least fourteen (14) days prior to conducting any field events described in the Cleanup Plans. Specifically, the Port shall notify EPA at least 48 hours prior to: (1) completion of any excavation work, including Graving Dock excavations, and initiation of any backfilling; (2) completion of the 6-inch sand and gravel buffer; (3) completion of disposal of the materials from the Blair Waterway Property at the Blair Backup Property; (4) confirmation that a separation geosynthetic layer is not required; (5) completion of storm drain installation and initiation of backfilling; (6) completion of the 6 inch base course; and, (7) initiation and completion of the asphalt cap. At EPA's verbal or written request, or the request of EPA's Project Coordinator or designee, the Port shall allow split or duplicate samples to be taken by EPA (and its authorized representatives and designees) of any samples collected by the Port in implementing this Order. All of the Port's split samples shall be analyzed by

the methods identified in the QAPP.

57. EPA and its designated representatives shall have full access to, and authority to freely move about all property at the Site and off-Site areas where work is to be carried out pursuant to this Order, for purposes of inspecting conditions, activities in implementing the requirements of this Order, records, operating logs, and contracts related to the Site or the Port or its contractor pursuant to this Order; reviewing the progress of the Port in carrying out the terms of this Order; conducting tests as EPA or its authorized representatives or designees deem necessary; using a camera, sound recording device or other documentary type equipment; and verifying the data submitted to EPA by the Port. The Port shall allow these persons to inspect and copy all records, files, photographs, documents, sampling and monitoring data, and other writings related to work undertaken in carrying out this Order. Copies of all other information or records created, maintained or received by the Port or its agents, employees, accountants, contractors or consultants which is in any way related to the implementation of this Order, including: contractual documents, invoices, receipts, work orders, disposal records, and any other records or documents not previously required herein shall promptly be made available to EPA on request as soon as practicable, but in any event within thirty (30) days of the Port's receipt of EPA's request. Nothing herein shall be interpreted as limiting or affecting EPA's right of entry or inspection authority under federal law. All persons with access to the Site under this paragraph shall comply with all approved health and safety plans.

58. The Port may assert a claim of business confidentiality covering part or all of the information submitted to EPA pursuant to this Order in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. Part 2, Subpart B. This claim shall be asserted in the manner described by 40 C.F.R. 2.203(b), and substantiated when made. If no such claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA without further notice to the Port. The Port may not assert any confidentiality claim with respect to any data related to Site conditions, sampling, or monitoring.

59. If the Site, or the off-Site area that is to be used for access or is within the scope of the cleanup, is owned in whole or in part by parties other than those bound by this Order, the Port shall obtain, or use its best efforts to obtain, written site access agreement(s) from the present owner(s) within thirty (30) days of the effective date of this Order. Such agreement(s) shall provide access for EPA, its contractors and oversight officials, Ecology and its contractors, and the Port and its authorized representatives, and shall specify that the Port is not EPA's representative with respect to any liability associated with activities required by this Order. Copies of all such agreements shall be provided to EPA prior to the initiation of any field activities. The Port's best efforts shall, if necessary, include providing reasonable compensation to any property owner for access. If the Port is unable to obtain access agreements with the time reference above, the Port shall immediately notify EPA of it failure to obtain access.

XIV. DESIGNATED PROJECT COORDINATORS

60. Documents including reports, approvals, disapprovals, and other correspondence which must be submitted under this Order, shall be sent by certified mail, return receipt requested, to the following addressees or to any other addressees which the Port and EPA designate in writing:

a. Four (4) copies, unless otherwise directed, of documents to be submitted to EPA shall be forwarded to:

Karen L. Keeley, HW-113,
U.S. EPA, Region 10
1200 Sixth Avenue
Seattle, WA 98101

b. One (1) copy of documents to be submitted to Ecology shall be forwarded to:

Megan White
Washington Department of Ecology
7272 Cleanwater Lane, LU-11
Olympia, WA 98504-6811

c. Two (2) copies of documents to be submitted to the Puyallup Tribe of Indians shall be forwarded to:

Bill Sullivan
Puyallup Tribe
2002 East 28th Street
Tacoma, WA 98404

61. The Port's Project Coordinator is:

Curtis Ratcliffe
Port of Tacoma
P.O. Box 1837
Tacoma, WA 98401-1837

62. EPA and the Port may change their respective Project Coordinators by notifying the other party, in writing, no later than 5 calendar days before the date of such change.

63. EPA's Project Coordinator, Karen Keeley, shall have the authority lawfully vested in a Remedial Project Manager (RPM) and

On-Scene Coordinator (OSC) by the NCP, and shall have the authority specified and indicated in the National Contingency Plan, 40 CFR Part 300. Nothing in this Order shall be construed to diminish that authority. If EPA's Project Coordinator determines that conditions at the Site may present an immediate and significant risk to public health or welfare or the environment, EPA's Project Coordinator may take any actions to abate such risks as specified in the National Contingency Plan, including ordering cessation of work, conducting any task required by this Order, and taking any appropriate response action. The EPA Project Coordinator may authorize minor field deviations, which shall be documented in writing and signed by both the Ports' Project Coordinator and the EPA Project Coordinator within five (5) working days of such authorization.

64. The absence of the EPA Project Coordinator and/or On-Scene Coordinator from the Site shall not constitute an excuse for halting the required work under this Order.

XV. OTHER APPLICABLE LAWS

65. All actions required to be taken pursuant to this Order shall be performed in accordance with the requirements of all applicable local, tribal, state and federal laws and regulations. 42 U.S.C. § 121(d). No local, tribal, state, or federal permit shall be required for any portion of any action governed by the Order or amendments to this Order that is conducted entirely on-Site. State and federal requirements which are applicable or relevant and appropriate shall be included and detailed in the Port's Cleanup or Work Plan. Off-site disposal of hazardous

substances, if necessary, shall comply with the EPA Off-Site Response Action Policy dated May 6, 1985, 50 Fed. Reg. 45933 (November 5, 1985) as amended by EPA's November 13, 1987 "Revised Procedures for Planning and Implementing Off-Site Response Actions," Section 3004(d)(3) of the Resource Conservation and Recovery Act, 42 U.S.C. § 6924(d)(3), and Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), as amended.

XVI. RECORD PRESERVATION

66. All records and documents created by the Port, or on the Port's behalf, which relate in any way to the implementation of this Order, including all records referenced in Paragraph 35 of this Order shall be preserved by the Port for a minimum of six (6) years after commencement of construction of any remedial action at the Site. After this six (6) year period, the Port shall notify EPA at least ninety (90) days before any records are scheduled to be destroyed. If EPA requests that the documents be saved, the Port shall, at no cost to EPA, give EPA the documents or true and accurate copies of the documents.

XVII. DISPUTE RESOLUTION

67. Any disputes concerning activities or deliverables required under this Order for which dispute resolution has been expressly provided for, shall be resolved as follows: if the Port objects to any EPA notice of disapproval or requirement made pursuant to this Order, the Port shall notify EPA's Project Coordinator in writing of its objections within fourteen (14) days of receipt of the disapproval notice or requirement. The Ports' written objections shall define the dispute, state the basis of the

Ports' objections, and be sent certified mail, return receipt requested. EPA and the Port then have an additional fourteen (14) days to reach agreement. If an agreement is not reached within fourteen (14) days, the Port may request a determination by EPA's Superfund Remedial Branch Chief. The Branch Chief's determination is EPA's final decision. The Port shall proceed in accordance with EPA's final decision regarding the matter in dispute, regardless of whether the Port agrees with the decision. If the Port does not agree to perform or does not actually perform the work in accordance with EPA's final decision, EPA reserves the right in its sole discretion to conduct the work itself, to seek reimbursement from the Port, to seek enforcement of the decision, to seek stipulated penalties, and/or to seek any other appropriate relief.

68. The Port is not relieved of its obligations to perform and conduct activities and submit deliverables on the schedule set forth in the Cleanup Plan or work plan, while a matter is pending in dispute resolution. The invocation of dispute resolution does not stay stipulated penalties under this Order.

XVIII. DELAY IN PERFORMANCE/STIPULATED PENALTIES

69. For each day that the Port fails to complete a deliverable in a timely manner or fails to produce a deliverable of acceptable quality, or otherwise fails to perform in accordance with the requirements of this Order, the Port shall be liable for stipulated penalties. Penalties begin to accrue on the day that performance is due or a violation occurs, and extend through the period of correction. Where a revised submission by the Port is required, stipulated penalties shall continue to accrue until a satisfactory

deliverable is produced. EPA will provide written notice for violations that are not based on timeliness; nevertheless, penalties shall accrue from the day a timeliness violation commences or a notice of violation of other violations is received. Payment shall be due within sixty (60) days of receipt of a demand letter from EPA.

70. The Port shall pay interest on the unpaid balance, which shall begin to accrue at the end of the sixty (60) day period, at the rate established by the Department of Treasury pursuant to 30 U.S.C. §3717. The Port shall further pay a handling charge of 1 percent, to be assessed at the end of the first sixty (60) day period and each thirty-one (31) day period thereafter, and a 6 percent per annum penalty charge, to be assessed if the penalty is not paid in full within ninety (90) days after it is due.

71. The Port shall make all payments by forwarding a certified check to the U.S. EPA Superfund, P.O. Box 360903M, Pittsburgh, Pennsylvania 15251, payable to "EPA Hazardous Substances Response Superfund." Checks should identify the name of the Site, the site identification number, the account number, and the title of this Order. A copy of the check and/or transmittal letter shall be forwarded to the EPA Project Coordinator.

72. The following stipulated penalties shall be payable per violation per day to the United States for any noncompliance that is not governed by Paragraph 73:

Penalty Per Violation Per Day	Period of Noncompliance
$1,000	1st through 30th day
$5,000	31st through 60th day
$10,000	61st day and beyond

73. The following stipulated penalties shall be payable per violation per day to the United States for failure to submit timely or adequate reports or other written documents:

Penalty Per Violation Per Day	Period of Noncompliance
$500	1st through 30th day
$1,000	31st through 60th day
$2,500	61st day and beyond

74. The Port may dispute EPA's right to the stated amount of penalties by invoking the dispute resolution procedures under Section XVII herein. Penalties shall accrue but need not be paid during the dispute resolution period. If the Port does not prevail upon resolution, all penalties shall be due to EPA within sixty (60) days of resolution of the dispute. If the Port prevails upon resolution, no penalties shall be paid.

75. In the event that EPA provides for corrections to be reflected in the next deliverable and does not require resubmission of that deliverable, stipulated penalties for that interim deliverable shall cease to accrue on the date of such decision by EPA.

76. The stipulated penalties provisions do not preclude EPA from pursuing any other remedies or sanctions which are available to EPA because of the Port's failure to comply with this Order, including but not limited to conduct of all or part of the Cleanup Plans by EPA. Payment of stipulated penalties does not alter the

Port's obligation to complete performance under this Order.

XIX. FORCE MAJEURE

77. "Force majeure", for purposes of this Order, is defined as any event arising from causes entirely beyond the control of the Port and of any entity controlled by the Port, including their contractors and subcontractors, that delays the timely performance of any obligation under this Order notwithstanding the Port's best efforts to avoid the delay. The requirement that the Port exercise "best efforts to avoid the delay" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event (1) as it is occurring and (2) following the potential force majeure event, such that the delay is minimized to the greatest extent practicable. Examples of events that are not force majeure events include, but are not limited to, increased costs or expenses of any work to be performed under this Order or the financial difficulty of the Port to perform such work.

78. If any event occurs or has occurred that may delay the performance of any obligation under this Order, whether or not caused by a force majeure event, the Port shall notify by telephone the EPA Project Coordinator or, in his or her absence, the Director of the Hazardous Waste Division, EPA Region 10, within 48 hours of when the Port knew or should have known that the event might cause a delay. Within five business days thereafter, the Port shall provide in writing the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any

measures to be taken to mitigate the effect of the delay; and a statement as to whether, in the opinion of the Port, such event may cause or contribute to an endangerment to public health, welfare or the environment. The Port shall exercise best efforts to avoid or minimize any delay and any effects of a delay. Failure to comply with the above requirements shall preclude the Port from asserting any claim of force majeure.

79. If EPA agrees that the delay or anticipated delay is attributable to force majeure, the time for performance of the obligations under this Order that are directly affected by the force majeure event shall be extended by agreement of the parties, pursuant to Section IX of this Order, for a period of time not to exceed the actual duration of the delay caused by the force majeure event. An extension of the time for performance of the obligation directly affected by the force majeure event shall not, of itself, extend the time for performance of any subsequent obligation.

80. If EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, or does not agree with the Port on the length of the extension, the issue shall be subject to the dispute resolution procedures set forth in Section XVII of this Order. In any such proceeding, to qualify for a force majeure defense, the Port shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay was or will be warranted under the circumstances, that the Port did exercise or is exercising due diligence by using its best efforts to avoid and

mitigate the effects of the delay, and that the Port complied with the requirements of Paragraph 78.

81. Should the Port carry the burden set forth in Paragraph 78, the delay at issue shall be deemed not to be a violation of the affected obligation of this Order.

XX. REIMBURSEMENT OF RESPONSE AND OVERSIGHT COSTS

82. Following the issuance of this Order, EPA shall submit to the Port on an annual basis an accounting of all response costs, including oversight costs, incurred by the United States which relate to activities under this Order. Such response costs may include, but are not limited to, costs incurred by the United States in overseeing the Port's implementation of the requirements of this Order, and activities performed by the United States as part of the implementing this Order and community relations, including any costs incurred to obtain access. Costs shall include all direct and indirect costs, including but not limited to, time and travel costs of EPA personnel and associated indirect costs, contractor costs, cooperative agreement costs, compliance monitoring, including the collection and analysis of split samples, inspection of cleanup activities, visits to the properties subject to this Order, discussions regarding disputes that may arise regarding this Order, review and approval or disapproval of submissions, and costs of doing or redoing any of the Port's tasks. Summaries, including EPA's certified Agency Financial Management System summary data (SPUR Reports), or such other summary as

certified by EPA, shall serve as a basis for payment demands by EPA.

83. The Port shall within sixty (60) days of receipt of each accounting, remit a certified or cashier's check for the amount of costs set forth in EPA's accounting. Interest shall accrue from the later of: the date payment of a specified amount is demanded in writing; or the date of the expenditure. The interest rate shall be the rate of interest on investments for the Hazardous Substances Superfund in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

84. Checks should be made payable to the Hazardous Substances Superfund and should state the name of the Site, the Site identification number, the account number, and the title and docket number of this Order. Checks should be forwarded to:

U.S. Environmental Protection Agency
EPA Region 10 Superfund Accounting
P.O. Box 360903M
Pittsburgh, Pennsylvania 15251

Copies of the transmittal letter and check should be sent simultaneously to the EPA Project Coordinator.

85. The Port agrees to limit any disputes concerning costs to accounting errors and the inclusion of costs outside the scope of this Order. The Port shall identify any contested costs and the basis of its objection in writing. All undisputed costs shall be remitted by the Port in accordance with the schedule set forth above. Disputed costs shall be paid into an escrow account by the Port while any such dispute is pending. The Port bears the burden of establishing an EPA accounting error or the inclusion of any cost outside the scope of this Order. Interest shall accrue during

any cost dispute.

XXI. RESERVATIONS OF RIGHTS

86. EPA reserves the right to bring an action against the Port under Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of all response costs incurred by the United States which are not reimbursed by the Port, including past costs, oversight costs, any costs incurred in the event that EPA performs work contemplated by this Order or any part thereof, and any future costs incurred by the United States in connection with response activities under CERCLA at the Site.

87. EPA reserves the right to take appropriate enforcement action, including the right to seek monetary penalties or injunctive relief pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a) for any violation of this Order. In addition, if the Port fails to remedy noncompliance in a timely manner, EPA may initiate federally-funded response actions and pursue actions for cost recovery.

88. Notwithstanding any other provision of this Order, EPA reserves the right to assert all claims or causes of action against the Port or any other persons or entities with respect to the conditions at the CB/NT Superfund site or with respect to performing the response actions required by this Order. EPA reserves the right to conduct any other additional investigations and response activities at the CB/NT Superfund site, and further retains all rights against third parties with respect to the conditions at the CB/NT Superfund site. Nothing in this Order is intended to release any claims, causes of action, or demands in law

or equity of any party against any entity not a party to this document for any liability it may have arising out of or relating in any way to CB/NT Superfund site.

89. In the event that activities implementing this Order, an emergency situation, or release or threat of release not addressed in this Order is or may be creating an imminent and substantial endangerment to the public health, welfare, or the environment, EPA may take whatever additional action may be necessary to prevent or abate the endangerment.

XXII. EXONERATION/INDEMNIFICATION OF THE UNITED STATES

90. The United States, including its agencies, officers, employees, and authorized representatives, shall not be liable for any injuries or damages to persons or property resulting from acts or omissions by the Port, its officers, employees, receivers, trustees, agents, assigns, contractors, or subcontractors in carrying out activities pursuant to this Order; nor shall the United States be deemed a party to any contract made by the Port or its agents pursuant to this Order. To the extent permitted by law, the Port shall save and hold harmless, the United States, its agencies, officers, employees, and authorized representatives from, and shall indemnify each of the foregoing for any and all claims, or causes of action arising from or on account of acts or omissions of the Port, its officers, employees, receivers, trustees, agents, assigns, contractors or subcontractors relating in any way to carrying activities pursuant to this Order.

91. The Port shall not, however, be required to indemnify or save and hold harmless the United States, its agencies, officers,

agents, or employees from any claims or causes of action arising from, or on account of, acts or omissions of the United States, or its agencies, officers, agents, or employees in carrying out activities pursuant to this Order.

XXIII. COMMUNITY RELATIONS

92. Community relations activities relevant to the implementation of this Order, as specified in the National Contingency Plan at 40 CFR 300.410(m), are the primary responsibility of EPA and its representatives. The Port shall provide appropriate assistance upon EPA's request, and may undertake its own community relations activities provided the Port coordinates such activities (including the prior submission to EPA of any materials to be released to the public or press with respect to the Site or cleanup) with EPA. EPA and the Port further agree to cooperate in the conduct of such activities.

XXIV. COMPUTATION OF TIME

93. Any time period schedules to begin on the occurrence of an act or event shall begin on the day after the act or event. If the final day of any time period falls on a weekend or legal holiday, the time period shall be extended to the next working day.

XXV. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

94. The effective date of this Order shall be the date it is signed by EPA.

95. This Order may be amended by mutual agreement of EPA and the Port. Amendments shall be in writing and shall be effective when signed by EPA. EPA Project Coordinators do not have the authority to sign amendments to the Order.

96. No informal advice, guidance, suggestions, or comments by EPA regarding reports, plans, specifications, schedules, and any other writing submitted by the Port will be construed as relieving the Port of its obligation to obtain such formal approval as may be required by this Order. Any deliverables, plans, technical memoranda, reports (other than progress reports), specifications, schedules and attachments required by this Order are, upon approval by EPA, incorporated into this Order.

XXVI. SATISFACTION OF ORDER AND TERMINATION

97. The duties of the Port under this Order shall be satisfied upon a Consent Decree being entered by the U.S. District Court for the Western District of Washington which covers the matters addressed in this Order.

The undersigned representative of the Port certifies that it is fully authorized to enter into the terms and conditions of this Order for the Port.

BY: _____ DATE: 3/8/93
John Terpstra, Executive Director
Port of Tacoma

It is so ORDERED and Agreed.

BY: _____ DATE: 3/9/93
Carol A. Rushin, Chief
Superfund Remedial Branch
U.S. Environmental Protection Agency Region 10

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

March 9, 1993

Reply to
Attn of: HW-113

MEMORANDUM

DATE: March 9, 1993

FROM: Karen Keeley
Superfund Site Manager

TO: Bill Sullivan, Puyallup Tribe

SUBJECT: **EPA Water Division Comments on Tribe's Lincoln Ditch Mitigation Plan, Blair Waterway Property**

The purpose of this memorandum is to summarize comments from EPA Water Division (Michael Rylko) on the Puyallup Tribe's Lincoln Ditch Mitigation Plan (Fish Pro, 1993). The Mitigation Plan (the Plan) was submitted to EPA Superfund by the Puyallup Tribe regarding filling of the Lincoln Avenue Ditch on the Blair Waterway Property. In summary, EPA requests modification of the enhancement and creation ratios, and EPA questions the feasibility and success of the Mitigation Plan given the steep slope and the high elevations of the proposed project.

1. The Plan (Page 5) states that "enhancement and creation ratios follow those previously approved and permitted by Federal, State and local regulatory agencies on similar projects. Specifically, the wetland enhancement credit ratio is 2.0:1.0 and for the wetland creation ration is 1.5:1.0." This statement, which is unsupported by documentation, does not reflect the agencies' position.

   EPA and other regulatory agencies are using the following replacement ratios for offsetting impacts of proposed projects and for meeting the longer term goal of no net loss of estuary function within Commencement Bay:

3 acres enhanced habitat:	1 acre of habitat lost
2 acres created habitat:	1 acre of habitat lost
1.5 acres restored habitat:	1 acre habitat lost

   These replacement ratios are based on "Wetland Mitigation Replacement Ratios: Defining Equivalency", February 1992, Department of Ecology, Publication #92-8; Kruczynski, 1989 and contained in Kusler and Kentula eds., 1989; and the Puget Sound Water Quality Plan, 1991.

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The replacement ratios take into consideration both the temporal loss of ecosystem function associated with the timing of the project's long-term impacts vs. the provision of functional mitigation habitat and the uncertainty of success associated with mitigation actions. The enhancement ratio also includes a measure of value of the pre-enhanced mitigation site.

2. The Plan (Figure 6) shows that the created and enhanced saltmarsh habitat are located between +14 and +16 feet MLLW. These elevations are not suitable for intertidal and saltmarsh creation. Tidal information from Commencement Bay indicates that tides above the +13 foot level rarely occur, which suggests that the saltmarsh habitat would seldom be inundated with water.

3. The Plan (Page 10) states that "The conceptual level created wetland design area has slopes that vary from 7:1 to 15:1." Figure 6 shows that a slope of 7:1 is proposed throughout the majority of the area. First, the Plan (Figure 6) indicates that slopes in some areas are 5:1; 5:1 slopes on the "island" will not be stable unless they are rip-rapped. Second, Ron Thom (wetland ecologist) has shown that the maximum slope for planting emergent marsh vegetation is 12:1. If Fish Pro is confident that a slope of 7:1 is adequate, please identify an existing community that shows the proposed project might be successful. Although "terracing" is proposed by the USFWS, EPA is concerned that terracing may not be successful.

4. The Plan (Page 10) states that "Graded material will be placed on site in the enhanced upland future recreation and access area. Any excess material will be removed off site." The volume of the graded material must be determined; the elevation changes must be identified prior to excavation and after disposal; the resulting elevation contours and slopes must be defined; and, the term "excess material" must be defined.

5. The Plan (Page 10) states that one of the primary goals of the Plan is to improve waterfowl breeding opportunity. Exposed intertidal areas such as this are not suitable for improving waterfowl breeding opportunity.

6. The Plan must be modified to include performance triggers, planting methods, contingency planning, and annual vegetative mapping for the site.

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May 22, 1993

Mr. Jeff Lyon
Puyallup International, Inc.
3600 Port of Tacoma Road, Suite 302
Tacoma, Washington

Re: Development of the Blair Waterway
Property as a Marine Terminal Facility

Dear Mr. Lyon:

At the request of Puyallup International, Inc., I evaluated the impact of options described in Section III below on the Puyallup Tribe's proposal to develop the Blair Waterway Property into a deep draft marine terminal. This evaluation is based on the feasibility of designing, building and operating a deep water shipping terminal that will meet present and future shipping needs for non-Panamax ships (wider than 120 feet) on the West Coast of the United States. Filling the Lincoln Avenue ditch as proposed by the Puyallup Tribe is the preferred option because it meets the Tribe's needs, taking into account terminal design, layout and operational requirements, technical and engineering feasibility, cost of construction and maintenance, and market demand for non-Panamax container loading and unloading facilities.

I. PROFESSIONAL QUALIFICATIONS

From 1940 to 1964, I served in the Army Corp of Engineers. During the last 15 years of service, I specialized in the design, construction and management of ports, harbors, dams, river projects and other civil works projects. In 1964, I retired from the Army Corps of Engineers as District Engineer in Seattle.

From 1964 until 1975, I was the General Manager of the Port of Tacoma. During that period, the Port developed deep draft marine terminal capacity to serve West Coast cargo needs. Among other things, I managed dredging projects for the Port in the Blair and Puyallup Waterways. As General Manager, I oversaw long-range strategic and terminal development plans. I have extensive knowledge of the Blair Waterway and overall operations of the Port of Tacoma.

From 1975 to 1979, I was President of Fruin-Colnon International Limited. This firm was involved in the design and building of ports and offshore related facilities in the Middle East.

From 1979 through 1984, I was Executive Director of the Port of Los Angeles. I was responsible for planning and implementing a $500 million port redevelopment program and for planning the Port's long-term development program that will cost approximately $2.5 billion. During my term as Executive Director, the Port of Los Angeles became the most profitable port in the United States.

Since 1984, I have been a consultant to the Port of Los Angeles. In addition, I serve as a consultant on a wide range of matters for other ports in the Gulf of Mexico and West Coast relating to port reorganizations, bond issues, strategic plans, marketing plans, litigation, tariff adjustments, leasing policies, environmental issues and terminal layout.

My academic background includes a B.S. in Civil Engineering from the University of Missouri, an M.S. in Industrial Engineering from New York University, and a Doctor of Engineering from the University of Missouri.

A copy of my resume which sets forth my professional qualifications in greater detail accompanies this letter as Attachment A.

II. EVALUATION OF THE BLAIR WATERWAY PROPERTY AS A MARINE TERMINAL

For various reasons, waterfront property along the West Coast suitable for development as a deep draft marine terminal shipping facility for non-Panamax cargo ships is scarce. This applies to waterfront property in and around the Port of Tacoma and Puget Sound. Non-Panamax ships are too large to pass through the Panama Canal. Present and future demand for new terminal facilities on the West Coast will be for non-Panamax terminals.

Based on my experience, approximately 50 acres is the amount of property that is the minimum desirable for development of a single berth deep draft marine terminal. In addition to ship berthing area, a marine terminal needs unrestricted loading, unloading and staging areas for quick and efficient movement of containerized cargo. At 43.6 acres, the Blair Waterway Property

is below the optimum, but could be developed and used as a marine terminal loading facility if it is carefully designed and efficiently operated. Further reductions in the Property's useable area or constraints which disrupt efficient use of the Property would make it unlikely to commercially develop and market the Property as a deep draft marine terminal.

III. ANALYSIS OF OPTIONS

An independent consulting firm, Fish Pro, evaluated several options relating to development of the Blair Water Property for compliance with EPA's Guidelines under Section 404 of the Clean Water Act. I am not aware of any other reasonable alternatives for development of the Property as a marine terminal facility.

My evaluation of the options listed by Fish Pro upon the feasibility of developing the Property as a deep draft marine terminal takes into account the following factors: terminal design, layout and operational requirements; technical and engineering feasibility; cost of construction and maintenance; and market demand for non-Panamax facilities. In preparation of my evaluation, I conducted a site inspection, reviewed the documents referenced in Attachment B to this letter, and relied upon my professional experience with the Port of Tacoma and various other port development projects over the last 40 years.

Option A – Filling the Ditch. Filling the Ditch will enable the Tribe to provide a hard surface area across which containers can be moved efficiently along the wharf, on and off vessels, and throughout the staging areas on the Property. Cost of this option is approximately $280,000, according to Fish Pro.

An efficient terminal operation requires the ability to move containers along and parallel to the wharf structure and throughout the staging area. This and other requirements for development of the Property as a deep draft marine terminal will be met if the Ditch is filled as proposed by the Tribe under Option A.

Option B-1 – Full Bridge or Wharf Cover Over the Ditch. This option would require construction of a bridge or wharf-type structure to completely cover the Ditch. The structure would need a load-bearing capacity sufficient to support movement of containers and other heavy equipment. According to Fish Pro, it would cost approximately $3,660,000 to construct such a structure; maintenance costs would be $30,000 each year afterwards.

Under this option, the Puyallup Tribe would be able to operate the Property as a marine terminal port facility. However, this option provides no project advantages over the Tribe's proposal to fill the Ditch. Option B-1 imposes significantly greater construction and maintenance costs than the Tribe's proposal. These extra costs would jeopardize the Tribe's ability to obtain project financing.

Option B-2 - Partial Bridge Option. This option proposes the use of two 125-foot-wide bridges to cross the Ditch. A portion of the Ditch would remain uncovered. These bridges would resemble the design and load-bearing capacity of the bridge in Option B-1. According to Fish Pro, it would cost approximately $2,480,000 to construct these two structures; maintenance costs would be $20,000 per year thereafter.

The two 125-foot bridges would enable two heavy pieces of container-handling equipment to pass each other safely. However, this option would disrupt efficient movement of containers around the uncovered portion of the Ditch and would reduce the acreage available for container storage and handling. Constraints on the use of the Property under this Option would reduce the Property's overall utility and commercial desirability below the level that is necessary for its development as a deep draft marine terminal.

Option C - Partial Filling of the Ditch. An uncovered 200-foot section of the Ditch would remain in the Center of the Property under this option. The cross section of the Ditch would be narrowed by filling and steepening its sides. Acoording to Fish Pro, costs of this option will be at least $290,000.

Changing the Ditch's cross-section and leaving a 200-foot section of open ditch has the same effect as Option D. Both options effectively deny access to one-third of the property for container runs. This would make it commercially impractical to develop the Property as a non-Panamax ship terminal.

Option D - Fence the Ditch. This option has the same effect as Option C. A large uncovered section of the Ditch remains in the center of the Property. This makes development of the Property as a non-Panamax ship terminal commercially impractical. According to Fish Pro, costs of implementing Option D vary between $310,000 and $1,310,000, depending on selection of disposal method for contaminated sediments.

CONCLUSION

Options for partial bridging of the Ditch, partial filling of the Ditch, and leaving the Ditch unfilled would probably make commercial development of the Property as a marine terminal impractical. The option of completely covering the Ditch with a bridge or wharf-type structure will enable the Property to be developed as proposed by the Tribe. However, the construction and long-term maintenance costs of this proposal impose extreme development costs which jeopardize project financing without other project benefits.

The preferred option for developing the Property as a marine terminal loading facility requires filling the Lincoln Avenue Ditch. This option is preferred because it meets the project purpose, taking into account terminal design, layout and operational requirements, technical and engineering feasibility, costs of construction and maintenance, and market demand for non-Panamax container loading facilities on the West Coast.

It is my professional opinion that filling the Ditch as proposed by the Tribe is the only commercially viable option for development of the Property as a deep draft terminal.

Sincerely,

E. L. Perry

Dr. E.L. (Roy) Perry, P.E.

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7313 100TH AVENUE S.W.
TACOMA, WASHINGTON 98498
PHONE (206) 581-3106
FAX 206-582-4170

NAME: Ernest L. (Roy) Perry, P.E.

EDUCATION: B.S., Civil Engineering, University of Missouri, 1940
M.S., Industrial Engineering, New York University, 1952
D. Engr., University of Missouri, 1976

Unusually well qualified, internationally known, with a proven success record as a port manager, engineer, port financial planner, constructor, master and strategic planner.

From 1940 to 1964, served as a Regular Army Officer, Army Corps of Engineers. Retired in 1964 with the rank of Colonel. During last 15 years of service, specialized in design and construction management of major civil works such as dams, river and harbor development, navigation improvement projects, port design and construction, economic justification analysis, material handling and distribution systems, military airport design and construction with all ancillary facilities. During a two year period as Acting District Engineer in St. Louis, was responsible for the Mississippi, Ohio and Missouri River dredging fleet. Retired as District Engineer, Seattle Army Corps of Engineers District to become General Manager of the Port of Tacoma.

From mid-1964 to mid-1975, managed the Port of Tacoma and in doing so transformed the Port from a small, obscure seaport into a major, highly-regarded port and industrial complex. During this period, the Port constructed new multi-purpose container and bulk handling terminals, deepened existing channels and dredged extensions of two waterways to provide space for 30,000 feet of new deep draft berthing, increased Port water terminals and industrial area from 2000 acres to over 5,000 acres, built and operated over 1,000,000 square feet of terminal and off-dock warehousing, developed a World War II navy surplus shipyard into a successful industrial park and warehousing complex, increased the number of ship calls by a factor of 10 and the cargo throughput by an even greater factor. Provided economic and cargo throughput analysis of proposed terminals in order to sell revenue bonds, and improved the Port's financial base as attested to by Port bond ratings and capacity. As General Manager, was responsible for the Port's long-range master, strategic, terminal and industrial development plans (still in effect today); and had full responsibility and authority over all design, construction, the budget, marketing, maintenance, financing and personnel functions.

From mid-1975 until mid-1979, served as President of Fruin-Colnon International, Ltd., a Houston based major subsidiary of the FRU-CON CORP. family of engineering and construction firms. FRU-CON CORP. was involved in the design and building of ports, gas fired power plants, cement plants and facilities serving the oil industry in the Middle East, Alaska, and Southeast Asia. After the firm was purchased by a major German international company, spent approximately one year closing out contracts, arranging joint ventures between U. S. and kuwaiti companies and representing the Port of Tacoma in Washington, D.C..

From mid-1979 to November, 1984, served as Executive Director of the Port of Los Angeles. The Port had been losing market share for several years. By realigning the Port staff, planning and implementing a five year $500 million port redevelopment program and establishing an effective international marketing strategy the Port not only recaptured lost market share but also became the most profitable port in the United States. In addition, was responsible for planning and supervising construction of the largest port dredging project on the U.S. West Coast, the largest truck/rail intermodal facility in the U.S., and a $2.5 Billion long range strategic/master/environmental/financial plan for the development of San Pedro Bay which has guided the development of the Port of Los Angeles to the prestigious position it has today as a container handling port.

From November, 1984, to present: After retiring from Port of Los Angeles and reestablishing Perry International, Ltd., accepted a five year, non-exclusive contract with the Port of Los Angeles to advise the Executive Director, negotiate major terminal leases, supervise terminal planning, and to assist in the implementation of the $2.5 Billion development program. Subsequent modifications to the contract added projects such as advising the Port staff in developing a program acceptable to U.S. regulatory agencies for cleaning up contaminated oil, chemical and dry bulk terminals; to assist the City Attorney in evaluating litigation matters involving construction contracts; provide economic analysis of development plans and major capital acquisitions and to assist the Executive Director and staff on current and future development trends in the transportation industry.

In addition to working for the Port of Los Angeles, have performed several planning studies for Gulf and West Coast ports including port reorganization, bond issues, strategic plans, marketing plans, terminal requirements, financial analysis, property acquisition, litigation issues, tariff adjustments, leasing policies, terminal layout and environmental issues.

Currently developing a layout, design, financial plan and marketing plan for a new multi-purpose, 150 acre terminal with 2,700 feet of deep draft waterfront; assisted in development of an environmental cleanup program for a San Francisco Bay terminal company; Follow-up work with the Port of Los Angeles; just completed a large revenue bond issue for a Florida port; just completed developing a civil works marketing plan for one of the largest U.S. engineering and construction management companies; and just completing a major study to reorganize the operating, marketing, foreign trade zone, infrastructure and financial structure of a major Gulf Coast port. The study will not only change the way that port conducts its business, but will have a major impact on numerous other competing ports.

Over the past 25 years, have served on over 30 boards, advisory committees and commissions such as the Washington State Canal Commission, the Greater Tacoma Chamber of Commerce, the Marine Board of the National Academy of Science, the Board of Directors of the Scripps Oceanographic Institute and the Mayor of Los Angeles' Executive Advisory Committee. As a member of the National Academy of Science, served on a Presidential appointed committee to study U.S. infrastructure problems and make recommendations to Congress and the President for remedial action. Also served as past president of the Academy of Civil Engineers, the California Association of Port Authorities and the Pacific Northwest Marine Terminal Association. Have also been honored as the Pacific Northwest Maritime Man of the Year, the Tacoma Propeller Club Man of the Year and the Southern California International Marketing Association Man of the Year.

APPENDIX B

Federal Puyallup Land Claim Settlement Act

Port of Tacoma 2010 Plan

Sitcum Waterway Remediation Project Phase 1 Pre-Remedial Design Evaluation and Phase 2 Preliminary Evaluation of Remedial Options Report, Port of Tacoma, Washington 9/92

Phase 1 Environmental Investigation Report, Blair Waterway Property, Landau Associates, Inc., 1989

Lincoln Ditch Mitigation Plan, Fish Pro Engineering and Environmental Consultants (Draft, 9/92)

Blair Waterway Property Analysis of Alternatives Report, August 92, with Amendments November 92

Implementing Agreement Between Port of Tacoma and Puyallup Tribe of Indians, with Addenda

United States Environmental Protection Agency, Region 10 Comments on Tribe's Lincoln Ditch Mitigation Plan, Blair Waterway Property, March 9, 1993

Numerous letters and memoranda from all concerned agencies, including the Seattle District Office, U.S. Army Corps of Engineers

Site File

ROBERT TURNER
Acting Director

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STATE OF WASHINGTON
DEPARTMENT OF FISHERIES
1111 Washington Street S.E., P.O. Box 43135 • Olympia, Washington 98504-3135 • (206) 902-2200 • (SCAN) 902-2200

March 12, 1993

Environmental Protection Agency
ATTENTION: Karen Keeley
1200 Sixth Avenue, HW-113
Seattle, Washington 98101

SUBJECT: Lincoln Ditch Mitigation Plan

Dear Ms. Keeley:

The Washington Department of Fisheries (WDF) has reviewed the draft Lincoln Ditch Mitigation Plan (Plan) prepared by FishPro for the Puyallup Tribe. The following comments are offered at this time. Further comments may be provided as the project progresses.

Although the stated aim of the Plan is to fully compensate for the lost functions and values that would result from filling of the Lincoln Ditch, WDF considers the mitigation measures proposed in the Plan to be insufficient to meet this primary goal. As proposed, the Plan would result in the creation of 0.57 acres of intertidal and saltmarsh habitat to partially compensate for the filling of 0.80 acres of existing intertidal wetland habitat at the Lincoln Avenue site. This represents a ratio of 0.71 to one for in-kind replacement of existing wetland area.

This replacement ratio is unacceptable to WDF for numerous reasons. First, the actual area that will be lost has a function in itself, particularly in light of the historical loss of intertidal habitat in the Commencement Bay area. Second, ratios for replacement of lost intertidal habitat are typically between 1.5 to one and two to one. These ratios are typically higher than one to one due to the interim habitat loss and the fact that most mitigations are not 100 percent successful. The current replacement ratio is therefore approximately one-half the size of typical requirements. At a minimum, the mitigation must at least replace the area lost (i.e., 0.8 acres).

Finally, as indicated in Sections A-A and B-B of Figure 6, the created wetland area appears to be entirely above the +13.0 ft. tidal elevation (MLLW=0.0). Based on four separate site inspections by WDF

staff, it has been concluded that a majority of the habitat area existing in the Lincoln Ditch is below the elevation of Mean Higher High Water (MHHW)(+11.8 ft. in Commencement Bay). It therefore appears that the proposed mitigation site does not contain depth profiles even remotely similar to the existing conditions at Lincoln Ditch. It is recommended that cross-section profiles of the Lincoln Ditch be prepared to allow calculation of the area below MHHW and at various other depth intervals. If the proposed mitigation is to be designed to compensate for the lost functions and values at the Lincoln Ditch, an appropriate starting point would be to assure that intertidal areas are replaced with areas of similar depth.

The proposed enhancement mitigation cannot be used to compensate for loss of intertidal habitat due to filling below the one to one ratio. It may be appropriate, however, to utilize enhancement credit to raise the mitigation ratio above one to one (i.e., to compensate for interim habitat loss or likelihood of less than 100 percent success). To determine the appropriate level of credit to be applied to the enhancement measures will require a more detailed analysis of the target species and functions to benefit from the enhancement.

The proposed upland mitigation may benefit the overall function of the Hylebos site but will not directly benefit those resources that would be impacted as a result of the intertidal habitat loss at the Lincoln Ditch. It therefore seems appropriate that the upland mitigation not be included in the calculation of the mitigation ratio. In addition, Figure 2 indicates that at least some of the upland enhancement would be on the landward side of the future recreation and access area. The value of the enhanced upland area would obviously be compromised by the location of a recreation/access area on the waterward side.

The creation of a recreation and access area in close proximity to the proposed mitigation site will result in reduced benefit relative to habitat function and resource use. It is therefore recommended that this portion of the Plan be revised or eliminated to achieve maximum benefit from the intertidal mitigation.

The mitigation implementation section indicates that "necessary modifications" will be made to the mitigation design by the biologist based on unforeseen site conditions. Minor on-site modifications to the final Plan design may be appropriate, but it must be emphasized that significant changes to the Plan must be approved in advance by the resource agencies.

The performance standards section needs to be more explicit in stating what measures of success will be used for the final evaluation and what specifics will trigger implementation of the contingency plan. Without clear goals and performance standards it is difficult to verify the success of habitat mitigation.

The monitoring program contains many vague statements and references without specifically indicating, for example: what statistical tests will be used, what levels of significance would trigger contingency measures, what is the amount of the security bond, etc. Absent more complete details, the monitoring is likely to lead to confusing results and controversy over the success/failure of the mitigation and the need for implementation of the contingency plan.

The contingency plan indicates that the wetland biologist will determine if additional action is necessary to maintain the performance standards. This section must be revised to indicate that the resource agencies will determine if the performance standards have been achieved and therefore if contingency measures are necessary.

Other sections of the Plan also contain vague or confusing language. These topics may, however, be more appropriately addressed in a meeting where the consultants could explain their intent. It is suggested that a meeting be scheduled to discuss the necessary revisions to the Plan.

Thank you for the opportunity to review and provide comments on the proposed mitigation plan. If you have any questions regarding our comments, please contact me at (206) 902-2573.

Sincerely,

R. Dimoly Flint for

Randy Carman
Regional Habitat Manager
Habitat Management Division

RC:13:lmh

cc: Jeff Krausmann - USFWS, Olympia
Valerie Elliott - NMFS, Portland
Bill Sullivan - Puyallup Tribe
Thom Hooper - WDF

APPENDIX B

WASHINGTON STATE DEPARTMENT OF
Natural Resources

May 10, 1993

Laura Balduf
FishPro Inc
3780 SE State Highway 160
Port Orchard WA 98366

SUBJECT: Blair Waterway - Army Corps of Engineers Permit Package (T21N R03E S35)

We've searched the Natural Heritage Information System for information on significant natural features in your study area. Currently, we have no records for rare plants, high quality native wetlands or high quality native plant communities in the vicinity of your project.

The Natural Heritage Information System is a cooperative effort between the Department of Natural Resources' Washington Natural Heritage Program and the Department of Wildlife's Nongame Program. The Washington Natural Heritage Program is responsible for information on the state's endangered, threatened, and sensitive plants as well as high quality native plant communities and wetlands. The Nongame Program manages and interprets data on wildlife species of concern in the state. For information on animals of concern in the state, please contact the Nongame Program, Washington Department of Wildlife, 600 Capitol Way North, Olympia, WA 98501-1091.

The Natural Heritage Information System is not a complete inventory of Washington's natural features. Many areas of the state have never been thoroughly surveyed. There may be significant natural features in your study area that we don't yet know about. This response should not be regarded as a final statement on the natural features of the areas being considered and doesn't eliminate the need or responsibility for detailed on-site surveys.

I hope you'll find this information helpful.

Sincerely,

Sandy Norwood

Sandy Norwood, Environmental Review Coordinator
Washington Natural Heritage Program
Division of Land & Water Conservation
PO Box 47047
Olympia, WA 98504-7047
(206) 902-1667

RECEIVED 5/12	
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AF	GS
LP	LS
RC	DG
	LB
	BW
	ADMIN
PORTLAND	HATCHERY

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Director

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	ADMIN
PORTLAND	HATCHERY

April 26, 1993

Laura Balduf
Fish Pro, Inc.
3780 SE State Highway 160
Port Orchard, WA 98366

Re: Species of Importance in the vicinity of T. 21 N., R. 3 E., Sec. 35

Dear Ms. Balduf:

We have completed a review of WDW's databases containing locations of species and habitats of importance (Nongame Heritage, Priority Habitats and Species, and Washington Rivers Information System databases) in your project area. The following information was obtained within a two mile radius of your project site:

SPECIES	APPROXIMATE LOCATION	SPECIES STATUS
Purple Martin	Section 22	State Candidate
Dolly Varden/Bull Trout	Stream reaches within search radius	Federal Candidate
Steelhead	Stream reaches within search radius	Priority Game Species

High resolution maps are also available to provide more detailed locational data if needed for an additional cost. If important species or habitats are found within the vicinity of your project area, the WDW's Management Reccommendations for Priority Habitats and Species document is included in this packet as well as a computer report containing more information about the occurrence(s).

Please note that sensitive information (ie. threatened, endangered and/or candidate species) may be included in this data request. These species are vulnerable to disturbance and harassment. In order to protect the viability of these species we request that you not desseminate the information as to their whereabouts. Please refer to these species' presence in general terms. For example: A Peregrine Falcon is located within two miles of the project area.

The information provided for this data request only includes data that WDW maintains in a centralized data system. It is not an attempt to provide you with an official agency response as to the impacts of your project on wildlife. Nor is it designed to provide you with any guidance on interpretting this information and determining how to proceed in consideration of wildlife. This data only documents the location of important wildlife resources to the best of our knowledge.

Your project may require further field inspection or contacting our field biologists or others in WDW to assist you in interpreting and applying these data. Refer to the enclosed directory and regional map for those contacts. Generally, for assistance on specific projects contact the appropriate Regional office and ask for the Area Habitat Biologist for your project area.

Data in this package are dynamic. These data should not be used for future projects. Please request new information rather than use outdated information.

Because of the high volume of data requests for information that WDW receives, we need to charge for these data searches to recover some of our costs. On the back of the enclosed Data Order Form is an invoice itemizing the costs for your data search and instructions for submitting payment.

We hope these products fill your needs. If you have any questions regarding the data you have received please call Jennifer McPeck at (206) 438-8894. For all other questions, please call Lea Knutson at (206) 664-9476.

Sincerely,

Jennifer McPeck

Jennifer McPeck, Cartographic Technician
GIS/PHS Data Systems

Enclosures.