

APPENDIX 3

WASSER/WINTERS, PUYALLUP NURSERY, AND MEEKER SITE.

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

**Environmental Assessment
Commencement Bay, Washington: Wasser/Winter,
Nursery, and Meeker Restoration Projects**

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4.0 Environmental Consequences: Direct, Indirect or Cumulative Impacts

Because the No Action alternative was selected for the Meeker site, only the Wasser/Winter and Nursery sites are discussed below. The Wasser/Winter and Nursery sites are discussed together because, under the preferred alternatives, environmental impacts potentially resulting from each project are similar in scope due to their proximity to each other and the design of the projects. Any potential adverse impacts at each restoration site would be short-term and construction-related in nature. The magnitude of these impacts would generally be a function of the extent and duration of construction. Appropriate plans would be implemented to minimize these short-term impacts and the project will be in compliance with all applicable local, state, and federal permits and approvals.

4.1 Aesthetic and Light/Glare Impacts

Habitat at both the Wasser/Winter and Nursery sites has been extensively modified and simplified due to past industrial and commercial activity in the area. At the Wasser/Winter site, the stream channel has been straightened, and the site largely overtaken by non-native plant species. The Nursery site, while apparently less extensively modified, also exhibits signs of modification. At both sites, natural habitat conditions would be restored through re-grading and re-vegetation. Although the project would result in short-term aesthetic impacts during earth-moving activities, restoration would help restore native vegetation communities and habitat, which would improve aesthetic conditions over the long-term. Views of the sites and their surrounding area from property adjacent to the sites would not be adversely impacted. At the Nursery site, excavated soil would be used to create a berm along Marine View Drive, which would modify existing views from the roadway. This berm would be planted with riparian vegetation; no significant visual impacts would occur.

There would be no light and glare produced by the finished restoration projects, as lighting would not be provided. Lighting from the surrounding parcels would not impact the project sites, as the sites would not be occupied nor provide nighttime recreational opportunities.

4.2 Air Quality

During the construction phase at each site, there would be minimal short-term increases in dust and vehicle exhaust from earth moving activities (e.g. clearing, grubbing, dredging, soil and sediment transport, planting) and operation of construction equipment. Construction is expected to last approximately 4 to 8 weeks at each site, and construction is expected to occur at approximately the same time. No significant impacts are expected due to the relatively small amounts of excavation; the temporary nature of construction activities; and the lack of sensitive receptors such as residences, schools, or parks immediately surrounding each site. Exhaust controls would be used on all construction equipment to minimize exhaust emissions. Dust would be controlled by watering down exposed earth. Only the Wasser/Winter site would

require transport of earth off-site. Haul trucks would be covered or have loads that are below sideboards to control blowing dust along the haul route. A grading permit would be required from the City of Tacoma for construction at the Wasser/Winter site, which would require implementation of practices to control dust.

4.3 Connected Actions

The Plan focuses on restoring various habitat components such as vegetated shallows, mudflats and salt marshes, off-channel sloughs and lagoons, tidal creeks, freshwater marshes, upland buffers, and creek and river channel corridors in Commencement Bay. This framework recognizes the value of restoration through a landscape ecology approach, rather than creating isolated fragments of habitats. As a result, each distinct restoration project, including the three projects analyzed in this EA, is intended to provide functional connectivity with other projects by maintaining, creating, or restoring a diversity of nearshore habitat used by juvenile salmonids for feeding, rearing, and outmigration.

The Wasser/Winter site extends northeast from the centerline of the creek to a fence that bounds an asphalt cap installed by the Port of Tacoma, and seaward to the pierhead line in the turning basin. A log storage yard borders the site to the west across Hylebos Creek, and a large parking area borders the site to the east. Immediately south of the site is a bridge where State Route (SR) 509 crosses the Hylebos Creek. Restoration of the site would not result in any adverse impacts to any of these sites, and would provide connectivity with a WSDOT wetland mitigation site located south of the SR 509 bridge. While there are no known proposals for changes in use on property surrounding the Wasser/Winter site, such land use changes could adversely impact the Wasser/Winter site through increased runoff, shading, or human activity. Any changes in adjacent land use will be evaluated as part of the Trustees' monitoring program. Currently, logs are temporarily stored in the head of the Hylebos Waterway. The logs often block the mouth of Hylebos Creek and may disrupt the intended continuity of the restoration projects unless the log handling and storage practices are modified.

The general area around the Nursery site includes narrow intertidal and subtidal margins broken by commercial marinas and log storage activities. To the north of Marine View Drive is a woody, steep-sloped area. East and west of the site are additional intertidal and mudflat areas that have been designated as natural resource conservancy areas by the Puyallup Tribe. Restoration of the site would not result in any adverse impacts to adjacent land uses. While there are no known proposals for changes in use on property surrounding the Nursery site, such land use changes could adversely impact the Nursery site through increased runoff, shading, or human activity, similar to the Wasser/Winter site. Any changes in adjacent land use will be evaluated as part of the Trustees' monitoring program.

4.4 Controversial Impacts

The restoration projects would pose no uncertain or controversial risks. No contaminated soils were identified during recent investigations of soil conditions at the Wasser/Winter site. Participants in the public meetings and briefings have indicated support for these restoration

projects and have participated in the evaluation of the proposed alternatives, including the selection of the preferred alternative.

4.5 Cumulative Impacts

The proposed restoration projects are part of an overall Plan. A number of other NRDA restoration projects are being planned and designed under a landscape ecology framework (Figure 6). These completed restoration projects would, on a cumulative basis, contribute to Commencement Bay's overall environmental health, particularly in combination with other remediation and habitat enhancement projects in Commencement Bay. Salmon habitat would be improved, which would have a positive cumulative impact not only to Commencement Bay salmon stocks but also to salmon stocks in Puget Sound. The projects would provide functional connectivity with other restoration projects in Commencement Bay by maintaining, creating, or restoring a diversity of nearshore habitat used by juvenile salmonids for feeding, rearing and outmigration.

Because both sites would be constructed either simultaneously or sequentially, some cumulative construction impacts related to noise and transport of construction equipment could occur. However, construction would be short-term (less than eight weeks), and only small amounts of soil would be transported off-site from the Wasser/Winter site. As a result of their short-term and localized nature, the potential contribution of the projects to any adverse cumulative impacts is minor. The projects will be in compliance with all state and federal permit conditions.

4.6 Economic Impacts

No significant impacts on neighborhoods or community cohesion would occur. Both restoration projects would improve vacant, disturbed land by restoring biological diversity and ecological functions, and would increase community awareness about natural resources. Both projects could preclude future commercial or industrial development on each site, but such economic impacts would likely be offset by economic benefits tied to the improvement of environmental quality. As a result, values of adjacent property should not be adversely affected. The Port of Tacoma owns the Wasser/Winter site, while the Nursery site is on Puyallup Tribal land. Both sites are uninhabited. There would be no land acquisition or displacement required and housing would not be affected. No job losses are expected to occur.

4.7 Endangered Species/Threatened Species and Critical Habitat

A fall run of chinook salmon, which is listed as a threatened species under the federal Endangered Species Act, inhabits the Hylebos Creek system and its tributaries during its life cycle. Juvenile chinook also inhabit nearshore areas near both project sites. The proposed restoration projects would provide additional intertidal and nearshore habitat for chinook salmon, and may benefit other listed species in the area such as bald eagle. During construction, short-term impacts to salmon habitat could occur from excavation and earth-moving activities, resulting in increased turbidity and total suspended solids. However, through avoidance of

construction during chinook migration periods and implementation of methods to control erosion and in-water turbidity, short-term impacts to listed species would be relatively minor. Appendices C (letters) and D (Biological Evaluation) provide copies of the informal Section 7 ESA consultation with the NMFS and the USFWS. State consultations applicable to these projects can be found in the RP/EIS.

4.8 Energy

During the construction phase of both projects, construction equipment would use fossil fuels for energy. Energy use would be temporary. Energy needs for the completed projects are expected to be minor, limited primarily to ongoing monitoring and management.

4.9 Fish and Wildlife Impacts/Essential Fish Habitat (EFH)

Over the long-term, no fish or wildlife habitat would be adversely impacted by the proposed projects. Soil excavation would only occur during designated time periods to avoid salmonid migration periods. Minor disturbances to waterfowl and mammals would occur during the construction phase and may cause them to temporarily relocate, but these impacts would be short-term in nature.

Over the long-term, the proposed restoration projects would increase biological diversity and improve fish and wildlife habitat structure and function on each site. Juvenile anadromous salmonids would benefit from increased habitat quantity and quality. The projects would enhance resting areas for rearing and feeding, increase prey species and reduce environmental stresses from elevated water temperatures and suspended sediment loads.

The locations of the restoration sites are designated by the City of Tacoma as critical areas. According to Tacoma Municipal Code (TMC) Chapter 13.11, Critical Areas Preservation, a review of development activity shall occur during the Shoreline Permit review process. A separate critical areas permit is not required. Because both sites provide salmonid habitat, including habitat for chinook salmon (a threatened species), they are classified as fish and wildlife habitat conservation areas. Restoration would be consistent with City regulations for such areas.

Federal laws pertaining to fish and wildlife and essential fish habitat will be followed to ensure that no long-term adverse impacts would result from any selected alternative.⁵ Appendices C (consultation letter) and D (Biological Evaluation) provide the EFH consultation with the National Marine Fisheries Service regarding the Pacific Coast Groundfish estuarine composite EFH. The project will be in compliance with all state and federal permit conditions.

⁵ Magnuson-Stevens Fishery Conservation and Management Act, 16 USC 1801 *et seq.*, 50 CFR 600-920(a).

4.10 Historic and Cultural Resources

The primary study area on Commencement Bay contains numerous recorded archaeological and historical sites. However, much of the Bay has not been subject to surface or subsurface investigation. As a result, the Programmatic EIS notes that restoration projects could affect prehistoric sites, historic shipwrecks or buildings and Native American traditional cultural properties (USFWS and NOAA, 1996).

Due to the extensively modified nature of both sites and the presence of fill material, particularly at the Wasser/Winter site, encountering of cultural or historic resources is unlikely. Both the Washington Office of Archaeology and Historic Preservation (OAHP) and the Puyallup Tribe of Indians were consulted during preparation of the EA. The OAHP indicated no concerns with construction at either site (Whitlam, personal communication, August 1999). The Puyallup Tribe indicated that a village and fishing weir have been identified in the project area, but their exact location is unknown (Wright, personal communication, August 1999). If any significant cultural materials are exposed or discovered during excavation or subsurface disturbance, operations would cease and a qualified archaeologist contacted for further recommendations. Both OAHP and the Puyallup Tribe would be contacted. Significant cultural resources may include but are not limited to: aboriginal human remains, chipped stone, groundstone, shell and bone artifacts; concentrations of fire cracked rock, ash and charcoal, shell, or bone; and historic features such as building foundations.

4.11 Land and Shoreline Use

Both project sites are located in a heavily developed area dominated by industrial and commercial activities. At the Wasser/Winter site, there is an active log storage yard along the west side of the project site. To the east of the project site is a vacant parking area separated from the project site by a wooden fence. Upstream of the project site, across the SR-509 bridge is a mix of vacant property and a WSDOT mitigation site (described above). The site is owned by the Port of Tacoma, though the Trustees have secured an easement from the Port for restoration purposes.

Consistent with its surrounding land use, the Wasser/Winter site is zoned for industrial uses by the City of Tacoma. According to the City, habitat restoration is a permitted use. The site is also in a shoreline area designated as Urban under the City of Tacoma's shoreline management master program⁵. According to the City's shoreline regulations, "habitat improvement" is a permitted use in the urban shoreline environment.

The Nursery site is within the Puyallup Indian Tribe's conservancy area, and land use activities on the site are under the jurisdiction of the Tribe. Though land immediately around the site is vacant, residential dwellings are located on the bluff overlooking the site. There are industrial uses located across the waterway and to the south. According to the Tribe, habitat restoration is a permitted land use activity on the site.

⁵ TMC Chapter 13.10.

4.12 Noise

Both projects would result in short-term noise impacts from the use of heavy equipment. Noise would be generated by clearing, grubbing, earth moving, dredging, sediment and soil storage and transport, digging, grading, burning, and planting. Trucks, graders, bulldozers and similar equipment can generate noise in the range of 67 to 98 dBA at 50 feet. All construction activities would be conducted in compliance with the City of Tacoma's noise regulations.

No significant noise impacts would occur. Construction would be temporary, and there are no sensitive receptors (e.g. schools, residential areas, and parks) within the immediate vicinity of either site. Both sites are also located in proximity to traffic and industrial activities, which generate substantial amounts of ambient noise.

4.13 Plants

Existing vegetation on upland portions of both sites is characteristic of highly modified habitats, including Scot's broom, Himalayan blackberry, alder, willow and black cottonwood. Bladder wrack (*Fucus*), pickleweed, and *Caryx* were also observed at the Nursery site. Neither project would result in significant impacts to threatened, endangered, or sensitive plants. At the Wasser/Winter site, vegetation in the existing upland area to the east of the creek channel would be removed and replaced with native vegetation characteristic of intertidal areas. At the Nursery site, some vegetation would be removed to re-contour the beach, but the existing stand of large trees on the site would be left. Native intertidal vegetation would be planted on the site. At both sites, intertidal areas (below MHHW) would be planted with sedges, saltgrass, pickleweed, rush, and arrowgrass. Upland vegetation would be enhanced with plantings of red alder, paper birch, black cottonwood, Douglas fir, and a variety of understory species. Impacts could be minimized by saving and replanting native species where possible. There are no known threatened or endangered plant species on or near the project sites.

Refer to Appendix B for a list of species that may be suitable for planting at each site.

4.14 Precedental Effects

Restoration of habitat would be a positive influence on the Bay and its residents and users. The projects would enhance fish and wildlife habitat and benefit the natural resources of the area, as well as enhance the public values by providing public viewing and educational opportunities.

4.15 Public Services and Utilities

There would be limited impacts to public services or utilities during or after construction. Two stormwater outfalls would be intercepted at the Nursery site and the fresh water would be re-directed in the project area to promote vegetative growth. At the Wasser/Winter site, a number of utilities cross Hylebos Creek under the SR-509 bridge (e.g. water, sewer, phone, gas); these utilities would not be disturbed during construction.

The projects are not expected to increase demand for public services and utilities over the long-term. Access to the sites would be limited, and maintenance and monitoring activities are expected to require only limited amounts of water or electricity, if any.

4.16 Recreation

Both proposed projects are located within a developed industrial area; there are no formally developed recreational areas adjacent to either project. The Wasser/Winter site does not presently provide public access, and it is not a recreational area. Although the Nursery site does allow for informal public access, it is not considered a recreational area. As a result, adverse impacts to recreation would be minimal. Once construction is completed, the sites may provide some limited recreational use in a stewardship or educational role.

4.17 Soils and Sediment Quality

Numerous soil samples were collected at the Wasser/Winter site during a previous Remedial Investigation/Feasibility Study conducted by the federal EPA and Ecology. Soils on the Wasser/Winter site include a surface layer of compacted fill, underlain by dredge fill and tidal marsh sediments. Sand was encountered about 18 inches below the surface. Arsenic, the primary contaminant of concern on the site, was found in the highest concentrations at the ground surface; concentrations dropped rapidly with depth. As a result of this sampling effort, the top 2 to 4 feet of earth was removed from the site, removing the bulk of the arsenic contamination. Additional sampling conducted in 1999 did not detect the presence of arsenic at significant concentrations (Ridolfi, 1999). The site is essentially flat, although the banks of the creek channel are steep and eroding in some places.

Soil testing was also conducted at the WSDOT mitigation site upstream of the Wasser/Winter site. Test results were negative for hazardous material contamination except for some limited gasoline constituents associated with an underground storage tank that was reportedly removed (WSDOT, 1994).

On the Nursery site, soils appear to consist of cobble and soft mud below the OHWM. Upland soils appear to be sandy to gravelly. The site is moderately sloped toward the water. While there are no steep slopes on the project site, a steep slope is located just upland of the site, across Marine View Drive.

No significant impacts to soil and sediment quality would occur at either site. Over the short-term, construction would result in a temporary increase in erosion potential, but implementation of erosion control practices would minimize the extent of these impacts. Over the long-term, restoration of a natural soil profile and vegetation community on each site is expected to improve sediment and soil quality.

An area of approximately two acres on the Wasser/Winter site would be graded and/or excavated to restore intertidal habitat conditions. Approximately 17,700 cubic yards (cy) of material would be excavated. If suitable for use, approximately 70 cy would be used on-site for fill, and little to

no import of soils would be required. The project would require a grading permit from the City of Tacoma, and a temporary erosion and sediment control plan (TESCP) would be in place in accordance with the City Erosion Control Manual prior to construction, along with best management practices. These practices may include covering or stabilizing areas of exposed soil, use of silt fences and erosion control mats, and use of sediment curtains or other measures to control sedimentation and turbidity. If contaminated soil is encountered, the soil would be removed and transported offsite to an appropriate disposal facility.

At the Nursery site, approximately 0.66 acres would be graded and/or excavated to restore habitat conditions. Approximately 2,000 cy of excavation would be required. No soil contamination is anticipated, and approximately 230 cy of the excavated soils would be re-used onsite in particular to create a berm between the site and the adjacent Marine View Drive. Appropriate erosion controls would be implemented, similar to the Wasser/Winter site.

4.18 Transportation

The Wasser/Winter and Nursery sites abut Marine View Drive. At the Wasser/Winter site, Marine View Drive is a four-lane arterial road crossing the creek on a bridge, just upstream from the project site. The bridge forms the southeast boundary of the site. Traffic levels are moderate, and include both heavy trucks and cars. There are railroad tracks located across the creek to the northwest and adjacent to Marine View Drive. The nearest intersection to the site is Taylor Way approximately 500 yards to the west. At the Nursery site, Marine View Drive is a two-lane road that is bordered by a steep slope to the east and the project site to the west. Observed traffic levels were light. The 11th Street bridge intersects Marine View Drive several hundred feet to the east of the Nursery site.

No transportation impacts are anticipated. Both projects would add small amounts of construction traffic to local roadways for short periods of time, but impacts would be negligible. Staging areas would be located to minimize disruption of traffic on adjacent roadways. Since public use would be limited after construction is completed, there would be no impacts to transportation over the long term.

4.19 Water Quality

There has been a substantial decline of water quality in Commencement Bay from previous extensive industrial and commercial activity, and from municipal discharges to the Bay. Water quality problems include elevated bacteria levels, higher than normal water temperatures, and elevated levels of chemical pollutants. Arsenic, copper, lead, and PCBs have all exceeded ambient water quality chronic criteria (King County and City of Federal Way, 1990). Several additional contaminants have been identified in outfalls discharging to the Bay. Hylebos Creek runs through the Wasser/Winter site, draining into the Hylebos Waterway and eventually to Commencement Bay and Puget Sound (King County and City of Federal Way, 1990). The Creek provides inputs of both fresh water and sediments to the Bay, and it has been rated as a Class A water body (WAC 173-201A). The Nursery site is located in an area of the Bay designated by Ecology as Class B (WAC 173-201A). Two small streams drain on to the Nursery

sites from culverts under Marine View Drive. During the summer of 1999, the City of Tacoma sampled the water quality in these two streams. During the first two sampling events, there were no consistent contaminant detections (City of Tacoma, 1999). Further sampling is scheduled to occur.

During construction of the intertidal habitat at both sites, there would be minor short-term impacts to water quality resulting from increased turbidity. Overall, impacts are expected to be temporary and localized. Impacts would be greatest at high tide, when the sites experience the greatest inundation. Several measures could be implemented during construction to minimize impacts including:

- Avoidance of work in inundated areas during high tide;
- Use of sediment curtains to contain suspended sediments;
- Use of coffer dams to contain construction area during tidal inundation;
- Avoidance of work during salmonid migration periods; and
- Avoiding releases of gas, oil, and diesel from construction equipment into waters adjacent to the site.

Previously, there have been concerns that construction at the Wasser/Winter site would re-suspend contaminated sediments during in-water work. However, as discussed above, recent soil investigations did not detect any contamination of concern on the site (Ridolfi, 1999). Best Management Practices will be used to minimize the amount of sediment suspension in the water. Construction will only occur during time periods when it will not be detrimental to fish runs.

Over the long-term, both sites would benefit water quality by re-establishing intertidal vegetation communities. These communities would serve to trap sediments and filter water, which would benefit water quality both in Hylebos Creek and in the Bay.