Supplemental Environmental Assessment for the Pritchard Park East Bluff Shoreline Restoration Project

Supplements EA for the Wyckoff/Eagle Harbor Site Bainbridge Island, Washington Restoration Plan

Prepared by the
Elliott Bay
Trustee Council

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1.0 INTRODUCTION

As a result of a settlement with Pacific Sound Resources (United States et al. v. Pacific Sound Resources et *al.,* Civ. No. C94-687 (W.D. Wash., Aug. 29, 1994)), and the Memorandum of Agreement for Elliott Bay, the Duwamish River, and Eagle Harbor (effective date 1/19/06), the Elliott Bay Trustee Council (Trustees) received funds to restore natural resources injured by hazardous substances from the Wyckoff facility in Eagle Harbor, Bainbridge Island, Washington. The Trustees previously developed a Restoration Plan and Environmental Assessment (RP/EA) that identified restoration of some key habitat types as the preferred alternative to restore injured resources (Elliott Bay Trustee Council, 2009). That EA was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C 4321 et seq.) and NEPA implementing regulations (40 CFR 1500-1508). That RP/EA identified the Pritchard Park East Bluff Shoreline Restoration Project (PPEB) as one of the projects that restores one or more of these key habitat types and which ranked highly enough among potential projects, based on then-currently known information, to be tentatively proposed to be implemented under the RP/EA. The plan indicated that if the Trustees made the decision to pursue implementation of any of these projects, further evaluation of potential impacts of the projects on the human environment would be conducted.

This Supplemental Environmental Assessment (SEA) briefly summarizes the purpose and need for restoration as previously described in the RP/EA, and discusses the screening and selection of the PPEB as a preferred project under the RP/EA. The SEA evaluates the potential impact of proposed restoration actions at PPEB on the quality of the physical, biological, socioeconomic, and cultural environment. The SEA also discusses the ongoing process of restoration of injured resources using Wyckoff settlement funds and describes the process for submission of further project proposals for screening and possible selection for implementation.

The Trustees involved in this restoration planning process consist of the following agencies and Indian tribes: the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce; the U.S. Department of the Interior (DOI), represented by the Fish and Wildlife Service (FWS); the Washington State Departments of Ecology (WDOE, as lead state Trustee) and Fish and Wildlife (WDFW, as state co-Trustee); the Suquamish Tribe and the Muckleshoot Indian Tribe.

1.1 SUMMARY OF THE RESTORATION PLAN/ENVIRONMENTAL ASSESSMENT FOR THE WYCKOFF/EAGLE HARBOR SITE

The RP/EA explained the purpose and need for the restoration actions to address injury to natural resources resulting from the release of hazardous substances into Eagle Harbor pursuant to Section 107(f) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Federal Water Pollution Control Act, 33 U.S.C. Section 1251 et seq., (also known as the Clean Water Act or CWA) and other applicable Federal or State law, including Subpart G of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. Sections 300.600 - 300.615, and regulations at 43 C.F.R. Part 11 which are applicable to natural resource damage assessments (NRDA) under CERCLA. It described the affected environment and the role of the public in the restoration process. It evaluated three general restoration alternatives for appropriateness under CERCLA as well as for potential impacts to the human environment:

No-Action: No restoration actions would be taken under this alternative to compensate the public for injuries to natural resources. The only restoration that would occur would be that accomplished under other authorities and programs. This alternative would have no impact on the environment, including beneficial impacts to species such as the threatened Puget Sound Chinook salmon. However, it would be inconsistent with the Trustees' mandate under CERCLA to make the public and environment whole for injuries to natural resources and losses of ecological services resulting

from the release of hazardous substances. Because the Trustees have funds that are required to be used to restore injured natural resources on Bainbridge Island, and such use is consistent with CERCLA, this alternative was not selected as Preferred.

Species-Specific Restoration: Under this alternative, the Trustees would develop specific projects to benefit individual species. A number of different types of projects could be implemented under this alternative, including restoring critical habitat for a given species; constructing net pens, hatcheries, or artificial incubators; seeding flats with clams; creating artificial reefs; erecting nest boxes or perches, and creating or enhancing nesting, loafing, feeding and rearing habitats for birds. The Trustees would need to identify the target species and develop projects to compensate for injuries to these species. There is a wide-range of potential impacts to the environment from this alternative because of the wide variety of the types of projects that could be included under it. From a NRDA perspective, a species-specific restoration approach would be most appropriate if one or a few species were predominantly injured by the hazardous substance releases, because projects could be designed to precisely address injuries to the most affected species. However, when there is a broad range of species affected with a number of different life-histories, trophic levels, etc., as is the case for Eagle Harbor, a species-specific restoration approach is problematic primarily because targeting restoration for one or a few species runs the risk of having non-targeted species getting little or no restoration to address their injuries. This alternative was also not selected as Preferred.

Integrated Habitat Restoration: Under this alternative, the Trustees would restore key nearshore and shoreline habitats that would benefit, directly or indirectly, a large suite of species that were injured by releases of hazardous substances into Eagle Harbor. These projects would create habitats that provide food, foraging and resting areas for juvenile salmonids and other fish, shore birds and other wildlife. Since loss of nearshore habitats has been identified as a contributing factor in the population declines of a number of species (Gelfenbaum et al., 2006), the restoration of these habitats would directly benefit those species and assist in recovery of their populations. The key habitats targeted in this alternative include: marsh, eelgrass, intertidal flats, and forage fish spawning beaches. In general, there would be some short-term, minor adverse impacts from implementing this alternative, primarily from the construction activities. However there would be some longer-term beneficial impacts to natural resources in and around Eagle Harbor following the end of construction activities, including to threatened species such as Puget Sound Chinook salmon, bull trout, and Puget Sound Steelhead. This alternative was identified as preferred in the RP/EA and NMFS found that implementation of this alternative would not have significant adverse impacts on the human environment in a “Finding of No Significant Impact” (FONSI), dated January 14, 2009. The integrated habitat restoration alternative was subsequently selected as the approach for restoring injuries to natural resources resulting from the release of hazardous substances into Eagle Harbor from the Wyckoff Facility

The RP/EA described the process that the Trustees used to screen potential projects consistent with the Integrated Habitat Restoration Approach. This process used NRDA restoration alternative selection criteria to evaluate the appropriateness of each potential project. Project ideas that had been received up to that time were evaluated based on the currently known information. It also described the process for submission of further project proposals for screening and possible selection for implementation. It identified five projects which, based on the information then available, were consistent with the Integrated Habitat Restoration alternative and these five projects were identified in the RP/EA as the top restoration project candidates for construction. Detailed impact analysis was included for the Milwaukee Dock Eelgrass project because there was sufficient information at that time to conduct that analysis, but was not possible for the other four projects based on the information then known. Since the RP/EA was finalized more information about the Strawberry Plant Park Shoreline Restoration Project (SPP) became available and a draft

SEA that analyzed potential impacts from this project was developed and made available for public comment. The SPP SEA was finalized, and a FONSI determination was made on October 26, 2009. Similarly, when more details about the Pritchard Park West Shoreline Restoration Project (PPW) were available, a draft SEA that analyzed potential impacts was developed and made available for public review and comment on November 20, 2009. However, the schedule for that project has been delayed and will not be constructed this year. The SEA for the PPW project will not be finalized in the near future, but is anticipated to be finalized early next year, assuming that sufficient settlement funds remain to pay for project construction and the plans do not change significantly. Additional information about the PPEB project is now available, and this draft SEA analyzes the impacts on the human environment from the proposed PPEB project and a No-Action Alternative.

1.2 FOCUS OF THIS SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

As described in the RP/EA, supplemental analysis of site-specific projects would be conducted where warranted. Information and analyses provided in the RP/EA are not repeated here, as this SEA augments that analysis by providing a more in-depth discussion of the proposed plans and a detailed impacts analysis for the PPEB project. There are two alternatives discussed in this SEA: implementing the PPEB project as a part of the RP integrated habitat restoration effort and not implementing the PPEB project as part of the restoration effort presented in the RP (the No-Action Alternative). If the PPEB project is not implemented, there would be substitute restoration proposed in the future using the funds that would have been spent on the PPEB project; those other projects are not yet proposed and are not a subject of this SEA. Under either alternative evaluated in this SEA, other restoration actions described in the RP/EA would occur to address some of the injuries to natural resources resulting from releases from the Wyckoff facility.

2.0 PURPOSE AND NEED FOR RESTORATION

This chapter provides an overview of the history of Eagle Harbor including information about the Wyckoff facility and the release history of the site, and describes the legal authority under which Trustees act on behalf of the public. More detailed information is available in the RP/EA (Elliott Bay Trustee Council, 2009), including the project selection process that resulted in identifying the PPEB as a potential restoration project to be included in the overall Wyckoff/Eagle Harbor restoration effort. The RP/EA also provides information concerning public involvement in the restoration planning and NEPA process. It is available at:
http://www.darrp.noaa.gov/northwest/eagle/pdf/Bainbridge_Island_Final_Restoration_Plan_EA.pdf

2.1 OVERVIEW

Eagle Harbor is a small embayment located on the eastern side of Bainbridge Island, Kitsap County, Washington, in central Puget Sound (Figure 1). The bay is about two square kilometers in area. Small marinas occupy the inner bay. The central and outer portions of the harbor are surrounded by residences, the Washington State Department of Transportation (DOT) ferry terminal and ferry maintenance facility, a marina, and the former Wyckoff Company wood treatment facility. The area known as Winslow is located immediately north of the harbor, has a population of 2,822, and is the principal center of population and commerce on the island. Since March 1991, the whole island of Bainbridge has been incorporated and is now the “City of Bainbridge Island” (COBI). Winslow is now considered as the downtown area within Bainbridge Island.

The Suquamish Tribe occupied villages and camps along the shoreline of Eagle Harbor site over the last 5,000 years. Euro-Americans first settled Eagle Harbor area in the 1870’s, when there were still two large Suquamish Indian encampments on the north shore of the harbor. Boat building began at that time, and in the early 1900’s a large shipyard was started by the Hall brothers in the

area now occupied by the Eagle Harbor Condominiums and the ferry maintenance facility. One of the largest industries on Bainbridge Island was the Wyckoff Company wood-treating plant on the south shore at the entrance to Eagle Harbor, which began operations in 1903. Wood treatment operations ceased at Wyckoff in 1988. As a result of operations at the facility, poly-nuclear aromatic hydrocarbons (PAHs), which are found in creosote and classified as hazardous substances under CERCLA, contaminated sediments in Eagle Harbor. PAHs are known to cause injury to marine resources, and a NOAA study in Eagle Harbor found adverse effects from PAH exposure in English sole (Myers et al., 2005). The Wyckoff facility and approximately 500 acres in Eagle Harbor was proposed as a Superfund site in 1985 and was listed on the National Priority List (NPL) in 1987 because of ecological and human-health concerns. The Superfund site is shown in Figure 1.

The only activities that have occurred in the recent past are related to site cleanup. Information on the cleanup activities are available at: http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/wyckoff

A summary of information related to the contamination in Eagle Harbor is provided at: http://www.atsdr.cdc.gov/HAC/pha/wyckoff/wyc_p1.html

The U.S. Environmental Protection Agency (EPA) and the Trustees entered into a Memorandum of Agreement, in which the Trustees were to develop restoration goals (NOAA, 2001) for the site. If the goals were not met by remedial actions, the Trustees would receive funds in order to undertake restoration for injured natural resources and services. The goals developed by the Trustees were not met, so funds were provided to the Trustees to conduct restoration actions on Bainbridge Island, including the nearshore areas.

2.2 PURPOSE AND NEED

The purpose of this proposed action is to restore critical habitats in and around Eagle Harbor by building restoration projects that will, in combination with other restoration projects implemented under the RP/EA, compensate the public and environment for injuries resulting from the release of hazardous substances into Eagle Harbor, Bainbridge Island, WA. This is needed because under the CERCLA NRDA process, natural resource Trustees are required to implement restoration actions intended to make the public and environment whole for injuries resulting from the release of hazardous substances. Restoration under CERCLA is explained in detail in the final RP/EA (Elliott Bay Trustee Council, 2009).

The basic goal of NRDA restoration under CERCLA is to make the public and environment whole for injuries caused by releases of hazardous substances. Numerous different natural resources and resource services were impacted by the releases of hazardous substances from the Wyckoff facility. This includes resources that were directly exposed to the contaminants in Eagle Harbor and injured as a result of that exposure, but also resources that were indirectly impacted because of things like the reduction in the amount of prey biomass. To the maximum extent practicable, given the funds available, the Trustees' goal is to undertake restoration actions that will benefit the suite of resources affected by the Wyckoff releases both directly and indirectly. It is highly likely, however, that the total amount of restoration that can be achieved with the funds provided by the bankruptcy settlement will not fully address the injuries to natural resources resulting from the Wyckoff releases, despite the best efforts of the Trustees to maximize the amount of restoration that can be achieved with these funds.

2.3 NEPA COMPLIANCE

The decision-making process for conducting restoration of natural resources under CERCLA (described for the overall Wyckoff/Eagle Harbor restoration effort in Section 3.4 of the RP/EA and more specifically for the PPEB project below in Section 4.1) must comply with the NEPA (40 CFR

Section 1500, et seq.) and the Council on Environmental Quality (CEQ) regulations implementing NEPA. In compliance with NEPA and the CEQ regulations this SEA summarizes the current environmental setting, describes the purpose and need for action, identifies alternative actions, assesses their applicability and environmental consequences, and summarizes opportunities for public participation in the decision process.

2.4 PUBLIC PARTICIPATION

This draft SEA for the PPEB project was made available for public review as part of the process laid out in the RP/EA. No comments were received during the public comment period which ran from April 23, 2010 through May 10, 2010. Therefore the PPEB restoration alternative remains the preferred one.

In addition to the proposed PPEB action evaluated in this SEA, the Trustees welcome additional restoration project suggestions from the public that are consistent with the restoration goals and restoration criteria presented in the RP/EA for consideration for inclusion in the restoration effort to address injuries. These can be submitted in writing to the address above or via email. New project suggestions will be evaluated for potential implementation until all the settlement funds are spent. Public opportunities to comment on the scope and design of each of the projects ultimately proposed for implementation will also be available through Supplemental Environmental Assessments and the federal, state, and local permitting processes.

2.5 ADMINISTRATIVE RECORD

This SEA references a number of resource documents prepared by and for the Trustees and through the restoration planning process. These documents, incorporated by reference into this SEA, are part of the administrative record on file for these projects with the lead Administrative Trustee and may be viewed by contacting John Kern at 206-526-6029 or via email at john.kern@noaa.gov.

3.0 ENVIRONMENTAL SETTING/AFFECTED ENVIRONMENT

In this section, there is a brief description of the physical and biological features of Eagle Harbor, and a more detailed description of the PPEB site, including information on the site's history.

3.1 EAGLE HARBOR SITE FEATURES

The physical and biological features of Eagle Harbor are briefly described below. The material is summarized from the RP/EA where additional details are available, including information on the history of Eagle Harbor.

3.1.1 Physical Features

Eagle Harbor is a bay of approximately 0.8 square miles on the eastern side of Bainbridge Island, Kitsap County, Washington, in Central Puget Sound. Eagle Harbor is a narrow east-west oriented bay, approximately 2.2 miles long and 0.4 miles wide near its mouth. The maximum depth of -50 ft Mean Lower Low Water (MLLW) occurs in the eastern portion of the harbor. Salinity in Eagle Harbor is similar to levels in Puget Sound, at approximately 27.5-28.5 parts per thousand. However, fresh water inflow is minimal and as such does not substantially affect salinity in the harbor.

The existing shoreline is almost entirely armored and there is evidence of past fill events along much of the shoreline. Filling, dredging and armoring have diminished the historical extent as well as the function of intertidal habitats around the area. The most impacted reaches on Bainbridge Island, as defined in the Bainbridge Island Nearshore Assessment (Williams et al., 2004), are in Eagle Harbor, and these reaches were "characterized by exceptional amounts of fill and armoring, most of which encroached into the intertidal zone…" The same is true of Bainbridge Island shorelines in general, since over 50% of the shoreline has some form of armoring or other modifications (Williams et al., 2003). The areas of habitat remaining throughout the bay are isolated by development between the habitat patches. WDFW has mapped surf-smelt spawning beaches along the northern and southern Eagle Harbor shorelines and south of Bill Point on the Puget Sound shoreline as well as sand lance spawning on the southern Eagle Harbor shoreline and on the Pritchard Park West Beach area.

The Bainbridge Island nearshore environment as a whole was characterized in the Bainbridge Island Nearshore Assessment (Williams et al., 2004) and more detailed information is available in this document as well as other documents available at:

http://www.ci.bainbridge-isl.wa.us/nearshore_assessment.aspx

3.1.2 Biological Features

Eagle Harbor provides nursery and adult habitat for a variety of marine fish and invertebrate species. Important fish and invertebrates include several flatfish species, scorpaenids (rockfish), surf perch (pile perch), gaddids (cod), hexagrammids (lingcod and greenlings), cancrid crabs, sea cucumbers, squid, and pandalid shrimp. Several shellfish species are present in the intertidal and subtidal areas. Several shoreline areas are also used by forage fish (e.g., surf smelt, sandlance, and herring) for spawning. Listed species under the Endangered Species Act (ESA) potentially present in Eagle Harbor and/or the nearshore waters surrounding Bainbridge Island include Puget Sound Chinook salmon, Puget Sound steelhead, bull trout, Pacific smelt (euchalon), Steller sea lion, humpback whale, leatherback sea turtle, marbled murrelet, Southern Resident killer whale, and three species of rockfish (bocaccio, canary, and yelloweye). Of the species most likely to be present in the area, the nearshore and estuarine waters of Bainbridge Island are critical habitat for Puget Sound Chinook salmon, the nearshore waters (as shallow as 20 ft relative to extreme high water) are critical habitat for Southern Resident killer whale, but no critical habitat has been

designated for Puget Sound Steelhead. Details about the consultation process under Section 7 of the ESA, including potential effects on essential fish habitat, are discussed in Section 5.2.9 and Section 5.4 of this document.

Waterfowl species that are likely to be found in Eagle Harbor include greater scaups, lesser scaups, ring-necked ducks, surf scoters, white-winged scoters, American widgeons, great blue heron, Canada geese, mallards, common goldeneye, mergansers and bufflehead. Other species that may occur include western grebe, double-crested cormorants, Pacific loons, American coots, and pigeon guillemots. Although several species of gulls occur in and around the bays of Bainbridge Island and the Kitsap peninsula, glaucous-winged gulls are the most commonly observed during the Kitsap Audubon Bird count and are abundant along the water front areas. Shorebirds include sandpipers, dunlins, and snipe. The wading birds are generally present along the sandy shorelines. Migratory birds that are known to be present in the action area include red-breasted nuthatches, song sparrows, downy woodpeckers, dark-eyed juncos and chickadees, among others.

3.2 PRITCHARD PARK EAST BLUFF PROJECT SITE DESCRIPTION

This section describes the physical and biological features of the PPEB site and provides some information on the history of the site itself. Much of the information in this section is taken from materials on the COBI website available at the following link: http://www.ci.bainbridge-isl.wa.us/documents/exec/clerk/cc_agn_0308/030508_finalchaps1_3withimages.pdf

3.2.1 Physical Features

This project is located in Puget Sound along the eastern shoreline of Bainbridge Island, immediately south of Bill Point at the mouth of Eagle Harbor (Figure 2). The shoreline is largely armored with rock rip-rap and timber bulkhead that encroaches into the intertidal zone, with cobbles located immediately in front of the bulkhead. An unstable, high bluff lies behind the bulkhead. Debris is scattered throughout the intertidal area.

3.2.2 Biological Features

Beach seine monitoring conducted from 2002-2004 documented high occurrences of forage fish and salmonids of all life stages along the Bainbridge Island shoreline. Chinook, coho, pink, and chum salmon were collected as well as Pacific herring, shiner perch, and Pacific sand lance (Dorn and Best, 2005). Surf smelt are known to spawn in the project area (Williams et al., 2004). Just offshore there are geoduck beds and an extensive eelgrass meadow. The upland forested area contains Douglas Fir, hemlock, cedar, madrone, maple, and willow trees, providing good habitat for a number of bird species.

3.2.3 Site History

The PPEB site has an extensive and rich history which will only be discussed briefly here. The PPEB site is within the traditional territory of the Suquamish Tribe, and reports from early settlers indicate that there were Suquamish camps and villages in the area. In 1942, 227 residents of Japanese descent were ordered by the United States government to depart from Bainbridge Island. Their relocation and subsequent internment were literally set into motion on the shores of what is now Pritchard Park. This site also continues to bear the burden of contamination, due to its former industrial use as a wood treatment plant, and its current status as a federal Superfund site. The site was also used for mining sand and to manufacture bricks.

4.0 PRITCHARD PARK EAST BLUFF PROJECT BACKGROUND AND DESCRIPTION

This section provides details on the background of the Pritchard Park property and the process under which the project was developed, as well as specific details about the project design, construction actions, and post-construction monitoring and stewardship.

4.1 PROJECT BACKGROUND

In March 2007, the PPEB was one of several potential sites for restoration projects that were shown to Trustee representatives for consideration in restoring natural resources injured by releases from the Wyckoff facility. After evaluation of the initial PPEB project concept, along with other potential restoration project suggestions, the PPEB project was identified as one of those potential COBI restoration projects having high potential as a candidate NRDA restoration project. During the Wyckoff/Eagle Harbor public meeting held by the Trustees on May 1, 2008, the PPEB was identified as a project that was likely to be included in the restoration effort and it was also identified as such in the draft RP/EA and, following consideration of public comments, in the final RP/EA. Because the planning process for PPEB was then at a stage where detailed impact analysis could not be performed because of the then-uncertainty about specific project details, the RP/EA indicated that after additional information was available the project would be re-evaluated and a SEA developed if the Trustees decided to propose funding the project as part of the overall NRDA restoration effort.

The design for Pritchard Park, including the PPEB project concept, was developed in a public planning process undertaken by Bainbridge Island Metro Park and Recreation District, COBI, and the Pritchard Park Steering Committee. Information about the park planning process is available at: http://www.biparks.org/parksandfacilities/UniversityofWashingtonsUrbanDesignandPlanning.htm. Engineering design was developed by COBI in consultation with the Bainbridge Island Metro Park and Recreation District, Pritchard Park Steering Committee, EPA, and the Trustees. Additional information about the PPEB project development is available at: http://www.ci.bainbridge-isl.wa.us/pritchard_park_shoreline_restoration_projects.aspx.

4.2 PROJECT DESCRIPTION

The PPEB restoration project[1] will restore a much more natural shoreline than exists currently at the site by removing a failing wooden bulkhead, creosote pilings, intertidal debris, excavating a small pocket beach (up to approximately 175 ft. in length), and planting native vegetation (Figures 3, 4). The original project concept included the removal of approximately 475 ft. of bulkhead. However, approximately 260 ft. of this bulkhead was removed by a private landowner, leaving approximately 215 ft. of bulkhead to be removed by the COBI. Although the amount of bulkhead that will be removed with funding assistance by the Trustees is reduced, the overall amount of bulkhead that would be removed as a result of the COBI and private actions would be the same as in the original restoration concept provided to the Trustees for evaluation. Therefore the overall ecological benefits from restoration actions at the site will be the same as if the COBI had built the entire project. However the amount of NRDA funding required to achieve this level of ecological benefits would be reduced from what had been anticipated.

Backshore vegetation will be planted at the edge of the pocket beach and riparian vegetation will

[1] The PPEB habitat restoration project represents one phase of a two phase COBI project at the site; the other phase involves relocation of a driveway and construction of some recreational features. The Trustees are only providing funds for the habitat restoration (primarily the bulkhead removal and pocket beach creation) phase of the overall project.

be planted in upland portions of the project (Figure 5). The creation of the pocket beach will provide additional intertidal habitat that is important for juvenile salmonids. The removal of the bulkhead will restore natural feeder bluff function, which will result in the restoration of the natural sediment composition to the beach in front of the existing bulkhead and also the restoration of sediment supply to nearshore processes. Restoration of feeder bluff function should result in increased salmon prey production, help maintain or expand the existing eelgrass in the area, improve forage-fish spawning habitat, and increase the biodiversity of the benthos (Williams et. al, 2004).

The shoreline reach in which the PPEB is located is currently rated as “moderate impact” and its ecofunction score is slightly above the median level for Bainbridge Island according to the Bainbridge Island Nearshore Assessment. These scores are largely due to the presence of shoreline armoring, debris, and pilings in the area. With respect to the value of the PPEB restoration project as NRDA restoration, the RP/EA describes the screening process used to evaluate potential projects for implementation under it and gave scores based on the information available at the time of the screening. The PPEB project then received a score of 21 points out of a possible maximum of 24. Although the size of the project might be less than had originally been anticipated, the Trustees believe that even if the size of the project has to be reduced, it would remain a cost-effective project that would provide benefits to the natural resources injured by the Wyckoff hazardous substance releases.

The habitat restoration project phase of the overall project has received $235,000 from the Salmon Recovery Funding Board for design and construction costs. The Trustees anticipate providing a total of approximately $276,000 toward site assessment, project design and permitting, construction, project monitoring, and stewardship activities. To date, a total of $48,883 in NRDA settlement funds have been provided for preliminary site investigations, design, and permitting. In accordance with the MOA between the COBI and Trustees, a restrictive covenant will be placed on the habitat restoration portion of the PPEB property, to protect the habitat restoration area from future development.

4.3 PROJECT MONITORING AND STEWARDSHIP

A monitoring plan will be developed by the Trustees to gauge the response/performance of the project implementation and to help assess the need for adaptive management. The monitoring will be conducted by the COBI with funding provided by the Trustees. Restoration projects also require active stewardship to accomplish actions such as removing invasive plant species, collecting and disposing of trash and debris, and adding mulch. A plan for stewardship of this project will also be developed. Stewardship will be conducted by the COBI under its Shoreline Stewardship Program, with funds provided by the Trustees. These stewardship and monitoring activities are intended to accomplish the project objectives as described here, and are considered a part of the proposed action alternative.

5.0 ALTERNATIVES ANALYSIS

Restoration alternatives must be analyzed for Direct, Indirect, or Cumulative impacts under NEPA.

5.1 ALTERNATIVES CONSIDERED

As discussed in Section 1.2, this document supplements the RP/EA by presenting a detailed impact analysis of the PPEB project that is now possible because sufficient information about the project design has been developed to allow that analysis to be conducted. It is important to understand that should the PPEB project not be selected for inclusion in the restoration effort described in the RP/EA, that restoration effort would still be undertaken to meet the purpose and need described in Section 1.2 of the RP/EA- to restore the injuries to natural resources resulting

from releases of hazardous substances from the Wyckoff facility into Eagle Harbor, as mandated by CERCLA. Two restoration alternatives were evaluated in this SEA, an Action alternative of building the PPEB habitat restoration project as part of the NRDA restoration and a “No-Action” alternative in which the PPEB project would not be included in the NRDA restoration effort. Under the No-Action alternative, however, the funds that would have been spent on the PPEB project would be still be used, but would be spent on other restoration.

5.1.1 Alternative 1: No-Action

The No-Action Alternative would result in the Trustees not implementing the PPEB project as part of the overall effort to restore natural resources and services that were lost as a result of the release of hazardous substances from the Wyckoff facility into Eagle Harbor. Instead, because the Trustees are obligated to conduct restoration with the NRDA settlement funds to meet their mandate under CERCLA, a different restoration action would occur under the RP/EA utilizing these funds to replace the PPEB restoration project. The substitute restoration action would likely be to construct a single restoration project (because the amount of NRDA funding that would be available for substitute restoration would be the same amount that the PPEB project would cost), either a lower-ranked project than those tentatively selected under the RP/EA or a new restoration project that has yet to be identified. Although a full assessment of other projects not yet proposed cannot be conducted, it is likely that the total amount of ecological benefits gained from restoration to address injuries in Eagle Harbor would be less under this alternative than the action alternative because the PPEB project would provide a relatively high pay-off of ecological service gains for the NRDA settlement funds required compared to other currently-known potential projects that could replace the PPEB project. Some of the other potential restoration projects that could be funded out of the settlement might require acquisition of property, which is not required for the PPEB project, and/or involve higher construction costs.

Implementation of Alternative 1 would have generally similar impacts to those that would occur under Alternative 2 because under both alternatives there would be restoration, and the types of construction activities would basically be similar. The restoration that could be accomplished is likely to be less under the No-Action Alternative, in part because there would likely be no Salmon Recovery Funding Board grant to share costs, which would also result in a reduction in the degree to which the overall restoration effort compensates for the injuries to natural resources from the Wyckoff facility. Additionally, because there are no potential replacement projects (outside of the other four projects which are identified in the RP/EA) that could be implemented within the anticipated timeframe for the PPEB project, the “replacement” restoration that would occur under Alternative 1 would take longer to be built, and the delay in this restoration would result in a further reduction in the degree to which the Wyckoff-related injuries would be addressed. This is because under NRDA regulations, less restoration is needed to address a given injury if that restoration occurs sooner rather than later. Under the circumstances of this case, the Trustees are limited by the amount of the settlement, so delayed restoration will compensate for less injury than if a similar amount of restoration occurs sooner.

5.1.2 Alternative 2: PPEB Restoration (Preferred)

Alternative 2 would consist of implementing the PPEB project as NRDA restoration under the RP/EA for the Wyckoff/Eagle Harbor site. Additional restoration of other proposed projects using the remaining settlement funds would still occur under this alternative; these other actions were presented in the RP/EA and are not further analyzed here. The Trustees believe that implementation of the PPEB restoration would result in larger ecological service benefits to the injured resources than would result from potential replacement projects based on the high score the PPEB project received in the Trustees’ project screening analysis and because of the delay that would result because an alternate restoration project could not be built within the same timeframe that the PPEB restoration project could be constructed.

As discussed in the previous section, there might be a slight difference in impact under this alternative compared to Alternative 1, but any difference would likely be negligible. This alternative would likely provide more restoration of the injured natural resources than would a substitute project, so it would be more consistent with the Trustees' mandate under CERCLA to obtain compensation for these injuries. Because there would not be a significant difference in impact expected under the two alternatives and a specific replacement project for PPEB has not been identified, the Trustees' goal of restoring injured natural resources would be better accomplished by funding restoration at PPEB, and Alternative 2 is therefore preferred.

5.2 DIRECT, INDIRECT, OR CUMULATIVE IMPACTS OF THE NO-ACTION AND PREFERRED ALTERNATIVES

The No-Action Alternative and PPEB Restoration Alternative were evaluated based on specific NEPA factors identified below to determine the significance of the impacts. Because NEPA requires consideration of context and intensity (40 CFR 1508.27), the impacts of the proposed alternatives must be analyzed in several contexts, e.g., the society as a whole, the affected region and interests, and the locality and by consideration of the intensity (severity) of impacts by assessing the direct, indirect, and cumulative impacts that could potentially arise from implementation of the proposed project. The significance of impacts under 40 CFR 1508.27(b) is to be considered in evaluating the intensity of both the beneficial and adverse impacts under short- and long-term conditions. Therefore, this section analyzes the affected environment against those specific factors [40 CFR 1508.27(b)] in order to determine whether or not the alternatives would have a significant effect on the quality of the human environment. In addition, the potential impacts of the alternatives were examined in light of NOAA Administrative Order (NAO) Series 216-6, *Environmental Review Procedures for Implementing the National Environmental Policy Act* (NAO 216-6).

The Trustees concluded overall that any potential adverse environmental impacts from the PPEB Restoration Alternative would be short-term and construction-related, while beneficial environmental impacts would result in long-term benefits to the area's natural resources and the aesthetic pleasures for humans. The same is largely true for the No-Action Alternative, because restoration would still occur under this alternative, although a specific project is not yet identified. However, there would likely be less restoration achieved under the No-Action Alternative than under the PPEB Restoration Alternative, because the PPEB project is relatively cost-effective from a NRDA-perspective, especially since some of the funding for this project is from the Salmon Recovery Funding Board. It is unlikely that any project substituting for the PPEB project would be cost-effective enough to result in as much restoration being achieved, than if the PPEB project is included in the restoration actions to address the Wyckoff releases. So, while the impacts under NEPA would largely be the same for both alternatives, the PPEB alternative better meets the Trustees' responsibilities to restore injured natural resources.

5.2.1 Likely impacts of the alternatives [40 CFR 1508.27(b)(1)]

Adverse environmental impacts expected from restoration projects under both alternatives would all be short-term and construction-related impacts. The magnitude of environmental impacts would generally be a function of the extent and duration of construction. Mitigation measures (i.e., use of Best Management Practices- "BMPs") would be included to minimize these short-term impacts under either alternative. The long-term impacts would be beneficial to the area's natural resources by, for example, providing additional fish habitat, protecting and improving water quality, and increasing aesthetics in the area. Projects implemented under either alternative would be developed to comply with all applicable local, state, tribal, and federal permits and approvals.

There are a number of potentially applicable laws and regulations that govern the Trustees' restoration projects. Many federal, state, tribal, and local laws and regulations need to be considered during the development of projects as well as several regulatory requirements that are typically evaluated during the federal and state permitting process. A brief review of potentially applicable laws and regulations that may pertain to these projects is presented below in Section 5.4. Under either alternative, the Trustees would ensure that there is coordination among these programs where possible and that project implementation and monitoring is in compliance with all applicable laws and regulations.

5.2.1.1 Aesthetics, light, and glare

Under either alternative, project sites would have poor aesthetics from disturbed soils, piles of debris, and other construction-related untidiness during the construction phase of a project. It is possible that lights would be used if some of the construction work is done during nighttime (for example, to work when there are good tides). There would be some glare off of machinery used in the construction. However the duration of the construction phase would be relatively short- a few weeks to a few months- for the PPEB project or replacement project(s) under the No-Action Alternative. Following construction, project sites are likely to have much better aesthetics than were present prior to the restoration action, if for example rip-rap or other shoreline armoring is replaced with beach and riparian vegetation.

5.2.1.2 Economic impacts

No significant economic impacts on neighborhoods would be expected to occur under either the No-Action or PPEB project restoration alternatives. Under the PPEB Alternative, there would be no conversion of commercial property to habitat that could lead to job losses or decreases in income, while it is possible that a substitute project under the No-Action Alternative might involve such a conversion- although it is unlikely that there would be a significant conversion of commercial property, if any at all, for the restoration that would substitute for the PPEB project. There will be short-term economic benefits to local businesses in the general area in which habitat projects will be located from spending by construction workers under either alternative. Property values in the vicinity of the PPEB project could benefit because of the PPEB restoration as a component of the overall Pritchard Park development, and it is possible that there would be a similar effect for substitute restoration under the No-Action Alternative. Over the long-term there should be no significant economic impacts from either alternative.

5.2.1.3 Energy and natural resources

There are no sources of energy or exploitable natural resources on the PPEB site and unlikely to be on substitute sites; therefore, no impacts will result under either alternative.

5.2.1.4 Geological and soil resources

There are no known mineral or oil deposits in the areas where the PPEB project will be located and since the PPEB habitat area is a disturbed/filled-in area, construction of habitat will therefore provide a slight increase in the quality of soils and sediments. It is likely that the same would be true of substitute restoration under the No-Action Alternative. So under either alternative there would be no impacts expected.

5.2.1.5 Recreation and education

Any shoreline restoration projects implemented under either the PPEB or No-Action Alternatives would increase the aesthetics of the shoreline, replacing hard armoring or fill with more natural shorelines. This will create a more aesthetic appearance for recreational boaters and kayakers. For the PPEB project COBI will work to engage citizens in stewardship and environmental education activities, and as a community park there will be access for the general public. For a substitute

project it is possible that there might be recreational and educational opportunities, but that would depend on the location and ownership of the property on which it would be built.

5.2.1.6 Land and shoreline use

The PPEB Alternative will not result in negative impacts on land or shoreline use since no existing approved uses are anticipated to be decreased or eliminated. The same is likely to be true for the No-Action Alternative. The PPEB project would result in a shoreline that would be both more aesthetically pleasing to visitors to the park and would provide more ecological services to trust resources- so both the public and natural resources would benefit from implementing this project. The shoreline of a substitute project under the No-Action Alternative would necessarily provide more ecological services than what currently exists (in order to meet NRDA restoration selection criteria), but might not provide as much benefit with respect to human use depending on where the substitute project was located.

5.2.1.7 Transportation, utilities, and public services

There might be temporary impacts to transportation or utilities during construction of an individual project under the No-Action Alternative, depending on the location of the substitute project, although they should be limited to small areas for short time periods. Overall, implementation of either alternative would not be expected to increase demand for public services and utilities.

5.2.1.8 Water resources

During construction of the PPEB project or a substitute project under the No-Action Alternative there could be minor short-term impacts to water quality resulting from increased turbidity. This could potentially affect aquatic vegetation and fauna, including ESA-listed species (see Section 3.1.2). Overall, however, impacts would be expected to be temporary and localized. Best Management Practices (BMPs) would be used to minimize the amount of sediment suspension in the water. Construction would only occur during periods when it would not be detrimental to fish and fisheries in compliance with applicable permits from the U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife and ESA consultation terms and conditions. Over the long term, the PPEB project would benefit water quality by increasing the amount of riparian buffer which will serve filter water passing through it. The same is likely true for a substitute project under the No-Action Alternative.

5.2.1.9 Wetlands

The shoreline along much of Eagle Harbor and Bainbridge Island is armored, and many former wetlands have been filled, so relatively little wetland habitat remains. Implementation of the PPEB Restoration Alternative will increase the amount of riparian, beach and spawning habitat in Eagle Harbor to the benefit of the environment in general and the organisms that depend, directly or indirectly on these habitats. A substitute project would likely provide similar benefits to some degree by increasing the amount of one or more of these habitats.

5.2.2 Likely effects of the alternatives on public health and safety [40 CFR 1508.27(b)(2)]

Neither the No-Action nor the PPEB Restoration Alternatives would be expected to have any significant effects on public health or safety. The adverse effects from the implementation of the PPEB Restoration Alternative or a substitute project under the No-Action Alternative, such as loud noise and exhaust from machinery, would all be short-term and construction-related impacts and thereafter the overall effects can be considered beneficial to the areas' humans and natural resources.

5.2.2.1 Environmental Health and Noise

No long-term risks to environmental health are expected to result from the PPEB project or a substitute project since no hazardous materials will be stored or created on-site. The COBI is coordinating closely with EPA on all projects, including PPEB, located within Pritchard Park, to ensure that actions taken there will not affect the effectiveness of the clean up. The most recent meeting occurred on June 25, 2009, and EPA was briefed on planned actions and they had no concerns with the proposed PPEB restoration. While there are some seeps of contaminated material in front of the sheet pile wall, no such seeps are present in the PPEB project area. Extensive sediment/soil sampling for contamination was conducted during the remedial investigation at the site, and the results suggest that there is little risk of releasing contamination from work at this location. Additional sampling and analysis was conducted in order to confirm that the specific area where excavation will occur has no contamination at levels of concern. A substitute project location considered under the No-Action Alternative would undergo similar evaluation, and it is not likely that a site with significant contamination would be selected, although it is possible if the resulting increase in ecological benefits to injured resources would be great and contaminated material could be handled safely. A separate analysis of any such proposed project would be conducted as warranted if the No-Action Alternative was selected and the PPEB project was not implemented. A health and safety plan will be in place to address any potential hazards during construction for either alternative.

Project implementation under both alternatives would result in short-term noise impacts in a small area around the project location from the use of heavy equipment during the construction phase of the projects. Outside of the immediate project area the increase in noise should be minimal.

5.2.2.2 Air Quality

During the construction phase for the PPEB project or a substitute project under the No-Action Alternative there would be minimal short-term increases in exhaust and dust from use of construction equipment. No significant or long-term impacts to air quality would be expected to result from the implementation of the PPEB or substitute project alternative. The PPEB project would result in an increase in vegetated habitat, and a slight improvement in air quality should result. A substitute project under the No-Action Alternative would be similar, in that an increase in vegetated habitat would likely result.

5.2.2.3 Floodplain and Flood Control

The PPEB Restoration Alternative or a substitute project under the No-Action Alternative would not be expected to have any significant impacts on flood control or affect the floodplain to any significant degree.

5.2.3 Unique Characteristics of the Geographic Area in which the Alternatives would be Implemented [40 CFR 1508.27(b)(3)]

There is no specific location on Bainbridge Island identified for a substitute project under the No-Action Alternative, because no project has been identified as a replacement, so it is not possible to characterize its location. In general, Bainbridge Island is similar in many respects to other islands and coastal areas in Puget Sound. It includes some habitats, such as eelgrass, marsh, stream mouths, and mudflats that are critical habitat for a number of different species. However, a large portion of the shoreline on the island has been modified, eliminating or diminishing the ecological services provided by these nearshore and shoreline habitats.

The specific PPEB project area is generally similar to many other areas within Eagle Harbor and elsewhere in Bainbridge Island in that it is highly modified by placement of fill and shoreline armoring. Debris is scattered throughout the intertidal area.

Either the PPEB or a substitute restoration project would recreate natural habitat in areas that have been highly modified or degraded, and in which little natural shoreline habitats remain. Both would yield positive environmental impacts for the humans and the natural resources that use the Bainbridge Island environment, by increasing the amount of natural habitat for use by fish and wildlife and increase the enjoyment of passive recreational activities such as wildlife viewing.

5.2.4 Controversial Aspects of the Alternatives or their Likely Effects on the Human Environment [40 CFR 1508.27(b)(4)]

Restoring lost habitat in Eagle Harbor or elsewhere on Bainbridge Island is generally non-controversial. A large number of different planning efforts and non-governmental organizations have supported doing such habitat restoration in the Bainbridge Island and Puget Sound environment. Habitat restoration, including the pocket beach, is included in the master plan for Pritchard Park that was developed with extensive public participation, so the Trustees do not expect controversy on this project.

The decision of the Trustees to provide some of the funding necessary to restore the PPEB shoreline itself is not controversial and is consistent with the RP/EA.

5.2.5 Degree to Which Possible Effects of Implementing the Alternatives are Highly Uncertain or Involve Unknown Risks [40 CFR 1508.27(b)(5)]

The type of habitat restoration that would occur under the PPEB Restoration Alternative is likely to be successful because it would be largely recreating the former shoreline and habitats at the site. Similar restoration projects in Puget Sound have a very good record of success. The project will be removing fill material and will not impact native sediments, reducing the risk of exposing any buried archaeological artifacts that might be present.

A substitute project under the No-Action Alternative would likely have little risk from implementation because the type of project would likely be similar and site investigations would be conducted to evaluate potential risks prior to any Trustee decision. Construction of a substitute project would occur only if the investigations indicated that the level of risk was low.

5.2.6 Precedential Effect of the Alternatives on Future Actions that may Significantly Affect the Human Environment [40 CFR 1508.27(b)(6)]

The Trustees believe that the PPEB restoration project or a substitute project under the Integrated Habitat Restoration Alternative together with other habitat enhancements being planned by other groups would exert strong positive influences on natural resources utilizing the Bainbridge Island intertidal and nearshore environments. Enhancing and creating fish and wildlife habitat benefits the area's natural resources, helps to protect and improve water quality, bolsters native plant communities, enhances the visual quality of the area, and provides educational opportunities for the public. Because there is already a strong restoration program being undertaken as part of the Puget Sound Initiative, no significant precedential effects are anticipated from the Eagle Harbor/Bainbridge Island restoration effort overall and from either of the two alternatives considered in this SEA.

5.2.7 Possible Significance of Cumulative Impacts from Restoration under these Alternatives and Similar Projects from other Mechanisms; Potential Impacts on Connected Actions [40 CFR 1508.27(b)(7)]

The cumulative effects analysis for the PPEB Restoration Alternative and the No-Action Restoration Alternative in which a substitute restoration project would be built is consistent with that contained in the RP/EA. The following updates the analysis presented in the RP/EA.

The cumulative effects analysis in this SEA is commensurate with the degree of direct and indirect effects posed by the alternatives considered. Restoration projects considered in accordance with an overall CERCLA action are intended to mitigate or compensate for prior injury to natural resources under NOAA's jurisdiction, and therefore typically have predominantly beneficial impacts toward redressing impacts to those resources. In the case of the Wyckoff/Eagle Harbor restoration effort, the PPEB project is one component of the overall CERCLA remediation and restoration for the Wyckoff/Eagle Harbor site, therefore the potential for cumulative impacts is considered in the context of that overall project site. Although impacts to natural resources under NOAA's jurisdiction, and in general, may occur in the larger regional vicinity of Puget Sound, the potential for the PPEB Restoration Alternative or a substitute project under the No-Action Alternative to incrementally contribute to those effects does not warrant consideration here, as the goal of the effort is to increase available habitat for those resources. Therefore, the cumulative impacts analysis for this restoration action appropriately focuses on the incremental effects of the action in the context of other Wyckoff/Eagle Harbor ongoing actions under CERCLA.

The resources that may be temporarily impacted during construction actions of either the PPEB restoration project or a substitute project are air quality (by increased dust, noise, and exhaust fumes from construction equipment), disturbance of soils and sediments (largely currently degraded and disturbed), and water (from increased turbidity). Some slight and temporary impacts to marine fauna and flora could occur, but impacts to these and other resources would be minimized by use of BMPs. Other restoration projects that may occur in the vicinity would similarly incorporate required BMPs, such as dust control and soil and erosion best management practices. Additionally, the overall footprint of projects that would be built under the PPEB Restoration Alternative or a substitute project under the No-Action Alternative would be relatively small. Consequently, the minor and temporary impacts of the action on air quality, soils and sediments, and water quality has a low potential to result in cumulatively significant impacts to these resources.

An important consideration for Trustees conduct of restoration actions is the timing and location of restoration projects relative to the overall CERCLA action. Specifically, it is important that habitat restoration occurs on sites where contamination either did not occur or has been successfully remediated to appropriate standards, and that habitats or living marine resources not be restored in an area where they may be impacted by other impacts associated with the larger remediation or restoration action. Completion of the PPEB project would result in additional and/or improved beach, mudflat, and riparian habitat which would be more ecologically productive and support the types of natural resources, such as English sole, salmonids, crabs, etc., that were injured by releases from the Wyckoff facility. A substitute project under the RP/EA would also restore one or more of the key habitat types identified in the RP/AS. With respect to natural resources, over the mid and long-term (i.e., after completion of the restoration actions) restoration under the PPEB Restoration Alternative will be wholly beneficial with no potential for incremental contribution to significant impacts related to contaminant exposure in the marine environment. The same would be true for a substitute project if the PPEB Restoration Alternative is not selected.

5.2.8 Effects of the Alternatives on National Historic Places, or Likely Impacts to Significant Cultural, Scientific or Historic Resources [40 CFR 1508.27(b)(8)]

Prior to conducting restoration at any restoration site with Wyckoff NRDA settlement funds the Trustees would consult with the Suquamish Tribe and the Washington Department of Archaeology and Historic Preservation and would conduct investigations to identify significant cultural and historical properties as part of the 106 consultation process. Projects would be designed to avoid impacts to these properties if they are in the project area. That process has been concluded with a No Historic Properties Affected determination, which was concurred with by the Suquamish Tribe and the Washington Department of Archaeology and Historic Preservation. It is important that it be

clear that the initial decision about how to address historic features for the PPEB site was initially done through the public planning process conducted by the COBI and Park District, in which a portion of the PPEB site was designated for habitat. The Trustees would not fund the PPEB restoration project if it would have resulted in significant negative impacts to historic properties, as determined through the Section 106 consultation process.

5.2.9 Degree to which the Alternatives may Adversely Affect Endangered or Threatened Species or their Critical Habitat [40 CFR 1508.27(b)(9)]

The PPEB Restoration Alternative or a substitute project under the No-Action Alternative would provide additional critical habitat for threatened Puget Sound Chinook salmon and additional habitat for Puget Sound steelhead, and may benefit other listed species in the surrounding area (such as bull trout and Southern Resident killer whale) indirectly through increases in prey biomass resulting from increased habitat. Through selective scheduling of the construction period to minimize impacts to salmonids and implementation of methods to minimize in-water turbidity, short-term impacts to listed species would be relatively minor. Federal laws and regulations pertaining to fish and wildlife as well as applicable ESA consultation processes and terms and conditions would be followed, and no long-term adverse impacts would be expected to result from this alternative. Since the proposed project may affect listed species and their critical habitat, an ESA Section 7 consultation was initiated at a meeting on December 2, 2008. This project was partially funded by the Salmon Recovery Funding Board and was granted an incidental take exception by NMFS through their ESA 4(d) rule Limit 8 authority. An informal consultation with USFWS was completed with their concurrence that the project was unlikely to affect threatened or endangered species under their jurisdiction. Following construction, the PPEB project or a substitute restoration project would improve fish habitat structure and function. Juvenile anadromous salmonids will benefit from increased habitat quantity and quality.

5.2.10 Introduction of Non-Indigenous Species [NAO 216-6 6.01(b)(11)]

No non-indigenous species would be introduced as part of the implementation of either the PPEB Restoration or No-Action Alternatives. However, existing invasive and non-native plant species would be replaced with native species in accordance with the monitoring program and a site specific vegetation plan.

5.3 EFFECTS OF CLIMATE CHANGE ON THE PPEB RESTORATION AND NO-ACTION ALTERNATIVES

The effect of climate change that is most relevant to nearshore and shoreline restoration projects on Bainbridge Island is sea level rise (SLR). Other anticipated effects of climate change, such as increased rainfall and reduced snowpack leading to higher peak flows in streams and rivers, will have more impact on freshwater stream habitats than estuarine habitats. There is a wide range in the predictions of how much SLR will occur in Puget Sound, one of the higher estimates is that it could be 40 inches or more by year 2100 (Bauman et al., 2006). The PPEB site would allow some migration of beach and/or mudflat inland to offset SLR to some degree, but this would be at the expense of some riparian habitat, unless a future Park District Board would allow some of the upland currently outside of the habitat portion of the site to become habitat. An alternate restoration project under the No-Action Alternative would presumably have a similar ability for some migration inland as sea level rises.

5.4 COORDINATION AND CONSULTATION

This section presents a review of the potentially applicable laws and regulations that govern the Trustees' restoration projects. Many federal, state, tribal, and local laws and regulations need to be considered during the development of the PPEB restoration project as well as several regulatory requirements that are typically evaluated during the federal and state permitting

process. A brief review of potentially applicable laws and regulations that may pertain to this project is presented below. The project manager will ensure that there is coordination among these programs where possible and that project implementation and monitoring is in compliance with all applicable laws and regulations.

Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42 USC §§ 9601 *et seq*., and National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR 300. CERCLA, also known as Superfund, provides the basic legal framework for cleanup and restoration of the nation's hazardous substances sites. CERCLA establishes a hazard ranking system for assessing the nation's contaminated sites with the most contaminated sites being placed on the National Priorities List (NPL). The Wyckoff Property was an NPL site, and the Wyckoff settlement was intended to fund clean up of the site and restoration of the injured natural resources and the PPEB project will accomplish some of that restoration.

Model Toxics Control Act (MTCA), Ch. 70.105D RCW (1989) and Ch. 173-340 WAC (1992). MTCA, Washington's toxic cleanup law, is the state equivalent of the federal Superfund program and is managed by WDOE. The statewide regulations set forth cleanup standards and requirements for managing contaminated sites. WDOE is a participant in this project so MTCA compliance will be inherent in the Trustees' decision-making process.

National Environmental Policy Act (NEPA), as amended, 42 U.S.C. §§ 4321 *et seq*.; 40 CFR Parts 1500-1508. NEPA was enacted in 1969 to establish a national policy for the protection of the environment. The Council on Environmental Quality (CEQ) was established to advise the President and to carry out certain other responsibilities relating to implementation of NEPA by federal agencies. CEQ's NEPA regulations (40 CFR Parts 1500-1508) outline the responsibilities of federal agencies under NEPA and provide specific procedures for preparing environmental documentation to comply with NEPA. Where appropriate, NEPA requires that an EA be prepared in order to determine whether the proposed action will have a significant effect on the quality of the human environment. An EA was completed for the Wyckoff/Eagle Harbor proposed restoration, and supported a finding that the proposed action would not significantly impact the quality of the human environment. The SEA for this project underwent a public review and comment period and no comments were received. The SEA and the appropriate regulatory documents are a part of the administrative record for this project.

State Environmental Policy Act (SEPA), Chapter 43.21C RCW and Chapter 197-11 WAC. SEPA sets forth Washington State's policy for protection and preservation of the natural environment. Local jurisdictions must also implement the policies and procedures of SEPA. The SEPA process for the PPEB restoration project was conducted by the COBI.

Clean Water Act (CWA) (Federal Water Pollution Control Act), 33 USC §§ 1251 *et seq*. The CWA is the principal law governing pollution control and water quality of the Nation's waterways. It requires the establishment of guidelines and standards to control the direct or indirect discharge of pollutants to waters of the United States. Discharges of material into navigable waters are regulated under Sections 401 and 404 of the CWA. The USACE has the primary responsibility for administering the Section 404 permit program. Under Section 401 of the CWA, projects that involve discharge or fill to wetlands or navigable waters must obtain certification of compliance with state water quality standards. A permit from the USACE will be obtained for this project.

Oil Pollution Act of 1990 (OPA), 33 USC §§ 2701 et seq. OPA provides for the prevention of, liability for, removal of and compensation for the discharge, of the substantial threat of discharge, of oil into or upon the navigable waters of the United States, adjoining shorelines, or the Exclusive Economic Zone. Section 1006(e) requires the President, acting through the Under

Secretary of Commerce for Oceans and Atmosphere, to develop regulations establishing procedures for natural resource trustees in the assessment of damages for injury to, destruction of, loss of, or loss of use of natural resources covered by OPA. Section 1006(b) provides for the designation of Federal, State, Indian tribal and foreign natural resource trustees to determine resource injuries, assess natural resource damages (including the reasonable costs of assessing damages), present a claim, recover damages and develop and implement a plan for the restoration, rehabilitation, replacement, or acquisition of the equivalent of the natural resources under their trusteeship. This restoration effort is not being conducted under OPA

Rivers and Harbors Act, 33 USC §§ 401 *et seq*. This Act regulates development and use of the nation's navigable waterways. Section 10 of the Act prohibits unauthorized obstruction or alteration of navigable waters and vests USACE with authority to regulate discharges of fill and other materials into such waters. Actions that require Section 404 CWA permits are also likely to require permits under Section 10 of this Act. A single permit usually serves for both purposes so this project can potentially ensure compliance through this mechanism.

Endangered Species Act of 1973 (ESA), 16 USC 1531 §§ *et seq*., 50 CFR Parts 17, 222, 224. The ESA directs all federal agencies to conserve endangered and threatened species and their habitats and encourages such agencies to utilize their authorities to further these purposes. Under the Act, NMFS and USFWS publish lists of endangered and threatened species. Section 7 of the Act requires that federal agencies consult with these agencies if their action may affect endangered and threatened species or adversely modify or destroy designated critical habitat. As discussed in Section 3.1.2, several listed species are potentially present in the project vicinity, so consultation is appropriate to ensure that they will not be adversely affected. The Trustees began informal consultation under the ESA for this project on December 2, 2008. As noted in Section 5.2.9, this consultation was completed with concurrence that listed species were unlikely to be adversely affected by the project.

Magnuson-Stevens Act (MSA) (formerly Magnuson-Stevens Fishery Conservation and Management Act, MSFCMA), 16 USC §§ 1801 *et seq*., 50 CFR Part 600. In 1996, the Act was reauthorized and changed by amendments to require that fisheries be managed at maximum sustainable levels and that new approaches be taken in habitat conservation. Essential Fish Habitat (EFH) is defined broadly to include "those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity" (62 Fed. Reg. 66551, § 600.10 Definitions). The Act requires consultation for all federal agency actions that may adversely affect EFH. Under Section 305(b)(4) of the Act, NMFS is required to provide advisory EFH conservation and enhancement recommendations to federal and state agencies for actions that adversely affect EFH. Where federal agency actions are subject to ESA Section 7 consultations, such consultations may be combined to accommodate the substantive requirements of both ESA and MSFCMA. NMFS was consulted regarding MSFCMA-managed species residing or migrating through Bainbridge Island nearshore waters and Eagle Harbor.

Fish and Wildlife Coordination Act (FWCA), 16 USC §§ 661 *et seq*., Migratory Bird Treaty Act of 1918, 16 USC §§ 703 *et seq*.). The FWCA requires that federal agencies consult with the USFWS, NMFS, and state wildlife agencies for activities that affect, control or modify waters of any stream or bodies of water, in order to minimize the adverse impacts of such actions on fish and wildlife resources and habitat. These consultations are generally incorporated into Section 404 of the CWA, NEPA, or other federal permit, license or review requirements. Similarly, the Migratory Bird Treaty Act requires the protection of ecosystems of special importance to migratory birds against detrimental alteration, pollution, and other environmental degradation. All appropriate consultations under these acts were conducted.

Executive Order 11988: Floodplain Management. On May 24, 1977, President Carter issued Executive Order 11988, Floodplain Management. This Executive Order requires each federal agency to provide opportunity for early public review of any plans or proposals for actions in floodplains, in accordance with Section 2(b) of Executive Order 11514, as amended, including the development of procedures to accomplish this objective. The PPEB project is not in a floodplain.

Executive Order 11990: Protection of Wetlands. On May 24, 1977, President Carter issued Executive Order 11990, Protection of Wetlands. This Executive Order requires each agency to provide opportunity for early public review of any plans or proposals for new construction in wetlands, in accordance with Section 2(b) of Executive Order 11514, as amended, including the development of procedures to accomplish this objective. The public review of this draft SEA affords such an opportunity.

Executive Order 12898: Environmental Justice, as amended. On February 11, 1994, President Clinton issued Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. This Executive Order requires each federal agency to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority and low-income populations. EPA and CEQ have emphasized the importance of incorporating environmental justice review in the analyses conducted by federal agencies under NEPA and of developing mitigation measures that avoid disproportionate environmental effects on minority and low-income populations.

The Suquamish Tribe constitutes distinct, separate communities of Native Americans who rely on Treaty-reserved fish and shellfish resources for subsistence, economic and spiritual purposes. Other members of low-income communities may rely on fishery resources for subsistence purposes. The Trustees have not identified any disproportionate, adverse impacts on human health or environmental effects on implementation of the preferred alternative on Native Americans or other minority or low-income populations, and believe that this project will be beneficial to these communities. The Tribe is a participant in the project planning and their representation will be inherent in the Trustee Counsel's decision-making process.

Information Quality Guidelines issued Pursuant to Public Law 106-554. Information disseminated by Federal agencies to the public after October 1, 2002, is subject to information quality guidelines developed by each agency pursuant to Section 515 of Public Law 106-554 that are intended to ensure and maximize the quality of such information (i.e., the objectivity, utility and integrity of such information). This SEA is an information product covered by the information quality guidelines established by NOAA and the DOI for this purpose. The information collected herein has undergone Section 515 pre-dissemination review and complies with applicable guidelines.

1855 Treaty of Point Elliott

The 1855 Treaty of Point Elliott sets forth articles of agreement between the United States and the Suquamish Tribe, the Muckleshoot Indian Tribe, and other federally-recognized tribes within the Puget Sound area. Under the Supremacy Clause of the United States Constitution, treaties are superior to any conflicting state laws or constitutional provisions. There are no conflicts with the 1855 Treaty of Point Elliott.

Other potentially applicable federal, state, tribal, and local laws that are integrated into the regulatory process include[2]:

[2] A permit, consultation, or consistency determination is known to be needed for the Coastal Zone Management Act, the

- Archaeological Resources Protection Act, 16 USC §§ 469, *et seq*.
- Clean Air Act, as amended, 42 USC §§ 7401, *et seq*.
- Coastal Zone Management Act of 1982, as amended, 16 USC 1451 *et seq*.
- Marine Mammal Protection Act, 16 USC §§ 1361 *et seq*.
- National Historic Preservation Act, 16 USC §§ 470 *et seq*.
- Shoreline Management Act, Ch. 90.58 RCW and Ch. 173-14 WAC
- Hydraulic Code, Ch. 77.55 RCW and Ch. 220-110 WAC
- Historic Preservation Act, Ch. 27.34 RCW, Ch. 27.44 RCW, and Ch. 27.53 RCW

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7.0 LIST OF PREPARERS:

The following Trustees participated in the development of this RP/EA:

National Historic Preservation Act, the Shoreline Management Act, and the Hydraulic Code.

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FIGURES

Figure 1. Map of Bainbridge Island and Wyckoff Superfund Site

(Source: September 26, 2007, U.S. EPA Second Five-Year Review Report for the Wyckoff/Eagle Harbor Superfund Site)

Figure 2. Pritchard Park East Bluff Shoreline Restoration Project Site.

(Source: City of Bainbridge Island)

Figure 3. Pritchard Park East Bluff Shoreline Restoration Project Demolition and Clearing Plan.

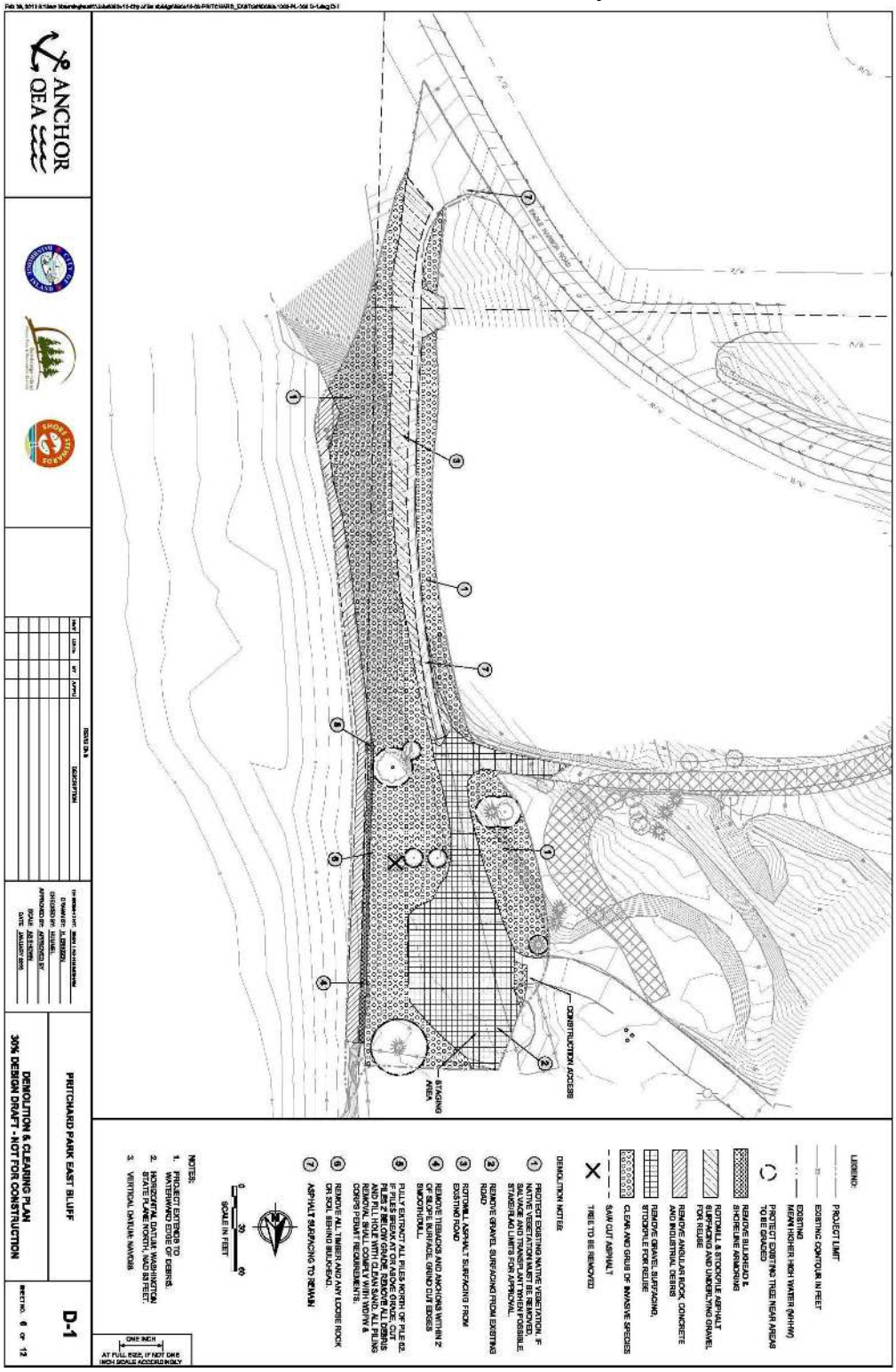

Figure 4. Pritchard Park East Bluff Shoreline Restoration Project Layout and Materials Plan.

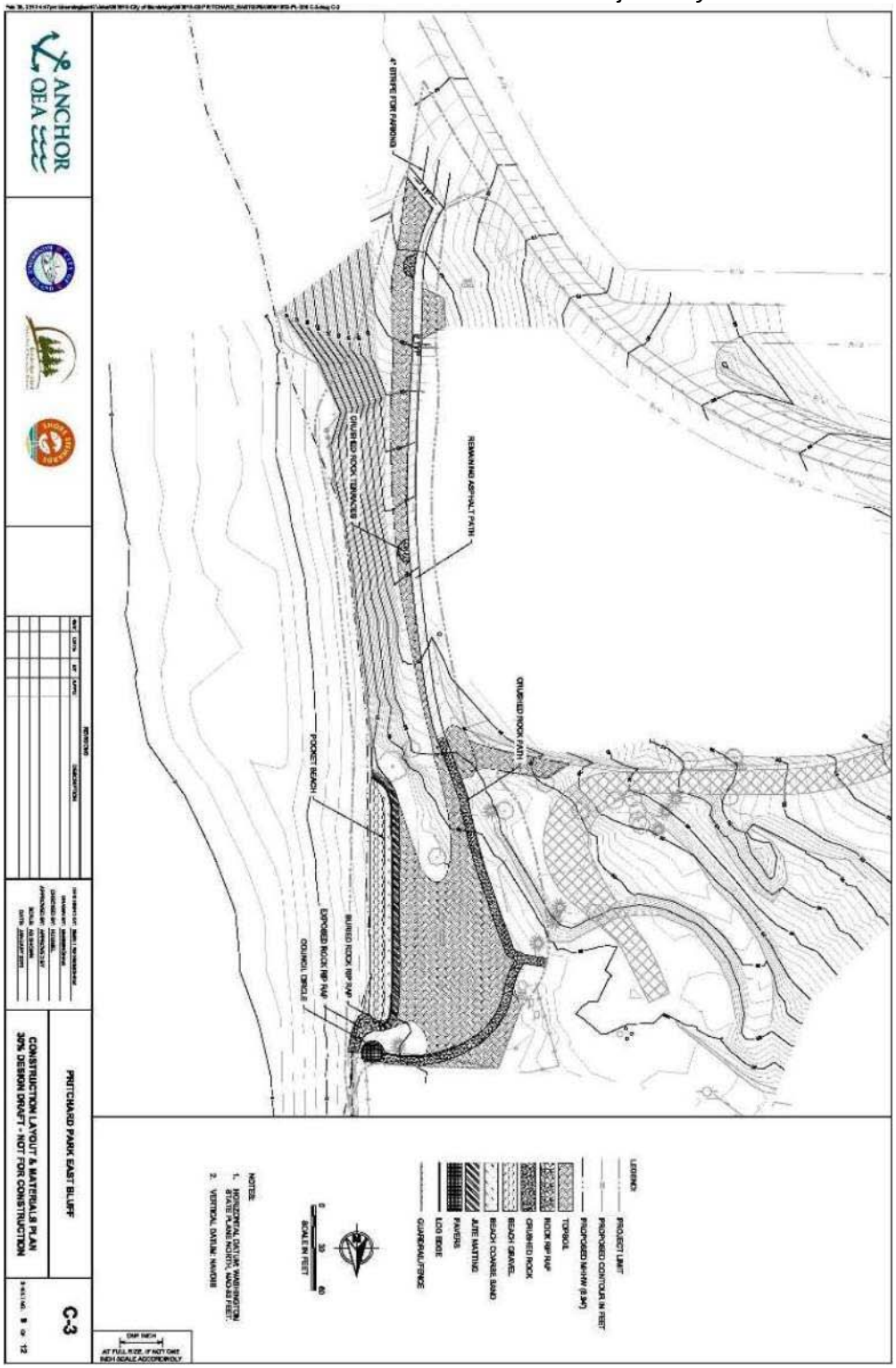
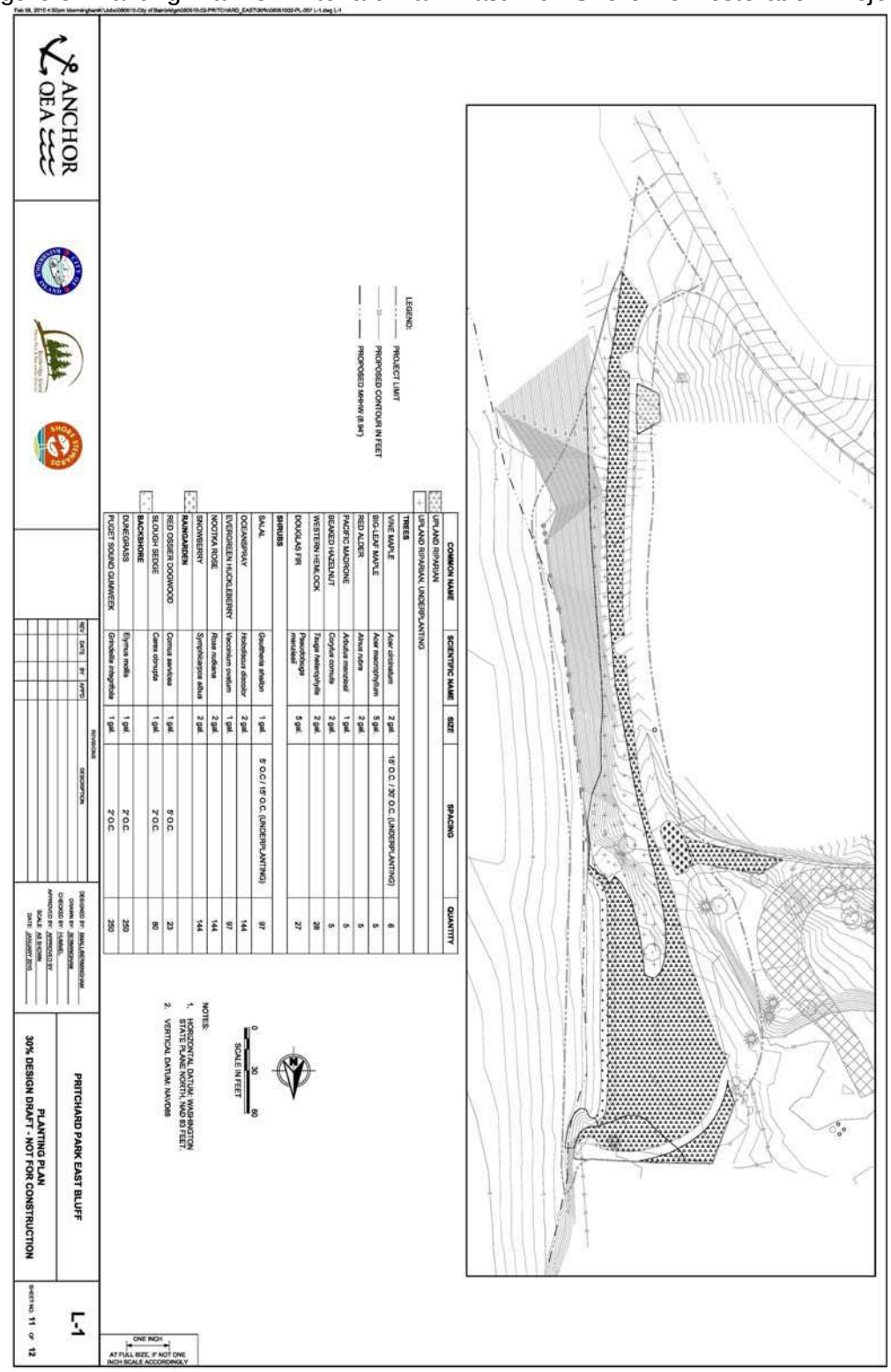
Figure 5. Planting Plan for Pritchard Park East Bluff Shoreline Restoration Project.