

APPENDIX A

Section 404(b)(1) Evaluation

DRAFT

**APPENDIX A – SECTION 404(b)(1) EVALUATION
FOR
APPLICANT: NORTHWEST AGGREGATES
APPLICATION NUMBER: 200001094**

1. Introduction.

A. This document constitutes the determination of compliance with the Section 404(b)(1) Guidelines at 40 CFR 230 for the work described in the attached Public Notice Erratum, sent out on 14 April 2005. (See Appendix B of the Draft Environmental Assessment for Public Notices).

2. Project Information.

A. Location. The project site is located in Puget Sound on the southeast shoreline of Maury Island, King County, Washington.

B. Description of the Proposed Work. The proposed work consists of backfilling any depressions left by the removal of 228 timber piling with clean pea gravel or sand.

C. Jurisdiction. Puget Sound is a navigable water of the United States. The Corps has regulatory jurisdiction over the proposed work pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.

E. Purpose. The purpose is to meet a conservation measure as part of Endangered Species Act (ESA) Section 7 consultation on proposed dock (Grette Associates LLC 2002).

F. Project Need. The purpose of the work is to meet an ESA conservation measure identified during the Section 7 consultation process for the construction of the proposed dock.

G. Water Dependency. This project is for intertidal and subtidal habitat enhancement and is water dependent.

3. Public Involvement. See Section 7 “Background of Action” in the Draft Environmental Assessment (Draft EA) for details on the public involvement process.

4. Alternatives.

CWA Section 404(b)(1) Guidelines call for analysis of alternatives to the proposed project to ensure that no discharge would be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences [40 C.F.R. § 230.10(a)]. An alternative is practicable if it is

available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purpose [40 CFR § 230.10(a)(2)].

In this case, the “discharge” being evaluated under the Section 404(b)(1) Guidelines is the discharge of clean pea gravel or sand in any depressions or holes caused by the removal of 228 timber piles related to the construction of the proposed dock. This discharge is a conservation measure required as part of the ESA consultation.

Alternatives to discharge of fill material into the aquatic environment are discussed below.

A. No Action. Under this alternative, there would be “no activity requiring a Department of the Army permit” and therefore no discharge of fill into waters of the United States.

B. Proposed Action. The discharge of clean pea gravel or sand would fulfill the project purpose or satisfy the intent of the ESA conservation measure.

C. Other alternatives. The pea gravel or sand best mimic the existing sediment characteristics and provide an effective means of limiting exposure. We considered other potential materials (rock, finer sediments, etc.) but determined the proposed material best meets the project purpose and provides the least impact to the existing environment.

Nothing in the public record suggests the existence of a less damaging practicable alternative than the applicant’s proposed discharge. Neither agencies, treaty Indian Tribes, nor the general public had any comments or suggestions about alternatives in relation to this discharge of pea gravel or sand into the depressions or holes caused by the removal of 228 timber pile.

I have conducted an independent analysis of the project alternatives. My conclusion is that the project represents the least environmentally damaging practicable alternative available to the applicant capable of achieving the proposal’s purpose and intent of the ESA conservation measure. All presumptions involving practicable alternatives in special aquatic sites have been adequately rebutted or are not applicable.

5. Potential Impacts on Physical and Chemical Characteristics of the Aquatic Ecosystem (Subpart C)(check all that apply and describe). The purpose of this section is to evaluate the various physical and chemical components, which characterize the non-living environment of the proposed site, the substrate, and the water, including its dynamic characteristics [40 CFR §230.5(e)]. Many of these impacts described in this section are also discussed in Section 13 “Environmental Impact Analysis” of the Draft EA.

(X) Substrate [40 CFR §230.20]. Filling activities can result in varying degrees of change in the complex physical, chemical, and biological characteristics of the

substrate. The inter- and sub-tidal substrate within a few square-foot area around each of the 228 creosote-treated wood piles will be temporarily distributed as a result of the removal of existing piles and the placement of pea gravel or sand in any depressions or holes created as result of the pile removal. Pea gravel or sand placed within each depression or hole would prevent any residual creosote contamination remaining in the substrate from coming in contact with the water column and/or the existing substrate surface. The proposed fill is expected to be similar to the existing substrate and will not changes in physical, chemical or biological characteristic of the substrate within the project area. The proposed fill will not change substrate functions associated with marine environment (i.e. nutrient cycling, carbon cycling, and invertebrate support).

(X) Suspended particulates, turbidity [40 CFR §230.21]. Suspended particulates/turbidity impacts that could occur from the placement of fill will be minimized by the type of fill material to be used (clean pea gravel and/or sand) the small amount of fill that will be placed in each depression and/or hole (few cubic yards), and the total number depressions or holes that are filled (maximum of 228). Any silt or other fine particles that would remain suspended within the water column are expected to be of short duration and would not change the level light penetration as the size of the fill area will be limited to a few square feet at a time. The gravel and sand used is expected to be clean and contain very little silt and/or other fine particles that could react with the dissolved oxygen in the water.

(X) Water [40 CFR §230.22 (a-b)]. The proposed fill (clean pea gravel or sand) is expected to be free of chemicals or other materials that would affect or change the surrounding waters chemistry or physical characteristics.

(X) Current Patterns and Water Circulation [40 CFR §230.23(a-b)]. The filling of depressions or holes left by the pile removal with pea gravel or sand will not increase the elevation above the surrounding substrate. There is no expected change or modification of the existing current and water circulation in the project area.

() Normal Water Fluctuations [40 CFR §230.24(a-b)]. Normal water fluctuations will not affected by the filling activities. Not applicable.

(X) Salinity Gradients (40 CFR §230.25). There are no expected changes in salinity associated with fill in the few square feet around each depressions or holes.

6. Potential Impacts on Biological Characteristics of the Aquatic Ecosystem (Subpart D)(check all that apply and describe) . The purpose of this section is to identify and evaluate any special or critical characteristics of the project site, and surrounding areas which might be affected by use of the site, related to their living communities or human uses [40 CFR §230.5(f)].

(X) Threatened/Endangered Species or Their Habitat [40 CFR §230.30 (a-c)]. ESA Section 7 consultation is complete. The proposed discharge is a conservation

measure that is part of this ESA consultation. Corps has determined that the proposed project is in compliance with Section 7 of the Endangered Species Act.

Fish and other Aquatic Organisms in the Food Web [40 CFR §230.31(a-b)]. The discharge of fill material will be clear pea gravel or sand and is not expected to affect fish, crustaceans, mollusks and other food web organisms through the release of contaminants or suspended particulates.

Wildlife [40 CFR §230.32(a-b)]. No wildlife will be affected by the filling activities. Not applicable.

7. Potential Impacts on Special Aquatic Sites (Subpart E)(check all that apply and describe).

Sanctuaries and Refuges [40 CFR §230.40(a-b)]. The proposed filling activities will occur within the boundaries of the Maury Island Aquatic Reserve. The filling activities will not adversely impact the reserve but will be beneficial by preventing any residual creosote contamination remaining in the substrate from coming in contact with the water column and/or the existing substrate surface.

Wetlands [40 CFR §230.41] including Mudflats [40 CFR §230.42], Vegetated Shallows [40 CFR §230.43], Coral Reefs [40 CFR §230.44], and Riffle and Pool Complexes [40 CFR §230.45]. The proposed filling activities will not directly impact any of these special aquatic sites. Not applicable.

8. Potential Effects on Human Use Characteristics (Subpart F) (check all that apply and describe). The purpose of this section is to identify and evaluate any special or critical characteristics of the project site, and surrounding areas which might be affected by use of the site, related to their living communities or human uses [40 CFR §230.5(f)].

Municipal and Private Water Supplies [40 CFR §230.50]. No municipal or private water supplies will be affected by the filling activities. Not applicable.

Recreational and Commercial Fisheries [40 CFR §230.51]. The proposed fill is limited to small areas within the footprint of the existing dock and will not change the recreational and commercial fishing grounds in or adjacent to the project sites.

Water-Related Recreation [40 CFR §230.52]. The project site is being used for recreational activities however the placement of fill within depression or holes resulting from pile removal will not affect local recreational activities at or near the project site.

Aesthetics [40 CFR §230.53]. The proposed fill will not affect the aesthetic quality of the area. The overall character of the area will not be changed.

(X) Parks, National and Historical Monuments, National Seashores, Wilderness Areas, Research Sites, and Similar Preserves [40 CFR §230.54]. The discharge of fill material within the Maury Island Aquatic Reserve will not modify the aesthetic, educational, historical, recreational and/or scientific qualities o/r eliminating the uses for which the aquatic reserve was aside and managed.

9. General Evaluation of Fill Materials [40 CFR 230.60] (check all that apply and describe). All material proposed by applicant as fill material must comply with Washington State Water Quality Certification (WQC), issued 14 March 2006, and Endangered Species Act (ESA) conservation measure.

(X) Chemical, Biological, and Physical Evaluation and Testing [40 CFR §230.61]. Fill material may be excluded from the evaluation in 40 CFR §230.60 if the likelihood of contamination is acceptably low. The fill criteria provided as part of the ESA conservation measure and WQC are protective of the aquatic environment and the Corps require no further testing of the fill material.

10. Actions to Minimize Adverse Effects (Subpart H) In the Corps process to determine compliance with the Guidelines, the applicant must avoidance or minimize project impacts to the maximum extend possible. The applicant has avoided direct impact to special aquatic sites and minimizes potential impacts through extensive post-construction monitoring. The proposed fill is an ESA conservation measure and is considered a beneficial impact.

11. Actions to avoid or minimize impacts. The Corps has worked with applicant throughout the process to reduce impacts to the maximum extent practicable. The applicant has complied by minimizing the footprint of the proposed project including fill associated with pile removal to the minimum necessary to construct the proposed dock. The fill activities will reduce long-term impacts to aquatic environment. Alternatives to the proposed fill were analyzed. The Corps determined that the applicant's proposal represents the least environmentally damaging, practicable alternative available to meet the project purpose.

12. Actions to compensate for unavoidable impacts to the aquatic resource. The Corps worked with the applicant to ensure the proposed fill would result in temporary, minor, short-term impacts within the few square feet of each pile removed and to ensure that changes in aquatic environment would not occur.

Determination of Adequacy of Compensatory Mitigation. The Corps finds the proposed fill activities as ESA conservation measure adequately offsets adverse impacts associated with this project.

13. Compliance with Restrictions on Discharge [40 CFR §230.10 Subpart B Continued].

A. Compliance with Pertinent Legislation [40 CFR §230.10(b)]. No discharge shall be permitted if any of the following are not in compliance.

Water quality standards. The Washington State Department of Ecology has issued a Water Quality Certification, dated 14 March 2006, which includes water quality conditions.

Toxic effluent standards. Potential discharges under Section 307 of the Clean Water Act are not expected.

Endangered Species Act. Both USFWS and NMFS issued concurrence letters agreeing with Corps determination of “not likely to adversely affect” ESA listed species and their designated critical habitat, discussed in Section 13.8 of the EA.

Marine Protection, Research, and Sanctuaries Act. The discharge of fill material will occur in a state aquatic reserve but no potential effects of the discharge cause adverse impacts to the reserve.

B. Potential for Degradation of Waters of the United States [40 CFR §230.10(c)]. No discharge shall be permitted which will cause or contribute to significant degradation of waters of the United States. Under the Guidelines, effects contributing to significant degradation, considered individually or collectively, include those listed immediately below. The Guidelines define “significant” as being more than trivial [see Preamble 40 CFR §230].

Human Health Or Welfare. This includes, but is not limited to, effects on municipal water supplies, plankton, fish, shellfish, wildlife, and special aquatic sites. The discharge will not result in significant degradation of human health or welfare.

Life Stages In and Dependent On Aquatic Ecosystems. This includes the transfer, concentration, and spread of pollutants or their byproducts outside of the disposal site through biological, chemical, and physical processes. The discharge will not result in significant degradation to aquatic ecosystem life stages.

Aquatic Ecosystem Diversity. Such effects may include, but are not limited to, loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce wave energy. The discharge will not result in significant degradation to aquatic ecosystem diversity.

Recreational, Aesthetic and Economic Values. This includes the effects of the discharge of pollutants on recreational, aesthetic and economic values. Section 8 this document describes the impacts to recreational, aesthetic and economic resources from the project. The discharge will not result in significant degradation to recreational, aesthetic and economic values.

Further, collectively the discharge will not result in significant degradation of waters of the United States.

C. Measures to Minimize Potential Adverse Impacts on the Aquatic Ecosystems [40 CFR §230.10(d)]. The Guidelines provide that no discharge of dredged or fill material shall be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic

ecosystem. The proposed discharge for this project is an ESA conservation measure intended to minimize potential impacts to the aquatic ecosystem.

14. Factual Determinations (40 CFR §230.11). The following determinations are based on information contained in Section 5 through 13 of this document.

A. Physical Substrate Determinations [40 CFR §230.11(a)]. The placement of fill would not result in the loss of special aquatic sites. Compliance with the Site Certification will be a special condition of the permit. Special condition regarding implementation and monitoring of the eelgrass areas will be part of any permit issued by the Corp. The individual and cumulative impacts of the proposed fill will not result in significant impacts to the physical substrate.

B. Water Circulation, Fluctuation, and Salinity Determinations [40 CFR §230.11(b)]. The placement of fill would not result in changes to circulation, fluctuation or salinity. The individual and cumulative impacts of the proposed fill will not result in significant impacts wetland will not result in significant impacts to water circulation, fluctuation and salinity.

C. Suspended Particulates/Turbidity Determinations [40 CFR §230.11(d)]. The specific requirement for the use of clean pea gravel or sand as fill is a required by WQC and ESA and will be a special condition of any permit issued by the Corps for the proposed project.

D. Contaminant Determinations [40 CFR 230.11(d)]. General and specific requirements in WQC to determine suitability of fill materials used in conjunction with the project. The proposed fill will not result in contamination of the aquatic environment.

E. Aquatic Ecosystem and Organism Determinations [40 CFR 230.11(e)]. The proposed filling activities not result in the loss of functions valued by society. The proposed filling activities will offset adverse impacts associated with potential exposure of contaminated substrate to the aquatic environment. The individual and cumulative impacts of the proposed fill will not result in significant impacts to the aquatic ecosystem.

F. Proposed Disposal Site Mixing Zone Determinations [40 CFR §230.11(f)]. Not applicable.

G. Determination of Cumulative Effects on the Aquatic Ecosystem [40 CFR §230.11(g)]. Cumulative impacts were discussed in Section 14.2 of the draft EA. The findings are summarized here. Maury Inland and surrounding marine waters been impacted by over time by logging, agricultural, mining, industrial development, and residential development. The project is located in within a designated mineral resource site as defined by King County Comprehensive Plan. Impacts to the Maury Inland and the surrounding marine waters are fairly typical for an area used

agricultural, mining, and residential use. Mitigation for the many of past impacts was not required at the time because of the lack of environmental and land use laws. The avoidance of the nearshore habitat, restoration of shoreline vegetation, removal of old timber piles and the associated fill activities, reduction of proposed dock's footprint, and other mitigation measures and monitoring plans offered by the applicant will offset the specific and cumulative impacts of the project. The proposed project does significant contribute to area's cumulative adverse degradation of the aquatic environment as the project is within a disturbed area and adjacent to an existing upland mine.

H. Determination of Secondary Effects on the Aquatic Ecosystem [40 CFR §230.11(h)]. Secondary and/or indirect impacts associated with this project are addressed in Section 14.1 of the Draft EA. The proposed fill activities, monitoring plans, and mitigation measures will adequately offsets foreseeable secondary impacts (including water quality, and habitat quality). The project will not result in adverse degradation to aquatic resources through secondary effects.

15. Findings of Compliance with the Restrictions on Discharge [40 CFR 230.12].

The work was evaluated pursuant to Section 404(b)(1) of the Clean Water Act in accordance with the guidelines promulgated by the Environmental Protection Agency (40 CFR 230.10) for evaluation of the discharge of fill material into waters of the United States. In addition, consideration has been given to the need for the work (ESA conservation measure) and to such water quality standards as are appropriate and applicable by law. The proposed discharge represents the least environmentally damaging practicable alternative and includes all appropriate and practicable measures to minimize adverse effects on the aquatic environment. The work will not result in the unacceptable degradation of the aquatic environment. The discharge and methods specified in the proposed work are in accordance with the Section 404(b)(1) Guidelines [40 CFR 230.12].